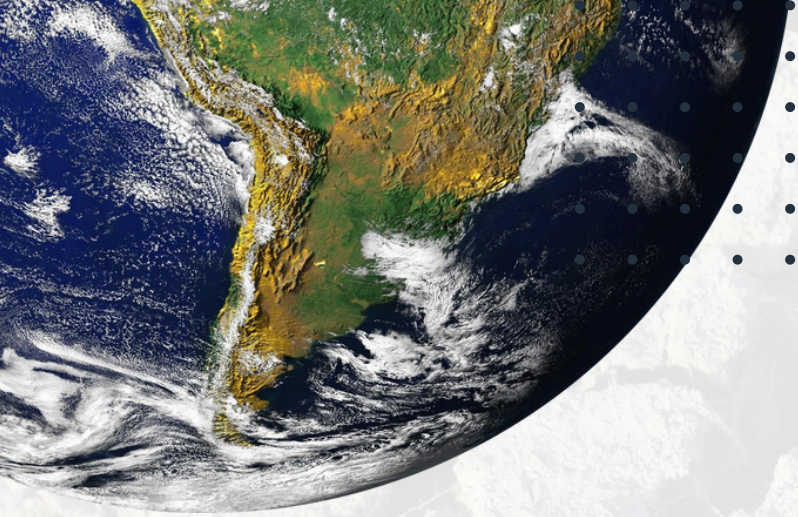
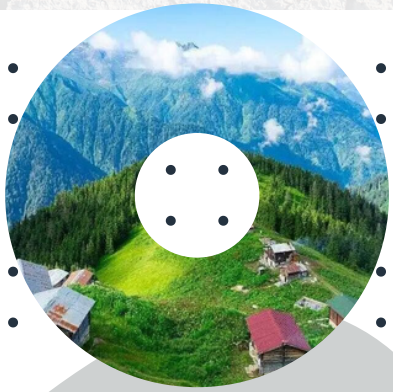


6TH INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS



AUGUST 23-25, 2024
TRABZON, TURKIYE

ABSTRACT BOOK

EDITOR
MS. LESLIE ROBINSON

ISBN: 978-625-367-820-3

6TH INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS

August 23-25, 2024 / Trabzon, Turkiye

EDITOR

Ms. Leslie Robinson

Issued: 15.09.2024

ABSTRACT BOOK

ISBN: 978-625-367-820-3

CONGRESS ID

CONGRESS TITLE

6TH INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS

DATE AND PLACE

August 23-25, 2024 / Trabzon, Turkiye

ORGANIZATION

IKSAD INSTITUTE

EDITOR

Ms. Leslie Robinson

PARTICIPANTS COUNTRY (41 countries)

TÜRKİYE, PAKISTAN, INDIA, MOROCCO, NIGERIA, ITALY, SERBIA, USA, ROMANIA, IRAQ, AZERBAIJAN, TURKISH REPUBLIC OF NORTHERN CYPRUS, VIETNAM, CANADA, KYRGYZ REPUBLIC, GEORGIA, ALBANIA, KOSOVO, BULGARIA, IRAN, PORTUGAL, JAPAN, TAIWAN, SAUDI ARABIA, JORDAN, BENIN, INDONESIA, SLOVAKIA, MALAYSIA, TUNUSIA, PHILIPPINES, BANGLADESH, MOLDOVA, UKRAINE, CHINA, CZECHIA, SPAIN, UNITED KINGDOM, UZBEKISTAN, KENYA, FRANCE

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ISBN: 978-625-367-820-3

15.09.2024

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İlgili makama;

6. Uluslararasi Karadeniz Modern Bilimsel Araştirmalar Kongresi, 23-25 Ağustos 2024 tarihleri arasında Trabzon'da 41 farklı ülkenin (Türkiye 228 bildiri- Diğer ülkeler 254 bildiri) akademisyen/araştırmacılarının katılımıyla gerçekleşmiştir

Kongre 16 Ocak 2020 Akademik Teşvik Ödeneği Yönetmeliğine getirilen "Tebliğlerin sunulduğu yurt içinde veya yurt dışındaki etkinliğin uluslararası olarak nitelendirilebilmesi için Türkiye dışında en az beş farklı ülkeden sözlü tebliğ sunan konuşmacının katılım sağlaması ve tebliğlerin yarıdan fazlasının Türkiye dışından katılımcılar tarafından sunulması esastır." değişikliğine uygun düzenlenmiştir.

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Evrak Tarih ve Sayısı: 22/07/2024-742752

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Mimarlık Fakültesi

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İlgi : 19/07/2024 tarihli ve E- 94137744-100-745424 sayılı yazısı.

İlgide kayıtlı yazı üzere; Karadeniz Araştırma Merkezi Tarafından Uluslararası Karadeniz Sahil Ülkeleri Bilimsel Kurulu Ve İktisadi Kalkınma ve Sosyal Araştırmalar Enstitüsü (İKSAD) işbirliği ile 23-25 Ağustos 2024 tarihlerinde düzenlenecek olan 6 TH INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS (6. ULUSLARARASI KARADENİZ MODERN BİLİMSEL ARAŞTIRMA KONGRESİ' nde) üniversitemizin temsiliyeti ve bilimsel paylaşımlar bağlamında Düzenleme Kurulu Üyesi olarak görevlendirilmeniz Dekanlığımızca da uygun görülmüştür.

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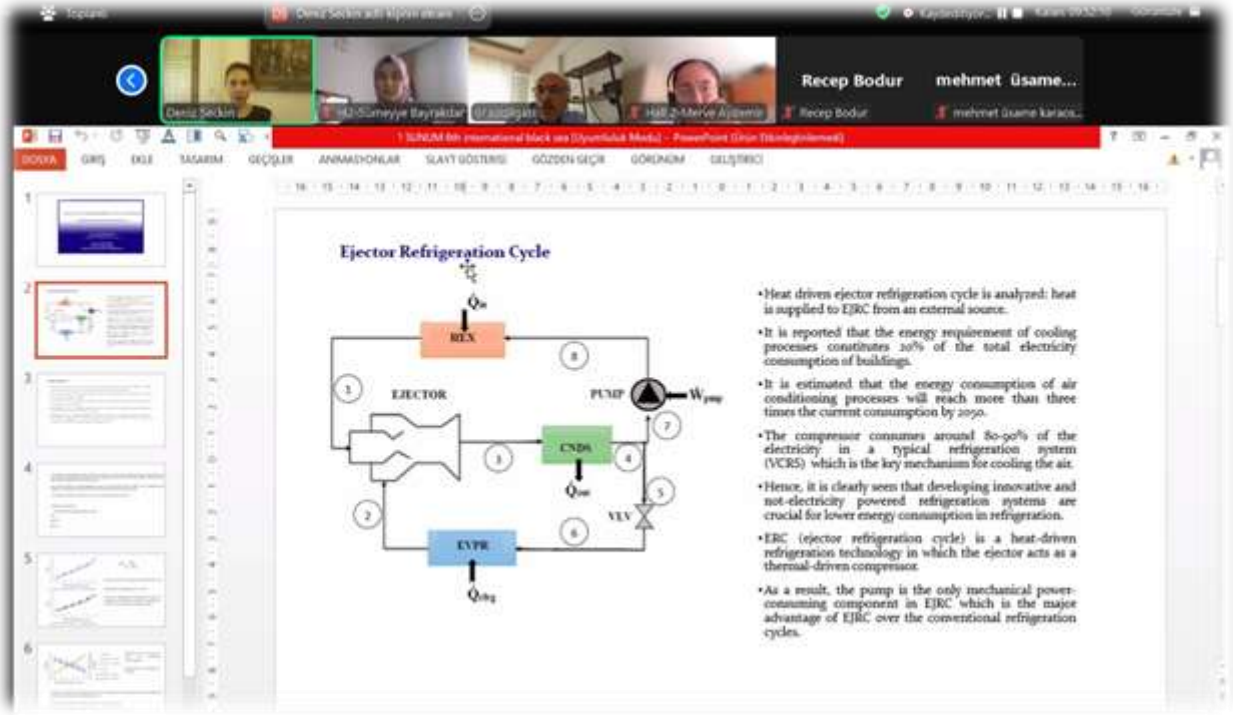

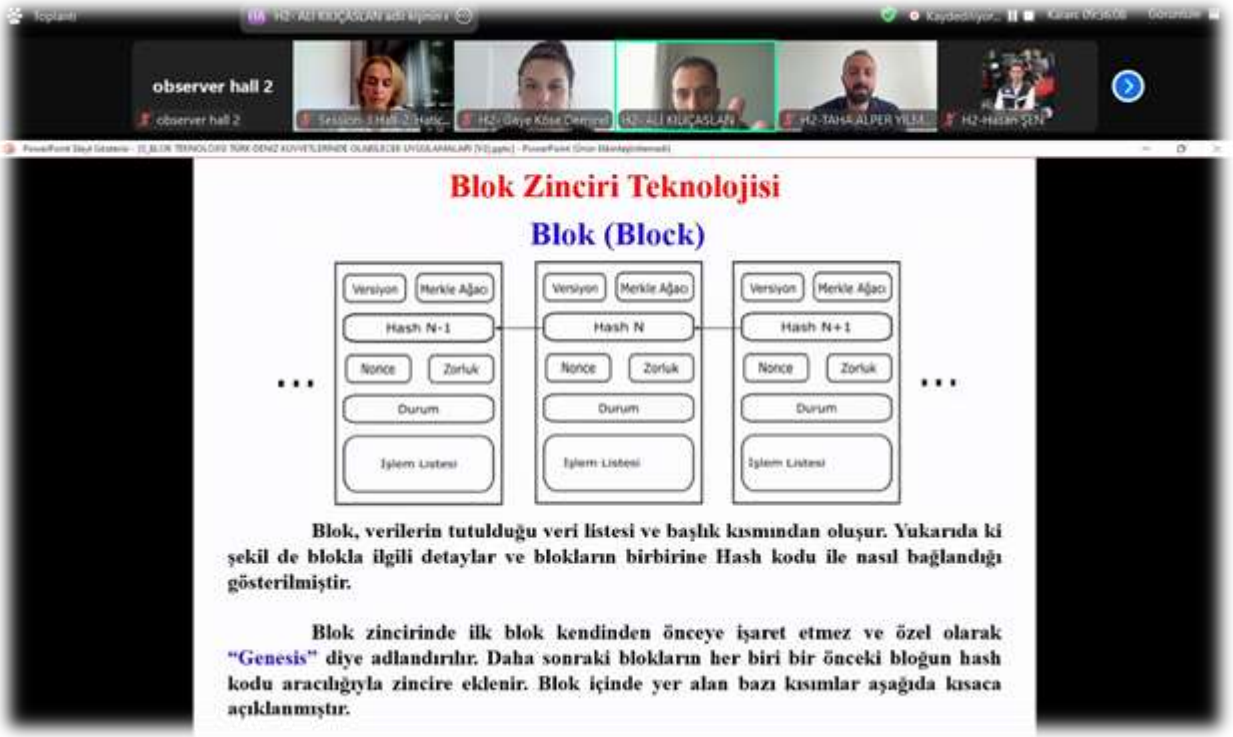

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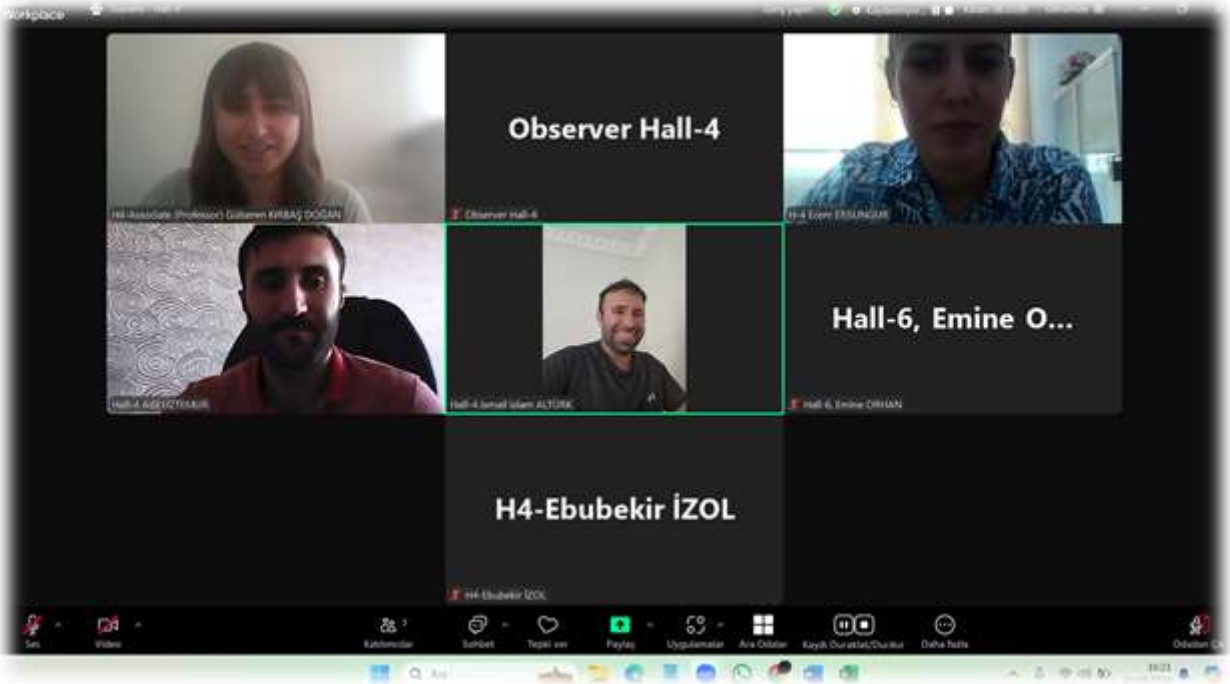

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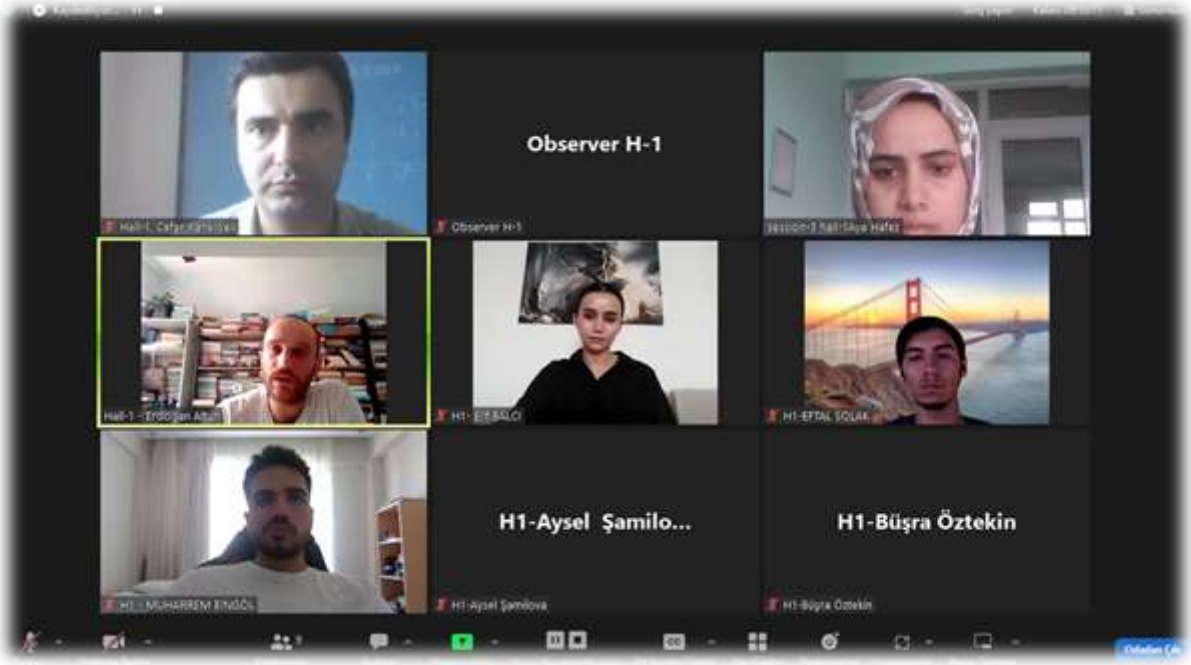

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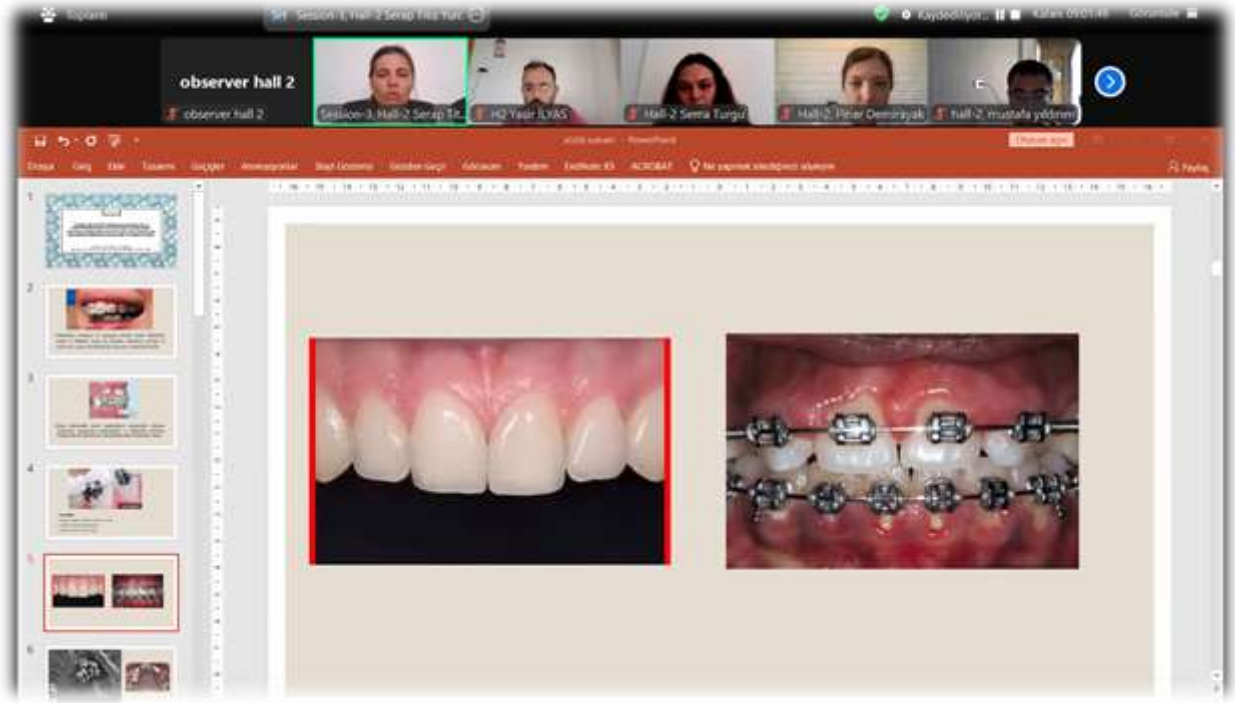

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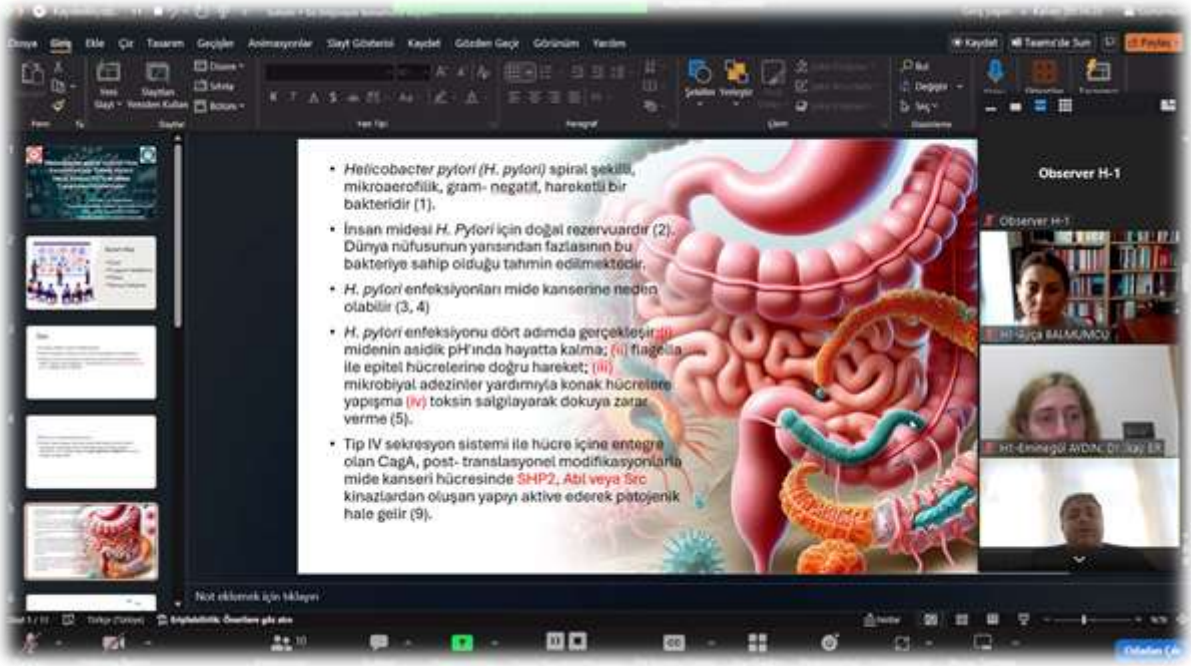

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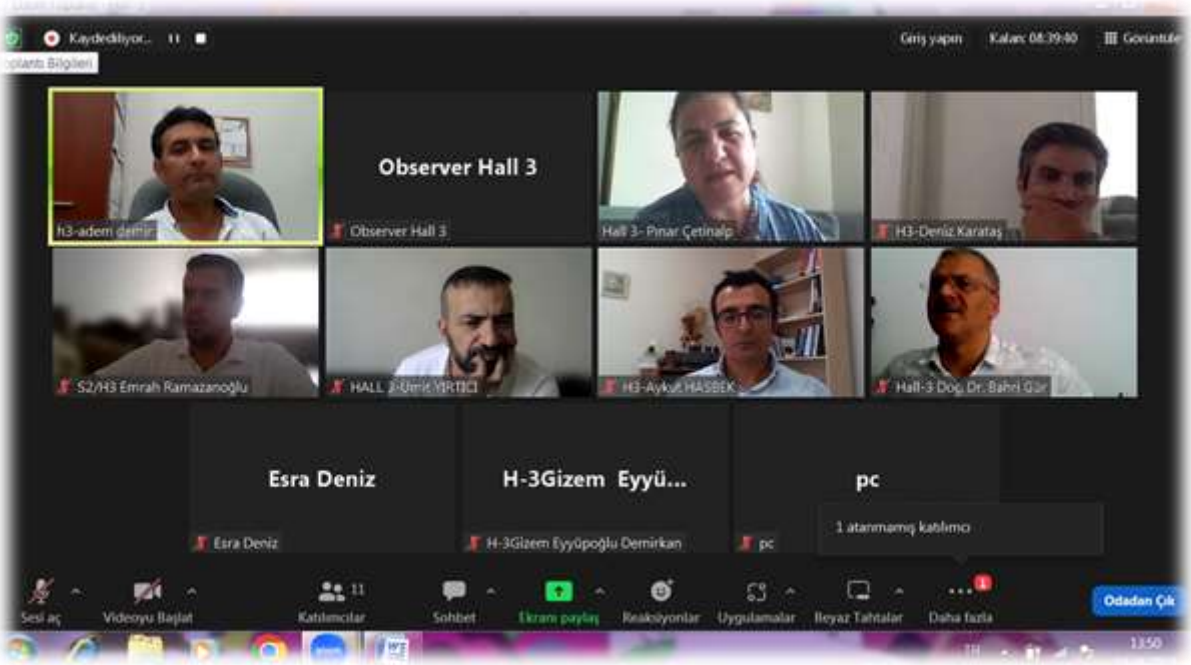

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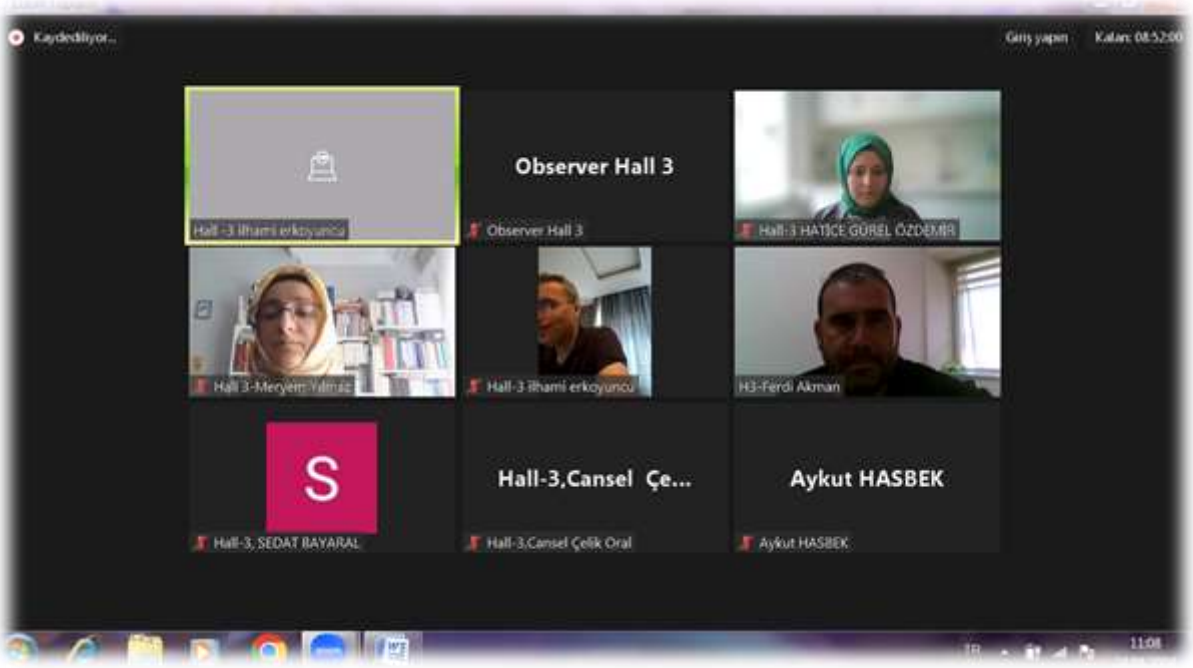

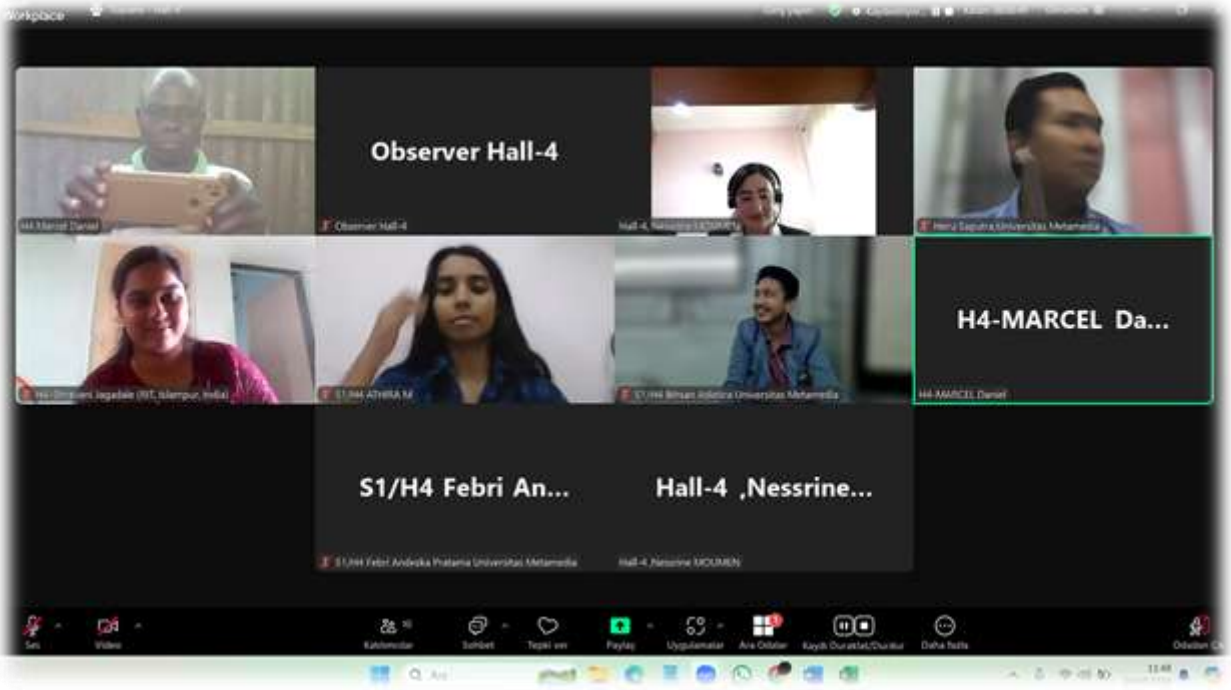

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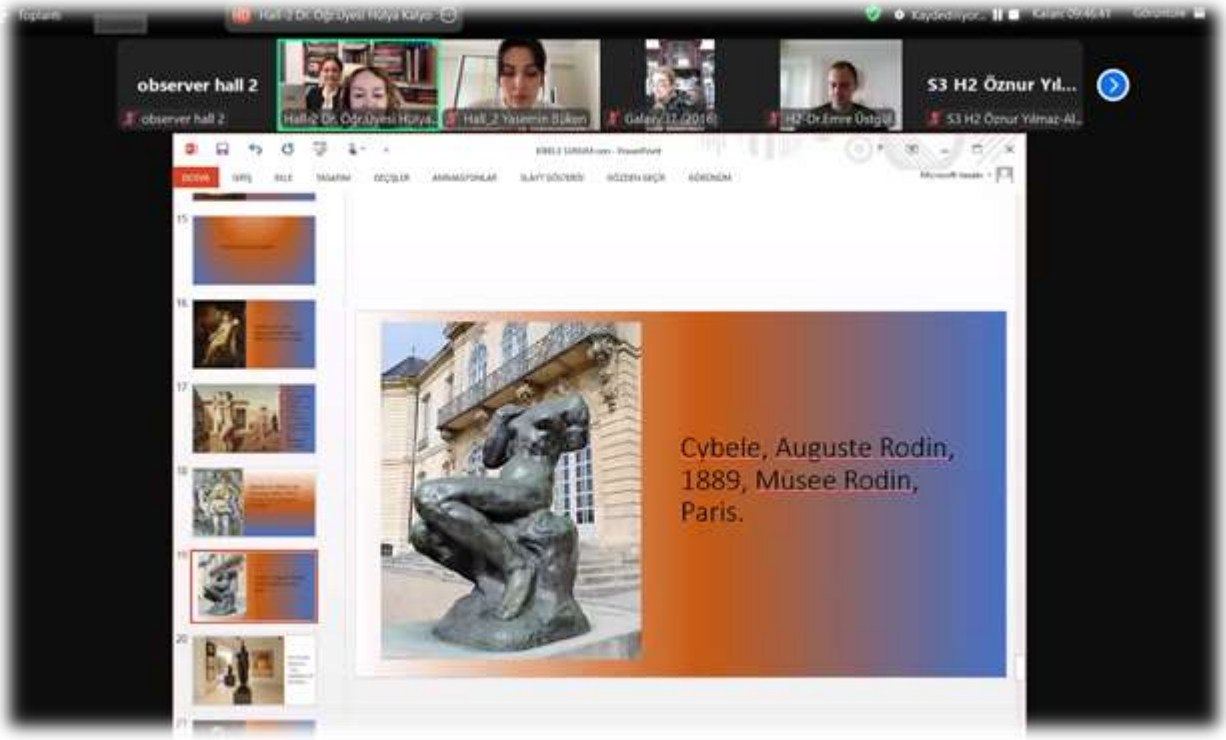

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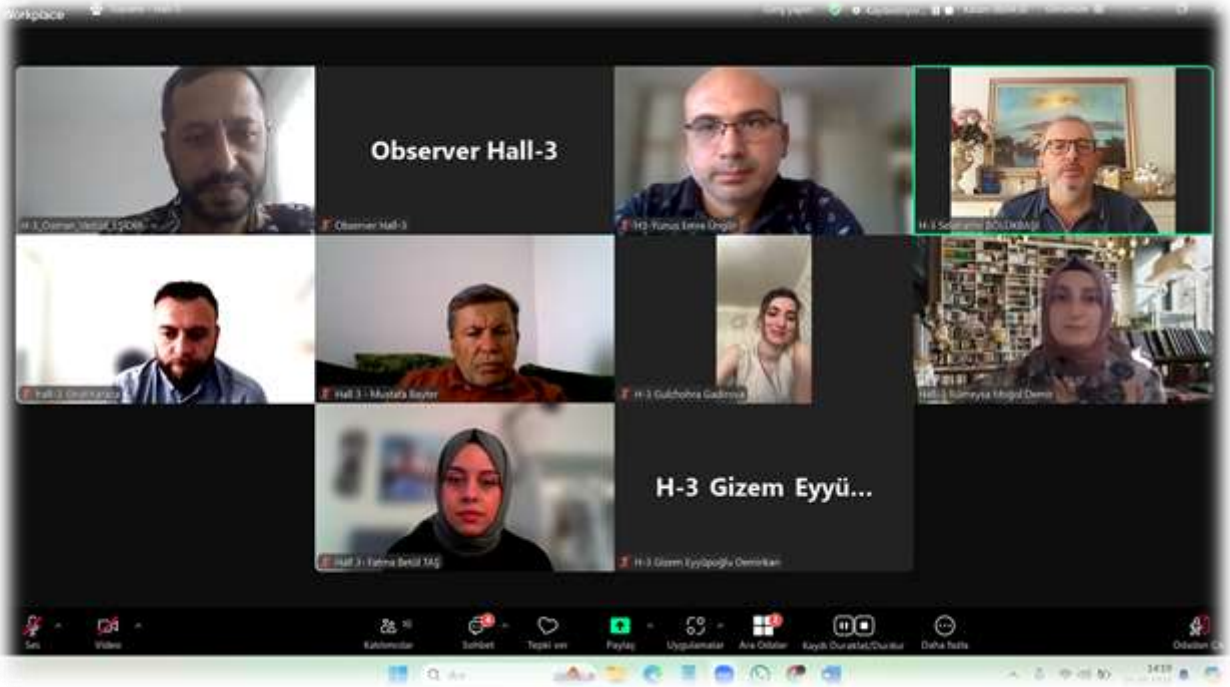

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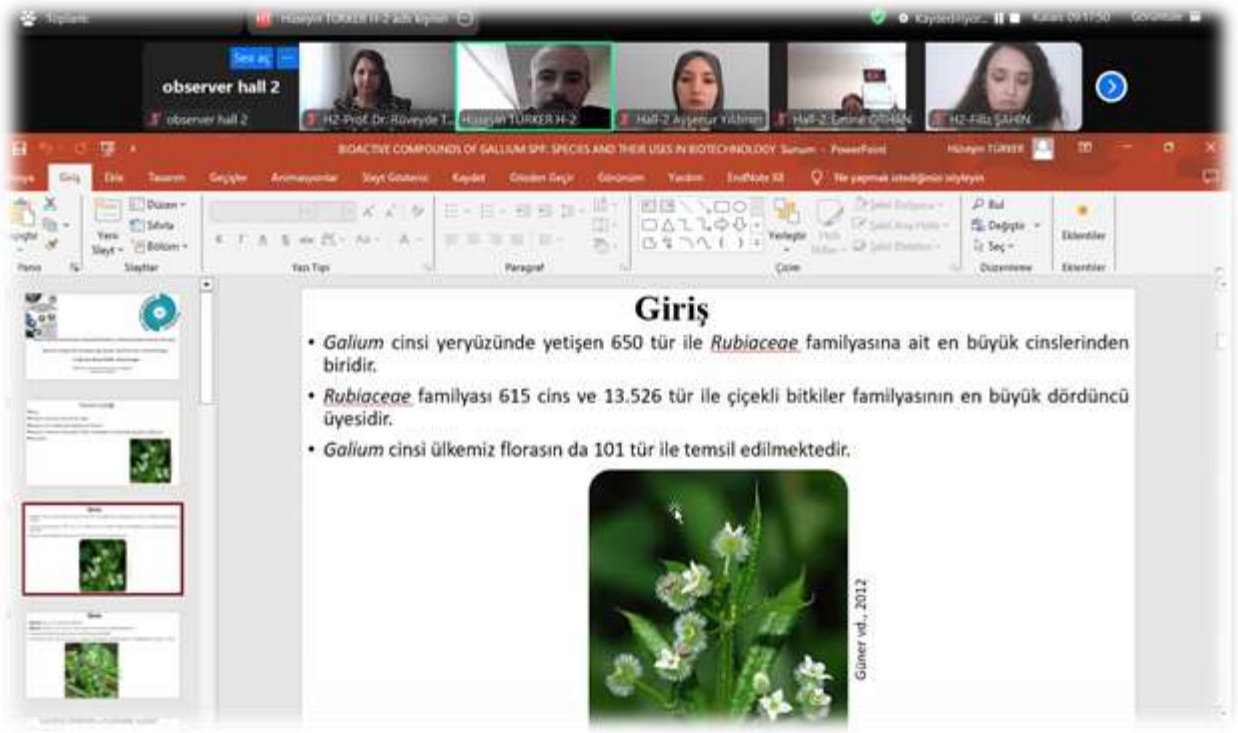

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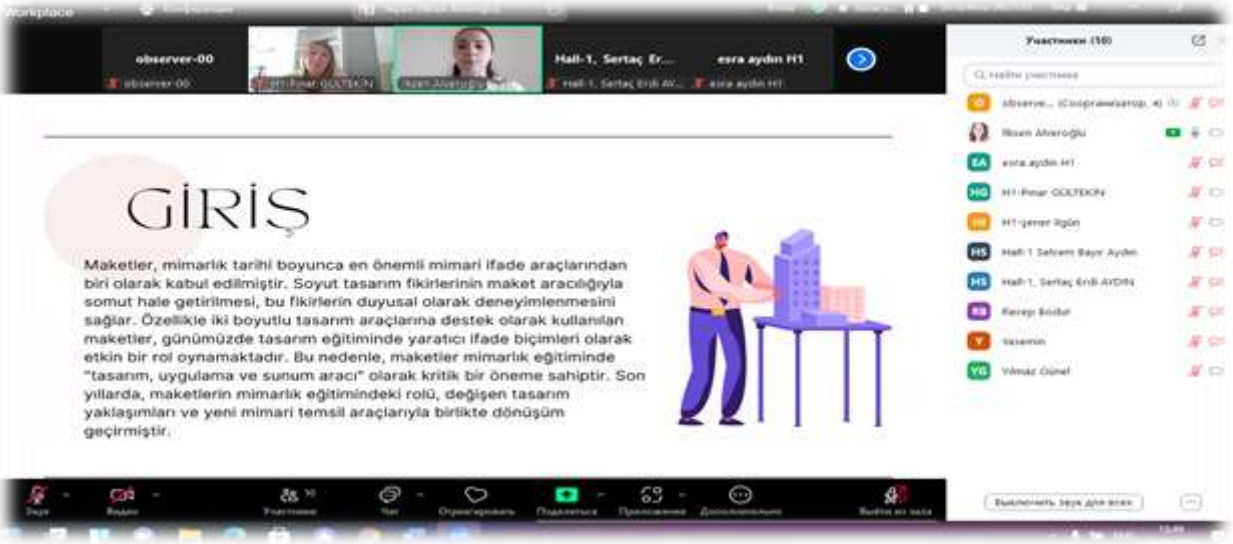

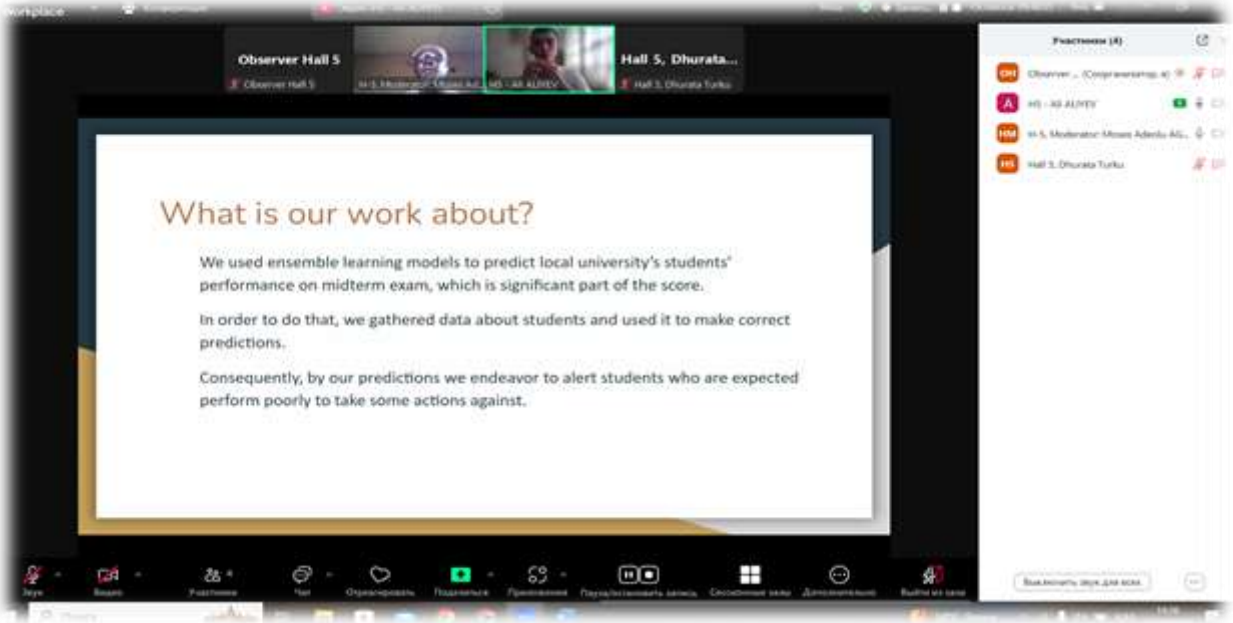

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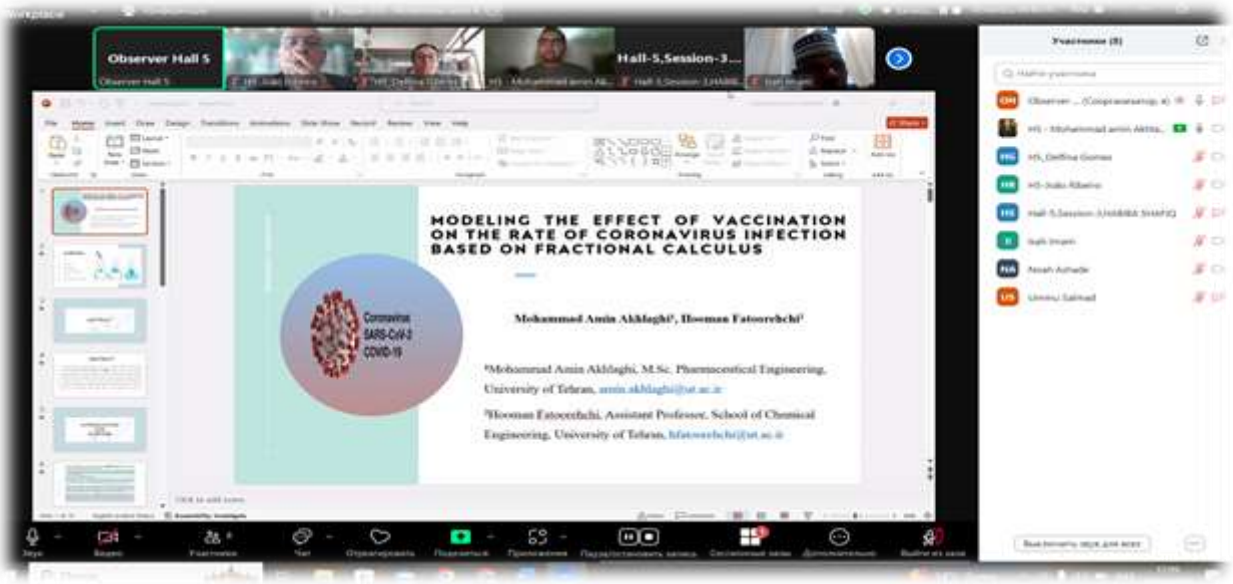

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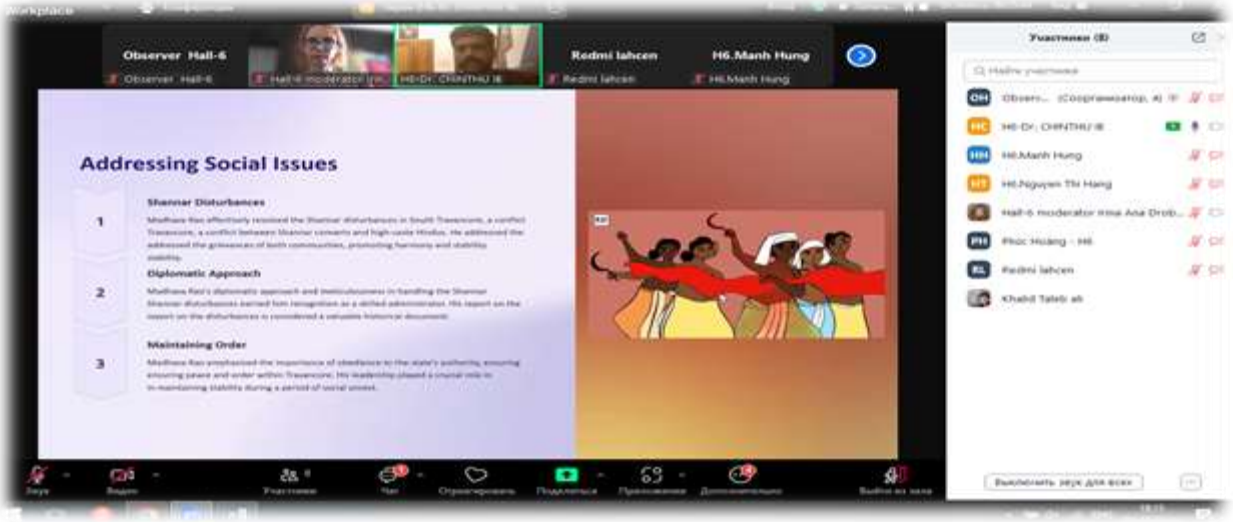

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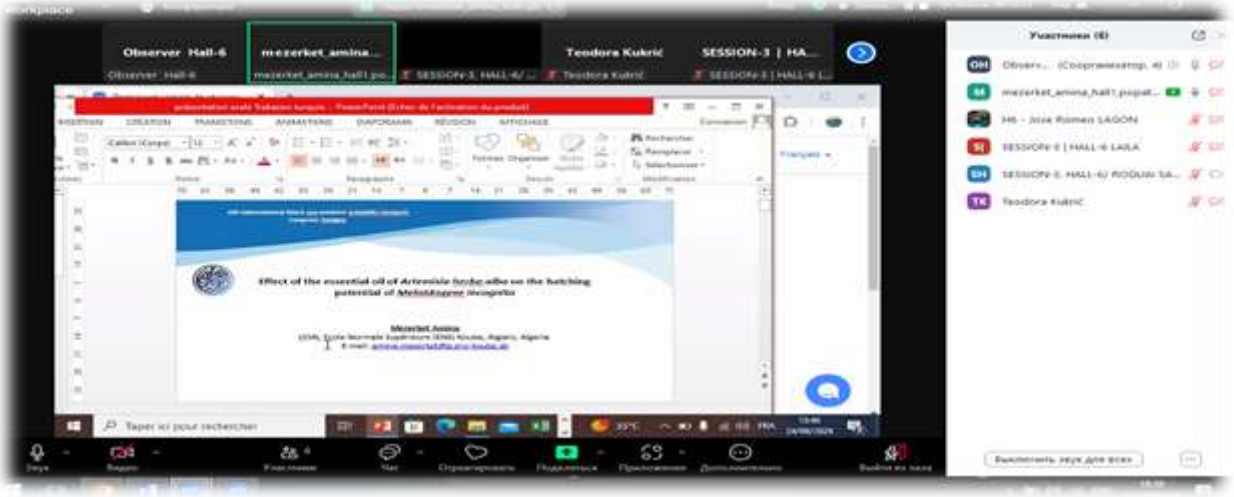

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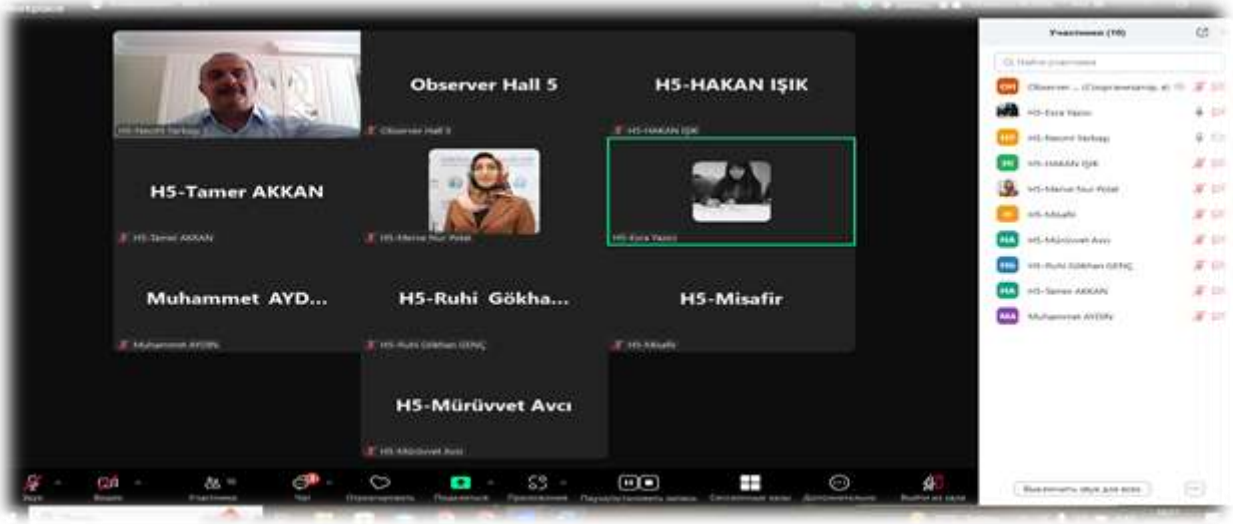

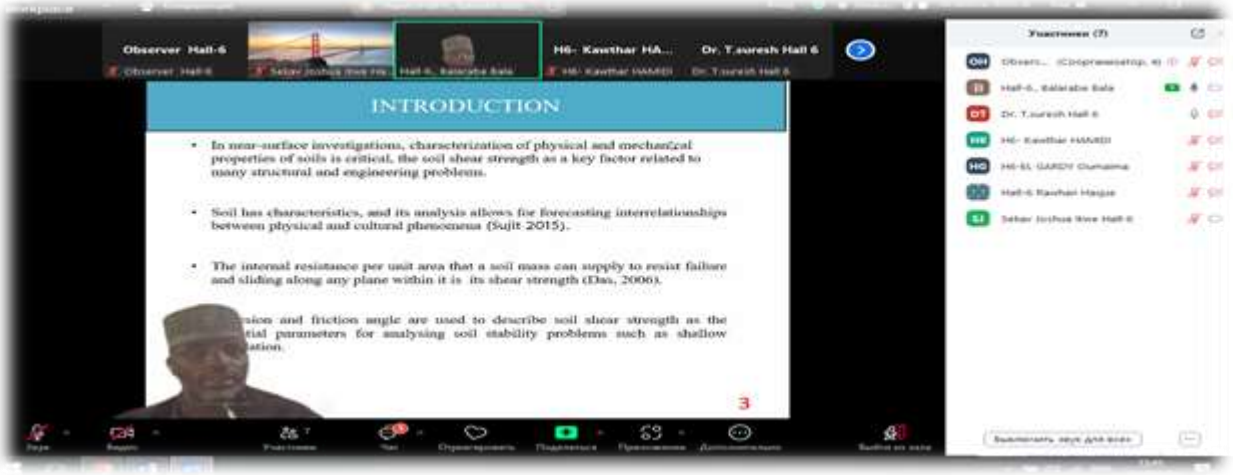

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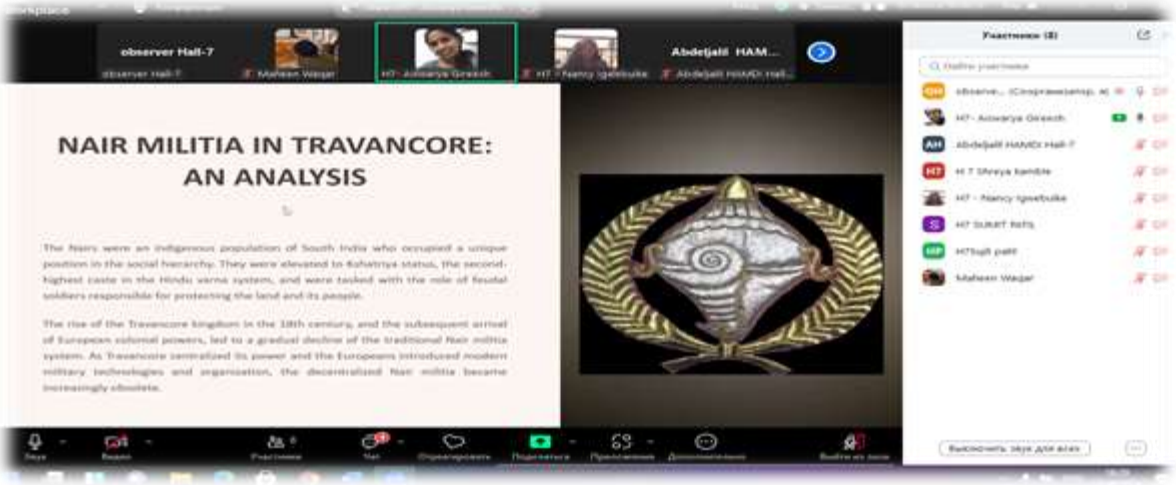

6th INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS

August 23-25, 2024
Trabzon, Turkiye

CONGRESS PROGRAM

Zoom Meeting ID: 860 5266 6988
Zoom Passcode: 123456

https://us02web.zoom.us/j/86052666988?pwd=QVh6aWM5MVEzQm8zaEdIVmVab0Q4Zz09

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- ✓ Kongremizde Yazım Kurallarına uygun gönderilmiş ve bilim kurulundan geçen bildiriler için online (video konferans sistemi üzerinden) sunum imkanı sağlanmıştır.
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- ✓ Tüm kongre katılımcıları canlı bağlanarak tüm oturumları dinleyebilir.
- ✓ Moderatör – oturumdaki sunum ve bilimsel tartışma (soru-cevap) kısmından sorumludur.

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- ✓ **Katılım belgeleri kongre sonunda tarafınıza pdf olarak gönderilecektir**
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- ✓ The Zoom application can be used without registration.
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- ✓ The participant must be connected to the session 15 minutes before the presentation time.
- ✓ All congress participants can connect live and listen to all sessions.
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- ✓ You should be able to use screen sharing feature in Zoom.
- ✓ **Attendance certificates will be sent to you as pdf at the end of the congress.**
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exp. Hall-1, Merve KIDIRYUZ

23.08.2024 / Session-1, Hall-1

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Pınar GÜLTEKİN

Title	Author(s)	Affiliation
A POLICY IMPLEMENTATION FOR RURAL DEVELOPMENT FOCUSED ON ECOTOURISM IN SALT-AFFECTED LANDS: A CASE STUDY OF THE SALT LAKE	Assoc. Prof. Dr. Pınar GÜLTEKİN	Düzce University TÜRKİYE
EVALUATION OF THE POSSIBLE EFFECTS OF THE USE OF ARTIFICIAL INTELLIGENCE IN ARCHITECTURAL STRUCTURES ON DURABILITY	Esra AYDIN	Dicle University TÜRKİYE
FROM LENS TO STRUCTURE: INTERSECTIONS OF ARCHITECTURE AND PHOTOGRAPHY	Lect. Selcem BAYIR AYDIN Sertaç Erdi AYDIN	Haliç University TÜRKİYE
MODEL MAKING IN CONSTRUCTION EDUCATION: AN EXAMPLE OF A BUILDING MATERIALS AND TECHNIQUES COURSE APPLICATION	Lect. İlksen ALVEROĞLU	Nevşehir Hacı Bektaş Veli University TÜRKİYE
AN EXEMPLARY APPLICATION OF THE SKETCH-TO-CONCEPT PROCESS IN ARCHITECTURE USING ARTIFICIAL INTELLIGENCE	Lect. İlksen ALVEROĞLU	Nevşehir Hacı Bektaş Veli University TÜRKİYE
EXAMPLES OF THE FIRST APARTMENT TYPE HOUSING BUILT IN YOZGAT	Şener İLGÜN Prof. Dr. Mine ULUSOY	Konya Technical University TÜRKİYE
INVESTIGATION OF HIGH SCHOOL STUDENTS' FUTURE ANXIETY AND HOPELESS IN TERMS OF VARIOUS VARIABLES	Assist. Prof. Dr. Yılmaz GÜNEL	Sivas Cumhuriyet University TÜRKİYE
SMALL AND MEDIUM SCALE RETAIL STORES EXAMINING PERSPECTIVES TOWARDS THE E-COMMERCE MARKET	Assist. Prof. Dr. Yılmaz GÜNEL	Sivas Cumhuriyet University TÜRKİYE

All participants must join the conference 10 minutes before the session time.
Every presentation should last not longer than 10-12 minutes.
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23.08.2024 / Session-1, Hall-2

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Aziz İlGAZİ

Title	Author(s)	Affiliation
EFFECTS OF NANOREFRIGERANT USE IN AN EJECTOR ADDED REFRIGERATION PROCESS	Assoc. Prof. Dr. Candeniz SEÇKİN	Marmara University TÜRKİYE
TESTING PROCESSES OF EQUIPMENT USED IN INFANTRY RIFLES	Eda ÇETİNKAYA Faruk GÜNER	Giresun University TÜRKİYE
EFFECTIVE INVENTORY MANAGEMENT OF SEMI-FINISHED PRODUCTS THROUGH SIMULATION METHOD	Merve AYDEMİR Assist. Prof. Latife GÖRKEMLİ AYKUT	Erciyes University TÜRKİYE
OPTIMIZATION AND PREDICTION OF HYDROGEN PRODUCTION USING RESPONSE SURFACE METHODOLOGY	Res. Assist. Şekip Caner ESMERLİ Assoc. Prof. Dr. Ceyla ÖZGÜR	Adana Alparslan Türkeş Science and Technology University TÜRKİYE
THE EFFECT OF DEVIATIONS IN ROBOT WELDING FIXTURES ON WELD MACROS	Büşra AKKAŞ Assoc. Prof. Dr. Hamdi TAPLAK	Erciyes University TÜRKİYE
FUZZY LOGIC BASED NETWORK SLICING APPROACH FOR SLICE SELECTION IN COGNITIVE RADIO NETWORKS	Res. Assist. Dr. Sümeyye BAYRAKDAR Assoc. Prof. Dr. Muhammed Enes BAYRAKDAR	Düzce University TÜRKİYE
DIAGNOSIS OF COPD WITH VISUAL STUDIO WITH THE HELP OF ARTIFICIAL INTELLIGENCE	Lect. Mehmet Üsame KARAOSMAN Lect. Dr. Firdevs Banu ÖZDEMİR	Kütahya Health Sciences University TÜRKİYE
DETERMINATION OF GENDER CLASSES OF SPEAKERS USING A TWO-LEVEL APPROACH BASED ON PITCH FREQUENCY	Ergün YÜCESOY	Ordu University TÜRKİYE

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Every presentation should last not longer than 10-12 minutes.
Kindly keep your cameras on till the end of the session.

23.08.2024 / Session-1, Hall-3

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Nesibe ARSLAN BURNAZ

Title	Author(s)	Affiliation
OBESITY AND NUTRITION RELATIONSHIP	Assoc. Prof. Dr. Fatma HEPSAĞ Sevde Nur TANÇ	Osmaniye Korkut Ata University TÜRKİYE
SUPER FOOD: FRUIT AND VEGETABLES	Assoc. Prof. Dr. Fatma HEPSAĞ Sevde Nur TANÇ	Osmaniye Korkut Ata University TÜRKİYE
BIOACTIVITIES OF DIETARY FLAVONOID AGLYCONES	Assoc. Prof. Dr. Nesibe ARSLAN BURNAZ	Gümüşhane University TÜRKİYE
BIOLOGICAL ACTIVITIES OF SOME PLANTS BELONGING TO ZINGIBERACEAE FAMILY	Assoc. Prof. Dr. Nesibe ARSLAN BURNAZ	Gümüşhane University TÜRKİYE
INVESTIGATION OF THE EFFECT OF SUSTAINABLE FOOD LITERACY ON NUTRITION BEHAVIORS AND FOOD PREFERENCES IN ADULTS	Assoc. Prof. Dr. Halime UĞUR Büşra DÖNMEZ Yasemin ÖZTÜRK Büşra DİKİCİ Nisa FAZLILAR	İstanbul Medeniyet University TÜRKİYE
INVESTIGATION OF THE EFFECT OF BEHAVIORAL ATTITUDES TOWARDS SUSTAINABLE NUTRITION ON ANTHROPOMETRIC MEASUREMENTS AND FOOD PREFERENCES IN INDIVIDUALS BETWEEN 18-65 YEARS OF AGE	Assoc. Prof. Dr. Halime UĞUR Sakine Asya EVCİ GÜNEY Ayşe ÇAPAR Rümeysa AKTAŞ Dima HASANİ	İstanbul Medeniyet University TÜRKİYE
INVESTIGATION OF OBESITY IN ADULTS IN TRABZON	Esra ŞAHİN Assist. Prof. Dr. Serpil YALIM KAYA	Independent Researcher TÜRKİYE Mersin University TÜRKİYE
EFFECT OF PLANT-BASED SUPPLEMENTS ON INFLAMMATION IN OSTEOARTHRITIS	Beda Büşra ÖZALP ÇOLAK Prof. Dr. Nilüfer ACAR TEK	Yüksek İhtisas University TÜRKİYE Gazi University TÜRKİYE
POTENTIAL HEALTH EFFECTS OF THE MEDITERRANEAN DIET IN OSTEOARTHRITIS	Beda Büşra ÖZALP ÇOLAK Prof. Dr. Nilüfer ACAR TEK	Yüksek İhtisas University TÜRKİYE Gazi University TÜRKİYE

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23.08.2024 / Session-1, Hall-4

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Radoslav BALTEZAREVIĆ

Title	Author(s)	Affiliation
MIXED MICELLAR ENCAPSULATION OF NAPROXIN FOR ENHANCED SOLUBILIZATION USING SUITABLE SURFACTANTS	Muhammad Abdullah Muhammad Usman Amnah Yusaf Memoona Qadri Fatima Akram	Government College University PAKISTAN
SYNTHESIS OF BINDER-FREE NANOFIBERS ZNS/MOS2/NiF ELECTRODE MATERIAL FOR ASYMMETRIC SUPERCAPACITOR APPLICATIONS	Asif Raza Muhammad Ali Rubab Sahar Noman Ayub Ijaz Ahmad Khan	Government College University PAKISTAN
THE POTENTIAL OF AI INFLUENCERS TO MODIFY THE CREATOR ECONOMY	Dr. Radoslav BALTEZAREVIĆ Dr. Ivana BALTEZAREVIĆ	Institute of International Politics and Economics SERBIA
IMPROVEMENT OF CLARITY IN DATE JUICE THROUGH PRE-LIMING AND LIMING, COUPLED WITH ADSORPTION ON ACTIVATED CARBON: STUDY OF MECHANISMS AND EFFICIENCY	Hajar BENNARI Khadija OUTALB Hassan CHAAIR Soumia BELOUAFA	Hassan II University MOROCCO
OPTIMIZING THE CONCENTRATION PROCESS FOR DATE SUGAR JUICE: BALANCING EFFICIENCY AND QUALITY AT THE OPTIMAL TEMPERATURE	Khadija OUTALB Hajar BENNARI Hassan CHAAIR Soumia BELOUAFA	Hassan II University MOROCCO
GLYCOGEN SYNTHASE KINASE-3β INHIBITOR BINDING MECHANISM FOR ALKYLPIPERAZINE DERIVATIVES STUDIED USING COMBINED 3D-QSAR AND MOLECULAR DOCKING TECHNIQUES	İsmail LAMRANI Prof. Dr. Fathallaah BAZI Prof. Dr. Fatiha Amegrissi Prof. Dr. Bahija Mounir	Hassan II University MOROCCO
GEOSPATIAL TECHNOLOGIES FOR MANGROVE HABITAT MAPPING AND SURVEILLANCE	Vidya Padmakumar Murugan Shanthakumar	Eco Diversity Lab CANADA
CREATION OF MEMBRANE NANOTECHNOLOGIES AND NANOSYSTEMS	Manana MAMULASHVILI George BIBILEISHVILI Mzia KEZHERASHVILI Zaza JAVASHVILI Ia GOGIBERIDZE	Technologies of Technical University GEORGIA
INFLUENCE OF GOAGULATION BATH TEMPERATURE ON THE MORPHOLOGY OF THE POLYAMIDE MEMBRANE	Mzia KEZHERASHVILI George BIBILEISHVILI Manana MAMULASHVILI	Technologies of Technical University GEORGIA

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23.08.2024 / Session-1, Hall-5

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Assist. Dr. Besnik HAJDARI

Title	Author(s)	Affiliation
STADY OF MEMBRANE COMPOSITION BY DYNAMIC LIGHT SCATTERING METHOD	Liana EBANOIDZE Liana KUPARADZE Nana GOGESASHVILI Zaza JAVASHVILI	Technologies of Technical University GEORGIA
ECONOMIC APPROACHES TO OBTAINING AND MAINTAINING GUALITY, STERILE DRINKING WATWR FORM NATURAL WATERS THROUGH THE USE OF NANOTECHNOLOGICAL MEMBRANE	George BIBILEISHVILI Mzia KEZHERASHVILI Manana MAMULASHVILI	Technologies of Technical University GEORGIA
THE IMPACT OF INFORMATION SYSTEMS ON THE MANAGEMENT OF ELECTRONIC COMMUNICATIONS	Prof. Assist. Dr. Besnik HAJDARI Lect. MSc. Eng. Hasan MLINAKU	Mitrovica University KOSOVO Lecturer and PhD student in Sofia BULGARIA
THE ROLE OF INFORMATION SYSTEMS IN THE CREATION AND USE OF ELECTRONIC PROCUREMENT PLATFORM IN THE REPUBLIC OF KOSOVO	Lect. MSc. Eng. Hasan MLINAKU Prof. Assist. Dr. Besnik HAJDARI	Lecturer and PhD student in Sofia BULGARIA Mitrovica University KOSOVO
CONSERVATION STATUS AND RARITY OF PLANT SPECIES IN THE ARCHAEOLOGICAL SITES OF THE MAZAGAN FORTRESS AND THE ANCIENT MEDINAS OF SAFI AND AZEMMOUR, MOROCCO	Mohammed Fassar Meriem Benharbit Nadia Belahbib Lahcen Zidane Jamila Dahmani	Ibn Tofail University MOROCCO Madinat Al–Irfane, the Institutes MOROCCO Ibn Tofail University MOROCCO
A COMPREHENSIVE STUDY OF ASHOKAN PILLARS AT FEROZ SHAH KOTLA FORT: ELEMENTAL ANALYSIS AND SURFACE CONDITION	Manoj Kumar Bhatnagar Dharmendra Kumar Rina Parmar Neha Walia Anuj Sharma	Pt. Deendayal Upadhyaya Institute of Archaeology INDIA India Archaeological Survey INDIA
POLYPYRROLE COATING OF POLYMETHYL METHACRYLATE (PMMA): A TAGUCHI OPTIMIZATION APPROACH	M. Oubella S. Ben Jadi M. El Fazdoune K. Bahend E.A. Bazzaoui J.I Martins R. Wang M. Bazzaoui	Ibn Zohr University MOROCCO Mohammed II University MOROCCO Porto University PORTUGAL Hiroshima Institute of Technology JAPAN Ibn Zohr University MOROCCO
RELIABLE IOT PARADIGM TOWARDS RENEWABLE ENERGY PENETRATION AND ENHANCING RESILIENCE OPERATION IN SMART GRIDS	Shimaa Bergies Mahmoud Elsisi	National Taiwan University of Science and Technology TAIWAN
STUDYING THE POSSIBILITY OF RECONSTRUCTION DESTROYED ARCHAEOLOGICAL BUILDINGS BY ANTI-MISSILE TECHNOLOGY & THE IMPACT OF MISSILES ON STABILITY	Missan A.Hamra	Hashemite University JORDAN

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23.08.2024 / Session-1, Hall-6

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Major Gheorghe GIURGIU & Prof. Dr. Med. Manole COJOCARU

Title	Author(s)	Affiliation
A NEW ECOLOGICALLY VALUABLE WILD MUSHROOM ISOLATED FROM THE TIRUMALA FOREST	Assist. Prof. K. R. Padma K.R.Don	Women's University INDIA Bharath University INDIA
THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS	Major Gheorghe GIURGIU Prof. Dr. Med. Manole COJOCARU	Deniplant-Aide Sante Medical Center ROMANIA Titu Maiorescu University ROMANIA
STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS	Balasubramani G L Rinky Rajput Manish Gupta Pradeep Dahiya Jitendra K Thakur Rakesh Bhatnagar Abhinav Grover	Jawaharlal Nehru University INDIA National Institute of Plant Genome Research INDIA Banaras Hindu University INDIA
STRUCTURAL AND FUNCTIONAL MODIFICATION IN CYMBOPOGON JWARANCUSA (JONES) SCHULT. INHABITING HOT HYPERSALINE DESERT	Syeda Sabika Zahra Naqvi Syed Mohsan Raza Shah Zaheer Abbas Farah Bukhari	Education University PAKISTAN
MAGNETOHYDRODYNAMIC ENGINE-OIL-BASED Ti6Al4V NANOFLUID FLOW ACROSS A STRETCHING SHEET WITH VARIABLE THICKNESS	N. Sandeep B. Ranjana C. Sulochana G.P. Ashwinkumar	Central University INDIA Vijayanagara Sri Krishnadevaraya University INDIA Gulbarga University INDIA Vijayanagara Sri
GROUNDWATER PROTECTION ZONING FOR SUSTAINABLE WATER RESOURCES MANAGEMENT IN SEMI-ARID CONDITIONS	Gulmira MOLDOGAZIEVA Assoc. Prof. Dr. Nurzat TOTUBAEVA Rakhat ABDYKADYROVA Prof. Dr. Kanat KOJOBAEV	Institute of Geology named after M. M. Adyshev KYRGYZ REPUBLIC Kyrgyz-Turkish Manas University KYRGYZ REPUBLIC
BLACK PAINT ON EXCAVATED PAINTED GREY WARE (PGW) POTTERY OF KAERUA KHERA MOUND, MANPUR, PALWAL, INDIA – AN ARCHAEOMETRIC STUDY	Manoj Kumar Bhatnagar S. Vinodh Kumar Gunjan Kumar Shrivastav Dharmendra Kumar	Pt. Deendayal Upadhyaya Institute of Archaeology INDIA Dr. Babasaheb Ambedkar Marathwada University INDIA
MULTI-ANALYTICAL CHARACTERIZATION OF LAPIZ LAZULI PIGMENTS OF AJANTA MURALS FOR IDENTIFICATION AND ITS GEOLOGICAL PROVENANCE	Manoj Kumar Bhatnagar S. Vinodh Kumar Vimal Kumar Jaiswal Anupama S Mahajan Dharmendra Kumar	Pt. Deendayal Upadhyaya Institute of Archaeology INDIA Dr. Babasaheb Ambedkar Marathwada University INDIA
VALORIZATION OF PURIFIED WASTEWATER IN IRRIGATION, CASE: SIDI MEROUANE-MILA STATION	ATHAMENA Ali BELALITE Halima ATHAMENA Malika GAAGAI Aissam AOUISSI Hani Amir	University Center of Mila ALGERIA Batna 2 University ALGERIA Scientific and Technical Research Center on Arid Regions (CRSTRA) ALGERIA CRE Annaba ALGERIA

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23.08.2024 / Session-2, Hall-1

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Seyhan ÖZTÜRK

Title	Author(s)	Affiliation
THE IMPACTS OF INTERNATIONAL MIGRATION TO TÜRKİYE ON EMPLOYMENT, UNEMPLOYMENT, AND WAGES	Prof. Dr. Teoman AKPINAR Lect. Nazlı Çağıl KÜÇÜKGÖKSEL	Tekirdağ Namık Kemal University TÜRKİYE
A BIBLIOMETRIC ANALYSIS OF STUDIES ON "SUSTAINABILITY AUDIT"	Prof. Dr. Reşat KARCIOĞLU Assoc. Prof. Dr. Seyhan ÖZTÜRK	Atatürk University TÜRKİYE Kafkas University TÜRKİYE
BIBLIOMETRIC ANALYSIS OF ACADEMIC PUBLICATIONS ON "FORENSIC ACCOUNTING"	Prof. Dr. Reşat KARCIOĞLU Assoc. Prof. Dr. Seyhan ÖZTÜRK	Atatürk University TÜRKİYE Kafkas University TÜRKİYE
THE EFFECT OF PROFESSIONAL ATTITUDE ON MOTIVATION WITH A STRATEGIC MANAGEMENT PERSPECTIVE: THE MEDIATING ROLE OF TRUST	Assist. Prof. Dr. Muhammed Ali YETGİN	Karabük University TÜRKİYE
EVALUATION OF EXPORT PERFORMANCE IN THE KAYSERİ FURNITURE SECTOR USING THE AHP METHOD	Mustafa İNCETOPRAK Prof. Dr. Derviş BOZTOSUN	Kayseri University TÜRKİYE
DETERMINING THE CAUSES OF OCCUPATIONAL ACCIDENTS USING THE FISHBONE DIAGRAM (ISHIKAWA): TWO DIFFERENT EXAMPLES OF WORK ACCIDENTS	Esra DENİZ Bahri GÜR	Kafkas University TÜRKİYE Iğdır University TÜRKİYE
THE CONCEPT OF GENERATION AND CLASSIFICATION OF GENERATIONS IN THE WORLD AND TURKEY	Assoc. Prof. Dr. Ali APALI Gülşah ÜZEN	Burdur Mehmet Akif Ersoy University TÜRKİYE

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23.08.2024 / Session-2, Hall-2

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Mehmet ÜNAL

Title	Author(s)	Affiliation
ACCORDING TO THE OTTOMAN HARVI'S RECORDS, THE ATTRACTIONS COMMITTED BY ARMENIANS AGAINST MUSLIMS IN KARS, BAYEZIT AND ERZURUM REGIONS IN JULY 1335 (1919)	Dr. Abdurrahman YALÇINKAYA	Edremit Science and Art Center History Teacher, Edremit, Van TÜRKİYE
LETTERS SENT BY OUR CITIZENS TO THE PRESIDENT AND PRIME MINISTERS OF THE PERIOD ABOUT THE CYPRUS ISSUE (1956-1965)	Dr. Abdurrahman YALÇINKAYA	Edremit Science and Art Center History Teacher, Edremit, Van TÜRKİYE
DEBATES ON CLOTHING AND FASHION IN THE LATE OTTOMAN PERIOD: SOCIAL, CULTURAL AND RELIGIOUS PERSPECTIVES IN THE CONTEXT OF İNCİ AND SEBİLÜRREŞAD MAGAZINES	Büşra KÜTÜK	Yıldız Technical University TÜRKİYE
COMPARISON OF THE PIOUS AND THE ECONOMIC MAN IN THE KARZ-I HASEN INSTITUTION	Havva İMİR Assist. Prof. Dr. Nilüfer ÜNALDI	Zonguldak Bülent Ecevit University TÜRKİYE
BOSNIAN ALAADDİN SABİT AND HIS ZAFER-NAME	Assoc. Prof. Dr. Mehmet ÜNAL	Uşak University TÜRKİYE
MUMİN-ZÂDE AHMED HASIB AND THE SİLKU'L-LE'AL-İ OSMAN	Assoc. Prof. Dr. Mehmet ÜNAL	Uşak University TÜRKİYE
TAMSIL READING, WHICH IS A METHOD OF RECITATION AND TILAWAT IN THE CONTEXT OF COMPREHENSING THE MEAN	Lect. Şeyda ATMACA	Çukurova University TÜRKİYE
ISLAM UNDER CHRISTIAN RULE FROM THE PERSPECTIVE OF MISSIONARY W. H. T. GAIRDNER	Dr. Bahar KARATAŞ	Trabzon University TÜRKİYE

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23.08.2024 / Session-2, Hall-3

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Kenan İLARSLAN

Title	Author(s)	Affiliation
A MEDICINAL AROMATIC PLANT "BLUEBERRY" IN THE CONTEXT OF HEALTH AND AGRICULTURAL ECONOMY: AN EVALUATION ON TRABZON, RIZE AND ARTVIN	Prof. Dr. Mehmet ERSOY Dr. Gökçen AYDINBAŞ	Artvin Çoruh University TÜRKİYE Anadolu University TÜRKİYE
ADAPTATION OF THE ACCOUNTING PROFESSION TO INDUSTRY 4.0	Emel ERSUN AYDEMİR	Post and Telegraph Organization Joint Stock Company, İzmir TÜRKİYE
CHANGES IN POULTRY PRODUCTION IN TURKIYE AFTER 2010 AND 2024–2026 PRODUCTION FORECASTS	Gülsüm ÖDEMİŞ Muhammed Ali PALABIÇAK	Harran University TÜRKİYE
DETERMINATION OF PRODUCTION INPUTS, PRODUCTION COSTS AND PROFITABILITY ON COTTON PRODUCTION: THE CASE OF ŞANLIURFA PROVINCE	Yıldız DURAN Yeşim AYTOP	Kahramanmaraş Sütçü İmam University TÜRKİYE
TAXATION IN REAL ESTATE PURCHASE AND SALE TRANSACTIONS AND EXAMINATION OF TITLE DEED FEES	Dr. Ali MUTİ	General Directorate of Land Registry and Cadastre, Yakutiye Land Registry Directorate, Erzurum TÜRKİYE
ECONOMETRIC ANALYSIS OF FACTORS AFFECTING FINANCIAL ACCESS: A STUDY ON BLACK SEA COASTAL COUNTRIES	Assoc. Prof. Dr. Kenan İLARSLAN	Afyon Kocatepe University TÜRKİYE
RECYCLING AND WASTE MANAGEMENT: ENVIRONMENTAL AND ECONOMIC PERSPECTIVES	Gurbanova Roya Vilayat	Sumgait State University AZERBAIJAN

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23.08.2024 / Session-2, Hall-4

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Abdul Qadeer Khan

Title	Author(s)	Affiliation
EVALUATION OF AGRICULTURAL WASTES FOR THE PRODUCTION OF INOCULUM FROM TRICHODERMA ASPERELLUM CONIDIA	Manal Adnani Samah Ourras Naila El Hazzat Karima Selmaoui Moulay Abdelaziz El Alaoui Amina Ouazzani Touhami Allal Douira	Ibn Tofail University MOROCCO
FORMULATION AND EVALUATION OF ANTI DIABETIC ACTIVITY OF HERBAL ANTI DIABETIC SYRUP WITH FENUGREEK	Dr. Mah-ru-Nisa Atif Ayesha Ghias Aisha Ghulam Mustafa M. Huzaifa Ali Mishal Shoaib Dar Fareeha Nawab	Hajvery University INDIA
EVALUATION OF BIOMASS AND CARBON STOK IN AGROFORESTRY LAND USE TYPES IN NIGER STATE, NIGERIA	Mohammed Lawal Sanusi, Muhammed, M., Mohammed, S.Y. Lawal, B.A.	Federal University NIGERIA
AGRITOURISM: POTENTIALS AND DEVELOPMENT SOLUTIONS IN CAN THO CITY, VIETNAM	Nguyen Thi Huynh Phuong Hoang Thi Dieu Thuy Nguyen Trong Nhan	Hue University VIETNAM Can Tho University VIETNAM Hue University VIETNAM
UNDERSTANDING ARID ZONE ECOSYSTEM DYNAMICS UNDER CLIMATE CHANGE: EFFECTS ON BIODIVERSITY AND HUMAN WELL-BEING	Auwal Haruna Ismail Ahmad Said Abubakar Faiz Tijjani Ismail	Aminu Kano College of Islamic and Legal Studies NIGERIA Federal College of Education NIGERIA
SYNERGISTIC TREATMENT OF PB-STRESSED MAIZE PLANTS WITH OXALIC AND SALICYLIC ACIDS: EFFECTS ON OXIDATIVE STRESS MARKERS	Minoti Gupta Swatantar Kumar Aarti Dwivedi Vinay Dwivedi	Chandigarh University INDIA Chandigarh University INDIA Amity University INDIA Amity University INDIA
ADOPTION OF CLIMATE SMART AGRICULTURE AND ITS EFFECT ON INCOME OF SMALLHOLDER FARMERS IN NIGER STATE, NIGERIA	Suleiman, S. D. Ibrahim M. Muhommad U. H	Federal University of Technology NIGERIA
BIFURCATIONS OF A TWO-DIMENSIONAL DISCRETE TIME PLANT-HERBIVORE SYSTEM	Assoc. Prof. Dr. Abdul Qadeer Khan	Azad Jammu Kashmir University PAKISTAN
BIODIVERSITY STUDY OF BARLEY (HORDEUM VULGARE L.) ACCESSION COLLECTIONS FROM ALGERIA, BY THE MORPHOMETRIC TOOL	Warda Taibi Fatima Henkrar Sripada Mahabala Udupa Suheil Bechir Semir Gaouar	Abou Bekr Belkaid University ALGERIA International Center for Agricultural Research in the Dry Areas (ICARDA) MOROCCO

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23.08.2024 / Session-2, Hall-5

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assist. Prof. Dr. Jogendra Kumar

Title	Author(s)	Affiliation
THE SIGNIFICANCE OF USING MOBILE APPLICATION RESULT CHECKER FOR THE RETRIEVAL OF STUDENTS' PERFORMANCE (RESULT): IMPLICATION ON EDUCATIONAL DEVELOPMENT	Moses Adeolu AGOI Oluwakemi Racheal OSHINOWO Benjamin Johnson OLASIJU Oluwanifemi Opeyemi AGOI	Lagos State University NIGERIA Obafemi Awolowo University NIGERIA
EARLY CHILDHOOD TEACHERS' VALUES: A CROSS-CULTURAL COMPARATIVE STUDY TO ENSURE QUALITY EDUCATION FOR ALL	Dr. Annalisa LANNIELLO	University of Salerno ITALY
PREDICTING STUDENT PERFORMANCE USING ENSEMBLE LEARNING TO IMPROVE SUCCESS QUALITY	Etibar VAZIROV Ali ALIYEV	ADA University AZERBAIJAN Student at Ankara School, Baku AZERBAIJAN
AUTOMATIC MUSIC GENERATION USING DEEP LEARNING-A REVIEW	Assist. Prof. Dr. Jogendra Kumar	G.B.Pant Institute of Engineering and Technology INDIA
THE ROLE OF CRITICAL REFLECTIVE PRACTICE IN TEACHING: ONLINE TEACHERS' INSIGHTS	Dr. Afshan Naseem Dr. Irfan Bashir Dr. Rizwan Akram Rana Dr. Aisha Sami	University of Management and Technology PAKISTAN
THE IMPORTANCE OF CAREER ORIENTATION AND EDUCATION, PROBLEMS AND INFORMATION SOURCES ACCORDING TO THE PERCEPTIONS OF THE GRADUATES	Dhurata TURKU Assoc. Prof. Dr. Ardjan TURKU	Aleksandër Xhuvani University ALBANIA
EFFECT OF ASSESSMENT METHOD ON ACADEMIC PERFORMANCE OF STUDENTS IN CERTIFICATION PROGRAM IN RIVERS STATE UNIVERSITY	Dr. Felicia KING-AGBOTO Chizoma Catherine OKPARA	Captain Elechi-Amadi Polytechnic NIGERIA Imo State University NIGERIA
ASSISTIVE TECHNOLOGY DEVICES: THE WAY FORWARD FOR INNOVATIVE TEACHING AMONG STUDENTS WITH LEARNING DISABILITIES IN NIGERIA	Samson Oladayo AKINBILE	Ibadan University NIGERIA

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23.08.2024 / Session-2, Hall-6

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Kamaljit Singh

Title	Author(s)	Affiliation
THE IMPORTANCE OF BLOCKCHAIN TECHNOLOGY IN INTERNATIONAL TRADE	Dr. Radoslav BALTEZAREVIĆ Dr. Sanja JELISAVAC TROŠIĆ	Institute of International Politics and Economics SERBIA
PRIVACY CONCERNS IN TECH-INTEGRATED BRAND EXTENSIONS: A SOCIETAL DILEMMA	Mohit Rishi Chaudhry Nitika Kuldeep Chaudhary	Maharshi Dayanand University INDIA
THE FUTURE OF SOCIAL MEDIA ADVERTISING: PREDICTING TRENDS AND THEIR POTENTIAL IMPACT ON PURCHASE INTENTIONS	Mohit Rishi Chaudhry Nitika Kuldeep Chaudhary	Maharshi Dayanand University INDIA
THE ROLE OF ARTS IN HEALTH POLICY-MAKING: A QUALITATIVE STUDY ON STAKEHOLDER PERSPECTIVES AND POLICY IMPLICATIONS	Ajayi, Olayemi T. Olatunji-Aguda, Gbenga E.	Lead City University NIGERIA The Federal Polytechnic Ilaro NIGERIA
DETERMINANTS OF FAMILY ENTREPRENEURS: AN EMPIRICAL STUDY IN ODISHA, INDIA	Sanjaya Kumar Sahoo	SKCG Auto. College INDIA
VOLATILITY SPILLOVER AMONG CLIMATE CHANGE, SUSTAINABLE FINANCE AND RENEWABLE ENERGY MARKET: A DCC-GARCH APPROACH	Dr. Kamaljit Singh Prof. Dr. Satish Menon	SRM University INDIA
BAGASSE- A SUSTAINABLE SUBSTRATE FOR A GREEN FUTURE	Gauri Krishna. R Dr. Mahendran Botlanguta Alina Eliz Mathews Shreya. B	VIT Bhopal University INDIA
THE IMPACT OF FISCAL AND MONETARY POLICY ON ECONOMIC RECOVERY IN MOROCCO: AN EMPIRICAL STUDY	Jihane Benkhaira El Hassani Hafid	Sidi Mohamed Ben Abdellah University MOROCCO

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23.08.2024 / Session-3, Hall-1

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Erdoğan ALTUN

Title	Author(s)	Affiliation
CLIENTELISM IN A TRANSITION COUNTRY: THE GEORGIA CASE	Erdoğan ALTUN	Independent Researcher Artvin TÜRKİYE
THE STRUGGLE AGAINST RELIGION IN THE AZERBAIJAN SSR IN THE 1920s-1930s	Khanaliyev Jafar Vidadi oglu	Azerbaijan State Pedagogical University AZERBAIJAN
A STUDY ON THE CAUSES AND CONSEQUENCES OF THE FUTURE ANXIETY AND THREAT PERCEPTION CREATED ON THE TURKISH PEOPLE BY SYRIAN REFUGEES IN TURKEY, SPECIFICALLY GAZİANTEP	Elif BALCI Muharrem BİNGÖL Eftal SOLAK Res. Assist. Büşra ÖZTEKİN	Hasan Kalyoncu University TÜRKİYE
ABOUT THE SOCIO-POLITICAL ACTIVITY OF YOUNG PEOPLE IN THE REPUBLIC OF AZERBAIJAN IN 2016-2020	Shamilova Aysel Muhammed gızı	Sumgait State University AZERBAIJAN
INTERNATIONAL MEDIA COVERAGE OF CURRENT EVENTS IN PALESTINE: ANALYZING ITS IMPACT ON GLOBAL PUBLIC OPINION	Ossama Sayed Ramadan Abd El Kader Aya Abdelhafez Mahmoud Abdelhafz	Süleyman Demirel University TÜRKİYE
REFLECTIONS OF THE OCTOBER 2023 WAR ON THE CONCEPT OF WAR AND ITS EFFECTS ON THE CAPABILITIES OF THE PALESTINIAN STATE	Aya Abdelhafez Mahmoud Abdelhafz Ossama Sayed Ramadan Abd El Kader	Süleyman Demirel University TÜRKİYE
NARIMAN NARIMANOV'S ROLE IN THE SIGNING OF THE KARS AGREEMENT	Bakhshaliyev Samir Fazil oglu	Baku State University AZERBAIJAN
NEW TRENDS IN SOCIAL SECURITY LAW AND POLICY	Bakhshaliyev Eynulla Fazil oglu	Western Caspian University AZERBAIJAN
TURKEY'S SOFT POWER IN CENTRAL ASIA: HISTORICAL TIES AND MODERN INFLUENCE	Syeda Nada Qadri Syeda Rajah Fatema Qadri Syed Zain Ali Al Qadri Syeda Rabab Fatima Qadri	Aligarh Muslim University INDIA Calcutta University INDIA
INNOVATIVE DEVELOPMENT ENVIRONMENT IN THE AGRICULTURAL FIELD AND ITS CURRENT SITUATION	Assoc. Prof. Memmedov İlgar Semendar Hacıyeva Zulfiya Elman	Sumgait State University AZERBAIJAN

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23.08.2024 / Session-3, Hall-2

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Hatice ULUSOY

Title	Author(s)	Affiliation
SHORT-TERM PREDICTION OF AIR POLLUTION USING LSTM MODEL: A STUDY ON O3 AND PM10 IN BURSA	Res. Assist. Asude DEMİR Res. Assist. Miraç Tuba ÇELİK Res. Assist. Hasan ŞEN	Bursa Technical University TÜRKİYE
USE OF BLOCKCHAIN TECHNOLOGY IN TURKISH NAVAL FORCES	Ali KILIÇASLAN Assist. Prof. Dr. Atakan ALKAN	Kocaeli University TÜRKİYE
TENSILE STRENGH BEHAVIOR OF THERMALLY MODIFIED ASH WOOD IN BONE SHAPE	Assist. Prof. Dr. Gaye KÖSE DEMİREL	Karadeniz Technical University TÜRKİYE
EFFECT OF LAVENDER PLANT EXTRACT ON WATER REPELLENT/SHRINKAGE EFFICIENCY VALUE IN WOODEN MATERIAL	Assoc. Prof. Dr. Hatice ULUSOY Prof. Dr. Hüseyin PEKER	Muğla Sıtkı Koçman University TÜRKİYE Artvin Çoruh University TÜRKİYE
EFFECTS OF WORMWOOD (Artemisia Absinthium L.) PLANT ON SOME MECHANICAL PROPERTIES OF WOOD MATERIALS	Assoc. Prof. Dr. Hatice ULUSOY Prof. Dr. Hüseyin PEKER	Muğla Sıtkı Koçman University TÜRKİYE Artvin Çoruh University TÜRKİYE
INVESTIGATION OF MICROSTRUCTURE AND MECHANICAL PROPERTIES OF AL 5083 HYBRID/COMPOSITES REINFORCED WITH B4C AND AL2O3	Taha Alper YILMAZ	Gazi University TÜRKİYE
PRODUCTION AND PROPERTIES OF B319/TIC COMPOSITE MATERIALS BY POWDER METALLURGY METHOD	Lect. Dr. Ufuk TAŞCI	Gazi University TÜRKİYE
ANALYZING ENERGY EFFICIENCY AND ECOLOGICAL ASPECTS OF CNG BUSES IN URBAN PUBLIC TRANSPORTATION–A CASE STUDY IN MERSİN	Selin VAR Damla GÜMÜŞ Assist. Prof. Yavuz ABUT	Yalova University TÜRKİYE
SUSTAINABLE CONCRETE: ENVIRONMENTALLY FRIENDLY SOLUTIONS	Assoc. Prof. Dr. Zehra Funda AKBULUT Prof. Dr. Soner GÜLER	Van Yüzüncü Yıl University TÜRKİYE
THE ROLE AND IMPACT OF PIGMENTED CONCRETE IN MODERN CONSTRUCTION	Assoc. Prof. Dr. Zehra Funda AKBULUT Prof. Dr. Soner GÜLER	Van Yüzüncü Yıl University TÜRKİYE

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23.08.2024 / Session-3, Hall-3

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Hilal SEKİ ÖZ

Title	Author(s)	Affiliation
EMDR THERAPY IN SOLVING INTERPERSONAL INTERACTION PROBLEMS: A CASE REPORT	Assoc. Prof. Dr. Hilal SEKİ ÖZ	Kırşehir Ahi Evran University TÜRKİYE
AN ANALYSIS OF NURSING STUDENTS' MINDFUL AWARENESS EXPERIENCES	Assoc. Prof. Dr. Hilal SEKİ ÖZ	Kırşehir Ahi Evran University TÜRKİYE
A NONPHARMACOLOGICAL INTERVENTION IN NEWBORN: REIKI PRACTICE	Gamzegül ALTAY	Recep Tayyip Erdoğan University TÜRKİYE
A WAY TO PREVENT SHAKEN BABY SYNDROME: INFANT CALMING INTERVENTIONS	Gamzegül ALTAY Assist. Prof. Dr. Arzu SARIALİOĞLU	Recep Tayyip Erdoğan University TÜRKİYE Atatürk University TÜRKİYE
CONSTIPATION IN HEART FAILURE PATIENTS	Nurs. Beyza TEKER Assist. Prof. Dr. Yasemin Kalkan UĞURLU	Ordu University TÜRKİYE
HEALTH PROBLEMS OF ELDERLY INDIVIDUALS AND NURSING APPROACH WITHIN THE FRAMEWORK OF PUBLIC HEALTH NURSING	Lect. Dr. Ayşe ÇALMAZ Assist. Prof. Dr. Nevra KARACA BIÇAKÇI	Hitit University TÜRKİYE Kafkas University TÜRKİYE
GENERAL NURSING CONSULTANCY AND CARE PROVIDED TO WOMEN UNDERGOING GENITAL AESTHETIC SURGERY WITHIN THE FRAMEWORK OF THE EX-PLISSIT MODEL: A CASE REPORT	Fatma Gül EMİR Assist. Prof. Dr. Gökçe Banu Acar GÜL	Çankırı Karatekin University TÜRKİYE

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23.08.2024 / Session-3, Hall-4

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Gülseren KIRBAŞ DOĞAN

Title	Author(s)	Affiliation
INHIBITION OF SOME METABOLIC ENZYMES AND ANTIOXIDANT POTENTIAL OF ROYAL JELLY	Dr. Ebubekir İZOL Assist. Prof. Dr. Münire TURHAN	Bingöl University TÜRKİYE
POLLINTING POWER OF HONEYBEES: POLLINATION	Assist. Prof. Dr. Münire TURHAN Dr. Ebubekir İZOL	Bingöl University TÜRKİYE
ANATOMICAL EXAMINATION OF FOOT PADS IN A BROWN BEAR CUB	Assoc. Prof. Dr. Gülseren KIRBAŞ DOĞAN	Kafkas University TÜRKİYE
AN ANATOMICAL STUDY ON FOOT PADS IN PIED MARTEN	Assoc. Prof. Dr. Gülseren KIRBAŞ DOĞAN	Kafkas University TÜRKİYE
FATTENING PERFORMANCES OF SOME SHEEP BREEDS RAISED IN TÜRKIYE	Dr. Adil UZTEMUR	Republic of Türkiye Ministry of Agriculture and Forestry General Directorate of Nature Conservation and National Parks, Şanlıurfa, TÜRKİYE
THE IMPORTANCE OF HOME-BASED REHABILITATION	Assoc. Prof. Dr. Nazan ÖZTÜRK Lect. Ecem ERSUNGUR	Aydın Adnan Menderes University TÜRKİYE
GENDER DIFFERENCES IN PAIN	Lect. Ecem ERSUNGUR Assoc. Prof. Dr. Nazan ÖZTÜRK	Aydın Adnan Menderes University TÜRKİYE
HARVEST AND HARVEST CRITERIA IN VITICULTURE	Ismail Islam ALTURK Assoc. Prof. Dr. Mehmet Settar ÜNAL	Şırnak University TÜRKİYE
THE IMPORTANCE OF PHOTOSYNTHESIS AND RESPIRATION IN VINE	Ismail Islam ALTURK Assoc. Prof. Dr. Mehmet Settar ÜNAL	Şırnak University TÜRKİYE

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23.08.2024 / Session-3, Hall-5

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Mah-ru-Nisa Atif

Title	Author(s)	Affiliation
EXPLORING THE INTERPLAY OF SEDENTARY LIFESTYLE, DIETARY CHOICES, OBESITY, AND TYPE 2 DIABETES	Dr. Mah-ru-Nisa Atif Ayesha Ghias Aisha Ghulam Mustafa M. Huzaifa Ali Mishal Shoaib Dar Fareeha Nawab	Hajvery University INDIA
MODELING THE EFFECT OF VACCINATION ON THE RATE OF CORONAVIRUS INFECTION BASED ON FRACTIONAL CALCULUS	Mohammad Amin Akhlaghi Hooman Fatoorehchi	Tehran University IRAN
EMOTIONAL INTELLIGENCE AND THE PERCEIVED INFLUENCE ON JOB SATISFACTION: AN EXPLORATORY STUDY WITH NURSES	Diana Silva Costa João Leite Ribeiro Delfina Gomes	Minho University PORTUGAL
ASSESSMENT OF KNOWLEDGE TOWARDS CARDIOVASCULAR DISEASE RISK FACTORS AMONG GRADUATE STUDENTS IN KUNTHAVAI NAACCHIYAAR GOVERNMENT ARTS COLLEGE IN THANJAVUR	Kannadasan Karuppaiah R. Vetriselvi Ezhilvanan Mani Vinoth Raman	Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research INDIA Government Arts College INDIA Tagore Medical College and Hospital INDIA Imam Abdulrahman Bin Faisal University SAUDI ARABIA
ANXIETY AND DEPRESSION: GENDER DISPARITIES IN CLINICAL CASES	Dr. Aakib Rahman Parray Khashiya Binte Mujeeb	Akal University INDIA Aligarh Muslim University INDIA
MOLECULAR IDENTIFICATION OF LIPOLYTIC FUNGAL SPECIES ISOLATED FROM PALM OIL MILL EFFLUENT OBTAINED IN IKARE AKOKO, ONDO STATE, NIGERIA	Ashade, Noah O. Abe, Ayotunde S. Ezema, Benjamin. O. Nweze, Ekene J. Shaibu, Christipher. O.	National Research Institute for Chemical Technology NIGERIA Federal University of Technology NIGERIA Nigeria University NIGERIA Federal University Wukari NIGERIA
PARENTAL EXPECTATIONS, ACADEMIC STRESS, AND SUICIDAL IDEATION: A STUDY OF KOTA STUDENTS	Dr. Satish Menon Dr. Kavita Singh Komal	SRM University INDIA
AN ANALYSIS OF THE DETERMINING FACTORS OF CHILD MALARIA MORTALITY IN NIGERIA	Isah Imam Paiko Asmaú Usman	Federal University of Technology NIGERIA
IS ELECTRONIC WORD-OF-MOUTH'S (E-WOM) INFLUENCE THE TRAVEL INTENTION? TESTING THE INFORMATION ADOPTION MODEL (IAM)	Jyoti Jitender Kumar	IMSAR INDIA
AMELIORATIVE EFFECT OF PROBIOTICS IN ALZHEIMER'S DISEASE	Habiba Shafiq Shazia Parveen Jalaluddin Khan Bibhu Prasad Panda	Microbial & Pharmaceutical Biotechnology Laboratory (MPBL) INDIA

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23.08.2024 / Session-3, Hall-6

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Lect. Dr. Irina-Ana DROBOT

Title	Author(s)	Affiliation
ETHNOMEDICINAL KNOWLEDGE OF TRADITIONAL WOMEN HEALERS IN TREATING DYSMENORRHEA: A STUDY IN THE SOUSS MASSA REGION, SOUTHERN MOROCCO	TALEB ALI Khalid AARAB Ahmed	Abdelmalek Essaadi University MOROCCO
KNOWLEDGE, PRACTICE AND FACTORS AFFECTING FAMILY PLANNING METHODS AMONG MALES IN A RURAL COMMUNITY IN EDO STATE, NIGERIA	Efegbere Henry Akpojubaro Akpojisheri Erhuvwu Olufunke Onaadepo Enemuo Emeka Hycent Owoicho Bartholomew	Edo State University NIGERIA Abuja University NIGERIA Nnamdi Azikiwe University NIGERIA Adoka University NIGERIA
SOLUTIONS TO COMPLETE CURRENT VIETNAMESE LAWS ABOUT PARTNERSHIP AGREEMENT	Phan Minh Gioi	Law University VIETNAM
ECOLOGICAL ENVIRONMENT IN THE CREATIVITY OF NIZAMI GENCEVI: NATURE-HUMAN RELATIONS	Ilaha Valiyeva	Sumgait State University AZERBAIJAN
AN ANALYSIS OF THE WORK BY ŞERBANA DRĂGOESCU GAME FOR PEERS OR THE GAME OF FIRE MATCHES (1977)	Lect. Dr. Irina-Ana DROBOT	Technical University of Civil Engineering Bucharest ROMANIA
IMAM AL-SHAFI'S CONTRIBUTION IN ISLAMIC LAW	Shaista Jabeen	Govt College For Women Jhang PAKISTAN
THE IMPACT OF SOCIAL RELATIONS IN ENHANCING LABOR PRODUCTIVITY IN THE ALGERIAN ORGANIZATION	Dr. Bouhafs Harrouz Lahcen Boubekeur	Taheri Mohamed University ALGERIA Ahmed DRAIA Ahmed DRAIA ALGERIA
MODEL STATE OF TRAVANCORE AND DEWAN MADHAVA RAO: A HISTORICAL REAPPRAISAL	Dr. Chinthu. I.B	St. Xavier's College INDIA
SOLUTIONS FOR BUILDING A TIKTOK CHANNEL IN MULTICHANNEL SALES	Nguyen MANH HUNG DUONG HOANG PHUC Nguyen THİ HANG	Thai Nguyen high School for the Gifted VIETNAM Thai Nguyen University VIETNAM

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24.08.2024 / Session-1, Hall-1

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assist. Prof. Dr. Ayça BALMUMCU

Title	Author(s)	Affiliation
2IN SILICO EXAMINATION OF A HIGH-THROUGHPUT VIRTUAL SCREENING STUDY AGAINST GASTRIC CANCER CAUSED By Helicobacter pylori	Res. Assist. Okan AYKAÇ Assoc. Prof. Dr. İrem BOZBEY MERDE	Sivas Cumhuriyet University TÜRKİYE İnönü University TÜRKİYE
COMPARISON OF RHOMBOID EXCISION LIMBERG FLAP AND BASCOM CLEFT LIFT FOR PILONIDAL SINUS	Yunushan Furkan AYDOĞDU	Gölbaşı Şehit Ahmet Özsoy State Hospital Ankara TÜRKİYE
EVALUATION OF THYROID HORMONE LEVELS IN TERM INFANTS WITH POSTNATAL RESPIRATORY DISTRESS	Assoc. Prof. Dr. İlkay ER Dr. Eminegül AYDIN	Recep Tayyip Erdoğan University TÜRKİYE
FACTORS AFFECTING THE FREQUENCY OF COPD EXACERBATION	Nurs. Gamze ÇÖPOĞLU Assist. Prof. Dr. Yasemin Kalkan UĞURLU	Ordu University TÜRKİYE
AN EVALUATION OF THE REGULATIONS MADE IN THE TEACHING PROFESSION LAW	Dr. Gökhan TAŞKIN Prof. Dr. Gökhan AKSOY	Independent Researcher Konya TÜRKİYE İnonü University TÜRKİYE
WOMEN'S EXPERIENCES WITH VAGINAL BIRTH AFTER CESAREAN SECTION (VBAC)	Assist. Prof. Dr. Ayça BALMUMCU	Aydın Adnan Menderes University TÜRKİYE
REVIEW OF RESEARCHES CONDUCTED WITH BIBLIOMETRIC ANALYSIS IN THE FIELD OF NURSING	Assist. Prof. Dr. Ayça BALMUMCU	Aydın Adnan Menderes University TÜRKİYE

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24.08.2024 / Session-1, Hall-2

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Dr. Rüveyde TUNÇTÜRK

Title	Author(s)	Affiliation
REVIEW: STUDIES FOR DROUGHT-RELATED GENE IDENTIFICATION AND EXPRESSION ANALYSIS IN FRUIT SPECIES	Prof. Dr. Emine ORHAN Ayşenur YILDIRIM	Atatürk University TÜRKİYE
BIOACTIVE SUBSTANCES IN CENTRAUREA SPP. SPECIES AND ENHANCEMENT STUDIES	Assist. Prof. Dr. Hüseyin TÜRKER Fatma Buse BIYIK	Niğde Ömer Halisdemir University TÜRKİYE
BIOACTIVE COMPOUNDS OF GALLIUM SPP. SPECIES AND THEIR USES IN BIOTECHNOLOGY	Assist. Prof. Dr. Hüseyin TÜRKER İbrahim SARIOĞLAN	Niğde Ömer Halisdemir University TÜRKİYE
DETERMINING APPROPRIATE BLENDING RATIOS FOR DIFFERENT TEMPERING APPLICATIONS IN THE PRODUCTION OF BREAD FLOUR	Filiz ŞAHİN Assoc. Prof. Dr. Yaşar KARADUMAN Dr. Arzu AKIN	Eskişehir Osmangazi University TÜRKİYE Eskişehir Osmangazi University TÜRKİYE Transitional Zone Agricultural Research Instıtute, Eskişehir, TÜRKİYE
EFFECT OF ENVIRONMENTAL AND CLIMATIC CONDITIONS ON YIELD AND TECHNOLOGICAL QUALITY IN SUGAR BEET (Beta vulgaris var. saccharifera L.)	Yudum BURCU Prof. Dr. Rüveyde TUNÇTÜRK	Van Yüzüncü Yıl University TÜRKİYE
EVALUATION OF THE EFFECT OF ROTATION ON SUGAR BEET (Beta vulgaris var. saccharifera L.) CULTIVATION	Yudum BURCU Prof. Dr. Rüveyde TUNÇTÜRK	Van Yüzüncü Yıl University TÜRKİYE

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24.08.2024 / Session-1, Hall-3

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Dr. Ferdi AKMAN

Title	Author(s)	Affiliation
THEORETICAL CALCULATION OF GAMMA-RAY SHIELDING CHARACTERISTICS OF SOME HIGH PURITY SALTS	Meryem YILMAZ Prof. Dr. Ferdi AKMAN	Bingöl University TÜRKİYE
RADIATION SHIELDING PROPERTIES OF SOME NICKEL-BASED ALLOYS	Meryem YILMAZ Prof. Dr. Ferdi AKMAN	Bingöl University TÜRKİYE
DETERMINATION OF GAMMA RADIATION SHIELDING PERFORMANCE OF SOME W-CONTAINING HEAVY ALLOYS: A THEORETICAL STUDY	Lect. Hatice GÜREL ÖZDEMİR Mustafa Recep KAÇAL Prof. Dr. Ferdi AKMAN	İstinye University TÜRKİYE Giresun University TÜRKİYE Bingöl University TÜRKİYE
GAMMA RADIATION SHIELDING PROPERTIES OF SOME Zn COMPOUND SEMICONDUCTOR MATERIALS	Lect. Hatice GÜREL ÖZDEMİR Mustafa Recep KAÇAL Prof. Dr. Ferdi AKMAN	İstinye University TÜRKİYE Giresun University TÜRKİYE Bingöl University TÜRKİYE
INVESTIGATION OF THE GAMMA RADIATION SHIELDING CAPACITIES OF SOME CHALCOGENIDES OVER A WIDE ENERGY RANGE	Dr. İlhami ERKOYUNCU Prof. Dr. Ferdi AKMAN	Bingöl University TÜRKİYE
THEORETICAL CALCULATION OF THE RADIATION SHIELDING PROPERTIES OF SOME MINERALS	Dr. İlhami ERKOYUNCU Prof. Dr. Ferdi AKMAN	Bingöl University TÜRKİYE
SUSTAINABLE STEEL STRUCTURES: TECHNICAL AND ENVIRONMENTAL ASPECTS OF THE RECYCLING PROCESS	Lect. Cansel ÇELİK ORAL	İstanbul Nişantaşı University TÜRKİYE
SEGMENTATION APPLICATIONS IN PANORAMIC X-RAY IMAGES	Sedat BAYARAL Assoc. Prof. Dr. Derya AVCI	Fırat University TÜRKİYE

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24.08.2024 / Session-1, Hall-4

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Nessrine MOUMEN

Title	Author(s)	Affiliation
MODERATING EFFECT OF TECHNOLOGY UNCERTAINTY RELATIONSHIP BETWEEN STATE OF TECHNOLOGY AND COMPETITIVENESS IN NIGERIAN TELECOMMUNICATION INDUSTRY	Daniel Marcel Aminu Ahmad Umar Usman Josiah Mangai Mallo	Abubakar Tafawa belewa University NIGERIA
EVALUATION OF URBAN SMARTNESS AND SUSTAINABILITY: AN INTEGRATED METHODOLOGY FOR CASABLANCA SMART CITY IN MOROCCO	Nessrine MOUMEN	University Mohammed VI Polytechnic (UM6P) MOROCCO
HYDRATION OF TANNERY WASTE WATER WITH EGGSHELL ADSORBENT FOR CHROMIUM VI REMOVAL IN KADUNA	Adeyemi Aishah Eniola Kazeem Ibraheem Ajadi	Ahmadu Bello University NIGERIA
ADOPTING 360-DEGREE PRODUCT PHOTOGRAPHY IN INDONESIAN E-COMMERCE: CHALLENGES AND OPPORTUNITIES	Ikhsan Adistira Heru Saputra Ilfa Stephane M. Tasnim Febri Andeska Pratama	Metamedia University INDONESIA
SPEECH-TO-TEXT MOBILE APP SYSTEM	Olasina, J. R. Adaramola, O. J.	Federal Polytechnic NIGERIA
REVIEW ON ADVANCES OF SELF-HEALING CONCRETE	Shravanı Amıt Jagadale Shreya Nılesh Jaware Shrutı Ramesh Latane Rutuja Ankush Dawane Prof. Mayur Madhukar Maske	Shivaji University INDIA
THE ASSISTING AND OPPOSING FLOWS EFFECT OF ETHYLENE GLYCOL AND TITANIUM OXIDE NANOPARTICLES ON WALTER'S B NANOFLUID OVER STRETCHING SHEET WITH THERMAL RADIATION AND HALL EFFECT	C. Sulochana B. Mahalaxmi	Gulbarga University INDIA Raichur University INDIA
HEAT TRANSFER ENHANCEMENT IN MHD NANOFLUID FLOW ACROSS A SLENDER SURFACE WITH SHAPE EFFECTS	N. Sandeep B. Ranjana C. Sulochana G.P. Ashwinkumar	Central University of Karnataka INDIA Vijayanagara Sri Krishnadevaraya University INDIA Government First Grade College INDIA Gulbarga University INDIA
TRANSFORMING TROUBLE; ERADICATION AND RECYCLING OF WATER HYACINTH	Athira M Dr. Mahendran Botlagunta Malavika Nair Sarangi M	VIT Bhopal University INDIA

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24.08.2024 / Session-1, Hall-5

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Ms. Leslie Robinson

Title	Author(s)	Affiliation
THE VITAL IMPORTANCE OF AUTHENTIC HUMAN CONNECTION	Ms. Leslie Robinson	Founder of Trance4mation Games – New York USA
ENHANCED SOLUBILIZATION OF ANTIBIOTIC DRUGS (LEVOFLOXACIN) VIA SINGLE AND MIXED MICELLAR SYSTEM; A UV-VISIBLE SPECTROSCOPY ANALYSIS OF SAPONIN AND PLURONIC F-127	Ali Naqi Muhammad Usman Amnah Yusaf Maryam Haider	Government College University PAKISTAN
ANTIBACTERIAL ACTIVITY OF BITTER KOLA (Garcinia kola) EXTRACT ON ORAL BACTERIA	Tolulope O. Oladosu, Okeyi O. Victoria	Joseph Sarwuan Tarka University NIGERIA
BIOCONVERSION OF WASTE ORGANIC MATTER INTO PROTEIN CONCENTRATES: AN ASSESSMENT OF THE FEED CONVERSION PROCESS VIA A PROXIMATE NITROGEN BALANCE	Onyeka Stanislaus Okwundu Joseph Chisom Okoye	Science and Engineering Unit, Nigerian Young Researchers Academy (NYRA) NIGERIA
BREAST CANCER DIAGNOSIS USING DEEP LEARNING	Khadija Aguerchi Younes Jabrane Maryam Habba Mustapha Ameur	Cadi Ayyad University MOROCCO
INTEGRATING HEALTH LITERACY INSIGHTS IMPROVES HEALTH CRISES AMONG CHILDREN WITH DISABILITY IN A MODERN INCLUSIVE SOCIETY	Fr. Baiju Thomas	Ramakrishna Mission Vivekananda Educational and Research Institute INDIA
ACCEPTANCE AND COMMITMENT THERAPY FOR AGGRESSION AMONG UNIVERSITY STUDENTS IN PAKISTAN: A QUASI-EXPERIMENTAL STUDY	Saima Abbas Motasem Mirza	Cyberjaya University MALAYSIA Bahria University PAKISTAN
EPIDEMIOLOGICAL PROFILE OF COMMUNITY-ACQUIRED INFECTIONS IN A UNIVERSITY HOSPITAL IN SOUTHERN TUNISIA	Ghada Nasri Mariem Ben Hamida Houda Ben Ayed Bouthaina Trabelsi Nesrine Midessi Amal Zouari Sourour Yaich	Hedi Chaker University TUNUSIA
WHERE DO WE STAND REGARDING COMPLIANCE IN DIABETES CARE?	Ghada Nasri Mariem Ben Hamida Houda Ben Ayed Bouthaina Trabelsi Faten Hadjkacem Mouna Baklouti Sourour Yaich	Hedi Chaker University TUNUSIA

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24.08.2024 / Session-1, Hall-6

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Saurabh Kumar Sarma

Title	Author(s)	Affiliation
BIODIVERSITY STUDY OF BARLEY (HORDEUM VULGARE L.) ACCESSION COLLECTIONS FROM ALGERIA, BY THE MORPHOMETRIC TOOL	Warda Taibi Fatima Henkrar Sripada Mahabala Udupa Suheil Bechir Semir Gaouar	Abou Bekr Belkaid University ALGERIA International Center for Agricultural Research in the Dry Areas (ICARDA) MOROCCO
LAND PRESSURE AND DEVELOPMENT CHALLENGES IN THE MUNICIPALITY OF ADJARRA (BÉNIN)	HOUNDJI Pamphile HESSOU Mariano A. N. A. DOVONOU K. Ponce A.	Abomey-Calavi University BENIN
MICROBIOLOGICAL QUALITY ASSESSMENT OF DRIED BEEF STORED IN DIFFERENT PACKAGING MATERIALS	Adamu Ahmad Abubakar Olaleye Oladimeji Olanipekun Saka Habeeb Kayode Abdullahi Tafida Ibrahim Ahmed Kyari Yerima Bala Ibrahim Farida Umar Ahmad	Nigerian Stored Products Research Institute NIGERIA
WAYS TO REDUCE SOLANINE TOXIN IN POTATOES AND REDUCE ITS RISKS	Narges Fathabadibozcheloei Zahra Rezapour	Islamic Azad University IRAN
AN ASSESSMENT OF WATER RESOURCE PLAN IN BEKI RIVER BASIN, ASSAM	Dr. Saurabh Kumar Sarma	Independent Researcher INDIA
EVALUATION OF ANTIBACTERIAL PROPERTY OF LIQUID SOAP MADE FROM BLEND OF NEEM AND PINE OIL	Kazeem Ibraheem Ajadi Umar Habib U Abubakar Badamasi	Ahmadu Bello University NIGERIA
DRAGONFLY SPECIES COMPOSITION AND DISTRIBUTION IN DISTRICT MARDAN, KHYBER PAKHTUNKHWA, PAKISTAN	Salma Gul Asif Ali	Abdul Wali Khan University PAKISTAN Slovak Academy of Science Bratislava SLOVAKIA
IMPACT OF ENVIRONMENTAL FACTORS REPRODUCTION IN RUMINANT ANIMALS	Fadimatu Dauda Muhammad	Usman Dan Fodio University NIGERIA
GENETIC SELECTION AND BREEDING PROGRAMS IN RUMINANT ANIMALS	Fadimatu Dauda Muhammad	Usman Dan Fodio University NIGERIA
NUCLEAR AND RADIOLOGICAL ACTIVITIES CONSIDERATIONS OF ENVIRONMENTAL CONTROL ON HAZARDOUS PRODUCTS AND SUBSTANCES REGIME	Luminita DIACONU	Moldova Academy of Economic Studies MOLDOVA
CRISPR-Cas9: REVOLUTIONIZING GENETIC ENGINEERING	Sadiqa Mubeen Imama Bader Muzammil Tasneem Tahir Younas	Saint Mary's College Gujranwala PAKISTAN

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24.08.2024 / Session-2, Hall-1

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Aziz İlGAZİ

Title	Author(s)	Affiliation
PROPERTIES OF TAMARIND SEED AND ITS USE IN FOOD INDUSTRY	Sara ELORABİ Prof. Dr. İlkay KOCA	Ondokuz Mayıs University TÜRKİYE
PECTIN AS A PROBIOTIC	Sara ELORABİ Prof. Dr. İlkay KOCA	Ondokuz Mayıs University TÜRKİYE
ASSESSMENT OF THE MICROBIOLOGICAL HYGIENIC QUALITY OF TRADITIONAL STREET FOOD STUFFED MUSSELS FROM A PUBLIC HEALTH PERSPECTIVE	Assist. Prof. Dr. Cemil ŞAHİNER Elif ÖZKAN Assist. Prof. Dr. Pelin KOÇAK KIZANLIK Prof. Dr. Ergün ÖMER GÖKSOY	Aydın Adnan Menderes University TÜRKİYE
META-ANALYSIS ON FOOD SUPPLEMENT USAGE HABITS OF HEALTHCARE PROFESSIONALS	Mustafa Enes TEKE Prof. Dr. Figen ÇETİNKAYA Assoc. Prof. Dr. Tülay ELAL MUŞ	Bursa Uludağ University TÜRKİYE
EDIBLE ORCHIDS: SALEP	Hakan ÇAĞLAYAN Prof. Dr. İlkay KOCA	Ondokuz Mayıs University TÜRKİYE
KEFIRAN: FORMATION, PRODUCTION, AND HEALTH EFFECTS	Hakan ÇAĞLAYAN Prof. Dr. İlkay KOCA	Ondokuz Mayıs University TÜRKİYE
A VALUABLE WASTE: CHESTNUT FLOWER	Beyza KABA Prof. Dr. İlkay KOCA	Ondokuz Mayıs University TÜRKİYE
USE OF HYDROPHOBIC DEEP EUTECTIC SOLVENTS IN EXTRACTION OF BIOACTIVE COMPOUNDS	Beyza KABA Prof. Dr. İlkay KOCA	Ondokuz Mayıs University TÜRKİYE

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24.08.2024 / Session-2, Hall-2

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Fatma ERGÜN

Title	Author(s)	Affiliation
THE ROLE OF BACTERIOPHAGES IN BIOTECHNOLOGICAL DRUG DELIVERY SYSTEMS	Dr. Mustafa ÜSTÜNDAĞ	Van Yüzüncü Yıl University TÜRKİYE
EFFECT OF METABOLITES PRODUCED FROM BIFIDOBACTERIUM LONGUM AGAINST STAPHYLOCOCCUS AUREUS AND ESCHERICHIA COLI	Yalda SHATERİAN Kamil Serkan UZYOL	İstanbul Nişantaşı University TÜRKİYE
EXPLORING BACTERIAL RHIZOSPHERE COMMUNITIES USING AMPLICON-BASED ASSESSMENT	Assist. Prof. Dr. Melike ÇEBİ KILIÇOĞLU	Ondokuz Mayıs University TÜRKİYE
SURFACE MODIFICATION OF IMPLANT MATERIALS USING COATING METHODS	Hümeyra Berfin İLİM Assist. Prof. Dr. Şakir ALTINSOY Assoc. Prof. Dr. Kadriye KIZILBEY	İstanbul Yeni Yüzyıl University TÜRKİYE İstanbul Yeni Yüzyıl University TÜRKİYE Acıbadem University TÜRKİYE
PRODUCTION AND CHARACTERIZATION OF METALLIC NANOPARTICLES FOR USE IN IMPLANT APPLICATIONS	Hümeyra Berfin İLİM Assist. Prof. Dr. Şakir ALTINSOY Assoc. Prof. Dr. Kadriye KIZILBEY	İstanbul Yeni Yüzyıl University TÜRKİYE İstanbul Yeni Yüzyıl University TÜRKİYE Acıbadem University TÜRKİYE
EFFECTS OF UVB-PRIMING ON EARLY SEEDLING DEVELOPMENT AT TOMATO UNDER DROUGHT STRESS	Hacer BOZKURT Prof. Dr. Bengu TÜRKYILMAZ ÜNAL	Niğde Ömer Halisdemir University TÜRKİYE
EFFECTS OF NANOPARTICLES ON BIOTIC STRESS	Şükrü Nedim BEYOĞLU Prof. Dr. Bengu TÜRKYILMAZ ÜNAL	Niğde Ömer Halisdemir University TÜRKİYE
DETERMINATION OF ANTIOXIDANT CAPACITIES OF FRAGRANT BASIL (OCIMUM BASILICUM ODORATUM)	Assoc. Prof. Dr. Fatma ERGÜN	Kırşehir Ahi Evran University TÜRKİYE

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24.08.2024 / Session-2, Hall-3

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assist. Prof. Dr. Pınar ÇETİNALP

Title	Author(s)	Affiliation
SOME PROPERTIES AND THE SEM IMAGE OF THE MARDIN MAZIDAĞI APATITE MINERAL	Emrah RAMAZANOĞLU	Harran University TÜRKİYE
EFFECTS OF DIFFERENT FOLIAR PHOSPHORUS FERTILIZATION RATES ON GROWTH PARAMETERS OF CORN (ZEA MAYS L.) AND SOIL ALKALINE PHOSPHATASE ENZYME ACTIVITY	Emrah RAMAZANOĞLU	Harran University TÜRKİYE
THE ANTI-CANCER EFFECT OF A NEWLY SYNTHESIZED CHALCONE DERIVATIVE ON BREAST CANCER CELLS (MCF-7): AN IN SILICO INVESTIGATION	Bahri GÜR Alpaslan BAYRAKDAR Mustafa CENGİZ	Iğdır University TÜRKİYE Iğdır University TÜRKİYE Siirt University TÜRKİYE
INVESTIGATION OF THE LDHA ENZYME INHIBITION POTENTIAL OF SOME SESQUITERPENE LACTONES BY MOLECULAR DOCKING	Ümit YIRTICI	Kırıkkale University TÜRKİYE
CHEMICAL COMPOSITION AND THERAPEUTIC POTENTIAL OF *RHODODENDRON LUTEUM*	Dr. Adem DEMİR	Recep Tayyip Erdoğan University TÜRKİYE
ANTICARCINOGENIC EFFECT OF FUERTE AND BACON AVACADO TYPES ON A549 LUNG CANCER CELLS	Assist. Prof. Dr. Pınar ÇETİNALP	Demiroglu Bilim University TÜRKİYE
EVALUATING THE DRUG POTENTIAL OF THE NATURAL AGENT GINSENOSIDES FOR THE TREATMENT OF BARD1-RELATED BREAST CANCER USING A MOLECULAR MODELING APPROACH	Nil SAZLI Assist. Prof. Dr. Deniz KARATAŞ	Manisa Celal Bayar University TÜRKİYE
DIFFERENTIAL DIAGNOSIS OF LESIONS IN PATIENTS WITH PET / CT FOR ONCOLOGICAL PURPOSES USING XGB AND LGBM MACHINE LEARNING ALGORITHMS	Lect. Aykut HASBEK Prof. Dr. Mehtap ERŞAN Assist. Prof. Dr. Emre GÖRGÜN	Sivas Cumhuriyet University TÜRKİYE

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24.08.2024 / Session-2, Hall-4

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Dr. Laila AFIA

Title	Author(s)	Affiliation
IMPACT OF MOLYBDENUM RATES AND APPLICATION METHODS TO GROWTH AND YIELD OF AUTUMN PLANTED SOYBEAN	Muhammad Adil Haroon Zaman Khan Anjum Naeem M.Farrukh Saleem Muhammad Naveed Asif Iqbal M.Ashfaq Wahid Eisha Habib Binish Ali	Agriculture University PAKISTAN
AVOCADO IN THE MEDITERRANEAN: FUNGAL CHALLENGES AND GLOBAL MANAGEMENT STRATEGIES	AIT BADDOU Sanae BENZAHRA Hayat MRABTI Imane GRIJJA Hassan BENKIRANE Rachid AFECHTAL Mohamed SMAILI Moulay Chrif	Ibn Toufail University MOROCCO Regional Center for Agricultural Research of Kenitra MOROCCO
PHYTOCHEMICAL STUDIES AND GC-MS ANALYSIS OF THE STEM BARK EXTRACTS OF Boswellia Dalzielii (Frankincense Tree)	Malah, M. A. Tela, H. A.	Yobe State University NIGERIA
REVIEW OF PREDATORY THRIPS (AEOLOTHRIPIDAE: AEOLOTHRIPS, FRANKLINOTHRIPS) ASSOCIATED WITH CITRUS CROPS IN MEDITERRANEAN REGION	BENZAHRA Hayat AIT BADDOU Sanae MRABTI Imane GRIJJA Hassan SELMAOUI Karima AFECHTAL Mohamed SMAILI Moulay Chrif	Ibn Toufail University MOROCCO Regional Center for Agricultural Research of Kenitra MOROCCO
OPTIMIZATION OF ANAEROBIC DIGESTION OF OLIVE POMACE WITHOUT PRETREATMENT USING A BOX-BEHNKEN DESIGN	Maya Ouissem Bouznada Amel Khalfaoui Kerroum Derbal	Constantine 3 University ALGERIA Laboratory of Process engineering for sustainable development and health products (GPDDPS) ALGERIA
TLC AND GCMS ANALYSES OF BLUE WHALE (BALAENOPTERA MUSCULUS) BLUBBER	Shumaila Naz	Karachi University PAKISTAN
MOLECULAR GENOTYPING OF ANOPHELES MOSQUITOES IN ILORIN, KWARA STATE, NIGERIA	Tawa Omolade Olusegun Zulu Olalekan Ibrahim Daniel Okwuchukwu Onovo Priscillia Imuetinyan Osayi Hannah Harris Ikani Aderewa Oluwatomilayo Anlemi Adepeju Hannah Adegoke	Ilorin University NIGERIA
INVESTIGATING LINSEED OIL AS AN ECO-FRIENDLY CORROSION INHIBITOR FOR C38 STEEL	Prof. Dr. Laila AFIA Prof. Dr. Rachid SALGHI	Ibn Zohr University MOROCCO
ENCAPSULATION OF ROSEMARY AND GINGER OILS IN SIMPLE HONEY VEGETABLE OIL EMULSION	Paul Makoji Ikeleji Dr. Tyowua A. T.	Benue State University NIGERIA

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24.08.2024 / Session-2, Hall-5

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Lect. Dr. Gülsüm ŞİMŞEK

Title	Author(s)	Affiliation
SURVEY ON OLIVE POMACE PRODUCTION FROM OLIVE OIL INDUSTRY MILLS AND PHYSICOCHEMICAL CHARACTERIZATION	Adil ROUKBANI Khaoula FAIZ Chaymae GHAFFOULI Bouchra LOUASTÉ	Sidi Mohammed Ben Abedllah University MOROCCO
MOLECULAR VARIABILITY ASSOCIATED TO TRANSPOSABLE ELEMENTS IN BOTRYTIS CINEREA ISOLATES INFECTING STRAWBERRIES IN MOROCCO	Soukaina HAMMOUMI Fatiha BENTATA Najiba BRHADDA Houda KHALIFI Sanae KARIM Rabea ZIRI Mustapha LABHILILI	Ibn Tofail University MOROCCO National Institute of Agricultural Research (INRA) MOROCCO
REGIONAL VARIATIONS IN THE MOLECULAR COMPOSITION OF ROSIN EXTRACT FROM PINE TREES	Joao Matias Anabela P. Massano Marc Malfois Patricio Vargas Pedro Carreira Geoffrey Mitchell	Centre for Rapid and Sustainable Product Development PORTUGAL NCD-SWEET beamline, Alba Synchrotron Light Source, Cerdanyola del Vallès SPAIN
COMBINED NATURAL FLOTATION AND CHEMICAL PRECIPITATION FOR THE TREATMENT OF INDUSTRIAL WASTEWATER	Oussama Hartal Safaa Khattabi Rifi Amina Khalidi Idrissi Mohamed Chatoui Doha Boumalik Salah Souabi Abdelaziz Madinzi	Hassan II University MOROCCO
NEW ORGANIC/INORGANIC HYBRID MATERIAL FOR THE DEPOLLUTION OF WASTEWATER	ADDOU Hadjer MEGHERBI Radja BOUHELLA Fadhila KARMAOUI Mohamed ADJIM Hayat	ABOU BAKER BELKAID Tlemcen university ALGERIA
GREEN SYNTHESIS AND CHARACTERIZATION OF MN OXIDE NANOPARTICLES FROM CORN HUSK FOR EFFECTIVE ENVIRONMENTAL REMEDIATION	N Anusuya V S Angulakshmi Kalaiselvan	P.S.G.R. Krishnammal College for Women INDIA
AGRO-MORPHOLOGICAL CHARACTERIZATION OF ADAPTIVE ABILITY OF FOUR PLUM VARIETIES UNDER TWO CLIMATE ENVIRONMENTS	Anas Hamdani Said Bouda Atman Adiba Jamal Charafi	Sultan Moulay Slimane University MOROCCO National Institute of Agricultural Research (INRA) MOROCCO
UTILIZATION OF INORGANIC PHOSPHATE BY PHOSPHATE SOLUBILIZING FUNGI IN THE SOIL	Emmanuel Oluwatobi Moses Prof. I.O Sule Oluwatomi Jeremiah Dada Semilore Agboluaje Oloruntobi Temitope Abe	Ilorin University NIGERIA
IMPACT OF PLANT-PARASITIC NEMATODES ON AGRICULTURE OF THE REPUBLIC OF KARAKALPAKSTAN	Kholisa Eshova Dilafruza Yagmurova	National University UZBEKISTAN

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24.08.2024 / Session-2, Hall-6

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Jitender Kumar

Title	Author(s)	Affiliation
MAINTENANCE MANAGEMENT IN THE INDUSTRY 4.0 ERA: A LITERATURE REVIEW AND FUTURE TRENDS	Azeddine BOULOUF Abdelfettah SEDQUI Youness CHATER	Abdelmalek Essaadi University MOROCCO
PROMOTING INCLUSIVE GROWTH: ADDRESSING SOCIO-ECONOMIC DISPARITIES ON THE JOURNEY TO A SUSTAINABLE ECONOMY	PARNIKA AGARWAL	Deemed University INDIA
E-COMMERCE EXPANDS THE SCOPE OF ENTREPRENEURSHIP	Dr. Jitender Kumar Shivangi	Maharshi Dayanand University INDIA
A ROUTE TO DELIVERING BIOMIMICRY THROUGH ADDITIVE MANUFACTURING	Joao Matias Anabela P. Massano Geoffrey R. Mitchell	Centre for Rapid and Sustainable Product Development, Polytechnic of Leiria PORTUGAL Visionary Equation lda, Marinha Grande PORTUGAL
FEATURES OF MARKETING PROMOTION AND FINANCING OF STARTUPS	Ihor Ponomarenko Serhii Lubkovskyi	State University of Trade and Economics UKRAINE Kyiv National Economic University named after Vadym Hetman UKRAINE
DETERMINANTS OF FINANCIAL DISTRESSED COMPANIES: EVIDENCE FROM INDUSTRIAL GOODS FIRMS IN NIGERIA	ORJINTA, IFEOMA HOPE DIM, AMAKA VICTORIA UDOEZIKA, DAVID	Chukwuemeka Odumegwu Ojukwu University NIGERIA Nıger University NIGERIA
COST OPTIMIZATION PROJECTS AND ECOLOGICAL MODELING USING INTEGER LINEAR PROGRAMMING: A SURVEY	Divya Khanna Kripa Kathuria Rashmi Verma	Delhi University INDIA
HEMOSYNC: REVOLUTIONIZING BLOOD BANK OPERATIONS	Mohana Radhai G Pradeepa T R Shivani	R.M.K Engineering College INDIA
IMPACT OF WORLD BANK ASSISTED INTERVENTION PROJECTS ON THE ECONOMIC DEVELOPMENT OF COMMUNITIES IN IMO STATE, NIGERIA	UKAEGBU, JUDE UKANWANNE	Federal College of Education NIGERIA

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24.08.2024 / Session-3, Hall-1

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Muhammet Serhat ÖZASLAN

Title	Author(s)	Affiliation
ANTIOXIDANT ENZYME ACTIVITY AND OXIDATIVE STRESS LEVELS IN SOME FRESH TROPICAL FRUITS GROWN IN TURKEY: A COMPARATIVE STUDY	Assist. Prof. Dr. Figen GÜZELGÜL Prof. Dr. Ergul Belge KURUTAŞ	Tokat Gaziosmanpaşa University TÜRKİYE Kahramanmaraş Sütçü İmam University TÜRKİYE
BIOACCUMULATION OF HEAVY METALS IN MACROALGAE ALONG THE MERSIN COAST, NORTHEASTERN MEDITERRANEAN SEA	İsmail AKÇAY Özgür ÖZBAY	Mersin University TÜRKİYE
VARIATIONS OF HEAVY METAL CONCENTRATIONS IN SURFACE SEDIMENTS OF THE AKYATAN LAGOON, NORTHEASTERN MEDITERRANEAN SEA	İsmail AKÇAY	Mersin University TÜRKİYE
IN VITRO EFFECT OF ACETYLCYSTEINE COMPOUND ON GLUTATHIONE S-TRANSFERASE ENZYME ACTIVITY	Assoc. Prof. Dr. Muhammet Serhat ÖZASLAN	Ardahan University TÜRKİYE
SYNTHESIS OF 3-ARYL GLUTARIC ACIDS USED IN THE SYNTHESIS OF BIOACTIVE COMPOUNDS BY A NEW AND PRACTICAL METHOD	Furgan ASLANOĞLU	Van Yüzüncü Yıl University TÜRKİYE
ADSORPTION ISOTHERM STUDIES FOR A PROCESS USING HYDROCHLORIC ACID-TREATED KIWI PEEL	Assist. Prof. Dr. Sahra DANDIL	Bilecik Şeyh Edebali University TÜRKİYE
INVESTIGATION OF ANTI-HIV ACTIVITY OF THIOPHENYTOIN DERIVATIVES AS REVERSE TRANSCRIPTASE INHIBITORS BY MOLECULAR DOCKING STUDY	Assoc. Prof. Dr. Mustafa CENGİZ Assoc. Prof. Dr. Alpaslan BAYRAKDAR	Siirt University TÜRKİYE Iğdır University TÜRKİYE

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24.08.2024 / Session-3, Hall-2

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Serap TİTİZ YURDAKAL

Title	Author(s)	Affiliation
THE RELATIONSHIP BETWEEN INTERNET DECISION-MAKING AND HEALTHY LIFE BEHAVIORS IN RISK PREGNANT WOMEN	Sema TURGU Serap Öztürk ALTINAYAK Esra GÜMÜŞ	Ondokuz Mayıs University TÜRKİYE
EXPERIENCE PREGNANCY AND BIRTH WITH MY AVATAR IN THE VIRTUAL WORLD: A REVIEW STUDY	Res. Assist. Sema AKER Assoc. Prof. Dr. Yasemin AYDIN KARTAL Res. Assist. Aleyna BULUT Res. Assist. Büşra HIZLIOL	Health Sciences University TÜRKİYE
ASSISTANCY ROBOTIC SYSTEMS IN MIDWIFERY PRACTICES: A REVIEW STUDY	Res. Assist. Sema AKER Assoc. Prof. Dr. Yasemin AYDIN KARTAL Res. Assist. Aleyna BULUT Res. Assist. Büşra HIZLIOL	Health Sciences University TÜRKİYE
COMPLEMENTARY AND ALTERNATIVE TREATMENTS (CAM) IN GYNECOLOGICAL CANCERS	Assoc. Prof. Dr. Demet AKTAŞ Assist. Prof. Dr. Nilay GÖKBULUT	Çankırı Karatekin University TÜRKİYE
THORACIC EPIDURAL ANAESTHESIA EXPERIENCE IN A GERIATRIC PATIENT UNDERGOING CHOLECYSTECTOMY: CASE REPORT	Exp. Dr. Yasir İLYAS	Trabzon Fatih State Hospital Trabzon TÜRKİYE
CORROSION BEHAVIOUR OF COPPER-NICKEL-TITANIUM, NICKEL- TITANIUM AND STAINLESS STEEL ARCHWIRES IN THE PRESENCE OF STREPTOCOCCUS MUTANS CORRESPONDING TO A HIGH RISK OF DENTAL CARIES: IN VITRO STUDY	Assoc. Prof. Dr. Serap TİTİZ YURDAKAL	Dokuz Eylül University TÜRKİYE
INCIDENTAL PELVIC PATHOLOGIES DETECTED ON LUMBAR MAGNETIC RESONANCE IMAGING	Assist. Prof. Dr. Mustafa YILDIRIM	Fırat University TÜRKİYE
INVESTIGATION OF NEURAL CORRELATES OF COGNITIVELY HEALTHY AGING	Pınar DEMİRAYAK	University of Alabama at Birmingham USA

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24.08.2024 / Session-3, Hall-3

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assist. Prof. Dr. Faruk GÜVEN

Title	Author(s)	Affiliation
THE COMPARISON OF BODY MASS INDEX, WAIST CIRCUMFERENCE AND METABOLIC VARIABLES ACCORDING TO ACANTHOSIS NIGRICANS IN UNIVERSITY STUDENTS: A PILOT STUDY	Ali CEYLAN Assoc. Prof. Dr. Ertuğrul DEMİRDEL	Karamanoğlu Mehmetbey University TÜRKİYE Ankara Yıldırım Beyazıt University TÜRKİYE
THE RELATIONSHIP BETWEEN BODY COMPOSITION AND PHYSICAL ACTIVITY LEVEL WITH TYPE 2 DIABETES RISK IN EMERGING ADULTS: A PILOT STUDY	Ali CEYLAN Assoc. Prof. Dr. Ertuğrul DEMİRDEL	Karamanoğlu Mehmetbey University TÜRKİYE Ankara Yıldırım Beyazıt University TÜRKİYE
COMPARISON OF RESPIRATORY FUNCTIONS OF WORKERS USING ELECTROSTATIC POWDER PAINT AND WORKERS USING LIQUID PAINT	Kevser Göksu BAŞARICI Elif Gökçe ÖZTÜRK Yunus Emre ÇAMLICA Assist. Prof. Dr. Murat Ali ÇINAR Prof. Dr. Yavuz YAKUT	Hasan Kalyoncu University TÜRKİYE
MULTI-SPEAKER RECOGNITION USING CONVOLUTIONAL NEURAL NETWORKS (ConNNs)	Erkin ABUZARLI Yaşar BECERİKLİ Fulya AKDENİZ Burcu Kır SAVAŞ	Kocaeli University TÜRKİYE
THE RELATIONSHIP BETWEEN EXERCISE ADDICTION AND BODY PERCEPTION IN SEDENTARY INDIVIDUALS	Hamza ATAY Assist. Prof. Dr. Faruk GÜVEN	Karamanoğlu Mehmetbey University TÜRKİYE
EXAMINATION OF PHYSICAL ACTIVITY LEVELS OF ADMINISTRATIVE STAFF IN TERMS OF SOME VARIABLES	Mete AKDERE Assist. Prof. Dr. Faruk GÜVEN	Karamanoğlu Mehmetbey University TÜRKİYE
DETECTION OF AUDIO DELETION FORGERY USING CONVOLUTIONAL NEURAL NETWORKS (ConNNs)	Erkin ABUZARLI Yaşar BECERİKLİ	Kocaeli University TÜRKİYE
PHYSICAL ACTIVITY LEVEL AND EXERCISE BARRIERS IN ADOLESCENTS IN COVID-19 PANDEMIC	Res. Assist. Emine Kübra AY Assoc. Prof. Dr. Ertuğrul DEMİRDEL	Ankara Yıldırım Beyazıt University TÜRKİYE
THE EFFECT OF PHYSIOTHERAPY AND REHABILITATION INTERVENTION IN PECTUS EXCAVATUM DEFORMITY: A CASE REPORT	Prof. Dr. Erdoğan KAVLAK Ayşe AYGÜN	Pamukkale University TÜRKİYE

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24.08.2024 / Session-3, Hall-4

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. MOKHTARI Imane

Title	Author(s)	Affiliation
LIPID METABOLISM REGULATION BY BASIL POLYPHENOLS VIA INCREASING FECAL AND BILLIARY CHOLESTEROL ELIMINATION IN MICE	Dr. MOKHTARI Imane Prof. Dr. HARNAFI Hicham	Mohamed first University MOROCCO
WASTEWATER TREATMENT AND DEVELOPMENT, MILA PROVINCE, EASTERN ALGERIA	BELALITE Halima ATHAMENA Ali ATHAMENA Malika	Center of Mila University ALGERIA Batna 2 University ALGERIA Batna 2 University ALGERIA
EVALUATION OF MARGINAL ADAPTATION AND FRACTURE RESISTANCE IN ENDO-CROWNS MADE OF ZIRCONIA AND LITHIUM DISILICATE	E. Maccari C. Bramucci R. Abbagnale A. Zanza R. Reda L. Testarelli D. Di Nardo	Sapienza University ITALY
ARCHITECTURE AND SEDIMENTARY EVOLUTION OF THE CARBONATE PLATFORM (TIGHZA AREA, MARRAKECH HIGH ATLAS) DURING THE EARLY JURASSIC	Maryam Errami Ahmed Algouti Saloua Agli Jaouad Aadaj Abdennacer Elmyr	Cadi Ayyad University MOROCCO
IN VITRO CHARACTERIZATION ON THE ANTI–DIABETIC PROPERTIES OF CRUDE EXTRACT AND FRACTIONS OF MORMODICA BALSAMINA LEAVES	Umeakuana, Chidinma Doris Leh-Togi Zobeashia Stella Suanu	National Biotechnology Research and Development Agency, Abuja NIGERIA
ASSESSMENT OF MICROBIAL COMMUNITY IN ANAEROBIC DIGESTION OF POULTRY WASTES FOR BIOENERGY PRODUCTION	Leh-Togi Zobeashia S. Stella Umeakuana D. Chidinma Ogbu C. Lovina Madu M. Josephine	Food and Industrial Biotechnology Department, National Biotechnology Research and Development Agency NIGERIA
HYPOGLYCEMIC ASSESSMENT OF AQUEOUS LEAF EXTRACT OF MORINGA OLEIFERA ON DIABETIC WISTAR RATS	Solomon Matthias Gamde Egbujo Ejike Amina James O Adisa	Bingham University NIGERIA Jos University NIGERIA Jos University NIGERIA
EMERGINGING POLLUTANTS OF ENVIRONMENTAL CONCERNS	Sochi Otisi Anaga Obianuju Patience Ilo Alfred Kalu Funke Mary Olabanji Ezemba Onyekachi Blessing	Department of Environmental Biotechnology and Bioconservation, National Biotechnology Development Agency Abuja NIGERIA
SUSTAINABLE TECHNOLOGY FOR EFFECTIVE WASTEWATER MANAGEMENT: A REVIEW ARTICLE	Sochi Otisi Anaga Yvonne Adaobi Onmonya	Department of Environmental Biotechnology and Bioconservation, National Biotechnology Development Agency Abuja NIGERIA
CHARACTERIZATION OF ELECTROCHEMICALLY SYNTHETIZED BI DOPED ZnO NANORODS	O. Haddad A. Ait Hssi A. Soussi N. Labchir K. Abouabassi R. Markazi A. Elfanaoui A. Ihlal	Ibn Zohr University MOROCCO Grenoble Alpes University FRANCE

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24.08.2024 / Session-3, Hall-5

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Fasiha Kashif

Title	Author(s)	Affiliation
ELECTROCATALYTIC WATER SPLITTING FOR HYDROGEN PRODUCTION USING COMPOSITE METAL OXIDE CATALYSTS	Fasiha Kashif Dr. Muhammad Yasin Naz Dr. Shazia Shukrullah	Agriculture University PAKISTAN
PERFORMANCE EVALUATION OF RECYCLED CONCRETE AGGREGATE INCORPORATION OF SILICA FUME AND NATURAL POZZOLAN	Fatiha Abba Karim Ezziane M'hamed Adjoudj	Hassiba Benbouali University ALGERIA
MICROBIOLOGICAL CHARACTERIZATION AND ANTIMICROBIAL POTENTIAL OF OLIVE MILL WASTEWATER	Khaoula FAIZ Chaymae GHAFFOULI Adil ROUKBANI Mohammed BENLMLIH Bouchra LOUASTÉ	Sidi Mohammed Ben Abedllah University MOROCCO
EVALUATING RAW, CARBONIZED, AND COATED CARROT PEELINGS AS BIOSORBENTS FOR EFFECTIVE DYE REMOVAL IN WASTEWATER TREATMENT	Meryem BOUNAAS Ahmed BARECHE Oualaa Yasser FAREH	National Polytechnic School of Constantine ALGERIA
EFFECTS OF SALT STRESS ON GERMINATION OF ERUCA SATIVA: EFFETS DU STRESS SALIN SUR LA GERMINATION D'ERUCA SATIVA	Fatima zahra Hafid Amina En-nsiri Nouhaila EL Khayat Khadija Manhou Driss Hmouni	Ibn Tofail University MOROCCO
IN VITRO AND IN SILICO ANTIBACTERIAL ACTIVITY OF TRICHODERMA HARZIANUM AGAINST STAPHYLOCOCCUS AUREUS	Mubasher Khan Abdul Rehman Muhammad Anees	Kohat University of Science and Technology PAKISTAN
IN-VITRO ANTIBACTERIAL ACTIVITY OF HERBAL EXTRACT OF TULSI (OCIMUM SANCTUM) AGAINST CLINICALLY ISOLATED OF METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS FROM DISTRICT KOHAT	Nazish Manzoor Muhammad Qasim Saeed Khan	Kohat University of Science and Technology PAKISTAN
AB INITIO INVESTIGATION OF THE ELECTRONIC STRUCTURE AND OPTICAL CHARACTERISTICS OF RUTILE TiO2 DOPED WITH PHOSPHOROUS	T. O. Daniel J.E. Ekpe J.U. Arikpo K.O. Elebute	Alex Ekwueme Federal University NIGERIA
USING BIOLOGICALLY SYNTHESIZED TiO2 NANOPARTICLES AS POTENTIAL REMEDY AGAINST MULTIPLE DRUG RESISTANT STAPHYLOCOCCUS AUREUS OF BOVINE MASTITIS	Anwar Ul-Hamid Nadeem Baig Ali Haider Abbas S. Hakeem Muhammad Ikram	King Fahd University of Petroleum and Minerals SAUDI ARABIA Government College University PAKISTAN

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24.08.2024 / Session-3, Hall-6

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Dr. Laila AFIA

Title	Author(s)	Affiliation
EFFECT OF THE ESSENTIAL OIL OF ARTEMISIA HERBA ALBA ON THE HATCHING POTENTIAL OF MELOIDOGYNE INCOGNITA	MEZERKET Amina	Laboratoire d'ethnobotanique et de substances naturelles. Ecole Normale Supérieure ALGERIA
ELECTROCHEMICAL ANALYSIS OF 2-(2 PYRIDYL) BENZIMIDAZOLE AS A CORROSION INHIBITOR FOR C38 STEEL IN HYDROCHLORIC ACID SOLUTION	Prof. Dr. Laila AFIA Prof. Dr. Rachid SALGHI	Ibn Zohr University MOROCCO
TOTAL PHENOLIC CONTENT, ANTIOXIDANT PROPERTY, AND ALPHA GLUCOSIDASE INHIBITION OF METHANOLIC EXTRACT OF PECHAY (Brassica rapa L. ssp. chinensis L. cv. Black behi) LEAVES	Jose Romeo LAGON	Czech University of Life Sciences CZECHIA
UTILIZATION OF GROUNDNUT SHELL WASTE FOR PRODUCTION OF WATER RESISTANT PARTICLE BOARD	Azeez Moyosore Oladele Dr. I.K Ayinla Hammed Monsuru Zainab Aderonke	Ilorin University NIGERIA
VALORIZATION OF COCOA POD HUSK TO PRODUCE CARBOXYMETHYLCELLULOSE	Andrea Cevallos Carlos Bengoechea Y José Manuel Aguilar	Sevilla University SPAIN
ELECTROCHEMICAL STUDY AND PERFORMANCE OF MATERIALS THAT CAN BE USED IN AQUEOUS ELECTROCHEMICAL BATTERIES	Youssef Moukhless Elmahjoub Laouini Samir Qourzal Youssef Ait albrimi Rachid Ait Akbour Ali Assabbane	Ibn Zohr University MOROCCO
EFFECTS OF NI DOPING ON STRUCTURAL, MICROSTRUCTURAL, AND OPTICAL PROPERTIES OF TIN OXIDE FILMS VIA PSP METHOD	Sabrina Roguai Abdelkader Djelloul	Abbes Laghrour University ALGERIA
RAPID ASSESSMENT OF PHYTOTOXIC EFFECTS OF BIOFUNGICIDES BASED ON CAMPHOR	Teodora Kukrić Renata Iličić Ferenc Bagi Boris Popović	Novi Sad University SERBIA
ACIDITY AND ALKALINITY LIMITS IN MIXING WATER FOR CEMENT MORTAR/PLAIN CONCRETE	Subhashish Dey	Seshadri Rao Gudlavalleru Engineering College INDIA

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25.08.2024 / Session-1, Hall-1

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Dr. Şenay SEZGİN NARTGÜN

Title	Author(s)	Affiliation
RELATIONSHIP BETWEEN TEACHERS' PERCEPTIONS OF EQUALITY AND THEIR ATTITUDES TOWARDS PROFESSIONAL COOPERATION	Prof. Dr. Şenay SEZGİN NARTGÜN Şerife AŞIK Prof. Dr. Zekeriya NARTGÜN	Bolu Abant İzzet Baysal University TÜRKİYE
DETERMINATION OF FIRST AID KNOWLEDGE LEVEL AND SELF-EFFICACY BELIEFS OF FACULTY OF EDUCATION STUDENTS	Yağmur Suzan SÖNMEZ	Girne American University TURKISH REPUBLIC OF NORTHERN CYPRUS
ROLE OF EDUCATION IN PERSONALITY DEVELOPMENT	Əsmət İdris qızı İsmayılxanova	Azerbaijan State Pedagogical University AZERBAIJAN
MODULAR EDUCATIONAL TECHNOLOGY-AS AN EFFECTIVE MEANS OF DESIGNING AND CHANGING THE EDUCATIONAL ENVIRONMENT	Aliyeva Maralxanim Tofig gizi	Azerbaijan State Pedagogical University AZERBAIJAN
BARRIERS FACED BY PRIMARY SCHOOL TEACHERS IN THE IMPLEMENTATION OF STEM EDUCATION	Aleyna MURAL Assoc. Prof. Dr. Fatma KÖPRÜLÜ	Yakın Doğu University TURKISH REPUBLIC OF NORTHERN CYPRUS
ANIL BASILI'S BOOK "LİNÇ ÇIKMAZI" IS SUITABLE FOR CHILDREN EXAMINATION ACCORDING TO THE PRINCIPLE	Sıddıka GÜL Prof. Dr. Şerife AKPINAR	MEB, Turkish Teacher, Malatya TÜRKİYE Necmettin Erbakan University TÜRKİYE
CREATIVE DRAMA IN FOREIGN LANGUAGE TEACHING COURSEBOOKS	Elifnur ÇOLAK Prof. Dr. Başak UYSAL	Gazi University TÜRKİYE
INVESTIGATION OF THE EFFECT OF TEACHING SUPPORTED BY SCIENTIFIC COMMUNICATION SKILLS ACTIVITIES ON ACADEMIC ACHIEVEMENT AND HIGH- LEVEL THINKING OF 8TH GRADE STUDENTS	Elif BAYER Prof. Dr. Fatma ŞAHİN	Marmara University TÜRKİYE

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25.08.2024 / Session-1, Hall-2

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Dr. Şengül YALÇINKAYA

Title	Author(s)	Affiliation
EVALUATION OF EARTHQUAKE BEHAVIOUR OF HISTORIC ŞİRVANİ MOSQUE'S STONE MINARET	Muneeb JADALLAH Cem CİCOS Prof. Dr. Adem DOĞANGÜN	Bursa Uludağ University TÜRKİYE
PERFORMANCE AND TECHNO-ECONOMIC ANALYSIS OF HYBRID ENERGY SYSTEM TO IMPROVE EFFICIENCY AND TO REDUCE NET ZERO EMISSIONS OF SUSTAINABLE BUILDINGS	Mehmet Can ÖZTÜRK Dr. Bulut HÜNER	Osmaniye Korkut Ata University TÜRKİYE
A LITERATURE RESEARCH ON DETERMINING THE DYNAMIC PROPERTIES OF SOILS	Ömer Faruk GÜLER Assist. Prof. Dr. Mehmet İnanç ONUR Res. Assist. Halil Oğuzhan KARA	Eskişehir Technical University TÜRKİYE Eskişehir Technical University TÜRKİYE Kastamonu University TÜRKİYE
PERFORMANCE EVALUATION OF TENSION-ONLY BRACED STEEL STORAGE RACKING SYSTEMS	Burak Sait YILDIRIM Prof. Dr. Hakan Tacettin TÜRKER	Bursa Uludağ University TÜRKİYE
APPROACHES TO OCCUPATIONAL HEALTH AND SAFETY IN ARCHITECTURAL THESIS STUDIES IN TURKEY	Prof. Dr. Şengül YALÇINKAYA Barış YALÇINKAYA	Karadeniz Technical University TÜRKİYE Trabzon Provincial Health Directorate, Fatih State Hospital TÜRKİYE
EVALUATION OF NON-CONFORMITIES IN A TUNNEL BY L TYPE MATRIX METHOD	Assist. Prof. Dr. Demet DEMİR ŞAHİN Assist. Prof. Dr. Hasan EKER	Department of Mining and Mineral Extraction Technology, Mining Technology Program, Gümüşhane TÜRKİYE Karabük University TÜRKİYE
THEORETICAL DETERMINATION OF GAMMA RADIATION SHIELDING PERFORMANCES OF DIFFERENT CEMENT TYPES	Lect. Dr. Hasan POLAT Prof. Dr. Ferdi AKMAN	Bingöl University TÜRKİYE
AWARENESS LEVELS OF INTERIOR ARCHITECTURE STUDENTS REGARDING OCCUPATIONAL HEALTH AND SAFETY	Prof. Dr. Şengül YALÇINKAYA Barış YALÇINKAYA	Karadeniz Technical University TÜRKİYE Trabzon Provincial Health Directorate, Fatih State Hospital TÜRKİYE
DISCOURSE AND ARCHITECTURAL DESIGN	Ali Hazım GÜNVAR	Yeditepe University TÜRKİYE

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25.08.2024 / Session-1, Hall-3

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Remzi BAŞAR

Title	Author(s)	Affiliation
COOLING PERFORMANCE ANALYSIS OF HYBRID COOLER BLOCK USING PHASE CHANGE MATERIAL AND LIQUID COOLING IN COOLING LITHIUM ION BATTERIES	Sevgül GAMSIZ Muhsin KILIÇ	Bursa Uludağ University TÜRKİYE
OPTIMAL SOLUTION OF THE MULTI-FUEL COMBINED HEAT AND POWER ECONOMIC DISPATCH PROBLEM USING IMPROVED NEWTON-RAPHSON-BASED OPTIMIZER	Assist. Prof. Dr. Burçin ÖZKAYA	Bandırma Onyedi Eylül University TÜRKİYE
MOS-C IMPLEMENTATION OF SECOND ORDER QUADRATURE SINUSOIDAL OSCILLATOR EMPLOYING INVERTING SECOND GENERATION CURRENT CONVEYOR (ICCII)	Assist. Prof. Dr. Hasan ÇİÇEKLİ Assist. Prof. Dr. Ahmet GÖKÇEN	Hatay Mustafa Kemal University TÜRKİYE İskenderun Technical University TÜRKİYE
SOLVING REAL WORLD PROBLEMS WITH CURRENT METAHEURISTIC ALGORITHMS	Assoc. Prof. Dr. Salih Berkan AYDEMİR	Amasya University TÜRKİYE
BLOCKCHAIN BASED SMART AGRICULTURE PLATFORM	Habil Mevlüt SAYAR Emir Baran ÖZDEMİR Burak DUYGUN Assist. Prof. Dr. Emin BORANDAĞ	Manisa Celal Bayar University TÜRKİYE
CORPORATE INTRANET SYSTEMS: SUCCESSFUL EXAMPLES FROM THE WORLD AND TURKIYE	Assoc. Prof. Dr. Remzi BAŞAR	Düzce University TÜRKİYE
CLOUD COMPUTING USAGE IN EUROPEAN COUNTRIES AND TURKIYE IN THE LIGHT OF EUROSTAT AND TUIK DATA	Assoc. Prof. Dr. Remzi BAŞAR	Düzce University TÜRKİYE
MOBILE MEDICATION MONITORING AND INTERACTION ALERT SYSTEM (DOZaDOZ)	Assist. Prof. Dr. Kıyas KAYAALP Mukaddes KARABIYIK Tuba YILMAZ	Isparta University of Applied Sciences TÜRKİYE

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25.08.2024 / Session-1, Hall-4

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Tinatin Mshvidobadze

Title	Author(s)	Affiliation
APPLICATION OF 2.5 MEV PIXE ANALYTICAL TECHNIQUES TO COASTAL SEDIMENTS: INSIGHTS INTO ELEMENTAL COMPOSITION AND ENVIRONMENTAL IMPLICATIONS	V. N. AMADI	Federal University NIGERIA
ASSESSMENT OF THE JOINT USE OF FLY ASH AND MARBLE COARSE AGGREGATES ON CONCRETE PROPERTIES AND DURABILITY	Saloua FILALI Abdelkader NASSER	Mohammed Premier University MOROCCO
MODERN MICROPROCESSORS IN FACILITIES MANAGEMENT SYSTEMS	Tinatin Mshvidobadze	Gori State University GEORGIA
ASSESSMENT OF REAR EARTH ELEMENT POLLUTION IN MINING SOIL FROM POCOS DE CADAS, BRAZIL USING INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS (INAA)	Moses E. Onudibia	Federal University Wukari NIGERIA
FREE AND FORCED RABI OSCILLATIONS IN THE COUPLED SYSTEM OF SPIN TRANSITION AND CAVITY	Nathalie Fokina Maia Elizbarashvili	Georgian Technical University GEORGIA
MONTE CARLO SIMULATION FOR COMPARISON OF PARAMETRIC AND NON-PARAMETRIC ESTIMATION METHODS OF LONG MEMORY PARAMETER: AN ARFIMA MODEL APPROACH	Abdullahi, A. Jamilu Hussaini Babayemi, A. W. Gerald Ike Onwuka James Tolulope O	Kebbi State University of Science and Technology NIGERIA
USING PHOTOGRAMMETRY FOR DIGITAL DOCUMENTATION OF HERITAGE SITES AND OBJECTS IN JORDAN	Fatima Haroun	The Hashemite University JORDAN
INVESTIGATION OF THE IMPACT OF THE ORIENTATION OF AN EXTERNAL MAGNETIC FIELD APPLIED TO A SQUARE CAVITY FILLED WITH A THERMO-DEPENDENT NON-NEWTONIAN FLUID UNDER HORIZONTAL HEAT FLOW	Redouane Nouri Mourad Kaddiri	Sultan Moulay Slimane University MOROCCO
BIOCHAR FOR GREENER CONCRETE: A REVIEW OF CARBON SEQUESTRATION AND PERFORMANCE OF CONCRETE	Afan Tamboli Sourabh Patil Mayur Maske Savita Patil	Rajarambapu Institute of Technology INDIA

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25.08.2024 / Session-1, Hall-5

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Soumiya Nadar

Title	Author(s)	Affiliation
UNDERSTANDING API DEVELOPMENT AND HOW DJANGO DOES IT	ADZEMBEH Joshua Imoter	Joseph Sarwuan Tarka University Makurdi NIGERIA
MAPPING OF LANDSLIDE SUSCEPTIBILITY USING THE ANALYTIC HIERARCHY PROCESS AND THE FUZZY LOGIC APPROACH ALONG A SECTION OF THE EAST-WEST HIGHWAY (PK21-PK29)	Mira Filali El hadj El Habib Mohamed El Mahjoub Krama Mohamed Lemin	Khemis Miliana University ALGERIA
ENHANCEMENT OF ADSORPTION EFFICIENCY OF MANGANESE OXIDE THROUGH AMINO FUNCTIONALIZATION FOR HEXAVALENT CHROMIUM REMOVAL	Y. Slek A. Amarray M. Salmi Z. Zaroual S. Elghachtouli	Hassan II University MOROCCO
A QUALITATIVE SURVEY ON THE IMPACT OF IOT-BASED TECHNOLOGIES IN THE CONTROL AND CURE OF CHOLERA IN THE SOUTH-WEST REGION OF NIGERIA	Moses Adeolu AGOI Oluwanifemi Opeyemi AGOI Oluwadamilola Peace AGOI	Lagos State University NIGERIA Obafemi Awolowo University NIGERIA Federal University of Agriculture Abeokuta NIGERIA
HARNESSING AIR FOR ELECTRICITY: A REVIEW OF THE HUC ENZYME'S ROLE IN RENEWABLE ENERGY	Soumiya Nadar	Tbilisi State Medical University GEORGIA
AN ASSESSMENT OF PASSENGERS' PATRONAGE AND VIABILITY OF RAILWAY TRANSPORTATION SYSTEM IN NIGERIA	ADEYINKA, Ebenezer Olasupo	Department of Urban & Regional Planning NIGERIA
A POTENTIAL SOURCE OF VEGETABLE TANNIN FROM BANANA BUNCH AND STEM SYRUP FOR LEATHER PROCESSING	Khandoker Tahmina Tasnim Akash Debnath	Leather Research Institute, Bangladesh Council of Scientific and Industrial Research BANGLADESH
DESIGN AND CONSTRUCTION OF AN INTELLIGENT TRAFFIC LIGHT CONTROL	ALIDU, Paul John AMODU, Peter AMADI, Prudence	Joseph Sarwuan Tarka University NIGERIA
PIEZOELECTRIC ENERGY HARVESTING FROM THERMAL VIBRATIONS USING DOPED GRAPHENE-MXENE HETEROSTRUCTURE	Lijie Kou Muhammad Aniq Shazni Mohammad Haniff Chang Fu Dee Poh Choon Ooi	Kebangsaan University MALAYSIA Fuzhou Institute of Technology CHINA
DESIGN AND CONSTRUCTION OF A ROBOTIC ARM WITH FIVE DEGREES OF FREEDOM (5DOF)	ADZEMBEH Joshua Imoter ADOLE Helen AGBANKWE David Dooter	Joseph Sarwuan Tarka University Makurdi NIGERIA

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25.08.2024 / Session-1, Hall-6

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: EL GARDY Oumaima

Title	Author(s)	Affiliation
THE ROLE OF DRONES IN SUSTAINABLE FARMING: REDUCING CHEMICAL USAGE AND ENHANCING CROP SUSTAINABILITY	T. Suresh K. Jayakumar	New Prince Shri Bhavani College of Engineering and Technology INDIA Sri Sivasubramaniya Nadar (SSN) College of Engineering INDIA
PERFORMANCE OF TRI-DOPED GRAPHENE/Ti3CNTx MXENE INCORPORATED POLYVINYLIDENE FLUORIDE PIEZOELECTRIC NANOGENERATORS	Rawhan Haque Muhammad Aniq Shazni Mohammad Haniff Chang Fu Dee Poh Choon Ooi	Kebangsaan University MALAYSIA
UNCERTAINTY QUANTIFICATION IN THE FREE VIBRATION OF LOW-CURVATURE CYLINDRICAL SHELLS REINFORCED WITH SHORT NATURAL FIBERS	Zakia GUEZZEN Zakia HAMMOU Zouaoui SEREIR Aicha BOUSSOUFI Lahouaria ERROUANE	University of Science and Technology of Oran ALGERIA
FINITE ELEMENT MODELING OF RC BEAMS STRENGTHENED FOR FLEXURAL STRENGTH WITH EXTERNALLY BONDED FRP REINFORCEMENT	Kawthar Hamidi Farid Bouziadi Bensaid Boulekbache	Hassiba Benbouali University ALGERIA
DFT AND TD-DFT STUDY OF THE STABILITY AND EFFICIENCY OF TRIPHENYLAMINE COMPOUNDS FOR DYE-SENSITIZED SOLAR CELLS	Hanane Etabti Asmae Fitri Adil Touimi Benjelloun Mohammed Benzakour Mohammed Mcharfi	Sidi Mohamed Ben Abdellah University MOROCCO
ANALYSIS OF THE IMPACT OF GEOLOGICAL AND TOPOGRAPHICAL FACTORS ON VULNERABILITY TO LARGE LANDSLIDES: THE CASE OF AGADIR IDA OU-TANANE PROVINCE, MOROCCO	Fatima Machay Hajar El Talibi Said El Moussaoui	Abdelmalek Essaadi University MOROCCO
ADVANCED APPLICATIONS OF CARBON NANOSTRUCTURED MATERIALS FOR OPTICAL SENSORS, PHOTOCATALYSIS, AND WATER TREATMENT	Mr. Ikwe, Sekav Joshua	Joseph Sarwuan Tarkaa University NIGERIA
SOME GEOTECHNICAL CRITERIA FOR RELIABLE SUBSURFACE SITE INVESTIGATION	Bala Balarabe Andy Anderson Bery Umar Mahmood Adamu Abubakar	Ahmadu Bello University NIGERIA Federal University NIGERIA
ENHANCED ELECTRONIC AND MAGNETIC PROPERTIES OF CR AND MN DOPED GEC ZINC BLENDE	EL GARDY Oumaima	Mohammed V University MOROCCO

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25.08.2024 / Session-1, Hall-7

Ankara Local Time: 10:00 – 12:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Mah-ru-nisa Atif

Title	Author(s)	Affiliation
PSYCHOSOCIAL DETERMINANTS OF MENTAL HEALTH PROBLEMS IN ONLINE GAMERS	Mishal Khan Lodhi Muqaddas Ghafoor	Management and technology University PAKISTAN
STUDY OF EIMERIA INFECTION AND RELATED RISK FACTORS IN POULTRY AND RUMINANT ANIMALS ACROSS LOCAL GOVERNMENTS IN GWANDU EMIRATE	F.B. Kende D.Y. Kanya D.D. Attah I. Iliya LS. Sule	Kebbi State University of Science and Technology NIGERIA
A RETROSPECTIVE ANALYSIS OF MEDICATION ERRORS AMONG TYPE-II DIABETES DIAGNOSED PATIENTS WITH HYPERTENSION IN DHQ HOSPITAL KDA KOHAT	Naveed Ullah Sajid Hussain Fawad Ali Majeed Ullah	Kohat University of Science & Technology PAKISTAN
EMOTION AND PROBLEM BASED COPING OF CAREGIVERS IN AN ELDERLY CARE INSTITUTION	Rhenz Stephen A. Dela Serna Quennie Belle R. Coronado Treshia Jane C. Cala-or Louise Danielle P. Animas Roselle Anne A. Fernandez John Erwin P. Pedroso	West Visayas State University PHILIPPINES
INFLUENCE OF COMPULSIVE SOCIAL MEDIA USAGE ON PSYCHOLOGICAL WELL-BEING AND LIFE SATISFACTION OF COLLEGE STUDENTS	Hemalata Bhoi Dr. Rupashree Goswami	Gangadhar Meher University INDIA
IN-DEPTH ANALYSIS OF MATERNAL ANEMIA, ITS CAUSES AND IMPACT ON NEONATAL BIRTH WEIGHT LEADING TO POSTPARTUM COMPLICATIONS	Mah-ru-nisa Atif	Hajvery University PAKISTAN
MYOGLOBIN AND MYOSIN AS POTENTIAL BIOMARKERS OF EARLY-STAGE HEART FAILURE	Ogu Amoge Chidinma Nirmalan Niroshini	Salford University UNITED KINGDOM National Biotechnology Research and Development Agency NIGERIA

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25.08.2024 / Session-2, Hall-1

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Yusuf KARAKUŞ

Title	Author(s)	Affiliation
EXPLORING ECOTOURISM POTENTIAL IN SAMSUN: A PATHWAY TO SUSTAINABLE TOURISM	Hüseyin Ertan İNAN	Ondokuz Mayıs University TÜRKİYE
CARRYING CAPACITY DECISIONS WITHIN THE SCOPE OF DESTINATION LIFE CYCLE THEORY	Assoc. Prof. Dr. Yusuf KARAKUŞ	Recep Tayyip Erdoğan University TÜRKİYE
THE FUTURE OF MOLECULAR GASTRONOMY	Assist. Prof. Dr. Özcan BULANTEKİN Lect. Burak BAYRAK	Ağrı İbrahim Çeçen University TÜRKİYE
A REVIEW OF THE FUSION KITCHEN CONCEPT	Lect. Burak BAYRAK Assist. Prof. Dr. Özcan BULANTEKİN	Ağrı İbrahim Çeçen University TÜRKİYE
ANALYSIS OF FACTORS AFFECTING CONSUMER'S CONSUMPTION OF GEOGRAPHICALLY INDICATED CHEESE	Pınar KOŞAR Yeşim AYTOP	Kahramanmaraş Sütçü İmam University TÜRKİYE
THE ROLE OF DEMOGRAPHIC VARIABLES IN LOCAL FOOD CONSUMPTION VALUE	Assist. Prof. Dr. Gökhan ONAT	Recep Tayyip Erdoğan University TÜRKİYE
KOREAN CUISINE-TURKISH CUISINE FUSION CUISINE STUDIES: MAKING KIMCHI FROM KALE	Esra ŞAHİN Assist. Prof. Dr. Serpil YALIM KAYA	Independent Researcher TÜRKİYE Mersin University TÜRKİYE
THE RELATIONSHIP BETWEEN RURAL TOURISM AND RURAL DEVELOPMENT AND WELFARE: A THEORETICAL STUDY	Assist. Prof. Yusuf ÇUHADAR	Bilecik Şeyh Edebali University TÜRKİYE

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25.08.2024 / Session-2, Hall-2

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assist Prof. Dr. Recep BODUR

Title	Author(s)	Affiliation
TRACES OF THE EARLY REPUBLICAN ERA IN AİLE DOSTU MAGAZINE	Esra BOLAT	Yıldız Technical University TÜRKİYE
COMPOUND VERB GROUPS IN SULTAN VELED'S TURKISH POEMS	Dr. Hami AKMAN	Independent Researcher Van TÜRKİYE
WISDOM'S IN THE POEMS IN SEYFI SERÂYÎ'S KITÂB GULISTAN BI'T-TURKÎ (GULISTAN TRANSLATION)	Dr. Hami AKMAN	Independent Researcher Van TÜRKİYE
THE CALL FROM THE UNDERGROUND: HABITATION IN ŞATONUN ALTINDA	Burak URUCU	İstanbul University-Cerrahpaşa TÜRKİYE
SPECTACLES OF SUFFERING: ANALYZING SLOW VIOLENCE IN THE TURKISH REINTERPRETATIO N OF TITUS ANDRONICUS	Burak URUCU	İstanbul University-Cerrahpaşa TÜRKİYE
SIDDHARTHA: A PATH FROM THE MATERIALIST WORLD ORDER TO EASTERN MYSTICISM AND THE SEARCH FOR IDENTITY	Assist Prof. Dr. Recep BODUR	Amasya University TÜRKİYE
REGARDING THE RELATIONSHIP OF MIND MAPPING AND THE CHEMICAL LANGUAGE	Lect. Nigar Babayeva Prof. Dr. Yasin Babayev	Azerbaijan State Teachers' Training University AZERBAIJAN Nakhchivan State University AZERBAIJAN

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25.08.2024 / Session-2, Hall-3

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Osman Vedüd EŞİDİR

Title	Author(s)	Affiliation
THE RELATIONSHIP BETWEEN INTERPERSONEL COMMUNICATION AND EMOTION MANAGEMENT: A CONCEPTUAL ASSESSMENT	Gizem EYYÜPOĞLU DEMİRKAN Assoc. Prof. Dr. Özlem IŞIK	Erciyes University TÜRKİYE
A RESEARCH ABOUT SERIES ON THE EXXEN DIGITAL PLATFORM	Selahattin BÖLÜKBAŞI	Üsküdar University TÜRKİYE
IMAGE FORMATION ON TELEVISION	Prof. Dr. Yusuf YURDİGÜL Ünal KARACA	Atatürk University TÜRKİYE
LIGHTING AS AN IMAGE MANAGEMENT TECHNIQUE	Prof. Dr. Yusuf YURDİGÜL Ünal KARACA	Atatürk University TÜRKİYE
THE ROLE OF SOCIAL MEDIA IN SHAPING MODERN SOCIAL DIALECTS	Gulchohra GADIROVA	Azerbaijan University AZERBAIJAN
CYBER SECURITY DURING INFORMATION MANAGEMENT	Rümeysa Moğol DEMİR Assoc. Prof. Dr. Mustafa BAYTER	Bayburt University TÜRKİYE Ankara Yıldırım Beyazıt University TÜRKİYE
ACADEMIC STUDIES ON THE SUBJECT OF TURKISH TV SERIES: A BIBLIOMETRIC ANALYSIS	Assoc. Prof. Dr. Osman Vedüd EŞİDİR Dr. Gökhan BAK Mevlüt ALTINTOP Alparslan BAK	Fırat University TÜRKİYE Independent Researcher Adana TÜRKİYE Erciyes University TÜRKİYE Independent Researcher Ankara TÜRKİYE
INVESTIGATION OF THE RELATIONSHIP OF SOCIAL MEDIA ADDICTION WITH UNEMPLOYMENT ANXIETY IN PHYSIOTHERAPY AND REHABILITATION DEPARTMENT STUDENTS	Fatma Betül TAŞ Harun Yağız ARDUÇ Canan DEMİR	Bandırma Onyedi Eylül University TÜRKİYE
DETECTION OF WINDOWS MALWARE USING DEEP LEARNING TECHNIQUES	Yunus Emre ÜNGÖR Assoc. Prof. Dr. Halit BAKIR	Sivas University of Science and Technology TÜRKİYE
METHODS OF FINANCIAL STATEMENTS IN ENTERPRISE	Reşat Tehran oğlu Şemsili	Baku Business University AZERBAIJAN

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25.08.2024 / Session-2, Hall-4

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Muhammad Umar Sharif

Title	Author(s)	Affiliation
UNVEILING THE ROLE OF INTERVENTIONAL RADIOLOGY AND CT SCANS IN MANAGING SARS-COV-2	Muhammad Umar Sharif Hafiz Muhammad Aslam Razia Kausar Muhammad Abdullah	Agriculture University PAKISTAN
ENHANCING TRANSFORMER RELIABILITY THROUGH SWEEP FREQUENCY RESPONSE ANALYSIS (SFRA)	Anuprabha R Kaviamuthu A	R.M.K Engineering College INDIA
ADVANCED NITROGEN COOLING SYSTEMS FOR ENHANCED TRANSFORMER EFFICIENCY AND SAFETY	Kaviamuthu A Anuprabha R	R.M.K Engineering College INDIA
REAL LIFE APPLICATIONS OF BAYES' THEOREM	Dinky Sethi Gurpreet Kaur Rashmi Verma	Delhi University INDIA
URBAN PLANNING CHALLENGES ARISING FROM SPATIO-TEMPORAL DYNAMICS OF INFORMAL HOUSING	Melik Sami Khelil Sara Tallal Abdel Karim Bouzir	Mohamed Khider Biskra University ALGERIA Mohamed Khider Biskra University ALGERIA Blida University ALGERIA
THE NEXUS BETWEEN TRANSPORTATION INFRASTRUCTURE AND URBAN GROWTH	Melik Sami Khelil Sara Tallal Abdel Karim Bouzir	Mohamed Khider Biskra University ALGERIA Mohamed Khider Biskra University ALGERIA Blida University ALGERIA
SYMBIOTIC RELATIONSHIPS: TRANSPORTATION INFRASTRUCTURE AND URBAN EXPANSION	Melik Sami Khelil Sara Tallal Abdel Karim Bouzir	Mohamed Khider Biskra University ALGERIA Mohamed Khider Biskra University ALGERIA Blida University ALGERIA
MAPPING THE TRANSFORMATION OF INFORMAL HOUSING: A SPATIO-TEMPORAL APPROACH	Melik Sami Khelil Sara Tallal Abdel Karim Bouzir	Mohamed Khider Biskra University ALGERIA Mohamed Khider Biskra University ALGERIA Blida University ALGERIA
ENHANCING THERMAL PROPERTIES OF GLASS MATERIALS THROUGH NANOSTRUCTURING TECHNIQUES	Melik Sami Khelil Sara Tallal Abdel Karim Bouzir	Mohamed Khider Biskra University ALGERIA Mohamed Khider Biskra University ALGERIA Blida University ALGERIA

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25.08.2024 / Session-2, Hall-5

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Deepamol Thomas

Title	Author(s)	Affiliation
THE ROLE OF INTERNATIONAL COURTS IN SHAPING GLOBAL JUSTICE: EVALUATING THE EFFECTIVENESS & ENSURING PROTECTION AND ACCOUNTABILITY IN CONFLICT ZONES	Partho Banerjee	University of Petroleum & Energy Studies (UPES) INDIA
CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINBILITY STRATEGIES (STUDY CASE IN COMPANY SUGAR SINERGI NUSANTARA SRAGI)	Kaila Zulfa KHOIRURRIZKI	UIN K.H. Abdurrahman Wahid Pekalongan INDONESIA
IMPACT OF CLIMATE CHANGE ON PUBLIC HEALTH IN ENUGU AND NASARAWA STATES, NIGERIA: IMPLICATIONS FOR SOCIAL WORK PRACTICE AND ENVIRONMENTAL PROTECTION	Edward Dauda Ibrahim Anzaku Muhammed Kabiru Dahiru Emmanuel Amevey Kuje Perpetua, Lum Tanyi	Federal University NIGERIA Nigeria University NIGERIA
SPILLOVER EFFECTS OF US M0NETARY POLICY ON INDIA'S MACROECONOMIC VARIABLES: AN SVAR ANALYSIS	Sonica Singhi	Ph.D Scholar, Department of Economics IGNOU, New Delhi INDIA
ONLINE DISPUTE RESOLUTION: A DOORWAY TO THE FUTURE WITH A NARROW ENTRANCE!	Akash Sharma Amber Raaj Sneha Mukherjee	Final Year Student of Law, Symbiosis Law School INDIA
NAVIGATING SCREEN TIME: THE EFFECTS OF YOUTUBE ON TODDLERS AND PRE-SCHOOLERS	Deepamol Thomas	Mar Ivanios College INDIA
HOLISTIC STRATEGIES FOR ADDRESSING GLOBAL AND REGIONAL ENERGY CRISES: THE ROLE OF ALTERNATIVE ENERGY AND POLICY INNOVATION	Farhana Naz Rimsha Imran	Lahore College for Women University PAKISTAN
INTERVENTION IN INTERNATIONAL LAW: DEFINING LEGALITY AND NAVIGATING COMPLEXITIES	Saatvik Wadhwa Akshat Kesarwani Shashwat Bali	Deemed University INDIA
PROVIDING HUMANITARIAN ASSISTANCE DURING WAR ISSUES AND CHALLENGES	Shaurya Dev Bhardwaj	Symbiosis University INDIA

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25.08.2024 / Session-2, Hall-6

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Khalil Tazik

Title	Author(s)	Affiliation
INVESTIGATING HOW LEADERSHIP EFFECTIVENESS INFLUENCES EMPLOYEE RETENTION IN AFGHANISTAN'S HIGHER EDUCATION SECTOR	Ansarullah Khishaki Dr. Parameshwara Acharya	Mangalore University INDIA
OVERCOMING CHALLENGES OF ACTIVE AND PASSIVE LEARNING AND TEACHING	Ina Andoni Natalia Bolgari	Academy of Economic Studies of Moldova, MOLDOVA
ADAPTATION OF THE IMMUNE SYSTEM IN ATHLETES DURING ANAEROBIC EXERCISE	Prof. Alexander PLAKIDA Prof. Olga IUSCHKOVKA Oleg SEMENENKO Kamo SHAHNAZARYAN	Odessa National Medical University UKRAINE
EFFECTS OF DIGITAL DEVICES ON THE ACHIEVEMENT AND RETENTION OF PHYSICS CONCEPTS IN POST-BASIC SCHOOLS IN ILORIN, NIGERIA	Aishat A. Yusuf A. O. Akanbi W. O. Yahaya	Ilorin University NIGERIA
GUIDING LEXICAL CHALLENGES IN ESP EDUCATION	Liubov Boiko	Kherson State Agrarian and Economic University UKRAINE
A STATISTICAL ASSESSMENT OF SOME FACTORS AFFECTING STUDENTS' ACADEMIC PERFORMANCE IN NIGERIAN TERTIARY INSTITUTIONS	Jıbrıl Yahaya Kajuru Ibrahım Abubakar Sadıq Ezeaghası Chımaobı Godswıll	Ahmadu Bello University NIGERIA
THE EFFECTS OF MASSED PRACTICE USING MOBILE PODCAST APPS ON LISTENING COMPREHENSION IN PRE-INTERMEDIATE ADULT SECOND LANGUAGE LEARNERS: A CONTROLLED STUDY	Nezam Zarei Chamani Khalil Tazik	Razi University IRAN Ahvaz Jundishapur University of Medical Sciences IRAN
CHALLENGES IN IMPLEMENTING MOTHER TONGUE AS A LANGUAGE OF INSTRUCTION IN PRE-PRIMARY SCHOOL COMPETENCY-BASED CURRICULUM IN KENYA	Esther Ondeko Makokha Nyakwara Begi	Kenyatta University KENYA
TEACHING ENGLISH FOR SPECIFIC PURPOSES: SUBJECT TEACHER OR LANGUAGE TEACHER?	Khalil Tazik	Ahvaz Jundishapur University of Medical Sciences IRAN

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25.08.2024 / Session-2, Hall-7

Ankara Local Time: 12:30 – 14:30

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Maxime Adjavounvoun

Title	Author(s)	Affiliation
REVIEW OF NUPTIAL VOLATILITY IN AFRICAN FICTIONS: A STUDY OF OGUNDIMU SULEYMAN ADETUNJI'S BEHIND THE MASK	Maxime Adjavounvoun	Abomey-Calavi University BENIN
RELIGIOSITY AND POSTTRAUMATIC GROWTH IN YOUNG ADULTS WITH PARENTAL LOSS; THE MEDIATING ROLE OF PSYCHOLOGICAL FLEXIBILITY	Fatima Rehan Dr. Syeda Taskeen Zahra	Management and Technology University PAKISTAN
RETROSPECTIVE STUDY OF DIABETIC NEPHROPATHY IN ADULTS AND GERIATRICS IN PUNJAB, PAKISTAN	Mah-ru-nisa Atif Usama Nawaz Bisma Babar	Hajvery University PAKISTAN
EVALUATING THE REGULATORY DYNAMICS OF THE GENE EXPRESSION NETWORK OF SACCHAROMYCES CEREVISIAE	Muhammad Abdullah Muhammad Umar Sharif Fiza Mehmood Muhammad Aitzaz Khalid Razia Kausar Hafiz Muhammad Aslam	Agriculture University PAKISTAN
EXPLORING THE GENETIC BASIS OF OBESITY: INSIGHTS INTO HEREDITARY FACTORS AND POTENTIAL INTERVENTIONS	Ekwugha, Joy. A Igwebuike Nancy C Eje, Ozoemena. E	Nigeria University NIGERIA
UNRAVELING LONELINESS: A PSYCHOLOGICAL ANALYSIS OF ANURADHA ROY'S THE FOLDED EARTH	Ms. C. Parimala	KCG College of Technology INDIA
EFFECT OF COVID 19 INFECTION, GENDER AND AGE GROUP ON STRESS STRAIN AND COPING STRATEGIES OF WORKING INDIVIDUALS	Neetu Chaudhary Dr. Kamaljeet Sandhu	Dayalbagh Educational Institute INDIA
BİOİNFORMATIC ANALYSIS OF ADAM-17 SNPS AND SARS-COV-2 INFECTION	Abdelilah MECHNINE Prof. Ahmed AARAB	Abdelmalek Essaadi University MOROCCO
THE IMPORTANCE OF SEXUAL EDUCATION IN ALBANIA HIGH SCHOOLS AND ITS IMPACT ON ADOLESCENT HEALTH AND WELL-BEING	Emanuela Ismaili Prof. Edmond Dragoti	Tirana University ALBANIA

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25.08.2024 / Session-3, Hall-1

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Aziz İlGAZİ

Title	Author(s)	Affiliation
SOME CHARACTERIZATIONS FOR SUBMANIFOLDS OF PS-STATISTICAL MANIFOLDS	Assoc. Prof. Dr. Sema KAZAN	İnönü University TÜRKİYE
A NEW QUANTITATIVE METHOD PROPOSAL FOR EVALUATION OF TURKISH HEALTH SYSTEM CAPACITY: BULUT SCORING SYSTEM (BSS)	Dr. Tevfik BULUT	Ministry of Industry and Technology, Ankara TÜRKİYE
ON SUM FORMULAS OF NON-NEWTONIAN JACOBSTHAL NUMBERS	İlknur YEŞİLYURT Assist. Prof. Dr. Nilay DEĞİRMEN	Ondokuz Mayıs University TÜRKİYE
Z-CODES	İbrahim DEĞİRMEN Assist. Prof. Dr. Abdullah DERTLİ	Ondokuz Mayıs University TÜRKİYE
BICOMPLEX SEQUENCES WITH HYPERBOLIC-VALUED NORM	Rıfat ÇAY Prof. Dr. Birsen SAĞIR	Ondokuz Mayis University TÜRKİYE
MATHEMATICS TEACHERS' KNOWLEDGE ABOUT GEOGEBRA SOFTWARE AND THEIR USE IN THEIR LESSONS	Beyza KILIÇ Prof. Dr. Gül KALELİ YILMAZ	Ministry of National Education Yalova TÜRKİYE Bursa Uludağ University TÜRKİYE
SOLUTION OF PROBLEMS FOR THIRD-ORDER MIXED DISCRETE ADDITIVE AND DISCRETE MULTIPLICATIVE DIFFERENTIAL EQUATIONS	MAMIYEVA Turkan	Baku State University AZERBAIJAN

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25.08.2024 / Session-3, Hall-2

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assist. Prof. Dr. Hülya KALYONCU

Title	Author(s)	Affiliation
ANATOLIAN 'CYBELE MOTHER GODDESS CULT' AS A LINK BETWEEN EASTERN AND WESTERN ARTS AND CULTURES	Assist. Prof. Dr. Hülya KALYONCU	İstanbul Topkapı University TÜRKİYE
AN EVALUATION OF SOLFEGGIO LESSONS FOR STUDENTS WITH AUTISM	Assist. Prof. Dr. Filiz YILDIZ Prof. Dr. Uğur TÜRKMEN	Afyon Kocatepe University TÜRKİYE Çanakkale Onsekiz Mart University TÜRKİYE
AN EXAMPLE MODEL OF PRO-SOCIETY BEHAVIOR: AUTISM AND THE MUSIC SUMMER SCHOOL COMMUNITY VOLUNTEERS	Didem ÇETİNKAYA Prof. Dr. Uğur TÜRKMEN	Çanakkale Onsekiz Mart University TÜRKİYE
A LITERATURE STUDY ON CLIMATE CRISIS AND ENDANGERED ANIMALS FROM A VISUAL ARTS PERSPECTIVE	Yasemin BÜKEN	Yenimahalle Public Education Center, Art Teacher TÜRKİYE
A SHORT LIFE DEDICATED TO TRADITIONAL TURKISH ART MUSIC: ŞEVKİ BEY AND HIS WORKS IN THE MAQAM OF UŞŞAK	Lect. Dr. Emre ÜSTGÜL	Aydın Adnan Menderes University TÜRKİYE
SIGNIFICANCE, ORGANIZATION AND CONTENT OF MUSICAL RHYTHMIC MOVEMENTS IN KINDERGARTEN	Qaribova Arifa Hajibaba kızı	Azerbaijan State Pedagogical University AZERBAIJAN
THE CONSTRUCTION OF SOCIAL REALITY: THE SOCIOLOGICAL APPROACH OF BERGER AND LUCKMANN	Öznur YILMAZ-ALTUN	Atvin Çoruh University TÜRKİYE

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25.08.2024 / Session-3, Hall-3

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assist. Prof. Dr. Murat BAYRAKTAR

Title	Author(s)	Affiliation
ARTIFICIAL INTELLIGENCE TECHNOLOGIES AND APPLICATION EXAMPLES IN THE TURKIYE FINANCIAL SYSTEM	Lect. Tansu TOPUZOĞLU Assoc. Prof. Dr. İlknur ÇEVİK TEKİN	Izmir Kavram Vealth Kavram Vocational School TÜRKİYE Selçuk University TÜRKİYE
THE MIGRATION AND TERRORISM NEXUS: AN EMPIRICAL ANALYSIS	Assist. Prof. Dr. Murat BAYRAKTAR	İstanbul Esenyurt University TÜRKİYE
AI AND INTERNATIONAL TRADE RELATIONSHIP: A SYSTEMATIC REVIEW	Assist. Prof. Dr. Murat BAYRAKTAR	İstanbul Esenyurt University TÜRKİYE
STATISTICAL STUDY OF THE FINANCIAL ACTIVITY OF BUSINESS SUBJECTS IN THE NON-OIL SECTOR	Ismailova Lyudmila Famil	Sumgait State University AZERBAIJAN
EMPIRICAL ANALYSIS OF THE EFFECT OF TAX BURDEN ON FERTILITY RATE	Assoc. Prof. Dr. Ersin YAVUZ Lect. Tahsin AVCI	Pamukkale University TÜRKİYE
DO AUTOMATIC STABILIZERS WORK IN TURKEY? EVIDENCE FROM THE VAR MODEL	Assoc. Prof. Dr. Eren ERGEN Lect. Tahsin AVCI	Pamukkale University TÜRKİYE
INTERNATIONAL STUDENTS' OCCUPATIONAL HEALTH AND SAFETY AWARENESS: YOUNG MIGRANT WORKERS IN BUSINESS LIFE IN TÜRKİYE	Assist. Prof. Dr. Gülizar HOŞTEN Faruk HANKANOĞLU	Istanbul Aydin University TÜRKİYE
DETERMINING THE REASONS FOR OUTMIGRATION FROM ZARA DISTRICT IN SIVAS PROVINCE	Yunus Emre ÜNGÖR Ravzanur TOPARLAK İklima Şevval AKIN Dilan Öznur ŞAHİN	Sivas University of Science and Technology TÜRKİYE Zara Mehmet Habib Soluk Science Highschool, Sivas TÜRKİYE

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25.08.2024 / Session-3, Hall-4

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Prof. Dr. A. Beril TUĞRUL

Title	Author(s)	Affiliation
AN EXAMINATION OF THE "ZONING PEACE" APPLICATION AND ITS REFLECTIONS	Ecenur ATAMAN Assist. Prof. Dr. Şermin ATAK ÇOBANOĞLU	Çanakkale Onsekiz Mart University TÜRKİYE
PROVISIONS PROTECTING THE SEAFARER'S PERSONAL RIGHTS IN THE MARITIME LABOUR CONVENTION 2006	Dr. Uğur TÜLÜ	Piri Reis University TÜRKİYE
THE ROLE OF CHILD SUPPORT CENTERS IN SUPPORTING CHILDREN VICTIMS OF SEXUAL ABUSE WITHIN THE JUDICIAL SYSTEM	Assoc. Prof. Dr. Hüseyin BATMAN	Afyon Kocatepe University TÜRKİYE
A STUDY OF SOCIAL WORK STUDENTS' PERCEPTIONS OF POVERTY: THE CASE OF FIRAT UNIVERSITY	Ebru İLHAN Semra ÖZKAN	Fırat University TÜRKİYE
THE SIGNIFICANCE OF CONSTITUTIONAL REFORM IN THE REPUBLIC OF AZERBAIJAN FOR STRENGTHENING STATESHIP	Abbaszade Nigar Mutallim	Baku Slavic University AZERBAIJAN
THEME OF WAR AND HUMANIZATION IN PROSE OF AZERBAIJAN PERIOD OF INDEPENDENCE	Afat RAFIYEVA	Sumgait State University AZERBAIJAN
BLACK SEA FROM THE POINT OF VIEW OF ENERGY POLITICS	Prof. Dr. A. Beril TUĞRUL	İstanbul Technical University TÜRKİYE
ANALYSIS OF THE EFFECT OF WORK ACCIDENTS ON SOCIAL SECURITY SYSTEM	Aleyna Yaren ÜNLÜ Mehmet Şükrü ÖZTANIK Assist. Prof. Dr. Kaan KOÇALİ	İstanbul Gelişim University TÜRKİYE

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25.08.2024 / Session-3, Hall-5

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Necmi YARBAŞI

Title	Author(s)	Affiliation
A PRELIMINARY INVESTIGATION ON PERFORMANCE EVALUATION OF MACHINE LEARNING MODELS FOR CHLOROPHYLL-A FORECASTING: ANTALYA BAY (TÜRKİYE)	Selda PALABIYIK Hakan IŞIK Prof. Dr. Tamer AKKAN Prof. Dr. Cengiz MUTLU	Giresun University TÜRKİYE
A PRELIMINARY INVESTIGATION ON PERFORMANCE EVALUATION OF MACHINE LEARNING MODELS FOR CHLOROPHYLL-A FORECASTING: MERSİN BAY (TÜRKİYE)	Hakan IŞIK Selda PALABIYIK Prof. Dr. Tamer AKKAN Prof. Dr. Cengiz MUTLU	Giresun University TÜRKİYE
THERMAL ANALYSIS OF THE USE OF TURBULATORS ACCORDING TO FLOW DIFFERENCES (LAMINAR - TURBULENCE) IN HEAT EXCHANGERS	Lect. Merve Nur POLAT Assoc. Prof. Dr. Tarkan KOCA	Giresun University TÜRKİYE İnönü University TÜRKİYE
EFFECT OF USING TURBULATORS IN HEAT EXCHANGERS ON HEAT TRANSFER	Lect. Merve Nur POLAT Assoc. Prof. Dr. Tarkan KOCA	Giresun University TÜRKİYE İnönü University TÜRKİYE
DETERMINATION OF INDUSTRIAL TYPE AIR CONDITIONING PLANT CAPACITY AND WATER CONSUMPTION AMOUNT IN PROVINCES WITH DIFFERENT ALTITUDE VALUES	Eng. MSc. Mürüvvet AVCI Prof. Dr. Nesrin KAYATAŞ DEMİR	Erciyes University TÜRKİYE
EVALUATING THE IMPACT OF ARCTIC ROUTES ON MARITIME TRANSPORTATION COSTS AND RISKS	Assist. Prof. Dr. Muhammet AYDIN	Recep Tayyip Erdoğan University TÜRKİYE
RESILIENT, SUSTAINABLE CITIES AND GEOLOGY	Assoc. Prof. Dr. Necmi YARBAŞI	Atatürk University TÜRKİYE
THE LEVEL OF INFLUENCE OF THE EXISTING URBAN PATTERN ON THE MICROCLIMATE AROUND THE GREEN AREA	Esra YAZICI Assist. Prof. Dr. Merve YAVAŞ	Atatürk University TÜRKİYE
HAZELNUT TRANSPORTATION, TRANSFER AND DRYING SYSTEMS: CURRENT SITUATION, TECHNOLOGICAL DEVELOPMENTS AND FUTURE PERSPECTIVES	Ruhi Gökhan GENÇ Assoc. Prof. Dr. Faruk GÜNER	Giresun University TÜRKİYE

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25.08.2024 / Session-3, Hall-6

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Assoc. Prof. Dr. Abdurrahman TELLİ

Title	Author(s)	Affiliation
CORPORATE CARBON FOOTPRINT: AN EXAMPLE CALCULATION FOR A FOUNDRY COMPANY	Ayşe Nur DAYDAŞ	Konya Technical University TÜRKİYE
EFFECT OF Ni AND Si ADDITION ON MICROSTRUCTURE, MECHANICAL AND THERMOELECTRIC PROPERTIES OF Al-Cr-Mn EUTECTIC ALLOY	Ferhat HÜYÜKLÜ Assoc. Prof. Dr. Yusuf KAYGISIZ	Aksaray University TÜRKİYE
A STUDY ON YARN PRODUCTION WITH ANGORA/RECYCLED POLYESTER/COTTON FIBERS IN COMPACT SPINNING SYSTEM	Assoc. Prof. Dr. Abdurrahman TELLİ	Çukurova University TÜRKİYE
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25.08.2024 / Session-3, Hall-7

Ankara Local Time: 15:00 – 17:00

Meeting ID: 860 5266 6988 / Passcode: 123456

Moderator: Dr. Eze Ikechukwu Bernard

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THE VITAL IMPORTANCE OF AUTHENTIC HUMAN CONNECTION

Ms. Leslie Robinson

Founder of Trance4mation Games – New York, N.Y.

Abstract

“It’s important that we are talking to each other in a way that heals, not in a way that wounds” is a quote by Barack Obama that is especially relevant and neccesary in these fraught times. Both as individuals and societies, we are often unable to communicate on a human, compassionate and productive level with one another.

Humans are social creatures with an emotional need for relationships and positive connections to others. Our social brains crave companionship, even when experience has made us shy and distrustful of others. Positive social interaction reduces stress and increases motivation and is an emotional and mental health necessity.

My Restorative Communication board games, card decks and virtual games provide safe, enjoyable, structured spaces for us to engage with one another on much deeper levels than our social masks; to express deep personal truths, process our emotions and experiences together, including our traumas, and and to receive acceptance, understanding and support. Also, unique groups have unique problems, which due to stigma and lack of access or resources are rarely addressed and need personalized, specialized, solutions (ie: the Incarcerated, Veterans, At-Risk Youth, Grief & Loss Support, etc.). These games are all designed to be facilitated and played anywhere, with zero to minimal training required; accessible to all!

Play as positive social interaction matters because those who avoid, or who have never learned to play may become lost in the world of fear, rage, and obsessive worry. When we play, we trigger a mix of endorphins that lift our spirits and distractions that distance us from pain, fear, and other burdens. And when we play with other people, we are reminded that we are not alone in this world.

My games, utilized by over one million people in the US, provide players with the opportunity to go beyond the surface and the mundane, beyond the polite small talk to a rich, nuanced experience of one another and to experience the joy of genuine transparency and connection, which in turn increases resilience and mental health outcomes.

Keywords: Connection, Humanity, Healing, Transformation.

THE POTENTIAL OF AI INFLUENCERS TO MODIFY THE CREATOR ECONOMY

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Abstract

The creator economy, sometimes referred to as the influencer economy, is a software-enabled economy that lets influencers and content producers get paid for their works. The advancement of artificial intelligence (AI) has given social media content producers access to a plethora of novel tools that allow them to engage with their target audience more precisely, promptly, and efficiently. The emergence of AI influencers, or virtual influencers, who are computer-generated personas endorsing brands and products on social media, is one of the innovations that AI has brought to companies. Social media users are seeing less distinction between AI and genuine (human) influencers as AI technology advances. In general, human influencers have their own thoughts, feelings, and objectives, which might lead them to produce content in ways that may not always be consistent with a brand's mission. AI influences can be quickly corrected, and they only say and do what they are expressly trained to say and do. These virtual influencers are incapable of having second thoughts, making poor decisions, or becoming entangled in a scandal that can endanger a company's reputation. The fact that AI influencers are typically less expensive than their human counterparts with a comparable number of followers is also noteworthy.

Key words: Creator Economy, Artificial Intelligence (AI), AI Influencers, Social Media.

THE IMPORTANCE OF BLOCKCHAIN TECHNOLOGY IN INTERNATIONAL TRADE

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Abstract

International trade enables countries to expand their markets and obtain goods and services that might otherwise be unavailable domestically. Countries that engage in international trade typically have a competitive advantage since they specialize in manufacturing and exporting to their trading partners, resulting in higher economic growth. International trade enables countries to use their resources more efficiently, such as labor, technology, and capital. Although blockchain technology is still in its early phases of development, it offers enormous promise for improving and lowering the costs of international trade. This fact has prompted many businesses to upgrade their antiquated systems with blockchain technology in an effort to address issues with third-party verification and trust in international trade transactions, as well as issues with information sharing, transparency, documentation, costs, and payment delays. With the help of blockchain technology, participants in the system can complete all of their tasks in a decentralized, transparent, traceable, and dependable manner, and they can save the results in a digital ledger that makes it easier to keep track of assets and record transactions in the corporate network. The blockchain network reduces risk and costs for all parties involved by enabling the tracking and trading of almost anything of value. Blockchain technology and artificial intelligence (AI) together open up new economic opportunities, enhance automation, and spur innovation in the way different industries cooperate. According to projections, the worldwide market for blockchain technology is expected to increase significantly over the next several years.

Key words: Blockchain technology, International trade, Economic growth, Artificial intelligence (AI).

EARLY CHILDHOOD TEACHERS' VALUES: A CROSS-CULTURAL COMPARATIVE STUDY TO ENSURE QUALITY EDUCATION FOR ALL

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Abstract

The relevance of the problem of digital transformation of education is mainly connected to digital technologies and their focus on learning. However, the educational and developmental potential of this process and its axiological component are often ignored (Gordienko et.al, 2019). Axiological characteristics are the foundation of every transformation process of the educational system, including the digital one.

In this regard, it is necessary to train highly qualified teachers who not only know how to use modern technologies, but who are aware of the importance of personal values to build active citizenship and promote inclusion (UN, 2015), starting from kindergarten.

Not surprisingly, there is strong current social and political interest in teaching values (UNESCO, 2004), as evidenced by research conducted in a number of countries such as the United Kingdom (Halstead and Pike, 2006; Hawkes, 2008), United States United States (Cooley, 2008; Leonard, 2007), Canada (Darling, 2002), the Nordic countries (Einarsdóttir et al., 2014; Johansson & Thornberg, 2014c) and Italy (Corona & Ianniello, 2022).

In this regard, it is necessary, first of all, to analyze the personal values of teachers, which influence the motivation, involvement and learning of students and which can also convey the use of digital technology at school, which is functional for promoting inclusion. of *each and every one* (Pintrich, 2002). For these reasons, the aim of the research is to detect the personal values of in-service kindergarten teachers (Schwartz, 2012). The results of the study recall the need for teacher training that also concerns values, drivers in the process of digital transformation of the Italian education system.

EVALUATION OF AGRICULTURAL WASTES FOR THE PRODUCTION OF INOCULUM FROM *TRICHODERMA ASPERELLUM* CONIDIA

Manal Adnani

Samah Ourras

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Karima Selmaoui

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Abstract

Organic agricultural products, such as fertilizers and pesticides, can cause physico-chemical and biological degradation of soils, disrupting agro-ecosystems. To address these concerns, there is a need for sustainable agricultural practices with minimal external inputs, such as strengthening soil biological properties, recycling inorganic minerals, and reusing agricultural residues. Trichoderma species, capable of colonizing many ecosystems, have potential as biological control agents, biostimulants, and biofertilizers. Chlamydospores and conidia are used as active principles in Trichoderma products, allowing them to survive production processes. The success of a microbial bio-protector depends on the preparation of a biomass with high populations and high viability. The first step in producing biocontrol agents involves identifying suitable substrates, which can come from culture residues, livestock waste, industrial waste, and other economically relevant organic materials.

This study aimed to an agricultural waste suitable for the mass production of the *Trichoderma asperellum* TH2 strain on a solid substrate. Substrates from agricultural waste were collected from the Gharb region of Morocco. The substrates were dried, and autoclaved at 121°C for 20 minutes. The suspension was then inoculated and incubated for 20 days at 28°C. The sporulation and growth were evaluated by determining the number of spores per g of substrate. The culture rapidly developed on beet residue, with a moderate growth rate compared to faba residue. The sporulation was significantly higher on beet residue, reaching 36.4 spores/g after 20 days and 42.09 spores/g after 30 days.

The study suggests that beet residue could provide excellent growth support for Trichoderma mass production.

USING PHOTOGRAMMETRY FOR DIGITAL DOCUMENTATION OF HERITAGE SITES AND OBJECTS IN JORDAN

Fatima Haroun

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Abstract

The study emphasizes the importance of using photogrammetry as a remote sensing technique for reliable two-dimensional documentation of heritage sites and archaeological objects, because documentation helps us preserve antiquities for the longest possible time, so that we have a database of antiquities in the event of their destruction. Our research data was collected from an archaeological site in the Jordanian desert, including (Al-Harranah) Palace. Images were taken at ideal locations and times to provide realistic colors and an accurate assessment of the building's facade characteristics. Data were processed and composite models were generated using dense image matching techniques. In addition to 3D modeling, orthogonal images of the facades were created. Photographs are to a uniform scale and depict all objects in their flat positions, providing reliable and realistic maps. The results will greatly assist in monitoring and planning preservation activities of historic buildings**.**

Keywords: Photogammetry, Documentation, Close-range, Overlap, Forward overlap, lateral overlap, Agisoft

APPLICATION OF 2.5 MEV PIXE ANALYTICAL TECHNIQUES TO COASTAL SEDİMENTS: INSIGHTS İNTO ELEMENTAL COMPOSITION AND ENVIRONMENTAL IMPLICATIONS

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Abstract

Particle Induced X-ray Emission (PIXE) technique is a fast, powerful, multi-elemental and non-destructive analytical tool, dedicated for the analysis of materials especially geological samples. Sediment samples collected from the Lagos port area, southwest Nigeria were analyzed by PIXE technique for their elemental composition and concentrations. The PIXE analysis was carried out using a 1.7 MV Tandem accelerator with energy of 2.5 MeV protons located at the Centre for Energy Research and Training (CERT), ABU, Zaria. Data analysis was performed in an interactive mode with the aid of GUPIXWIN analytical software. Identified elements are present in the fingerprint X-ray spectrum in levels of ppm. In this study, introductory results concerning qualification and quantification of major, minor and trace elements embedded in sediments obtained from the Lagos port area, are presented. Also, insights into the environmental quality of the port area was revealed. Validity of the technique was assessed using standard reference material (SRM) NIST 1646a estuarine sediment, and result was consistent with the certified one. The study uncovered potential anthropogenic influences and the significance of employing PIXE in environmental monitoring and assessments.

Keyword: Lagos port; Sediments; PIXE analysis; Elements; Concentrations.

AN ASSESSMENT OF PASSENGERS' PATRONAGE AND VIABILITY OF RAILWAY TRANSPORTATION SYSTEM IN NIGERIA

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Abstract

Rail transport plays a significant role in the development and overall growth of any economy, it is often regarded as the wheels of economic activity, because of its crucial role in catalyzing economic growth and development. It opens up regions, hinterlands and rural areas by facilitating agricultural development as well as the growth of cottage and large scale industries. According to Adesanya (2010) when rail transport is appropriately incorporated with other modes, economic level of traffic can be merged to enable the railway provide efficient and effective services for high density flow of homogenous traffic carried over generally on long distance route, including high volumes of containerized freight or bulk cargo. The research assessed the viability of passengers' patronage on railway transportation system. Non-probability sampling techniques was adopted for the research, primary and secondary data were used, two sets of questionnaires were administered, to the Nigerian Railway Corporation (NRC) and the passengers. A total of 170 people were interviewed, made up of 150 passengers and 20 staff of NRC. Pearson product moment correlation coefficient was used to test the relationship between the passenger's patronage and viability of the railway transportation. Data collected were analyzed and presented in tables, using average and percentage while the secondary data sources are from journals, textbooks, data from NRC. The major findings of the research gives that, amount generated daily on train is lesser than the expenses, amount generated are used for fuel consumption, paying cleaners, maintenance of railway track. The study concluded that increase in patronage and viability of railway transportation, is a function of the government. Government should provide necessary amenities that encourages comfortability for the passengers using railway, inclusion of public-private partnership in the development and operation of railway, orderliness in process of boarding the railway, using of modernized railway infrastructural facilities were all recommended.

Keywords: Assessment, Passenger's, patronage, viability, road transport Nigeria.

IN VITRO CHARACTERIZATION ON THE ANTI–DIABETIC PROPERTIES OF CRUDE EXTRACT AND FRACTIONS OF *MORMODICA BALSAMINA* LEAVES

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Abstract

The aim of this research was to determine the *in vitro* α - amylase and α - glucosidase inhibitory activities of crude extract and fractions of *Mormodica balsamina* leaves. Phytochemical compositions, α– amylase and α-glucosidase activities of the extracts were carried out using standard procedures. The phytochemical analyses revealed varied amounts of phytochemical constituents with ethyl acetate fraction and crude extract having higher concentrations. Crude extracts, ethyl acetate fraction and 20% ethanol fraction had appreciable *in vitro* inhibitory activity (>50%) against α-amylase while n-hexane fraction had <50% inhibition. Alpha glycosidase inhibitory study showed that acarbose had the highest inhibitory activity followed by the 20% ethanol fraction with ethyl acetate fraction being the least. The crude extract had the highest DPPH activity followed by the 20% ethanol fraction and the ethylacetate fraction. The ethyl acetate fraction had the highest ferric reducing ability among all tested fractions having 66.67 AAE/g. This was followed by 20% ethanol fraction (55.56 AAE/g), n-Hexane fraction (52.85 AAE/g) and crude extract (50.33 AAE/g). The crude fraction had the highest TAC value of 70.94 AAE/g, n-Hexane fraction of 62.27 AAE/g, ethyl acetate fraction of 59.77 AAE/g and 20% ethanol fraction of 58.11 AAE/g. In conclusion, the *in vitro* α - amylase and α - glucosidase inhibitory activities of the crude extract and fractions of *Mormodica balsamina* leaves could be attributed to their rich phytochemical constituents and hence, could serve as a new lead in fighting against diabetes and its associated complications.

Keywords: *Mormodica balsamina*, α - amylase, α - glucosidase, diabetes

REVIEW OF THE HYDRATION PROCESS IN ORDINARY PORTLAND CEMENT

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Abstract

The heat of hydration in Ordinary Portland Cement (OPC) is a critical aspect of concrete chemistry, influencing properties such as setting time, early-age strength development, and durability. This paper comprehensively explores the heat of hydration phenomenon in OPC, elucidating its mechanisms, influencing factors, and implications for concrete construction. The study delves into the chemical processes underlying heat generation during cement hydration, focusing on the reactions of key compounds including tricalcium silicate (C3S), dicalcium silicate (C2S), tricalcium aluminate (C3A), and tetra calcium alumino ferrite (C4AF). These reactions form hydration products such as calcium silicate hydrates (C-S-H) and calcium hydroxide (CH), accompanied by heat release. Various theories explaining the heat of hydration are discussed, including Coulomb's Law theory, the heat of solution theory, and the layered structure theory, providing insights into the complex nature of this phenomenon. The paper also explores practical considerations related to the heat of hydration, such as the influence of the water-cement ratio and cement fineness on heat generation and temperature rise in concrete. Strategies for mitigating the adverse effects of excessive heat, such as thermal cracking, are discussed, highlighting the importance of careful mix design, construction practices, and temperature control measures. This paper also examines recent research on mitigating the heat of hydration in Ordinary Portland Cement (OPC) to optimize concrete properties and construction practices. While heat of hydration is vital for strength development, excessive generation can lead to thermal cracking, necessitating effective control methods. Various techniques are discussed, including finer particle sizes, chemical admixtures, curing temperature management, and incorporation of supplementary cementitious materials (SCMs).

Additionally, the reduction of the water-cement ratio and adjustment of the cement clinker composition are explored. The paper highlights the significance of heat of hydration for strength gain, early-age cracking prevention, improved durability, and structural integrity. Future research directions include optimizing mix designs, developing performance-based specifications, mitigating thermal cracking, energy-efficient production, climate change adaptation, advanced modeling, and digital integration for real-time monitoring. These advancements enhance efficiency, sustainability, and resilience in concrete construction. Overall, this research enhances our understanding of the heat of hydration in OPC and its significance in optimizing concrete mix designs, ensuring structural integrity, and promoting sustainable concrete construction practices.

ENHANCEMENT OF ADSORPTION EFFICIENCY OF MANGANESE OXIDE THROUGH AMINO FUNCTIONALIZATION FOR HEXAVALENT CHROMIUM REMOVAL

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Abstract

Protecting water resources is crucial to achieving a cleaner and healthier environment, especially given the increasing contamination from human activities. Hexavalent chromium, known for its high toxicity, poses a significant threat to both human health and wildlife. Among the available methods for removing heavy metals, adsorption stands out as a particularly effective approach. Its simplicity and low cost make it an attractive option for treating water with low concentrations of chromium without the need for hazardous chemicals. Beyond its effectiveness, this method is environmentally friendly, providing a sustainable and accessible solution for improving water quality.

Manganese oxide (K-MnO_2) is a commonly used adsorbent in wastewater treatment due to its high adsorption capacity and relatively low cost, demonstrating significant effectiveness in removing heavy metals such as lead and cadmium. To enhance its performance, we functionalized K-MnO_2 with a chain containing an amine group (-NH_2). In an acidic medium, this functionalized material (K-MnO_2-NH_2) acquires a positive charge, thereby optimizing the removal of anionic pollutants such as chromium (VI) ions ($Cr_2O_7^{2-}$).

The functionalized material K-MnO_2-NH_2, synthesized by a simple and mild method and characterized using various spectroscopic techniques, exhibited an impressive chromium (VI) removal efficiency of 90% after 30 minutes of interaction, compared to only 8% for non-functionalized K-MnO_2. Moreover, this functionalized material can be regenerated and reused multiple times.

Keywords: Manganese oxide; Functionalization; Adsorption; Heavy metals; Chrome (VI).

EXPLORING THE INTERPLAY OF SEDENTARY LIFESTYLE, DIETARY CHOICES, OBESITY, AND TYPE 2 DIABETES

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Abstract

Diabetes, a global health concern, necessitates innovative therapeutic approaches. This study delves into the intricate relationship between sedentary lifestyle, dietary habits, obesity, and the onset of Type 2 diabetes in individuals. Employing a mixed-methods approach involving naturalistic observation and a quantitative survey, a sample size of 400 participants (200 online and 200 hospital visitors) was analyzed. The survey findings, substantiated by statistical analysis, unequivocally demonstrate a compelling association between physical inactivity, poor dietary decisions, obesity, and the increased prevalence of Type 2 diabetes in the younger demographic. This research highlights the critical role of lifestyle factors in the etiology of Type 2 diabetes among individuals under 45, emphasizing the urgent need for interventions targeting improved physical activity and dietary behaviors to mitigate this growing health concern.

Keywords: Diabetes Type 2, Sedentary Lifestyle, Obesity, Physical inactivity, Diet.

FORMULATION AND EVALUATION OF ANTI DIABETIC ACTIVITY OF HERBAL ANTI DIABETIC SYRUP WITH FENUGREEK

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Abstract

Diabetes, a global health concern, necessitates innovative therapeutic approaches. This research delves into the formulation and assessment of an herbal anti-diabetic syrup enriched with fenugreek, a herb renowned for its potential hypoglycemic effects. The study explores the prevalence and causes of diabetes, emphasizing the escalating global epidemic. The literature review highlights fenugreek's role in managing hyperglycemia, presenting evidence of its efficacy in reducing blood sugar levels. The research objectives include the development of fenugreek extract, preparation of herbal syrup, and characterization of the final product. The syrup's color, odor, taste, pH, viscosity, density, and specific gravity were evaluated. Preliminary results indicate a lemon-yellow color, minty odor, pleasant taste, and favorable pH range. The density and specific gravity of the syrup were consistent at 1.04 g/ml.. These findings suggest the potential of the herbal anti-diabetic syrup, emphasizing the need for further clinical investigations to validate its safety and efficacy in diabetes management. This study lays a foundation for future research, emphasizing evidence-based approaches in developing novel therapeutic interventions.

Keywords: Fenugreek, Diabetes Type 2, Syrup, Blood sugar level, Extract, Diosgenin saponin

MODERATING EFFECT OF TECHNOLOGY UNCERTAINTY RELATIONSHIP BETWEEN STATE OF TECHNOLOGY AND COMPETITIVENESS IN NIGERIAN TELECOMMUNICATION INDUSTRY

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Abstract

Technology is widely acknowledged as one of the key factors in telecommunication industry competitiveness and has become prominent in telecommunication strategies and government policy. This study therefore sought to examine the moderating effect of technology uncertainty on the relationship between state of technology and competitiveness' in Nigerian telecommunication industry. The target population for the study will be telecommunication industry in North East, Nigeria. Sample size of 201 individual working employees of four major telecommunication industries (Airtel, GLO, MTN, 9Mobile) in North East, Nigeria will be use. The main instrument of data collection was a semi-structured questionnaire administered to the executive staff of the telecommunication industry. Partial Least Square Structural Equation Modelling (ADANCO PLS-SEM) was use to analyse relationships between states of technology on competitiveness; moderating role of technology uncertainty. Based on the findings of this study state of technology has a significant effect on competitiveness. The result also reveals that technology uncertainty significantly moderates the relationship between state of technology and competitiveness. The study recommended that managers should choose a strategy that will help them manage the uncertain situation that will occur since uncertainty has the potential of pulling or pushing firms into competitiveness.

VALORIZATION OF COCOA POD HUSK TO PRODUCE CARBOXYMETHYLCELLULOSE

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Abstract

The cocoa agricultural sector has high economic relevance in some countries in Africa, Asia, and Latin America. However, cocoa beans only represent between 21-23% of the composition of this fruit, while the cocoa pod husk (70-75% of the fruit) is waste that can be used with around 35.4% cellulose. Furthermore, taking advantage of residue would prevent the development of diseases such as black pod disease caused by these wastes being abandoned on the same plantation. The present work evaluates the valorization of cocoa pod husks as a potential source of cellulose to obtain carboxymethylcellulose. A yield of 21.9% of extracted cellulose was obtained with respect to the cocoa shell used. Different procedures were applied to obtain carboxymethylcellulose (CMC). Subsequently, acid and alkaline treatments were carried out for purification, achieving a yield of 64.3%. The physical characterization of the CMC obtained was carried out using FTIR spectroscopy, and its molecular weight (183628.89 g/mol) was determined by obtaining its intrinsic viscosity. The CMC dispersions were tested using small amplitude oscillatory shear (SAOS) for concentrations 3-7%, finding an evolution in the rheological behavior of the systems studied.

Keywords: Cocoa, Waste management, Carboxymethylcellulose, SAOS.

TRANSFORMING TROUBLE; ERADICATION AND RECYCLING OF WATER HYACINTH

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Malavika Nair

Sarangi M

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Abstract

Water hyacinth (Eichhornia crassipes), a floating aquatic plant with clusters of leaves and spongy stalks, is considered the most troublesome freshwater weed. It forms dense, impenetrable mats that clog waterways, hindering boating, fishing, and other activities. Additionally, it reduces biodiversity by outcompeting native plants both at the surface and underwater. The mats also degrade water quality by blocking the air-water interface, thus reducing oxygen levels and harming aquatic ecosystems. This project aims to eradicate water hyacinth effectively and sustainably, transforming the waste into useful products. Our research involves testing the weed's growth rate in various solutions to identify conditions that maximize growth, allowing us to propose methods to suppress those elements. By eradicating this invasive species, we aim to reduce water salinity and enhance aquatic biodiversity. The eradicated biomass will be recycled into products such as sanitary napkins, paper plates, and mushroom cultivation substrates.

Keywords: Eichhornia crassipes, spongy stalks, impenetrable mats, eradicate, transforming

BAGASSE- A SUSTAINABLE SUBSTRATE FOR A GREEN FUTURE

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Abstract

The management of agricultural wastes has proved to be one of the greatest challenges in the 21st century. In a bid to minimize pollution by agricultural waste, various forms of researches have been carried out to transform agricultural wastes into useful products. Sugarcane bagasse is one of the main agroindustry processing wastes that are produced in various regions of the world. Bagasse is the dry fibrous residue left after crushing and extracting juice from sugarcane; and one of the most renewable resources with least carbon emission. SCB is a lignocellulosic biomass containing cellulose, hemicellulose, lignin. The utility of bagasse should be exploited to produce renewable energy for electricity and fuel, eco-friendly products, and agricultural uses that will help reduce emissions and minimize the negative impact on the environment. Bagasse has numerous uses and extensive focuses on its research and development as a sustainable source of power for the generation of bio-products. The scope of this research paper is to offer a comprehensive analysis of the prospectus and possibilities of SCB.

Key words: Bagasse, transform, lignocellulosic, bio-products, electricity

NARIMAN NARIMANOV'S ROLE IN THE SIGNING OF THE KARS AGREEMENT

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Abstract

İntroduction and Purpose: On December 1, 1920, the transfer of Zangezur district to Armenia, which separated the territory of Nakhchivan from Azerbaijan, necessitated the question of Nakhchivan's autonomy. For certain political reasons, Russia had to recognize the right of Nakhchivan to decide its own destiny, taking into account the proposals of Turkey and the position of one of the leaders of Azerbaijan, Nariman Narimanov.

Materials: Undoubtedly, Mustafa Kemal Atatürk's relations with Russia played an important role in this matter. The Moscow Treaty "On Friendship and Brotherhood" signed by Turkey and Russia on March 16, 1921 can be cited as the first step. In terms of clarifying the issue of Nakhchivan's territorial affiliation, the Moscow Treaty had historical significance. As a result of the diplomatic negotiations conducted after the signing of the Moscow Treaty, a conference was held between Turkey and the three South Caucasian republics in the city of Kars from September 26 to October 13, 1921, with the participation of a Russian representative. After Nariman Narimanov's insistence, Behbud Shahtakhtinsky was appointed the representative of Azerbaijan SSR at the conference. However, the Armenian leaders in the leadership of Azerbaijan tried to replace him with a person more convenient for them. However, these attempts were not successful due to Nariman Narimanov's principled position on this issue. On October 13, 1921, with the participation of Soviet Russia, Turkey signed an agreement with three South Caucasian republics in Kars.

Methods: Comparison and generalization.

Results: 104 years have passed since the signing of the Kars Treaty. This agreement has always been a guarantee of the security of Nakhchivan for Azerbaijan. When talking about this agreement in Azerbaijan, it is always said that "Armenia cannot come close to Nakhchivan due to the fear of the Kars agreement."

Keywords: Kars, Nakhchivan, N. Narimanov

SOLUTIONS FOR BUILDING A TIKTOK CHANNEL IN MULTICHANNEL SALES

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Abstract

TikTok, a rapidly growing social media platform for sharing short videos, has emerged as a powerful tool in marketing and sales. With millions of daily active users, TikTok is not only a source of entertainment but also an ideal environment for businesses to reach and interact with customers. TikTok's interactive features, such as comments, shares, likes, and duets, enable businesses to engage with customers directly and amicably. This interaction not only increases customer loyalty but also fosters trust and support from consumers. This article employs both quantitative and qualitative research methods to gather and analyze customer information, aiming to build a TikTok channel within a multichannel sales framework to enhance business management efficiency and reach target customers. In the context of omnichannel sales, integrating TikTok into the sales strategy not only expands customer reach but also creates stronger connections with consumers.

Keywords: Business strategy, multichannel sales, TikTok, digital business.

JEL Codes: M10, M11, M21

WHERE DO WE STAND REGARDING COMPLIANCE IN DIABETES CARE?

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Introduction

Poor compliance with diabetes treatment can lead to problems with glycemic control and is a major risk factor for both metabolic and cardiovascular complications. In this context, we aimed to study therapeutic compliance in diabetic patients followed up in primary care establishments and in a university hospital in south Tunisia.

Methods

This was a cross-sectional study of diabetic patients followed up in primary care establishments and in a university hospital in the southern part of Tunisia during the period November 2023 – January 2024.

Data was collected using a questionnaire given to all patients. Compliance with diabetes treatment was assessed using the MORISKY compliance questionnaire.

Results

A total of 227 patients were included, of them 67% were female (n=152). The mean age was 62.69±9.8 years. Most patients were seen in primary care establishments (71.9%, n=159). Of the patients followed, 53.1% are unemployed (n=119) and 26.3% are retired (n=59). The patients had been diabetic for a median period of 10 years (Interquartile range (IQR) = [6 – 15 years]). In 85% of cases (n=195), the diabetes was followed up regularly. Oral antihyperglycemic agents were taken by 95.6% of patients (n=215). Therapeutic nutritional education was received by 67.1% of patients (n=149).

The median compliance score was 6.75/8 (IQR = [5 – 7.81 /8]). A poor compliance was noted in 38.1% of patients (n=45).

The analytical study showed that compliance score was significantly associated with the professional status of the patient (p=0.02) and the regularity of their follow-up (p=0.008).

Conclusion

Our study shows that patient's compliance with diabetes treatment remains relatively poor. It is widely recommended that these patients be more closely followed up, and group or individual therapeutic education sessions would be essential to improve their compliance with treatment and thus enhance their diabetes management.

WAYS TO REDUCE SOLANINE TOXIN IN POTATOES AND REDUCE ITS RISKS

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Abstract

Solanine is a naturally occurring toxin found in potatoes that can cause symptoms such as nausea, diarrhea, and even respiratory distress in humans. With the increasing production and consumption of potato and its products, glycoalkaloid (GA) formation and toxicity are likely to become an important focus for food safety researchers and public health agencies.

Steroidal glycoalkaloids (SGAs) are produced following the general steroid biosynthesis pathway, starting from acetyl-coenzyme A and followed by the intermediates mevalonic acid, squalene, cycloartenol, and cholesterol. α-Chaconine and α-solanine are the main SGAs of the cultivated potato (*Solanum tuberosum*), whereas many other SGAs are known in the wild potato species. Low concentrations of SGAs improve the taste of potato, but concentrations greater than 200 mg/kg can have toxic effects on animals and humans.

In recent years, there has been increasing interest in finding ways to reduce the levels of solanine in potatoes. This article explores various methods of reduction of solanine toxin in potatoes, including using natural predators of pests that can lead to increased solanine levels, employing plant breeding techniques to develop potato varieties with lower solanine content, and using biological control agents such as bacteria and fungi to degrade solanine in the potato. By understanding these different approaches, researchers and farmers can work towards producing safer and healthier potato crops for consumption. This article provides a comprehensive overview of the current research and potential strategies for reducing solanine toxin in potatoes.

Keywords: Solanine, potato, Solanum tuberosum, toxin, glycoalkaloids

RETROSPECTIVE STUDY OF DIABETIC NEPHROPATHY IN ADULTS AND GERIATRICS IN PUNJAB, PAKISTAN

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Abstract

This retrospective research comprehensively investigates the prevalence and management of Diabetic Nephropathy (DN) within the adult and geriatric populations in the Punjab region of Pakistan. The study examines various aspects of this ongoing health issue. It carefully assesses factors such as age and gender to understand how many people have DN and how it affects different groups of people. The study also explores the types of diabetes and the duration someone has had it, providing insights into how DN progresses over time. Additionally, the research looks into the types of medicines people use to manage DN and focuses on the effectiveness of diabetes management by examining HbA1c levels. The study also considers lifestyle factors such as exercise, diet satisfaction, and family support to understand the social and behavioral aspects influencing DN management in this area. By reviewing medical records, the research provides a historical view of how DN has changed over time in the region, enabling the identification of trends and patterns from the past. The primary goal of this study is to better understand the prevalence of DN and how people cope with it in Punjab, Pakistan. The information gathered can assist in developing improved healthcare plans that address the specific needs of this population. By considering various factors, including age and lifestyle, this research aims to provide valuable insights for shaping future healthcare policies and strategies for managing DN in the region.

Keywords: Diabetic Nephropathy, Diabetes Type-II

URBAN PLANNING CHALLENGES ARISING FROM SPATIO-TEMPORAL DYNAMICS OF INFORMAL HOUSING

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Abstract

In regard to the informal housing settlements, understanding the temporal dynamics is crucial to comprehend the factors that shape these zones and their effects on cities. Housing, propelled by pressures from urbanization, rigid polices regarding tenures and housing, and different classes of economic status, remains a major problem to traditional city planning, which was developed from tenures and dual zoning laws. Thus, this research seeks to explore the growth and expansion of informal housing sector, existence in urban centres, and effects of economic factors, social relationships, and roles of government.

This paper discusses the issue stating that successful land use plays an important role in the economies' development while taking care of the natural environment; such centers are the Pearl River Delta and Ankara. The paper's study shows that informal housing links with challenges of population density, forgotten infrastructure, and diminished service delivery in ordinary existence, in the city. These are developmental structures and based on evidence they are growing or shrinking in size thus require flexible planning which will suit the dynamism of these societies.

Also, the study probes into the social factors of informal dwellings such as health and affordable shelters. Admitting their capabilities of controlling the areas they occupy may help introduce more efficient and people-oriented planning strategies in the future. The study concludes that community participation in planning and decisions regarding their future is crucial to support sustainable cities' development.

Future research directions in this field have consisted of the involvement of the residents of these informal structures in the construction of such areas, the effects of constructing and occupying such developments on the environment, and the economic benefits of such settlements. There is also a need for subsequent research to analyze changes in informal settlements in order to develop projections regarding other parts of cities. In this way, this research intends to improve current knowledge of how formal and informal areas are connected with each other for the possibility to build better, more sustainable, fair, and responsive cities.

Keywords: Informal Housing; Spatio-Temporal Patterns; Urban Planning; Sustainable Development; Urbanization.

UNVEILING THE ROLE OF INTERVENTIONAL RADIOLOGY AND CT SCANS IN MANAGING SARS-COV-2

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Abstract

Coronavirus has been a global health concern for an extended period, affecting people worldwide. The World Health Organization (WHO) has declared the Coronavirus Disease 2019 (COVID-19) a global health emergency. COVID-19, caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), has emerged as a worldwide phenomenon. Currently, the Reverse Transcription Polymerase Chain Reaction (RT-PCR) examination of respiratory samples stands as the gold standard for clinical diagnosis of COVID-19. However, with an increasing number of infected patients and a shortage of RT-PCR testing kits in affected areas, there is a pressing need for alternative diagnostic and screening methods. Clinical imaging, particularly chest computed tomography (CT), is routinely employed as a primary tool in diagnosing COVID-19. While the use of chest CT as a screening tool remains unresolved, recent studies indicate its pivotal role in early detection and monitoring of pulmonary signs associated with COVID-19. Interventional Radiology (IR) offers advanced image-guided treatments for a diverse range of patient conditions, from elective outpatients to those in the general emergency room. Interventional radiologists have utilized image-guided techniques to address COVID-19 complications affecting the lungs, kidneys, gastrointestinal tract, gallbladder, and vasculature. This review explores the role of various imaging techniques in SARS-CoV-2. A comprehensive literature search was conducted to identify published studies elucidating the utilization of SARS-CoV-2 in interventional radiology and CT scans. An organized search on databases such as PubMed/Medline, Embase, ProQuest, Scopus, Cochrane, and Google Scholar were performed using Mesh keywords as the basis for inclusion criteria.

Keywords: Radiology, COVID-19, CT scans, Topography, Clinical Imaging,

UNDERSTANDING ARID ZONE ECOSYSTEM DYNAMICS UNDER CLIMATE CHANGE: EFFECTS ON BIODIVERSITY AND HUMAN WELL-BEING

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Abstract

This study examines the complex interactions between arid zone ecosystems and climate change, emphasizing the latter's enormous effects on biodiversity and human welfare. Arid regions, distinguished by elevated temperatures and minimal precipitation, are especially susceptible to fluctuations in the climate. The article gives a general review of the interactions between arid ecosystems and climate change, highlighting the critical roles that biodiversity and human welfare play. It talks about changes in the composition and cover of the vegetation, highlighting how crucial they are to maintaining human livelihoods. It also examines the growing risks that climate change poses to hotspots of biodiversity and the ecosystem services they support. In addition, the article discusses the direct and indirect effects on human populations, such as food insecurity, water scarcity, and health hazards. In addition, it looks at adaptation and conservation tactics meant to strengthen resilience and encourage long-term coexistence in arid areas. In conclusion, the study highlights the necessity of prioritizing conservation and adaptation measures, outlines future research directions, and emphasizes the urgent need for coordinated efforts to address the complex challenges posed by climate change in arid zones.

TURKEY'S SOFT POWER IN CENTRAL ASIA: HISTORICAL TIES AND MODERN INFLUENCE

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Abstract

This research examines Turkey's strategic use of historical and cultural connections to bolster its soft power in Central Asia. Leveraging deep-rooted historical ties and shared cultural and religious heritage, Turkey has crafted a multifaceted approach to influence Central Asian countries, focusing on educational exchanges, media engagement, and religious ties.

The study begins with a historical overview, tracing the shared Turkic and Islamic heritage that forms the foundation of Turkey's soft power in the region. It highlights how historical connections have been revived and repurposed In contemporary foreign policy to foster goodwill and strengthen bilateral relationships.

A significant portion of the research is dedicated to analyzing Turkey's educational initiatives, particularly through scholarship programs such as Türkiye Bursları, which attract Central Asian students to Turkish universities. These programs not only enhance Turkey's cultural influence but also create a network of alumni who often assume influential positions in their home countries.

The role of media In Turkey's soft power strategy is also scrutinized. Turkish television series, widely popular across Central Asia, serve as cultural ambassadors, projecting Turkey's modernity and cultural values. Additionally, Turkish-language media outlets contribute to shaping public opinion and reinforcing cultural bonds.

Religious influence, through the activities of Turkish religious organizations such as the Diyanet and the Gülen Movement, is another critical component of Turkey's soft power. These organizations promote religious education, support local religious institutions, and facilitate cultural exchanges, thereby reinforcing Turkey's image as a leader of the Muslim world.

Keywords: Turkey's Soft Power, Central Asia, Turkish Influence.

MODERN MICROPROCESSORS IN FACILITIES MANAGEMENT SYSTEMS

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Abstract

The issue of studying and using modern microprocessor technologies is an urgent task of information technologies.

To illustrate the effectiveness of using a microcontroller in object management systems, a practical example is given in an Arduino Uno environment.

The paper emphasizes the use of integrated circuits in microprocessor and microcontroller technologies and their benefits in practice.

The most popular microcontrollers are discussed and various options for their use are offered.

To illustrate the effectiveness of using a microcontroller in object management systems, a practical example of the interaction between a microcontroller and a text display is made. The software code is developed in the C++ programming language, the simulation results of the program execution are shown in the Proteus program.

THE ROLE OF INTERNATIONAL COURTS IN SHAPING GLOBAL JUSTICE: EVALUATING THE EFFECTIVENESS & ENSURING PROTECTION AND ACCOUNTABILITY IN CONFLICT ZONES

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Abstract

International criminal law has grown significantly since the conclusion of the Cold War, with the United Nations ushering in a new era of accountability. However, the enforcement of international law remains inconsistent, as it frequently depends on states' desire to cooperate. Critics claim that international law lacks the essential components of effective legislative, judicial, and police authority to be termed true law. Despite this, governments generally comply with international law, as proven by over 45,000 international treaties governing various aspects of global relations and commerce, such as air transport, communications, environmental protection, human rights, and trade.

International legislative procedures take place through bilateral treaties, which are negotiated and enforced similarly to domestic contracts, as well as multilateral treaties established by organisations such as the United Nations. States are required to comply with these treaties only after undergoing internal approval processes. Although there is no one worldwide judicial body, various courts, like the worldwide Court of Justice and regional courts such as the European Court of Human Rights, play critical roles in explaining and enforcing international law.

For egregious violations of international law, the United Nations Security Council has the authority to impose economic sanctions and military incursions. The New York Convention makes it easier to enforce international arbitral rulings, and national courts frequently deal with international law issues. Despite the lack of an international police force, effective enforcement of international law is accomplished through a variety of techniques.

This research answers various questions: Is international law really law? How are bilateral treaties implemented in accordance with domestic laws? Is plea bargaining effective in international criminal law? How is justice sacrificed for peace in cases involving war crimes and crimes against humanity? The aims include investigating the role of international tribunals, the right to self-defence in international law, the benefits and drawbacks of plea bargaining, and the obstacles that judges encounter when prosecuting former national leaders.

This study uses a doctrinal and non-empirical research methodology, including secondary sources including United Nations papers, scholarly resources, and recognised law journals. The idea delves into the development of an international criminal court as well as the historical context of prosecuting war crimes and crimes against humanity, starting with the atrocities of World War I.

Keywords: International Criminal Law, Enforcement Mechanisms, Bilateral Treaties, Multilateral Treaties, International Courts, Plea Bargaining, Justice vs. Peace, War Crimes, Crimes Against Humanity, International Tribunals.

THE NEXUS BETWEEN TRANSPORTATION INFRASTRUCTURE AND URBAN GROWTH

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Abstract

Transportation and urban development is one of these multiplicative topics that focuses on how transport networks impact on the growth and development of cities. The purpose of this article is to discuss the roles transportation infrastructure in the emergent urbanization and describe the significance of the rational transport interconnection as the effective driver and enabler of economic growth in urban context. Through the use of past records and research findings, the study supports that through putting in place roads, rail and general transport infrastructure for agriculture produce and finished goods transport, they become the binding between the rural based industries and the urban markets for integration. There is a call for a better ru vi planning framework regarding transportation systems to ensure that it is put in harmony with land-use so as to deal with congestion, environmental effects and likely access to facilities. These findings also support the necessity of the indicators for evolving adaptive policies and successful public-private collaborations in addressing the overall challenges in the construction of transport infrastructures. Finally, the paper gives practical findings to economic and urban planning analysts and policy makers, who would like to develop strategies to make use of investment in transport to build up other urban growth goals; with the view of better handling current as well as future change in the economy and population demography that characterizes urban growth in developing cities.

Keywords: Transportation Systems; Urban Growth; Economic Development; Sustainable Urbanization; Land-Use Policy.

THE IMPACT OF SOCIAL RELATIONS IN ENHANCING LABOR PRODUCTIVITY IN THE ALGERIAN ORGANIZATION

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Abstract

In view of the importance of social relations in the lives of individuals in general, and in organization in particular as coordinated social units to achieve certain goals, we have tried in this study to reveal the extent of the impact of these relations on labor productivity, and On this basis, we dropped this topic on "Algerie Poste" unit of Adrar, by probing the orientations of a sample of its members estimated at 234, and after applying the questionnaire to them, our study concluded that social relations in the organization affect the ability of individuals to work through contribution. In the dissemination and circulation of knowledge, and in supporting collective skills, We also found that it affect the desire of individuals to work by enhancing belonging to the organization and increasing commitment to work, especially in work teams.

Keywords: Social relations, the Algerian organization, labor productivity.

THE FUTURE OF SOCIAL MEDIA ADVERTISING: PREDICTING TRENDS AND THEIR POTENTIAL IMPACT ON PURCHASE INTENTIONS

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Abstract

As social media continues to evolve, its role in advertising has become increasingly pivotal, shaping consumer behavior and influencing purchase decisions. This paper aims to explore the future of social media advertising by predicting emerging trends and assessing their potential impact on consumer purchase intentions. Through a comprehensive review of current literature and industry reports, we identify key trends such as the rise of artificial intelligence (AI) and machine learning, the increasing use of augmented reality (AR) and virtual reality (VR), and the growing importance of personalization and data-driven strategies. AI and machine learning are set to revolutionize how ads are targeted and delivered, enabling hyper-personalized content that resonates more deeply with consumers. AR and VR technologies promise immersive experiences that can enhance engagement and drive purchase intentions by allowing consumers to interact with products in a virtual environment. Additionally, the proliferation of social commerce features on platforms like Instagram and TikTok is streamlining the path from discovery to purchase, making social media a more integral part of the shopping experience. The paper also examines potential challenges, including data privacy concerns, ethical considerations, and the need for transparency in advertising practices. As consumers become more discerning about how their data is used, marketers must navigate these issues to maintain trust and effectiveness. By analyzing these trends and their implications, this study provides valuable insights for marketers looking to leverage social media advertising in the future. It highlights the need for adaptability and innovation in strategies to effectively capture consumer interest and drive purchase intentions in an ever-changing digital landscape.

Keywords: Social Media Advertising, Purchase Intentions, Artificial Intelligence, Augmented Reality, Virtual Reality, Personalization, Data Privacy, Social Commerce

MOLECULAR GENOTYPING OF ANOPHELES MOSQUITOES IN ILORIN, KWARA STATE, NIGERIA

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Abstract

Culex mosquito species is a known vector responsible for the transmission of Japanese encephalitis, Rift valley fever, Lymphatic filariasis and West Nile fever. Despite the medical importance of this mosquito species, there is limited information about its abundance, species distribution and molecular diversity in North Central and Southwestern Nigeria. This study therefore investigates species distribution and molecular diversity of Culex using a combined approach including both morphological and molecular data. Mosquitoes were collected with the use of CO2-baited CDC miniature light traps in the studied areas. A total of 2,295 mosquito species were collected and sorted into their genera Anopheles, Aedes and Culex. after morphological identification. Culex were later separated from the pool and further identified to species level by molecular method using multiplex PCR analysis. Analysis of relative species distribution showed that Anopheles, Culex and Aedes were 1454 (63.4%), 585 (25.5%) and 256 (11.1%) respectively. Our molecular analysis revealed that all the Culex spp showed expected bands for Culex quinquefasciatus. This is an indication that Culex quinquefasciatus is the most abundant among the Culex spp in sampled areas. This study suggests that there should be intensified efforts and control strategies put in place by public health agencies to prevent transmission of pathogens of public health concern and its spread to humans and other animals.

Keywords: Culex quinquefasciatus, Mosquitoes, Kwara, Nigeria.

Synergistic Treatment of Pb-Stressed Maize Plants with Oxalic and Salicylic Acids: Effects on Oxidative Stress Markers

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Abstract

Pb toxicity is a global issue resulting from human extraction and widespread use in batteries, paints, plastics, cosmetics, and petrol additives. The WHO observes Lead Awareness Week every third week of October to highlight the serious health and environmental impacts of Pb. Our research aligns with these goals by addressing Pb toxicity in maize plants, treating Pb-stressed plants with a combination of oxalic acid and salicylic acid. For our study, we used the leaves of the treated maize plants. We validated our research through lipid peroxidation tests, using MDA accumulation as a key indicator of oxidative stress. Additionally, we measured SOD and catalase activities to assess the plant's defense against reactive oxygen species (ROS). For accuracy, we included triplicates of each group. To determine the significance of the results, we applied statistical analyses using ANOVA and Tukey's test. Our findings revealed that Pb-stressed plants exhibited increased MDA accumulation and elevated SOD and catalase activities compared to controls. However, treatment with oxalic acid and salicylic acid reduced MDA accumulation and increased SOD and catalase activities. This indicates that the combined treatment of Pb-stressed maize plants with oxalic acid and salicylic acid enhanced antioxidant enzyme activity, effectively mitigating Pb-induced stress and oxidative damage.

Keywords: Pb toxicity, Stress, Reactive oxygen species, Catalase, SOD

SYMBIOTIC RELATIONSHIPS: TRANSPORTATION INFRASTRUCTURE AND URBAN EXPANSION

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Abstract

This paper focuses on the interdependency between transport infrastructure and urban growth to investigate the roles they play in the development of today's urban centres. Transportation facilities that include; road networks, railways and public transport real estates are significant elements that shape urban development by determining the utilization of land and population density as well as encouraging economic activities. The long view synthesizes knowledge of the role that transportation improvements have traditionally played in the growth of cities, from establishment by railroad during the nineteenth century to car-oriented metropolitan areas in the period after World War Two. Although the applied semantic changes are usually rather subtle, modern progress constantly adds elements like the introduction of autonomous vehicles, smart public transport systems, which extend the eternal redefinition of cities.

The aspect of economics of transport infrastructure is also touched on in the research in the way that defines how efficiencies in transport has promoted region growth, employment movement, and business investments. However, it equally manages the social and economic impacts of expansion of urban areas such as; regeneration and. growing gap of socio-economic differences. The effects on environment area equally as well with the impact of urbanization as habitat loss, pollution and urban heat island effect. Thus, the study underlines the necessity of implementing green planning, efficient transportation systems, and efficient coordination of land use planning and transportation systems.

Thus, the paper reviews the best practices of a city's transit development integrated with sustainable and equity-oriented approaches, based on the case-study and comparative analyses. Thus, it provides suggestions about the necessity of community involvement and co-governance strategies in planning, which address policy requirements corresponding to various urban populations' wants and needs. Overall, the study implies that greater attention should be paid to the technological component together with the idea of sustainable environment and comprehensible politics as the key to building strong and comfortable cities.

In conclusion, the research makes the following useful contribution to knowledge in the area of transportation infrastructure and urban expansion/sustainable urban environment. Thus, understanding their relations can contribute to the elaboration of viewpoints for policy-makers and

urbanists that reflect the idea of a local economy's sustainable development, social justice, and environmental quality. The study the nature requires proactive strategies and concepts for urban development capable of providing for the needs of a city in the future respecting citizens' quality of life.

Keywords: Transportation Infrastructure; Urban Expansion; Public Transit Systems; Gentrification; Community Engagement

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EFFECT OF COVID 19 INFECTION, GENDER AND AGE GROUP ON STRESS STRAIN AND COPING STRATEGIES OF WORKING INDIVIDUALS

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Abstract

The aim of the present study is to explore the effect of on COVID-19 infection, gender and age groups on stress, strain and coping strategies of working individuals due to pandemic. The study will be conducted on a representative sample of 100 working individuals selected conveniently from Agra and Mathura city. The sample will be checked for its normalcy. The sample will include Covid-19 infected and non-infected, both Male and Female and belonging to the age group in between 24 – 65 years. Occupational stress Inventory (OCI) is used to generate data and the data is checked for its normal distribution. The result indicates that there is a significant interaction effect of Age group and covid Infection only on strain and coping of the working employees. However, gender didn't show any effect on the stress, strain and coping of the working employees in educational institutes.

Keywords: Covid -19, Stress, Strain, Coping, inflected and non- infected and working employees.

EXPLORING THE GENETIC BASIS OF OBESITY: INSIGHTS INTO HEREDITARY FACTORS AND POTENTIAL INTERVENTIONS

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Abstract

Obesity is an interplay between genes and environment, including lifestyle. The cause of obesity and overweight is an energy imbalance between calories consumed and used up. Lifestyle factors such as unfavourable dietary habits , not moving much, sitting around and Psycho-social factors are most important but endocrine disorders and genetic predisposition also have an Identifiable contribution to obesity. Genes regulation of obesity is either monogenic or polygenic. Polygenic (or common) obesity and rare , severe, early – onset monogenic obesity are often polarized as distinct diseases. However, gene discovery studies for both forms of obesity show that they have shared genetic and biological underpinnings pointing to a key role for the brain in the control of body weight. The Human genome project was carried out between the years 1990 to 2003 to Map out the human genome. Genome Wide Association Studies (GWAS) have been ongoing since 2007 to help associate specific genetic variations with certain diseases with around 250 genes are now associated with obesity. The FTO also know as the alpha – ketogluterate- dependent dioxygenase gene on chromosome 16 is the most important and carries the highest risk of the obesity phenotype. It has been shown that presence of one mutant allele of rd9939609 (gene FTO) and rs4994 (gene ADRB3) leads to statically significant association with obesity. All humans carry the FTO gene which is a gene that is involved in appetite. This overview introduces the concept of genes linked or associated with obesity and how it can deter the health physical activities and normal routines of a person.

Keywords: Obesity, Genes.

PRIVACY CONCERNS IN TECH-INTEGRATED BRAND EXTENSIONS: A SOCIETAL DILEMMA

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Abstract

This conceptual review study delves into the intricate intersection of privacy concerns, technology integration, and brand extensions, presenting a societal dilemma in contemporary marketing landscapes. As brands increasingly integrate advanced technologies into their extended product offerings, the study aims to dissect the multifaceted dimensions of privacy implications. Drawing on established theories in brand management, consumer behavior, and privacy studies, the research navigates the uncharted territory of privacy concerns associated with tech-integrated brand extensions. Employing a comprehensive framework, the study explores the evolving landscape of consumer expectations, regulatory frameworks, and ethical considerations surrounding data privacy. Through an extensive review of existing literature, the study aims to construct a nuanced understanding of the factors shaping privacy concerns and their profound impact on brand extensions. Adopting a holistic approach, the research integrates qualitative and quantitative methodologies, encompassing case studies, consumer surveys, and ethical analyses. The goal is to unravel patterns that illuminate the complexities of privacy concerns in the realm of tech-driven brand extensions. Ultimately, this study contributes valuable insights for brand managers, policymakers, and marketers seeking to navigate the intricate balance between technological innovation, brand expansion, and safeguarding consumer privacy in an increasingly interconnected and digitized society.

Keywords: Brand Extension, Social Dilemma, Tech-Integrated, Societal Dilemma, Privacy Concerns

CREATION OF MEMBRANE NANOTECHNOLOGIES AND NANOSYSTEMS

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Abstract

The most important feature of nanosystems is the qualitative changes and properties of products, materials and apparatus obtained during their realization. Drinking water pollution is recognized as the main problem of the modern world, threatening public health. Compliance with sanitary norms of water, food safety, creation of environment safe for human health puts on the agenda the provision of population with high - quality drinking water.

Membrane nanotechnology and nanosystem were processed and created using a structurally new membrane flat-parallel type device. An automated membrane nanosystem for water sterilization to obtain ecologically clean water has been studied. On the basis of theoretical and experimental studies, in order to ensure the optimal technological process, the optimal indicators of the mode parameters were determined.

Keywords: Membrane, Nanosystem, Ultrafiltration, Water

INFLUENCE OF GOAGULATION BATH TEMPERATURE ON THE MORPHOLOGY OF THE POLYAMIDE MEMBRANE

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Abstract

The effect of the temperature of the non-solvent on the performance, surface topofgraphy and morphology-pore sizes, freguence of their distribution (porosity distribution of membranes obtained on the basis of Poly [N, N′-(1,3-phenylene) isophthalamide] (PMIA) and polyethylene glycol (PEG) by wet method of phase inversion has been studied. It is determined that the specific performance of the membranes depends on the temperature of the preparation of the polymer composition and the non-solvent in the coagulation bath. By increase of coagulant temperature in coagulation bath the membrane productivity enhances for water. For the membrane obtained at coagulant temperature at 55^0C the pure water flux is higher than the same value at at 10^0C, 25^0C, 40^0C, which is confirmed by membrane morphology. From these data it is evident that the membrane has a great number of the pores and narrow areal of distribution by pore sizes.

Keywords: non- solvent, polymeric material, membrane, coagulation temperature, microfiltration

STADY OF MEMBRANE COMPOSITION BY DYNAMIC LIGHT SCATTERING METHOD

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Abstract

In order to provide the population with drinking water of a high quality, it is necessary to treat natural waters with membrane technologies. The paper presents the results of the experimental study of membrane compositions, which were studied on the Zetasizer Nano ZS9036 nanoparticle measuring analyzer by the dynamic method of light scattering.The issue of the dependence of the conformational state of the polymer molecule on its size is discussed, which is an effective factor for the formation of the morphology and structure of the membrane. The effect of the size of the microgel particles of the polymer and its conformational state on the physico-chemical indicators of the composition and the specific performance of the membrane obtained from the pouring solution is established.

Keywords: Conformation state, Filtration, Membrane composition, Particle size

ECONOMIC APPROACHES TO OBTAINING AND MAINTAINING GUALITY, STERILE DRINKING WATWR FORM NATURAL WATERS THROUGH THE USE OF NANOTECHNOLOGICAL MEMBRANE

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Abstract

Introduction and Purpose: The shortage of clean water created by rapid population growth, ecological problems, climate deterioration, surface and drinking water pollution are recognized as the main challenges of the 21st century. This puts on the agenda the use of new, innovative technologies that exhibit high energy efficiency, low operating costs, and do not have the ability to have a negative impact on the environment.

In order to ensure a safe environment for human health, water purification-sterilization of centralized, non-centralized and surface water supply systems for apartments, private houses, hotels, kindergartens, schools, for medical organizations, it means the development of modern nanosystems of membrane techniques and technologies for obtaining high-quality drinking water.

Materials and Methods: Assessment and optimization of the limiting capabilities of membrane processes, research, test and design, laboratory and pilot-industrial experiments on membrane devices, study of methods for studying the hydrodynamics of liquid flows made itpossible to create tangential ultrafiltration membrane devices and installations with high functional.

The paper investigates microbiological, organoleptic and physico-chemical indicators of Georgian groundwater (well water, Buriani village) treated with membrane micro- and ultrafiltration units created at the Engineering Institute of Membrane Technologies before and after filtration. The obtained indicators are compared with drinking water standards recommended by Republic of Georgia and the World Health Organization.

Results: The paper presents ways to optimize the technological characteristics of membrane systems and improve technical and economic performance, in order to obtain high-quality, sterile and cheap drinking water. To obtain and maintain drinking water on an industrial scale, a schematic diagram of the capacity of 20,000 l/h membrane device, designed for a settlement with a population of 2,000 people, has been developed.

Key Words: Surface and drinking water; Membrane; Ultrafiltration; Cleaning; Sterilization

Acknowledgments

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A STATISTICAL ASSESSMENT OF SOME FACTORS AFFECTING STUDENTS' ACADEMIC PERFORMANCE IN NIGERIAN TERTIARY INSTITUTIONS

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Abstract

Academic achievement is commonly measured through examinations. The study focuses on student academic performance in tertiary institutions. To achieve this study, some factors were considered namely: Monthly Allowance, Reading Habits, Class size, and Parental education. A sample of 356 students were selected randomly from various departments in the Faculty of Physical Science, A.B.U. Zaria and data were obtained through a structured questionnaire with a response value of 293 students. Multiple linear regression was used in the analysis of data and results from the analysis indicated that monthly allowance, reading habits, and parental education contributed to students' academic performance (CGPA). A multiple correlation value of 0.442 indicates a weak positive relationship between CGPA and the predictor variables. Based on the findings of the study It is recommended that parents should encourage their children by giving them a monthly allowance in other to boost their academic performance and academic institutions should also encourage students to have a good schedule for reading and the government should provide more funds to tertiary institutions in other to have availability of lecture halls, which will thus enhance students' academic performance.

ANXIETY AND DEPRESSION: GENDER DISPARITIES IN CLINICAL CASES

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Abstract

Anxiety and depression disorders are most common psychological conditions, with nearly one-fourth of adult and adolescent population of India is experiencing at some point in their lives. These disorders lead to numerous adverse consequences, including reduced educational and occupational opportunities, greater functional impairment, and increased morbidity and mortality compared to other disorders. Clinical patients with anxiety and depression were recruited through medical referral to participate in this study. All participants were selected from Jawaharlal Nehru Medical College, Aligarh Muslim University (AMU). The total sample size comprised 138 individuals with mean age of 27.33 years (Mage=27.33). The findings show that the female participants are high in anxiety and depression. Because, women are more prone to internalizing stress and ruminating on distressing situations, which can result in prolonged anxiety and depression.

Keywords: Anxiety, Clinical Patients, Depression, Gender

PERFORMANCE EVALUATION OF RECYCLED CONCRETE AGGREGATE INCORPORATION OF SILICA FUME AND NATURAL POZZOLAN

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Abstract

The construction field heavily relies on the utilization of concrete, which stands as the most commonly employed material. Nonetheless, addressing the detrimental ecological effects tied to it and lessening the generation of construction and demolition waste (C&D) involves the advantageous integration of recycled concrete aggregates (RCA), 10% Silica Fume (SF), and 20% natural pozzolan (PZ) into the concrete mixture. This strategy not only contributes to the conservation of natural resources but also diminishes the overall environmental impact connected to concrete production and application. The primary objective of the present study is to elevate the mechanical characteristics and endurance of concrete that incorporates recycled concrete aggregates and supplementary minerals. The intention is to promote the use of entirely recycled aggregates in concrete and juxtapose its performance with that of conventional concrete. The results obtained in this experimental study allow us to conclude that the use of addition improves the physico-mechanical characteristics of concretes based on recycled aggregate provided that a dose of superplasticizer is added , four concrete mixtures are produced, and the mechanical properties of the concrete specimens such as compressive strength, tensile splitting strength ,and physical properties of the concrete specimens such as density and water absorption ratio are determined, the major conclusion is increase in compressive strength and better durability.

Keywords: Silica fume, Compressive strength, recycled aggregate .

THE SIGNIFICANCE OF CONSTITUTIONAL REFORM IN THE REPUBLIC OF AZERBAIJAN FOR STRENGTHENING STATESHIP

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Abstract

İntroduction and Purpose: The problem of improving the legal foundations of public administration in the Republic of Azerbaijan has always been in the center of attention. This is proven by the continuous improvement of the efficiency of the state government. The significant strengthening of the sovereignty and independence of the Azerbaijan state, the development of civil society, and guaranteed social stability were directly related to the constitutional and legal reforms implemented in our country.

Materials and Methods: Constitutional reforms challenge the more efficient integration of Azerbaijan into the world community, create a real basis and opportunities for improving the legislative framework that will ensure more efficient state administration. Progressive international practice is used when constitutional reforms are implemented in our country. Amendments to the Constitution of Azerbaijan in July 2016 are the next step taken in the direction of more dynamic development of the country, guaranteed rise of socio-economic welfare, strengthening of the principle of respect for human rights. The large-scale economic reforms carried out in our country in recent years have made the creation of the vice-presidential institution the need of the hour. The establishment of the vice-presidential institute will allow opening a new page in this direction. Most of the proposed changes are related to human rights and freedoms.

Results: In general, the previous changes to the Constitution of Azerbaijan have accelerated the taking of effective steps in the direction of strengthening our statehood, significantly expanding the area of achieved socio-economic successes, and improving the system of protection of human rights and freedoms. New reforms, taking more effective steps in the direction of comprehensive sustainable development of the country and carrying out relevant constitutional reforms to achieve more serious quality results is a necessity and comes from the demand of time.

Key Words: Constitution, reforms, Azerbaijan

GEOSPATIAL TECHNOLOGIES FOR MANGROVE HABITAT MAPPING AND SURVEILLANCE

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Abstract

Mangrove ecosystems are critically important for their rich biodiversity and the multitude of services they provide both ecologically and economically. These vital habitats are increasingly imperiled by human activities and coastal threats. Effective evaluation and continuous observation of these sensitive and essential components of the shoreline environment are pivotal for the execution of conservation strategies aligned with the objectives of Sustainable Development Goals (SDGs). Given their unique location in coastal and marshland regions, mangroves are particularly amenable to analysis using Remote Sensing (RS) and Geographic Information Systems (GIS), especially when extensive on-site surveys are challenging. Over the past three decades, advancements in RS and GIS have significantly enhanced the strategic and judicious utilization of field data to determine various aspects of mangrove ecosystems, including delineation, health assessment, species diversification, and characterization of their physical and chemical attributes. The progression in sensor technology, yielding ultra-high-resolution data across multiple spectral bands, including multispectral, hyperspectral, microwave, and Light Detection and Ranging (LiDAR), has greatly refined our ability to characterize and monitor mangrove habitats. Cutting-edge Data Science approaches, encompassing storage, geospatial analytics, and sophisticated algorithmic processing of voluminous data sets (both archival and real-time), are advancing our comprehension and evaluation of the mangrove ecosystem's spatial and temporal patterns. A synthesis of the evolution and application of RS and GIS technologies in conducting methodical and quantitative analyses of mangrove environments is essential.

Keywords: Mangrove Ecosystems, Remote Sensing, Geographic Information Systems, Conservation, Sustainable Development Goals, Habitat Monitoring.

NAIR MILITIA IN TRAVANCORE: AN ANALYSIS

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Abstract

The Nairs were the indigenous population of South India who were mostly involved in agricultural activities on a full-time basis. The process of Aryanisation resulted in a comprehensive transformation of their social existence. They elevated them to the status of Kshatriyas due to their fulfilment of the responsibilities of feudal soldiers, including safeguarding the land and its inhabitants. However, the establishment of the contemporary state of Travancore by Marthanda Varma and the arrival of Europeans paved way for the decline of the Nair militia system in Travancore.

ANALYSIS OF CORN RESILIENCE IN THE CLIMATE CHANGE: CASE OF SNOPTIC STATIONS IN BENIN

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Abstract

The deficit of last decade rain in West Africa and particularly in Benin pushes us to make the analysis of tendencies of the dry sequences of the tabular stations from daily raining data. The general objective of this survey is the research of probability of the dry sequence sets in the period from 1970 to 2018 from daily raining data of the tabular stations of Benin. We have extract of data daily raining of six stations synoptic of Benin, in the period from1970 to 2018 from daily raining data of the tabular stations of and we analyzed the variation of the probability of length of dry sequences with markov chain model on the period from 1970 to 2018 to raining data of the tabular stations. We determined the critical duration of the dry period analyzed his impact of lower yields of maize especially during the heading phase in the future to 2025 at 2100 with a project data REMO. From the results, we can retain the probability of dry spell length of 5 days was about 75%. The probability of dry spell length of two weeks was also more than 20%. On the other hand, the probability of dry spell length of 20 days was below 20%maxima of dry sequence length to the station of Bohicon, Savè, Cotonou and Kandi. It has been also clarified that in Parakou's and Natitingou's station that the probability of dry spell lengths of 15 days or the two weeks has been reached about 30% in July. However, the probability of the occurrences of 10 days, 15 days, and 20 days were fall below at 8% in August in the north of Benin. A dry sequence of more than 4 days constitutes a risk of lower yields of maize especially during the heading phase where it could reach the wilting point.

Keywords: The deficit of rain, the probability, the heading phase, the wilting point, Benin

DETERMINANTS OF FAMILY ENTREPRENEURS: AN EMPIRICAL STUDY IN ODISHA, INDIA

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Abstract

Family enterprise plays an important role in the economic development in Odisha, India. Family industries represents an important share in the structure of all enterprise worldwide. It can deliver for wealth creation and economic activity. Such type of industries have long-term perspective, focusing on sustainable development rather than short term gains. Different study shows that near about 70% business are owned and maintained by families. Realizing the importance of the family enterprise Government of Odisha executing so many policies related to this. On the basis of this perspective, the objective of the paper is to examine the contribution of family business in shaping the economy of Odisha. The paper also examine the different determinants influencing family business in Odisha. The study uses a mixed method based on both primary and secondary data. Primary data has been collected from 100 entrepreneurs those have developed family business and perspective businessman those are interested. Focus group discussions and in-depth interviews have been conducted to substantiate the findings from the primary data. Both descriptive and inferential statistics have been used to analyze data and draw inference. It is infered that family business has facilitated improving economic development of Odisha.

Key Words: Family enterprise, development, wealth, economic activity, business, sustainable development

AN ANALYSIS OF THE DETERMINING FACTORS OF CHILD MALARIA MORTALITY IN NIGERIA

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Abstract

Nigeria is still one of the countries in sub-Saharan Africa with the highest cases of child mortality and still far from the recommended 25 per 100 live births by the Sustainable Development Goals (SDG). The study therefore set out to investigate the determining factors of child malaria mortality in Nigeria, especially among children under five years of age. The study employed a modified VAR and Error correction model to determine the causes of child malaria mortality in Nigeria using secondary data. The results from the study revealed that factors such as income, household behavior, female illiteracy and low physician density were statistically significant in determining child malaria mortality in Nigeria. The study concludes that apart from low government spending on healthcare services there are other factors that influence under-five malaria mortality rate. The study, therefore, recommends that the government should roll out programs to increase citizen's income, increase girl child education participation, female labor force participation, increase awareness of immunization, and increase the supply of physicians to reduce the high doctor-patient ratio.

Keywords: Child mortality, Malaria, VAR, Income.

AN ANALYSIS OF THE WORK BY ȘERBANA DRĂGOESCU GAME FOR PEERS OR THE GAME OF FIRE MATCHES (1977)

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Abstract

Introduction and Purpose: The purpose of the paper is to analyse the conceptual art piece by Șerbana Drăgoescu *Game for Peers* or *The Game of Fire Matches* (1977). She is a Romanian artist, currently having an exhibition on at the Romanian National Art Museum in Bucharest, from June 9 to October 9, 2024. The exhibition is titled after this work.

Materials and Methods: Drăgoescu is a conceptual artist, combining tradition and experimentalism in her works. She combines materials such as textiles, wood, and metal, and these are visible in this particular work. This particular work shows some strange objects which we do not know what they are, and which intrigue us on the poster placed in the city advertising this exhibition. We do not now what those objects are. They look at first like technical pieces, then we notice they are pieces of thin, long metal, dressed in threads of textile materials. If we look online for more information, we can find the entire work. It completes the poster with missing detail, that of a pile of matches for lighting a fire. When we see the entire picture from the exhibition, we notice more sticks wrapped in other colours of textiles, and a box as if for a game with instructions. These pieces resemble an unknown game.

Results: The matches are defamiliarized by including metal sticks wrapped in textile threads. **Discussion and Conclusion:** The interplay between fantasy and fiction is clear, as we can find it in any game.

Key Words: Fantasy; Creativity; Experiment; Game; Defamiliarization

PROVIDING HUMANITARIAN ASSISTANCE DURING WAR ISSUES AND CHALLENGES

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Abstract

Introduction

War is an event which often becomes the undoing of humanity when territorial conflicts and power egos have resulted into huge suffering and destruction. From World War I, II to the US's invasion of Iraq for freedom fight or Russia defending herself in Ukraine, millions are affected by few people's ambitions and decisions. In such a confused situation, there are those who courageously go into war torn areas to help desperate people like children, old people and even individuals who have never known any other home apart from their homeland.

Purpose

The aim of this paper is to understand how humanitarian aid affects both one giving it and receiving it during war. Involving providing help to those most affected by the fight, rebuilding destroyed infrastructure, giving medical attention and participating in evacuations. The goal is to alleviate suffering and support communities that have been destroyed by war in their recovery efforts.

Method

Providing humanitarian aid in the war zones is a task of many faces and required skills. Humanitarian workers and volunteers must operate their ways through disordered surroundings, appraise instant requirements, and deliver charitable assistance fruitfully. It also involves sharing out food, water and medical supplies as well as giving psychological help to affected persons besides coordinating local and international bodies which can magnify actions performed by themselves.

Conclusion

The result of these efforts is the relief and support of those suffering the most in war zones. Through the dedication and courage of aid workers, countless lives are saved, and the foundations for rebuilding communities are laid. These efforts also help restore a sense of normalcy and hope to those who have lost so much. Humanitarian assistance during war is essential and challenging, requiring immense courage, compassion, and diverse skills. Volunteers and aid workers play a crucial role in mitigating war's horrors and aiding communities in recovery and rebuilding.

GLYCOGEN SYNTHASE KINASE-3B INHIBITOR BINDING MECHANISM FOR ALKYLPIPERAZINE DERIVATIVES STUDIED USING COMBINED 3D-QSAR AND MOLECULAR DOCKING TECHNIQUES

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Abstract

Introduction and Purpose: Abstract: Glycogen synthase kinase-3β (GSK-3β), a protein kinase with diverse roles in various biological processes, has emerged as a promising target for drug research in the treatment of numerous clinical diseases. In this study, we employed a combination of computational techniques, including molecular docking and three-dimensional quantitative structure-activity relationship (3D-QSAR).

Materials and Methods: All molecules (36) under study were taken from previously published work and IC50 (nM) values converted in to -log10 (pIC50) values used in the present study were shown in Table 1, The molecular modeling and docking studies (3D & Docking) were performed using the molecular Design suite SYBYL-X 2.0 molecular modeling package (**Tripos Inc., St. Louis, USA**) running on a windows 10, 64 bits workstation, The molecular docking study was performed using Autodock vina and Autodock tools1.5.4, to interpret the obtained results from CoMFA contour map.

Results: Our best-performing 3D-QSAR model yielded impressive conventional determination coefficients R2 of 0.95 and leave-one-out cross-validation Q2 of 0.56, showcasing its robustness and predictive capability. External validation using a test set of six compounds further confirmed the model's reliability, with anticipated R2test values of 0.87. To reinforce the validity of our 3D-

QSAR model, a Y-Randomization test was conducted. Additionally, to investigate the binding interactions between the most active chemical and the GSK-3β protein's active site (PDB ID: 1Q4L, we used molecular docking simulations. These docking results not only corroborated the findings from our 3D-QSAR analysis but also provided valuable insights into the binding mode of alkylpiperazine derivatives with GSK-3β.

Discussion and Conclusion: In this study, a combined computational approach was used to get the insight into the inhibition mechanism for a series of GSK-3β inhibitors. First, we carried out a 3D-QSAR study and the model was statistically found to be significant. The robustness of the model was checked using leave-one-out, Y-Randomization and external test set. The final CoMFA was found be predictive. Further, the docking of the most active compound (compound 29) into the proposed binding site of the GSK-3β is sudied. Docking results indicates the most active compound shows different interactions with receptor which explain the stability of ligand inside receptor.

Key Words: Alkylpiperazine derivatives; CoMFA; GSK-3β; Molecular docking; 3D-QSAR.

TEACHING ENGLISH FOR SPECIFIC PURPOSES: SUBJECT TEACHER OR LANGUAGE TEACHER?

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Abstract

In the realm of English for Specific Purposes (ESP), a critical question arises: Who is better suited to teach ESP courses, subject teachers or language teachers? This study explores the pedagogical effectiveness and challenges faced by both groups in the context of higher education, particularly in medical, dental, and pharmaceutical fields.

Drawing from a comparative analysis of teaching methodologies, student performance, and satisfaction surveys, this research highlights the distinct advantages and limitations inherent to subject-specialist instructors versus language-trained educators. Subject teachers bring in-depth knowledge of the specific discipline, ensuring the relevance and accuracy of the content. However, they may lack the pedagogical skills to effectively teach language nuances. Conversely, language teachers excel in linguistic pedagogy but may struggle with the technicalities and terminologies unique to specialized fields.

The study employs a mixed-methods approach, combining quantitative data from academic performance metrics and qualitative insights from student and teacher interviews. The findings suggest that a hybrid model, incorporating the strengths of both subject and language teachers, may offer the most comprehensive and effective ESP instruction.

This research underscores the need for collaborative teaching strategies and professional development programs to bridge the gap between language and subject expertise. By fostering a synergistic teaching environment, educational institutions can enhance the quality of ESP courses, ultimately improving student outcomes and satisfaction.

Keywords: English for Specific Purposes, ESP, Subject Teachers, Language Teachers, Pedagogical Effectiveness, Higher Education, Medical English, Interdisciplinary Teaching

ENHANCED ELECTRONIC AND MAGNETIC PROPERTIES OF CR AND MN DOPED GEC ZINC BLENDE

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Abstract

The electronic and magnetic properties of the doped GeC by Cr and Mn are studied using the Koringa-Kohn-Rostoker (KKR) method combined with the coherent potential approximation (CPA). We have determined the nature of the forbidden band gap and investigated the metallic character when the doping is made by the chromium and the manganese. On the other hand, although the doping is above the percolation threshold, the total magnetic moment for $Ge_{1-0.25}TM_{0.25}C$ is 0.491 and 0.67 μ_B for Cr and Mn, respectively. Besides, the polarization as well as the main responsible source of magnetism in the system is determined. Finally, using the mean-field theory, the Curie temperature T_C is estimated for different concentrations. It was found that the effect of doping with Mn had a significant impact on T_C since it exceeded the room temperature. The findings of this work suggest GeC-based diluted magnetic semiconductors as potential materials for electronics applications.

ADVANCED APPLICATIONS OF CARBON NANOSTRUCTURED MATERIALS FOR OPTICAL SENSORS, PHOTOCATALYSIS, AND WATER TREATMENT

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Abstract

Carbon nanostructured materials, including carbon nanotubes (CNTs), graphene, and carbon quantum dots (CQDs), have garnered significant attention in recent years due to their unique properties and versatile applications. This research article explores the use of these materials in three critical areas: optical sensors, photocatalysis, and water treatment, with a focus on removing toxic metal ions, organic pollutants, and radioactive species from contaminated water sources. The first part delves into Synthesis and Characterization of Carbon Nanostructured Materials. The second part discusses the application of carbon nanostructured materials in photocatalysis, highlighting their effectiveness in degrading organic pollutants under visible light irradiation. The final section examines the use of functionalized carbon nanomaterials for the efficient removal of heavy metal ions and radioactive contaminants from water. This study underscores the significant potential of carbon nanostructured materials in addressing water pollution challenges and contributes to the advancement of sustainable water treatment technologies.

Keywords: Carbon nanotubes, graphene, carbon quantum dots, optical sensors, photocatalysis, water treatment, environmental nanotechnology.

MOLECULAR VARIABILITY ASSOCIATED TO TRANSPOSABLE ELEMENTS IN *BOTRYTIS CINEREA* ISOLATES INFECTING STRAWBERRIES IN MOROCCO

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Abstract

Botrytis cinerea, a ubiquitous fungal pathogen, causing gray mold in over 500 plant species, poses a significant threat to strawberry cultivation worldwide. Understanding molecular mechanisms underlying its genetic diversity is important for effective disease management strategies. Transposable elements (TEs) are known contributors to genomic variability and adaptive evolution in fungi. This study investigates diversity and impact of TEs within *B. cinerea* isolates infecting strawberries plants. Fifty-eight *Botrytis spp*. isolates were collected from different Moroccan regions. DNA extraction was performed. Results showed that in our population the most dominant genotype is *Transposa*. This knowledge could lead to targeted strategies for controlling strawberry gray mold.

Keywords: Botrytis cinerea, genetic diversity, gray mold, transposable elements, strawberries**.**

DFT AND TD-DFT STUDY OF THE STABILITY AND EFFICIENCY OF TRIPHENYLAMINE COMPOUNDS FOR DYE-SENSITIZED SOLAR CELLS

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Abstract

Solar energy is renewable energy par excellence; it's inexhaustible energy and has several advantages. In this field, dye-sensitized solar cells (DSSCs) have received significant attention in both academic and industrial fields. Thus, considerable efforts have been made to search for effective dye compounds to improve the performance of DSSCs.

In this present work, we have been interested in the theoretical study of new Ai-D-π-A compounds based on the 1,2,4-triazolone derivatized triphenylamine (TPA) as core, and different acceptors terminal for organic dye-sensitized solar cell applications. Our study focused on the determination of the impact of various modifications made to the structures of molecules on optoelectronic properties (λ_{max}, E_{HOMO}, E_{LUMO}, E_{gap}..)

The calculations were performed using quantum chemistry methods, such as DFT (Density Functional Theory). The functional used is B3LYP with the 6-31G(d,p) basis set. We also simulated the UV-visible spectrum, with the time-dependent TD-DFT method using the B3LYP functional and the 6-31G(d,p) basis set, while introducing the effect of the solvent (chloroform).

The results obtained show that the organic molecules studied have very interesting gaps and absorb in the visible range; therefore they can be considered as good candidates for use in photovoltaic applications.

Keywords: Triphenylamine, DFT/TD-DFT, DSSCs, Optoelectronic properties.

BIOCHAR FOR GREENER CONCRETE: A REVIEW OF CARBON SEQUESTRATION AND PERFORMANCE OF CONCRETE

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Abstract

The construction sector significantly contributes to global carbon emissions, exacerbating climate change. To address this, embracing sustainable development is essential. Biochar, a carbon-rich material created through the pyrolysis of biomass, can help reduce the carbon footprint of concrete by sequestering carbon. This review paper explores the effects of substituting various types of biochar for cement on both the fresh and hardened properties of concrete. It outlines potential advantages, such as improved strength up to a certain threshold, reduced permeability and enhanced thermal insulation. Conversely, it also addresses potential issues like reduced strength at higher replacement levels and increased shrinkage. Based on the data collected, it can be concluded that enhancing the mechanical properties needs an optimum biochar dosage of around 5%. The effectiveness of biochar in concrete depends on factors such as particle size, source material, production technique, and temperature. The paper calls for more research into life cycle assessments and affordable biochar production methods to maximize its benefits for a more sustainable construction industry.

Key Words: Biochar; Cement Replacement; Carbon Sequestration; Biomass Pyrolysis; Carbon footprint

THE EFFECTS OF MASSED PRACTICE USING MOBILE PODCAST APPS ON LISTENING COMPREHENSION IN PRE-INTERMEDIATE ADULT SECOND LANGUAGE LEARNERS: A CONTROLLED STUDY

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Abstract

This controlled study focused on the impact of massed practice using mobile apps on listening comprehension in pre-intermediate Iranian second language learners. Massed practice is a learning strategy, where learning sessions are conducted in a short period without significant breaks. Given the widespread availability of mobile learning apps for language acquisition, this study aimed to assess how effectively these apps implement massed practice techniques. To do this study, 50 Iranian pre-intermediate second language learners were selected as the participants based on the results of Oxford Quick Placement Test (OQPT). The participants were chosen and assigned randomly to experimental and control group. The experimental group was engaged in massed listening practice through mobile podcast apps, while the control group was engaged in traditional listening exercises. Afterwards, the researchers assessed the participants' listening comprehension skills by administering a pre-test. A t-test was used to analyze the significance of differences in listening comprehension between the groups. The findings were anticipated to illuminate the impact of mobile applications on improving the listening comprehension through massed practice, offering valuable perspectives for both language instructors and developers of mobile applications.

Key words: Massed practice, mobile apps, listening comprehension

ONLİNE DİSPUTE RESOLUTİON: A DOORWAY TO THE FUTURE WİTH A NARROW ENTRANCE!

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Abstract

Online Dispute Resolution (Hereinafter referred to as "ODR") has been defined by the United Nations Commission on International Trade Law, 2017 as a mechanism or framework which facilitates the process of resolution of disputes in a simple, flexible and fast manner without requiring the presence of the parties in dispute. In the present day world where technology has acquired vital presence in nearly every industry, ODR has become an indispensably potential tool for easing the process of dispute resolution by facilitating the process without mandatorily requiring the presence of parties physically, further carrying forward the objective of alternative mechanism of dispute resolution i.e., speedy, efficient and effective disposal of disputes between parties by further reducing the cost of the entire process and improving the accessibility of parties to an effective redressal mechanism. Especially in consumer disputes, intellectual property rights (IPR) disputes, civil disputes and disputes relating to succession of property, ODR can act as a gateway to the future by keeping the interests of the parties at the paramount level.

However the entire process of Online Dispute Resolution at the present stage is unregulated and nascent, requiring specialized intervention by the legislature and the entire legal system to develop it as a tool for access to justice. This research paper has identified the opportunities offered by the ODR process and mechanism along with the potential challenges associated with its adoption and implementation at the domestic and international level and has proposed recommendations pertaining to the same. Last but not the least, the present research aims to contribute to the ongoing discourse of the process of Online Dispute Resolution in the present digital age.

EMOTION AND PROBLEM BASED COPING OF CAREGIVERS IN AN ELDERLY CARE INSTITUTION

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Abstract

Caregivers play a vital role in supporting elderly individuals and managing most of their care needs. However, they are also prone to experiencing caregiving burdens that are met with various coping strategies. This study used a narrative inquiry anchored to the theory of stress appraisal to identify the challenges and how they influenced the coping strategies practiced by caregivers working in an elderly care institution. A semi-structured, researcher-made interview guide was adapted specifically focused on identifying prevailing themes regarding the working facilities, assessing the needs of the elderly, and workload. It was conducted face-to-face among five (5) caregivers working in an elderly care institution with a minimum of one (1) year of experience who were chosen using a purposeful sampling technique. The information gathered was then analyzed through inductive-reflexive thematic analysis. Two (2) significant themes were found, namely: (1) Problem-based coping and (2) Emotion-based coping. These themes were then further classified into four (4) sub-themes, under which nine (9) meaningful categories were identified. This study concludes that caregivers in an elderly care institution face numerous internal and external challenges that influence how coping strategies are enacted through emotion-based and problem-based coping. Furthermore, age and years of experience play a crucial factor in determining how caregivers cope with stress.

Keywords: Caregivers, Elderly Care Institution, Problem-based Coping, Emotion-based Coping

ELECTROCATALYTIC WATER SPLITTING FOR HYDROGEN PRODUCTION USING COMPOSITE METAL OXIDE CATALYSTS

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Abstract

The widespread adoption of green hydrogen production plays a pivotal role in establishing a sustainable circular economy. This research explores a promising avenue for large-scale hydrogen production by leveraging Ni, Co, Al and Fe-based electrocatalysts as alternatives to noble metals, offering a cost-effective solution. This investigation focuses on the electrolysis process utilizing NiO, Al_2O_3, CoO, and Fe_2O_3 in a 1 M solution of (NaOH) and (KOH). Additionally, environmental and economic analyses are carried out to ascertain the overall impact and cost-effectiveness of the electrolysis process. These findings demonstrate profound insights into the performance, feasibility, and challenges associated with using aluminum, nickel, iron, and cobalt in electrolysis for hydrogen production. This composite catalyst electrode 1 produces hydrogen at the rate of 500 ml after 30 minutes of process electrode 2 and electrode 3 produces 263 ml and 249 ml respectively. The XRD, FTIR, SEM, and electrochemical techniques, including CV, EIS, and LSV were employed for the comprehensive characterization of the prepared material's electrodes. This involved the examination of morphology, structural analysis, identification of functional groups, assessment of stability under electrochemical conditions, and evaluation of ion diffusion ability. This study also explained the electrocatalytic mechanism involved in water splitting using these composite materials.

ADOPTING 360-DEGREE PRODUCT PHOTOGRAPHY IN INDONESIAN E-COMMERCE: CHALLENGES AND OPPORTUNITIES

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Abstract

Introduction and Purpose: E-commerce in Indonesia continues to grow rapidly with an increasing number of consumers turning to online platforms for shopping. However, one of the main challenges faced by many e-commerce platforms is consumer dissatisfaction with the products received. One of the primary causes of this dissatisfaction is the discrepancy between the product received and the product photos displayed on the e-commerce platform. This is especially true for clothing, bags, and shoes, where consumers often complain about differences in colour and product details that do not meet their expectations.

Materials and Methods: One solution that can be implemented to address this issue is the use of 360-degree product photos. 360-degree photos provide a comprehensive view from various angles, allowing consumers to see the product in more detail and realistically before making a purchase. However, many e-commerce platforms in Indonesia have yet to adopt this technology due to resource limitations, technical constraints, and a lack of awareness of its benefits.

Results: This study aims to examine the impact of product-photo discrepancies on consumer satisfaction and how the implementation of 360-degree photo technology can enhance the online shopping. Thus, it is hoped that this research can provide insights for e-commerce players to improve service quality and customer satisfaction through the innovation of product visualization technology.

Key Words: E-Commerce; 360-Degree Product Photography; Customer Satisfaction

IMAM AL-SHAFI'S CONTRIBUTION IN ISLAMIC LAW

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Abstract

Abu Abdullah Muhammad Ibn Idrees Al-shafi'i is a theologian and renowned Islamic Scholar, who was the first contributor of the principles of Islamic Jurisprudence. Among the four schools of thought of Muslims, Shafi'i is the Imam and founder of Shafi,i school of thought. He was one of the four great Imams whose legacy on juridical matters and teachings eventually led to the formation of Shafi,i School of law. One of his famous books is Al-Risala. This is a book of his verdict's specific issues, rather it was a book settling the principles of Islamic jurisprudence upon which every school of thoughts agree. He was one of the first people in the history of Islam who developed this branch of the religion. Another book comprising his rulings called Al-Umm has also become widely popular. Just as his book Al-Risala has the status of the first book and the primary source in the principles of Jurisprudence, like that his book Al-Umm has the status of the primary source in the field of Jurisprudence. The Shafi'i school of Jurisprudence is based on these books. His two chief treatises that survived are al-Umm, a collection mainly concerned with positive law and disagreements among the early jurists, and al-Risala, a work on legal theory with particular emphasis on Prophetic Traditions, as a binding source of law. He set a new road towards Islamic Law through these two precious book. The article will deal with the contributions of Al- shafi'i in Islamic Law in the light and approach of Al-Umm and Al-Risala.

Keywords: Al-Shafi'i, Islamic Jurisprudence, Contribution, Founder, Islamic Law, Legal Theory

LAND PRESSURE AND DEVELOPMENT CHALLENGES IN THE MUNICIPALITY OF ADJARRA (BÉNIN)

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Abstract

The municipality of Adjarra has been facing unprecedented land pressure for several years due to demographic change and increased land needs for housing. This situation is also due to the costs associated with human settlement. These phenomena are not without effects on the environment. This research aims to study the main factors of land pressure in the municipality of Adjarra.

The methodological approach adopted was built around three essential stages: data collection, data processing and analysis of the results using the SWOT model. A total of 267 households were surveyed and 38 resource persons were interviewed. The data collected underwent appropriate processing. ArcGIS 10.8 and SPSS software were used to produce the various maps and statistical processing.

The analysis of the results shows that several factors are at the root of land pressure in the municipality of Adjarra. These are population growth, subdivision works, the availability of socio-community infrastructure, the extension of the electricity and drinking water supply network and the modernization of the road network. These different factors demonstrate the human pressure on land and wood resources in the commune of Adjarra. This situation favors the increase in the purchase price of plots. Local governance and land management practices contribute to spatial dynamics. Thus, the commune of Adjarra is marked by the regression of natural spaces and agricultural land in favor of built-up areas, the surface area of which increased from 692 ha in 2002 to 4,329 ha in 2024 in the absence of territorial planning documents (communal development master plan, urban master plan). This is why we observe the anarchic installation of habitats, the inadequacy of socio-community infrastructure and the increasing consumption of land for construction needs.

Keywords: Adjarra, land pressure, population growth, development challenges.

VOLATILITY SPILLOVER AMONG CLIMATE CHANGE, SUSTAINABLE FINANCE AND RENEWABLE ENERGY MARKET: A DCC-GARCH APPROACH

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Abstract

This paper explores the volatility spillover effect of climate change on the sustainable finance market and renewable clean energy. The S&P 500 Carbon Efficient Index (RSPCE) and S&P 500 Fossil Fuel Free Index (RSPFFF) represent climate change, while the S&P 500 ESG Index (RSPESG) is used as a proxy for sustainable finance. Similarly, the S&P Global Clean Energy Index (RSPGCE) is used as a proxy for the renewable energy market. A Dynamic Conditional Correlation-GARCH (DCC-GARCH) model is applied to daily data from July 1, 2014, to June 30, 2024. The findings indicate the presence of volatility among the studied series. The DCC results reveal that there is a volatility spillover effect from climate change to the sustainable finance market and the renewable energy market in both the short run and the long run. It suggests that investment in these assets for a longer period has caused losses due to market fluctuations. Surprisingly, the spillover of carbon-efficient with ESG is only spotted in the long run, and no dynamic linkage exists in the short run. This suggests portfolio diversification opportunities only in the short run, with no such benefits available in the long run. This study has substantial implications for policymakers, investors, and portfolio managers.

Key Words – Climate Change, Sustainable Finance, Carbon Efficient, Fossil Fuel, ESG, Renewable Energy, Volatility Spillover, Dynamic Conditional Correlation

ANALYSIS OF THE IMPACT OF GEOLOGICAL AND TOPOGRAPHICAL FACTORS ON VULNERABILITY TO LARGE LANDSLIDES: THE CASE OF AGADIR IDA OU-TANANE PROVINCE, MOROCCO

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Abstract

This study aims to delineate landslide-prone areas in the province of Agadir Ida Ou-Tanane by combining Geographic Information Systems (GIS) and the Analytical Hierarchical Process (AHP) method. The region characterized by active tectonics, marked relief and geological diversity (clay, limestone, alluvium), is particularly vulnerable to this phenomenon. Eight trigger factors were assessed using AHP: lithology, slope, ground cover, fault density and road density, aspect, elevation and drainage density. The cartographic integration of these factors enabled the identification of areas at different levels of landslide risk, validated by the consistency ratio. This approach revealed the predominant role of lithology and slope in landslide vulnerability. The resulting susceptibility map is a valuable tool for territorial planning and risk management in the province.

Keywords: AHP, GIS, landslide, susceptibility, risk, mapping, Agadir.

GREEN SYNTHESIS AND CHARACTERIZATION OF MN OXIDE NANOPARTICLES FROM CORN HUSK FOR EFFECTIVE ENVIRONMENTAL REMEDIATION

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Abstract

The present work was carried out to synthesize manganese oxide nanopaticles using corn husk as a renewable and eco-friendly bio-resources. The reduction of a metal precursor such as manganese chloride in the presence of corn extract, resulting in the formation of well-defined manganese oxide nanoparticles. The optical and morphological properties of synthesized nanoparticles were analyzed by Ultraviolet visible spectroscopy, Fourier transform infrared spectroscopy and Scanning electron microscope. X-ray diffraction studies were carried out to confirm the crystalline structure of the manganese oxide nanoparticles. The particle size was found to be 40 nm to 80 nm. This study investigates the utilization of manganese oxide nanoparticles as an effective photocatalyst for the degradation of methyl red dye under stimulated sunlight irradiation.

Key words: MnO nanoparticles, corn husk, photocatalytic activity, methyl red

THEME OF WAR AND HUMANIZATION IN PROSE OF AZERBAIJAN PERIOD OF INDEPENDENCE

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Abstract

Introduction and Purpose: There is no century in human history that has not witnessed a bloody tragedy. Although literature, culture and art stand on such bloody moments, these disasters did not go unnoticed by art and its branches, especially the art of words. Feeling the disasters, pains and sufferings caused by the wars, the human race put their feelings on paper in words and produced interesting works. Homer's “Iliad” and “Odyssey”, the first great epic works known in the history of mankind, the old Turkish eposes “Kitabi-Dada Korkut”, “Manas”, Nizami Gencevi's “Hamse”, Muhammed Fuzuli's “Bangü-Bade” poem, epos about "Beowulf" etc. are such studies. Modern Azerbaijan prose is the written experience of people who directly or indirectly participated in the two Karabakh wars.

Materials and Methods: After the patriotic war, the main focus of the works in our literature was dedication to victory. Thus, the spiritual face, character and national identity of the Azerbaijani people appear in modern Azerbaijani prose. The Karabakh war is closely related to the feelings of patriotism and unity. Writers like Aqil Abbas, Mustafa Chamanli, Rafig Yusifoglu, Azad Garadareli, Sabir Ahmadli embodied the national and spiritual values of our people in their works with brilliant examples of art. There is almost no writer in Azerbaijani literature who neglects the theme of homeland in his works. This is the rich tradition and experience of values such as the national identity of the people, traditions, welfare of the motherland in Azerbaijani literature.

Results: Recently, the research directions of Azerbaijani prose have been expanded. This is a natural phenomenon, because prose works form the majority of literary genres due to the demand for reading. This situation also paves the way for these works to become the subject of further discussion and to be evaluated with different measures. Although some research works have been done on Karabakh-themed works, some problems have not been widely researched. Therefore, although it is sufficient to research the works related to the First Karabakh War in the literature of Azerbaijan, the fact that the works related to the Second Karabakh War are the product of recent times has led to the fact that the research is not detailed, but more descriptive.

Keywords: literature, prose, independence, human, war, peace, disaster, happiness

INVESTIGATING LINSEED OIL AS AN ECO-FRIENDLY CORROSION INHIBITOR FOR C38 STEEL

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Abstract

The exploration of environmentally friendly corrosion inhibitors for steel, particularly in acidic media such as HCl and H_2SO_4, is a significant challenge in various industries, including chemical cleaning, descaling, pickling, and acidizing oil wells. The corrosive nature of these acids leads to substantial economic losses due to the rapid degradation of metal components. Inhibitors offer a practical solution to mitigate corrosion, especially in acidic environments. While numerous organic compounds have been evaluated for their corrosion inhibition potential, many are highly toxic and harmful to the environment. This has driven researchers to seek affordable, non-toxic, and eco-friendly natural alternatives.

This study investigates the effectiveness of linseed oil (LO) as a corrosion inhibitor for carbon steel in a 1 M HCl solution using potentiodynamic polarization and electrochemical impedance spectroscopy (EIS). The results indicate that linseed oil functions effectively as a mixed-type inhibitor for C38 steel. EIS analysis reveals a single capacitive loop, affirming its inhibitory properties. Data from EIS were analyzed using an equivalent circuit model with a constant phase element (CPE), showing good correlation with experimental results.

Keywords: Corrosion, Steel, Inhibitor, Linseed Oil

ELECTROCHEMICAL ANALYSİS OF 2-(2 PYRIDYL) BENZIMIDAZOLE AS A CORROSION INHIBITOR FOR C38 STEEL IN HYDROCHLORIC ACID SOLUTION

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Abstract

Corrosion of steel is a critical issue in both academic research and industry. Inorganic acids, commonly used in processes like pickling, cleaning, and descaling, necessitate effective corrosion prevention methods. The use of inhibitors, particularly in acidic environments, is one of the most practical solutions. Organic compounds, especially those containing multiple heteroatoms such as oxygen, sulfur, and nitrogen, have shown significant potential in corrosion inhibition. Among these, 2-(2-Pyridyl) benzimidazole (PB) stands out due to its inclusion of oxygen and nitrogen atoms, three aromatic rings, and multiple bonds, all of which contribute to its effectiveness as a corrosion inhibitor.

This study examines the corrosion inhibition properties of 2-(2-Pyridyl) benzimidazole (PB) for C38 steel in a 1M HCl solution. The analysis was conducted using electrochemical impedance spectroscopy (EIS) and potentiodynamic polarization methods. The results demonstrated that the inhibition efficiency of PB increases with its concentration, reaching up to 98.8% at a concentration of 2.10^-4M. Potentiodynamic polarization indicated a mixed-mode inhibition with a predominant control over the cathodic reaction. The data from EIS measurements were interpreted using an equivalent circuit model incorporating a constant phase element (CPE), showing good correlation with experimental observations.

Keywords: Corrosion, Steel, Inhibitor, 2-(2-Pyridyl) Benzimidazole

PHYTOCHEMICAL STUDIES AND GC-MS ANALYSIS OF THE STEM BARK EXTRACTS OF *Boswellia Dalzielii* (Frankincense Tree)

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Abstract

Boswellia dalzielii commonly known as “hararrabi” by the Hausa people of northern Nigeria, widely in tropical and sub-tropical regions of the world including Nigeria. Boswellia dalzielii stem bark were obtained from Damaturu Local Government, Yobe State Nigeria. Boswellia dalzielii stem bark was chosen for this study based on it ethanomedicinal uses, to treat ulcer, fever, syphilis, and wound etc. therefore, this study was carried out to provide scientific explanation as to its continued use as ethanomedicine. For this reason successive extraction was carried out on the Boswellia dalzielii stem bark using n-hexane, methanol and distilled water. The percentage yields were generally (3.65-0.55%) the phytochemical screening results show that alkaloids, flavonoids, saponins, cardiac glycosides, quinones, terpenoids, phenols and tannin were present. The antibacterial activity test against Staphylococcus epidermis, Escherichia Coli, Klebsiella pneumonea and Staphylococcus aureus showed that the extracts obtained from all the solvents exhibited fairly significant antibacterial activities (zone of inhibition 5-27 mm/dm). The antibacterial activities shown by the extracts were generally concentration dependent, and Staphylococcus aureus and Escheridia coli were relatively more sensitive than Klebsiella pneumonea and Staphylococcus epidermidis. The methanolic extract of Boswellia Dalzielii that was subjected to GC-MS analysis identified the following compounds: 4-Acetoxy-3-methoxystyrene, 3-Methyl-2-(-2-oxopropyl) furan, 2,6-Dimethyl-3-thioxo-5-oxo-2,3,4,5-tetrahydro-1,2,4-triazine, 3,5-Cyclohexadine-1,2-dione, 3,5-bis(1,1-dimethylethyl), Benzeneethanamine, 2,6-trimethyl, culmorin, Acetic acid, mecarpto-cyclohexyl ester, 1,2-Dibenzoyl-3 phenyl cyclopropane, 2,3-dihydro-1,1,3-trimethyl-3-phenyl. Several studies have confirm this phytocompunds as anti-bacterial, anti -microbial, anti-oxidant, bacteriocide, anti-pyretic, anti-inflammatory, maintain blood pressure, anti-tumor and anti-biotic. Therefore, the present study result conclude that Boswellia Dalzielii stem bark may serve as a potent source of medicinal compounds responsible for therapeutic activities which justifies it use in ethanomedicine.

MİXED MİCELLAR ENCAPSULATİON OF NAPROXİN FOR ENHANCED SOLUBİLİZATİON USİNG SUİTABLE SURFACTANTS

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Abstract

Interaction of NSAIDs specifically naproxen has been investigated via spectroscopic analysis in single polymeric (pluronic F-127) and bio-surfactant (saponin) mixed surfactant media. The solubilization capabilities of surfactant solutions have been assessed regarding the partition coefficient (K_x) and binding constant (K_b). Critical micelle concentration (CMC) of the surfactant and hydrophobic associations plays an important role in the said process. Significant enhancement in the solubility of naproxen was observed with the addition of polymeric surfactants (pluronic F-127) in the saponin solution. Solubility was found to be directly related to the extent of mixed micellization. The negative values of the Gibbs energy of binding (ΔG_b) and Gibbs energy of partition (ΔG_p) are the predictors to prove the feasibility and spontaneity of the process. Herein, the results suggested that using mixed micellar media for solubilization of naproxen is advantageous over that of a single surfactant. This research will help select the most suitable micellar media to be used as drug carriers for pharmaceutical formulation and drug delivery applications.

AB *INITIO* INVESTIGATION OF THE ELECTRONIC STRUCTURE AND OPTICAL CHARACTERISTICS OF RUTILE TiO_2 DOPED WITH PHOSPHOROUS

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Abstract

The band structure, density of state, and optical dielectric function of the pure and rutile phase of TiO_2 doped with Phosphorus was studied Ab *initio*. The band structure that was obtained when the 8.5 eV U parameter was included and compared well with the findings of experiment results. Phosphorus dopant's 2p state, as shown by partial density of state, is the cause of the P-doped rutile's decreasing bandgap when compared to pure rutile. According to the computed optical properties, P-doped rutile has at least one optical peak in the electromagnetic spectrum's visible light region, suggesting that it could be a better material for photovoltaic applications than pure rutile. According to our findings, rutile's optical characteristics can be modified by doping it with phosphorus at varying concentrations, which increases the material's potential as for photovoltaic energy application.

Key words: DFT; doping; Rutile; electronic properties; optical properties

COMBINED NATURAL FLOTATION AND CHEMICAL PRECIPITATION FOR THE TREATMENT OF INDUSTRIAL WASTEWATER

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Abstract

Vegetable oil refineries, while playing a crucial role in food and industrial production, are also responsible for generating significant quantities of wastewater. The complex composition of this wastewater, including contaminants, causes significant environmental impact, particularly on aquatic ecosystems. This study aims at improving the effectiveness of wastewater treatment from vegetable oil refineries. It examines a combined method, starting with natural flotation and continuing with chemical precipitation using caustic soda (NaOH). Natural flotation presents a good removal efficiency of turbidity, chemical oxygen demand (COD), nitrate ions (NO_3^-), Total Phosphorus (TP), and polyphenol of 97.3%, 38.5%, 78.6%, 97.7, and 91.6%, respectively. Chemical precipitation reduces turbidity, COD, nitrates, ammonium, color, polyphenols, and absorbance at 254 nm by 99%, 25%, 83.2%, 96%, 38.3%, 62.2%, and 52.9%, respectively. The study shows that treatment by natural flotation followed by precipitation is a simple and efficient means for small and medium-sized companies to reduce the pollution impact of wastewater.

Keywords: Flotation, Precipitation, Vegetable Oil Refineries, Treatment.

THE IMPACT OF FISCAL AND MONETARY POLICY ON ECONOMIC RECOVERY IN MOROCCO: AN EMPIRICAL STUDY

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Abstract

This empirical study uses autoregressive vector modeling techniques to explore the effectiveness of Fiscal and Monetary Policies in Morocco from 1994 to 2020. The analysis reveals a positive and statistically significant relationship between public spending, money supply, and economic growth. Impulse response function analysis and forecast error variance decomposition indicate that while public spending modestly affects gross domestic product, the money supply significantly stimulates economic activity in Morocco.

The research highlights the beneficial outcomes of coordinated increases in public spending and monetary supply on Morocco's GDP. By employing vector autoregressive modeling, impulse response functions, variance decomposition methods, and causality tests, this study provides valuable insights for researchers, practitioners, and policymakers, supporting the formulation of more effective and resilient economic strategies.

Keywords: Fiscal Policy; Monetary Policy; Economic growth; Public spending; Money supply; Morocco; Gross domestic product

CONSERVATION STATUS AND RARITY OF PLANT SPECIES IN THE ARCHAEOLOGICAL SITES OF THE MAZAGAN FORTRESS AND THE ANCİENT MEDINAS OF SAFI AND AZEMMOUR, MOROCCO

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Abstract

Moroccan archaeological sites, the Mazagan fortress and the ancient medinas of Azemmour and Safi, are home to significant plant diversity with endemic species and endangered species. This work aims to study this biodiversity by highlighting species and their conservation status. Thus, a systematic sampling method is set up to collect plants. Subsequently, the information is compared with that of the IUCN and the Red Book of the Vascular Flora of Morocco in order to highlight endemic, rare, endangered or vulnerable species. The species identification process made it possible to list 87 taxa belonging to 31 families. The Asteraceae family is the richest with 16 species followed by Amaranthaceae (7 species) and Poaceae (7 species) then Solanaceae (5 species). The biological spectrum is dominated by therophytes (41 species) then hemicryptophytes (23 species) and then come phanerophytes (15 species), geophytes (5 species) and chamaephytes (3 species). Among these species, 9 are rare and threatened, 4 are suspected rare and 5 species are very rare. Sonchus pinnatifidus is among the endemic species found in the study area, all in the threatened category. The majority of the species recorded are of least concern, i.e. at low risk of extinction (74%), followed by naturalized plants of least concern (13%), then introduced plants (5%) and vulnerable plants (3%). The phytogeographic interest of the plants present in these archaeological sites is obvious and some of them deserve to be preserved, as do the ancient structures that shelter them.

HOLISTIC STRATEGIES FOR ADDRESSING GLOBAL AND REGIONAL ENERGY CRISES: THE ROLE OF ALTERNATIVE ENERGY AND POLICY INNOVATION

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Abstract

The study investigates the profound impacts of oil crises on global energy systems, emphasizing the urgent need for a transition towards sustainable and renewable energy sources. The study identifies critical factors affected by oil crises, including global energy shortages, price fluctuations, geopolitical tensions, and environmental concerns. By examining the consequences of oil dependency, the presentation underscores the necessity of investing in alternative energy sources such as solar, wind, and hydroelectric power. These investments are essential not only to reduce reliance on oil but also to mitigate the economic and environmental impacts of energy crises.

Using Pakistan as a regional case study, the presentation highlights the nation's significant energy challenges, including dependence on oil imports, inadequate infrastructure, and inefficient energy use. It explores potential solutions, such as enhancing investment in alternative energy, implementing energy-efficient policies, and upgrading infrastructure. The study also advocates for integrated strategic management frameworks that can guide global and regional energy policies towards sustainability.

By addressing both global and regional perspectives, this research provides a comprehensive analysis of the strategies needed to achieve energy security and sustainability. It calls for coordinated efforts among policymakers, industry leaders, and stakeholders to develop and implement policies that promote renewable energy and efficient energy use, ultimately fostering economic growth and environmental preservation.

Keywords: Economic Impact, Energy, Energy Efficiency, Energy Infrastructure, Environmental Concerns, Geopolitical Tensions, Global Energy Systems

A COMPREHENSIVE STUDY OF ASHOKAN PILLARS AT FEROZ SHAH KOTLA FORT: ELEMENTAL ANALYSİS AND SURFACE CONDITION

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Abstract

The Feroz Shah Kotla Fort in New Delhi houses significant artifacts from the Mauryan era, notably the Ashokan pillars and rock edicts, which offer a profound glimpse into the historical and cultural legacy of India. These relics, dating back to the 3rd century BCE, have faced numerous preservation challenges over time, including environmental impact and vandalism. This preliminary investigation aims to assess the current status of these artifacts using non-destructive analytical techniques such as Handheld X-ray Fluorescence (XRF) and microscopic examination with a hand held digital microscope.

Handheld XRF analysis was employed to determine the elemental composition of various spots on the Ashokan pillar, providing critical data on the materials used in their construction and highlighting areas affected by weathering or contamination. The analysis revealed significant elemental variations, with high silicon content in certain spots indicating a predominance of quartz, typical of sandstone. Aluminum content varied across spots, reflecting the presence of aluminosilicate minerals. Iron content was notably high in some spots, suggesting the presence of iron oxides, which contribute to the reddish and yellowish hues seen on weathered sandstone surfaces. Minor elements such as calcium, magnesium, and potassium were also detected, with variations pointing to the presence of calcite, dolomite, and feldspar minerals. The presence of sulfur in some areas indicated the formation of sulfate, likely influenced by environmental pollutants.

Microscopic examination using a hand held digital microscope provided detailed images of the pillars' surfaces, identifying signs of deterioration, such as efflorescence and surface degradation due to soluble salts like gypsum and calcite. This close inspection highlighted specific areas requiring conservation interventions to mitigate ongoing weathering and damage.

The findings of this investigation underscore the need for targeted conservation strategies to preserve these invaluable historical artifacts. The identified elemental variations and surface deterioration patterns will inform the development of effective preservation measures. Continuous monitoring and maintenance are recommended to protect the Ashokan pillars and rock edicts at Feroz Shah Kotla Fort, ensuring their longevity for future generations.

This comprehensive study not only enhances our understanding of the current condition of these relics but also provides a foundation for ongoing and future conservation efforts, safeguarding an essential part of India's ancient heritage

Keywords: Ashoken Pillar, Sand Stone, Handheld XRF, elemental composition, microscopic examination.

AUTOMATIC MUSIC GENERATION USING DEEP LEARNING-A REVIEW

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Abstract

This comprehensive review aims to provide insights into the current state and future prospects of automatic music generation using deep learning, emphasizing its potential to revolutionize the music industry and creative processes. Leveraging advancements in artificial intelligence, automatic music generation has become a transformative field capable of producing novel musical compositions.

This paper explores the methodologies and architectures employed in deep learning for music generation, with a focus on neural networks such as Recurrent Neural Networks (RNNs) and, specifically, Long Short-Term Memory (LSTM) networks. These models have shown remarkable capabilities in learning complex temporal patterns and structures inherent in music, enabling the creation of coherent and aesthetically pleasing compositions.

We discuss the preprocessing of musical data, the representation of music in formats suitable for deep learning, and the training processes involved. Additionally, various evaluation metrics for assessing the quality of generated music, including both quantitative and qualitative approaches, are examined.

The paper also addresses the challenges in this domain, such as capturing long-term dependencies, maintaining musical diversity, and ensuring creativity. Future research directions are identified, highlighting the potential for integrating deep learning with other AI techniques and the possibility of real-time music generation applications.

Key Words: RNN, LSTM, Automatic Music Generation, Deep Learning

THE IMPORTANCE OF CAREER ORIENTATION AND EDUCATION, PROBLEMS AND INFORMATION SOURCES ACCORDING TO THE PERCEPTIONS OF THE GRADUATES

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Abstract

Introduction and Purpose: In an increasingly complex world of work, the need for students to make real decisions about their future careers is essential in order to contribute to the economic value of the country. It's important to find a job that gives them satisfaction and adapts to future employment opportunities. The purpose of this study is to highlight the problems faced by high school graduates regarding their choice of profession, by researching the education and career orientation programs, the factors and the degree of their influence in this process.

The methodology used is a combination of quantitative and qualitative methods. The population selected in this study includes graduates of four public high schools in the district of Elbasan, Albania. From this population, a sample of 120 high school graduates, 80 in the city and 40 in the countryside, was randomly selected for the quantitative study, roughly the ratio of the city/rural population, for the municipality of Elbasan. For the collection of qualitative data, 80 graduates were randomly interviewed, namely 50 in the city and 30 in the countryside.

Results: The problems faced by graduates when choosing a career are: knowledge of personal and professional skills required, information about the state matura system and the world of work. Family remains the main source of information.

Conclusion: This study, researching education and career orientation programs, problems, factors and the degree of their influence, analyzes and suggests ways to improve this process, for the benefit of effective decision-making of high school graduates.

Key words: source, problem career education, career orientation, information

PIEZOELECTRIC ENERGY HARVESTING FROM THERMAL VIBRATIONS USING DOPED GRAPHENE-MXENE HETEROSTRUCTURE

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Abstract

Piezoelectric nanogenerators (PENGs) face significant challenges in high-temperature environments due to their inherent temperature sensitivity. To improve performance under such conditions, recent research investigated the incorporation of nitrogen-doped graphene (NGr) and $Ti_3C_2T_x$ MXene heterostructure nanofillers into a polyvinylidene difluoride (PVDF) matrix for energy harvesting in high-temperature vibration scenarios. By optimizing the NGr to $Ti_3C_2T_x$ ratio, the solution-processable nanogenerator achieved an output voltage of approximately 9.0 V and a current of ~1.5 µA at room temperature, which increased to 24.0 V and 1.75 µA at 90°C, resulting in a power density of 3.85 µW/cm². This improvement is attributed to the quasi-3D NGr-$Ti_3C_2T_x$ heterostructure, which enhances interfacial properties, electrical conductivity, and elastic behavior, collectively boosting the piezoelectric output. This device holds potential for converting mechanical energy from vehicle vibrations into electrical energy, offering a novel approach to address emerging energy demands.

Keywords: Nitrogen-doped graphene, $Ti_3C_2T_x$ MXene, Piezoelectric Nanogenerator, Quasi-3D Heterostructure, Thermal Property

NAVIGATING NEW CULTURES: INTERPLAY OF ACCULTURATIVE STRESS AND PSYCHOSOCIAL ADAPTATION IN INTERNATIONAL STUDENTS

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Abstract

In recent years, a huge number of individuals from around the world have embarked on a remarkable journey, leaving behind the familiarity of their home countries to pursue higher education in foreign lands. This global trend has not only changed the lives of these students but has also reshaped the landscape of international education. This paper talks about the growing importance of understanding the challenges faced by this specific group of individuals in an increasingly interconnected and diverse world. This study aims to investigate the relationship between acculturative stressors and psychosocial adaptation in international students. A quantitative research design - correlational sampling method was conducted for this study, the sample size for this research was 150 Pakistani students within the age range 20-40 who have gone abroad to study. The results of the Pearson correlation showed that perceived Hate/Rejection, Fear and Stress due to change seemed to be positively correlated with Psychosocial, Daily life and sociocultural adaptation. The study shows how students facing such challenges managed to develop coping mechanism to have better adaption. There are many implications that could help in the future such as Interventions targeted at reducing homesickness, eliminating prejudice, developing social support networks, and addressing emotions of guilt can all help this demographic adjust better.

Keywords: acculturative stressors, psychosocial adaptation, international students, perceived hate/rejection, stress.

DRAGONFLY SPECIES COMPOSITION AND DISTRIBUTION IN DISTRICT MARDAN, KHYBER PAKHTUNKHWA, PAKISTAN

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Abstract

The present study was aimed to determine the species composition and heavy metal concentration in dragonflies in tehsils Mardan, katlang and Takht Bhai of district Mardan, Khyber Pakhtunkhwa, Pakistan. During the study we collected four dragonfly species belonging to family Libellulidae. Orthetrum Chrysis 96 (33.10%) was the most abundant species followed by Trithemis aurura 88 (30.34%) and Trithemis Festiva 72 (24.82%). Orthetrum anceps 34 (11.72%). was least abundant species. Dragonflies highest abundance were recorded in July and least in October 2018. Highest concentration of Cu (17.28=.18 mg/kg) and Fe (68.79=.43 mg/kg) was observed in thorax of Trithemis Festiva and (Cu, 10.55=.02 mg/kg) (Fe, 85.67=29 mg/kg) in sediments. The Cr highest concentration was observed in wings of Orthetrum Chrysis (28.79=.04 mg/kg) and in water sample (0.4=.07 mg/kg). The highest concentration of Pb (3.43=.05 mg/kg) and Mg (110.22=.96 mg/kg) was observed in wings of Trithemis Festiva and (Pb, 3.69=05 mg/kg) (Mg,115.17=.05 mg/kg) in sediments while the highest concentration of Zn was observed in wings of Trithemis aurura (125.65= 1.15 mg/kg) and in sediment sample (29.06=.38 mg/kg).

Fig.1 Schematic diagram of Typical Dragonfly

IMPACT OF MOLYBDENUM RATES AND APPLICATION METHODS TO GROWTH AND YIELD OF AUTUMN PLANTED SOYBEAN

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Abstract

Unavailability of micronutrients (Like molybdenum) in high pH soils are considered main cause for lowering the overall yield and poor nodulation of soybean in Pakistan. Appropriate application method and rate of molybdenum (Mo) would be an important management strategy to improve the nodulation response of soybean and enhance its productivity. Therefore, a field experiment was conducted at Agronomy Research Area, University of Agriculture Faisalabad in which two factors, Rates of molybdenum (R_0: 0 g ha^{-1}, R_1: 100 g ha^{-1}, R_2: 200 g ha^{1} and R_3: 300 g ha^{-1}) and molybdenum methods of application (M_1: Seed priming, M_2: Foliar application and M_3: Seed priming + Foliar application) were studied by using randomized complete block design (RCBD) under factorial arrangements. Impact of understudied factor were evaluated by assessing various agro-qualitative traits of soybean. Data were statistically analyzed by using Fisher's analysis of variance and treatments' means were compared using the LSD test at a 5% significance level. In most of the understudied parameters, impact of Mo rates was found significant however Mo methods of application and their interaction had non-significant impact except plant height (cm), number of pods, gain yield (t ha^{1}) and biological yield (t ha^{1}) where both the factors showed significant effect. So, keeping in view all the results, it was concluded that the application of molybdenum @ 200 g ha^{-1} through seed priming and foliar application significantly improved soybean growth, yield, and quality. Similarly, highest value of benefit cost ratio (BCR) i.e. 3.00 was also obtained with the same combination. Therefore, it was recommended that application of molybdenum @ 200 g ha^{-1} through seed priming and foliar application would be an economical approach for the farmer community under the agro-ecological conditions of Faisalabad, Pakistan.

Keywords: Soybean, Molybdenum rates, Methods of application, Seed priming,

IMPROVEMENT OF CLARITY IN DATE JUICE THROUGH PRE-LIMING AND LIMING, COUPLED WITH ADSORPTION ON ACTIVATED CARBON: STUDY OF MECHANISMS AND EFFICIENCY

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Abstract

This study examines the methodology and results of research focused on optimizing the decolorization process of date sugar juice to improve its quality. Techniques used include pre-liming and liming, followed by adsorption on activated carbon. Characterization of juice samples was performed using various physicochemical analyses, including measurements of coloration, Brix degree, sugar content, water, ash, pH, and titratable acidity. The study also examined the effect of the mass of activated carbon and the conditions of temperature and contact time between the activated carbon and the juice on the decolorization efficiency.

The results obtained indicate that the activated carbon treatment, performed after liming, significantly improves the decolorization of the juice. The effectiveness of this treatment depends on the contact time of the activated carbon with the juice, the mass of activated carbon used, and the temperature. This sequential approach effectively removes colorants and other impurities, thus achieving higher quality syrup.

In conclusion, this study demonstrates the effectiveness of optimized decolorization techniques, using both activated carbon and lime, to produce high-quality date sugar juice. Precise adjustment of process parameters, including the mass of activated carbon, contact time, and temperature, played a crucial role in achieving the desired outcomes. This optimized approach not only ensures better decolorization quality but also paves the way for continuous improvements in the production of high-quality syrup. Detailed and ongoing analysis of decolorization parameters will further enrich this field, significantly contributing to the development of higher quality standards in the juice industry.

Keywords: Decolorization, Sugar Juice, Dates, Process Optimization, Liming, Activated Carbon.

AGRO-MORPHOLOGICAL CHARACTERIZATION OF ADAPTIVE ABILITY OF FOUR PLUM VARIETIES UNDER TWO CLIMATE ENVIRONMENTS

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Abstract

The agro-morphological and vegetative traits of fruit trees such as plums vary according to the type of genotype and the sampling site. This work focuses on the characterization of four varieties planted in two contrasting experimental zones of the INRA of Meknes (Ain Taoujdate (T) in the Saïs plain and Annoceur (A) in the foothills of the Middle Atlas). The adaptability of plum trees under two contrasting climates was assessed by fruit yield and vegetative traits. All the varieties showed significant differences in their results at the two sites for all the measured traits mentioned, as well as variety and site factors, influencing the adaptation of the four varieties studied by acting significantly on production and phenology. The variety ‘Methley’ installed at ‘Ain Taoujdate’ proved to be the least tolerant to high winter temperatures by showing the highest yield decrease with a rate of 90%, fruit size decreased with a rate of 27% and the lowest growth among the varieties installed at both sites. In general, the traits of the four plum varieties were significantly affected by climatic conditions, plum genotypes, and their interaction.

Keywords: Prunus salicina L, Prunus domestica L, climate, production, phenology.

SOME GEOTECHNICAL CRITERIA FOR RELIABLE SUBSURFACE SITE INVESTIGATION

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Abstract

Shear strength parameters of soil cohesion and friction angle are critical to site investigation. Traditionally, these parameters are often obtained from drilling and excavation methods with a very high cost of operations and limited data coverage (1-dimensional). Therefore, the present study determines soil cohesion, and friction angle models from post inversions of resistivity datasets. The geotechnical models have, R^2 as 0.652; implying that about 65.2 % of the variation in cohesion and friction angle are explained by resistivity values and revealed that there are good linear relationships between both the cohesion and friction angle with resistivity. In this work, it shows that for each one value increase in resistivity, there is an increase in cohesion of 0.014 kN/m^2. Shear strength parameters of soil increase with increasing electrical resistivity values. Meanwhile, the pattern of friction angle parameter increases with a decrease in resistivity values. This relation indicated that the strength of clayey sand soil is governed by the angularity of sand particles and water presence (low resistivity) in soils.

Key words: cohesion, friction angle, clayey soil, resistivity

EFFECT OF THE ESSENTIAL OIL OF *ARTEMISIA HERBA ALBA* ON THE HATCHING POTENTIAL OF *MELOIDOGYNE INCOGNITA*

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Abstract

Market gardening is an essential component of the crop-growing systems of the mediterranean basin countries, especially in Algeria, where it occupies a considerable place, with a surface area of 533,174 ha and a yield of 282.7 qx/ha. Tomatoes come second after potatoes, with a surface area of 26,311 ha, a production of 16,356,163 qx and a yield of 621.7 qx/ha. In Algeria, knot-root nematodes of the *Meloidogyne* genus are the most damaging pests of vegetable crops. Worldwide, they are responsible for 14% to 25% of agricultural losses. Delassus first reported the presence of this nematode in 1928 in the vegetable-growing areas of the Mitidja in Algeria. These sedentary endoparasites are widespread in almost all market garden plots, causing serious damage, particularly to tomato crops. In order to reduce the application of chemical nematicides and their negative effects on the environment and on plants, several methods have been developed, including the use of botanical pesticides such as essential oils. In nature, essential oils are biodegradable, non-toxic for the environment and respectful of consumer health. Our research consisted of evaluating the nematicidal activity of the essential oil of white mugwort *Artemisia herba alba* Asso (*Asteraceae*) on the potential for *Meloidogyne incognita* egg hatching. The plant tested was collected in the province of Batna. The method we used to extract the essential oil from white mugwort was hydrodistillation (modified Clevenger). One *M. incognita* egg mass was placed in each hatcher, containing the essential oil at concentrations of 50, 100, 200, 400 and 800 µl/l, as well as the control and the fenamiphos chemical solution. The percentage inhibition of *M.incognita* larvae hatching was measured after 12 days under a binocular magnifying glass. The results showed that the essential oil of *Artemisia herba alba* has significant nematicidal power. The hatching inhibition rates increased with the doses tested. At high doses (800 µl /l) of essential oil, the rate of inhibition of *M.incognita* hatching was 62.79%. For the chemical treatment, the rate of inhibition of *M.incognita* hatching was 63.54%. A chemical screening to identify the secondary metabolites present in this plant completed this study. This oil is composed mainly of tannins, saponosides and flavonoids. These results also confirm the nematicidal activity of the essential oil of *Artemisia herba alba* during our experiments on *Meloidogyne incognita*. This efficacy is due to the richness of this oil in monoterpenes and phenylproanoids (flavonoids). Plants are an important source of protective compounds against various pathogens, known as biopesticides. Insecticides derived from plants have been known for a long time and have been developed and marketed against insects, as in the case of pyrethrum. Several compounds with a nematicidal effect have been isolated from plants, mainly from the *Asteraceae* family, such as α-terthienyl isolated from Tagetes, which is highly effective against nematodes. In nematodes, the mechanisms of action of these substances are still poorly understood. Some authors hypothesise that the relative sensitivity of different groups of nematodes to chemical compounds contained in plants depends on the permeability of the cuticle, with molecules that cannot penetrate nematode tissue penetrating through the cuticle. This research opens up a wide range of possibilities, and the development of natural pesticides could reduce the negative impacts of synthetic products, such as residues,

resistance and environmental pollution. In this regard, it would be desirable to carry out tests using several plants from different families as nematicides. Lastly, these plants can be used in different ways: as biopesticides, green manures or in rotation, but their effectiveness is probably linked to a specific strategy incorporating multiple control options against these pests.

Key words: Artemisia herba alba , essential oil , hatching inhibition, Meloidogyne incognita, eggs.

INTERVENTION IN INTERNATIONAL LAW: DEFINING LEGALITY AND NAVIGATING COMPLEXITIES

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Abstract

Intervention is one of the most contentious subjects in international law, as the boundaries between legality and sovereignty become increasingly blurred, provoking global debate. This research paper analyses the meaning and legality of intervention, reviewing its evolution and contemporary significance. This paper scrutinizes the legal frameworks governing intervention, the justifications presented by intervening states, and the international community's responses, through a comprehensive analysis of established landmark judgments and recent case laws.

The study incorporates qualitative analysis of key legal texts, treaties, and United Nations resolutions and quantitative data from intervention outcomes. Adopting a mixed-method approach to the research. The research examines and breaks down landmark interventions, such as NATO's involvement in Kosovo, the US-led invasion of Iraq, and the humanitarian interventions in Libya and Syria, to identify patterns and trends. Furthermore, recent developments including the principle of Responsibility to Protect (R2P) and its implications are critically examined to understand how they reshape the debate on intervention

The study also highlights the necessity for clearer international legal standards and robust mechanisms to address the ambiguities where legal interpretations of intervention do not vary significantly across different contexts, influenced by political, humanitarian, and strategic interests. The research findings point to the necessity for international law reform to strike a balance between state sovereignty and the worldwide moral responsibility for preventing atrocities. Overall, this study adds to the continuing discussion by providing a nuanced view of intervention's legality, asking policymakers, legal practitioners, and scholars to reconsider the present frameworks and contend for a more logical and just approach to foreign intervention.

OPTIMIZING THE CONCENTRATION PROCESS FOR DATE SUGAR JUICE: BALANCING EFFICIENCY AND QUALITY AT THE OPTIMAL TEMPERATURE

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Abstract

The concentration of date sugar juice is a crucial step in increasing sugar density and improving the shelf life and quality of the final syrup. This process is vital not only for enhancing flavor but also for extending the product's shelf life. In our study, we explored a vacuum evaporation concentration process using a rotary evaporator at various temperatures to determine the optimal conditions that minimize thermal degradation of components and unwanted coloring of the final syrup.

We concentrated the juice at temperatures of 45°C, 50°C, 60°C, and 70°C, closely monitoring the evolution of the Brix degree, which measures the amount of dissolved sugars in the juice. The goal was to achieve a balance between evaporation efficiency and the preservation of the organoleptic and nutritional qualities of the juice. Results showed that lower temperatures favored better preservation of flavors and prevented excessive caramelization, often responsible for dark coloring and the loss of delicate flavors.

In conclusion, this research identified 45°C as the optimal temperature for concentrating date juice, offering an excellent compromise between concentration efficiency and the quality of the produced syrup. These findings are crucial for date syrup producers seeking to optimize their production processes while ensuring a high-quality product for the end consumer.

Keywords: Date Sugar Juice, Concentration Process, Optimal Temperature, Vacuum Evaporation, Brix Degree

ELECTROCHEMİCAL STUDY AND PERFORMANCE OF MATERİALS THAT CAN BE USED İN AQUEOUS ELECTROCHEMİCAL BATTERİES

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Abstract

The growing demand for energy due to population growth has led to an energy crisis. To address this situation, research is underway to explore materials capable of safely storing energy. Studies are primarily focusing on the electrochemical performance of these materials in an aqueous environment, due to their potential advantages such as high ionic conductivity, increased safety, and potentially lower costs. However, it is important to note that batteries using aqueous media may have a lower voltage limit and lower energy density than batteries using organic media.

The chosen material, based on iron and phosphate, possesses several remarkable properties. Its olivine-type crystal structure provides it with chemical stability. Additionally, its high density allows it to store more energy per unit volume. It is also sparingly soluble, ensuring its stability and durability as an electrode. In terms of electrochemical performance, it is commonly used as a positive electrode material in lithium-ion and sodium-ion batteries due to its high operating voltage, cyclic stability, and low toxicity.

Iron phosphate-based materials are particularly promising due to their low cost, non-toxicity, and the abundance of their components (iron and phosphate) in nature. However, these materials have limited ionic conductivity, which can be a drawback. Doping techniques or structural modifications can be employed to improve this conductivity. Furthermore, the material has a high diffusion coefficient, facilitating the rapid transport of lithium ions, and a remarkable specific capacity, thus increasing the amount of stored energy.

In summary, these properties make this material a promising option for energy storage, particularly in lithium-ion batteries, thanks to its chemical stability, energy density, high diffusion coefficient, electrochemical performance, as well as its reduced cost and non-toxicity.

Keywords: material, energy, energy storage, lithium-ion batteries, performance

References

[1] von Wald Cresce, Arthur Xu, Kang,Carbon Energy 3,721-751(2021)

[2] Hari Raj, Anjan Sil,Ceramics International 47,Pages 34639-34647(2021)

COMPARISON OF RHOMBOID EXCISION LIMBERG FLAP AND BASCOM CLEFT LIFT FOR PILONIDAL SINUS

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Abstract

Introduction and Purpose: Pilonidal sinus is a disease that affects young people. It is a painful and annoying condition that can impair the patient's ability to enjoy life, function at work, and develop relationships if left untreated or poorly treated. Numerous surgical methods have been described for the treatment of the disease. Currently, there is no treatment method that provides rapid recovery with a low risk of recurrence. We present a comparison of Rhomboid excision and Bascom cleft lift procedure.

Materials and Methods: Pilonidal sinus surgeries performed in our clinic between January 2023 and August 2023 were evaluated. Inclusion criteria were the performance of the relevant procedures (n=46). In all patients, a routine Hemowac drain was placed intraoperatively and withdrawn within a median of 5 days. Early complication status of the patients and 1st year recurrence status were compared.

Results: Patients who underwent Rhomboid excision Limberg flap were classified as Group I and patients who underwent Bascom cleft lift were classified as Group II. There was no statistical difference between demographic data. When early complications were detailed, seroma was significantly more common in Group I (p=0.032). Postoperative infection was more frequent in Group I (p=0.045). Year 1 recurrences were evaluated. Recurrence was 15.3% in Group I and 20% in Group II. However, no statistical relationship was found.

Conclusion: Both surgical methods are preferred surgical techniques with low complication and recurrence rates. Prospective multicenter studies are still needed.

Key Words: Rhomboid excision Limberg flap, Bascom Cleft Lift, pilonidal sinüs, complications.

ANTIOXIDANT ENZYME ACTIVITY AND OXIDATIVE STRESS LEVELS IN SOME FRESH TROPICAL FRUITS GROWN IN TURKEY: A COMPARATIVE STUDY

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Abstract

Objective: In recent years, tropical fruits have been in high demand due to their flavor and functional composition. In this study, conducted for the first time, we aimed to investigate the antioxidant enzyme activities and oxidative stress levels of some fresh tropical fruits grown in Turkey and well known in daily life.

Materials and Methods: Fresh avocado (*Persea americana*), kiwi (*Actinidia deliciosa*), dragon fruit (*Hylocereus undatus*), passion fruit (*Passiflora ligularis*) and pineapple (*Ananas comosus*) fruits were peeled and the inner parts were crushed with a mixer. After this process, the crumbled fruit pieces were homogenized with 1.15% KCl. The obtained fruit homogenates were centrifuged at 14.000 rpm for 1 hour and supernatants were obtained. Superoxide dismutase (SOD) and catalase (CAT) activities as antioxidant enzymes and malondialdehyde (MDA) levels as an indicator of oxidative stress were measured spectrophotometrically in the supernatants.

Results: The antioxidant enzyme activity (SOD and CAT) was highest in *Hylocereus undatus fruit* and lowest in *Ananas comosus* fruit ($p<0.05$). When the antioxidant enzyme capacity in tropical fruits was ranked from the highest to the lowest; *Hylocereus undatus>Passiflora ligularis>Actinidia deliciosa>Persea americana>Ananas comosus*. On the other hand, oxidative stress levels (MDA) were highest in *Ananas comosus* fruit and lowest in *Hylocereus undatus* fruit ($p<0.05$). When MDA levels in tropical fruits were ranked from highest to lowest; *Ananas comosus> Persea americana> Actinidia deliciosa> Passiflora ligularis> Hylocereus undatus*.

Conclusion: As a result, it was observed that all the fruits used in the study have different antioxidant capacity due to their different phytochemical properties, and the level of oxidative stress is low in fruits with high metabolic and antioxidant activity.

Key words: Antioxidant enzyme activity, oxidative stress levels, Hylocereus undatus, Passiflora ligularis, Actinidia deliciosa, Persea americana, Ananas comosus

THE ROLE OF SOCIAL MEDIA IN SHAPING MODERN SOCIAL DIALECTS

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Abstract

Introduction and Purpose: In the 21st century, social media has become a powerful force influencing various aspects of our lives, including language use. Platforms like Twitter, Instagram, Facebook, and TikTok have become arenas for linguistic innovation and variation, giving rise to new social dialects. This article explores how social media shapes modern social dialects, the mechanisms behind these changes, and their broader sociolinguistic implications.

Social media platforms provide a unique environment for language evolution. Unlike traditional media, social media is characterized by rapid communication, brevity, and a blend of written and spoken language features. Users constantly create and adopt new words, phrases, and abbreviations to communicate effectively within these platforms' constraints.

The need for brevity on platforms like Twitter (with its 280-character limit) has led to the widespread use of abbreviations and acronyms. Terms like "LOL" (laugh out loud) and "OMG" (oh my god) have become common in everyday language. Emojis and memes are integral to online communication, representing emotions, reactions, and cultural references. Hashtags categorize content and highlight trending topics, creating a shared space for users to engage with themes or events. Hashtags often give rise to new terms that reflect current cultural and social trends.

Materials and Methodology: Social dialects used in various social networks such as X (former Twitter), Instagram, Facebook, etc. between 2022-2024 have been identified and analyzed based on qualitative (with the elements of critical discourse analysis) and quantitative methodologies.

Conclusion: Social media plays a pivotal role in shaping modern social dialects, driving linguistic innovation and variation in unprecedented ways. By examining the mechanisms behind these changes and their broader implications, we gain a deeper understanding of how digital communication transforms language. As social media continues to evolve, its impact on language will likely grow, further highlighting the dynamic relationship between technology and sociolinguistics.

Keywords: Social Media; Social Dialects; Linguistic Innovation; Online Communication; Viral Trends

AN EXAMINATION OF THE ‘’ZONING PEACE’’ APPLICATION AND ITS REFLECTIONS

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Abstract

The regulation known today as the ‘’Zoning Peace’’ was enacted with the publication of Law No. 7143 in the Official Gazette No. 30425 on May 18, 2018. This law, specifically Article 16, amends the Zoning Law No. 3194, adding a Temporary Article 16 to the legislation. The aim of this regulation is to register buildings that were constructed before December 31, 2017, without a building permit or that do not comply with their permits and annexes, as part of the preparations against disaster risks. The Zoning Peace application has been carried out through guides created by the Ministry of Environment, Urban Planning, and Climate Change, as well as via the e-Government portal and related institutions. Applications for the Zoning Peace were accepted until October 31, 2018. The regulation states that a Building Registration Certificate can be issued until December 31, 2018, provided that the registration fee is paid, and this certificate remains valid until the building complies with the current Zoning Law and regulations. Due to the high volume of applications for Building Registration Certificates, the implementation of the Zoning Peace lasted longer than initially planned. As a result, new applications were accepted or application periods were extended based on incoming requests. Zoning Peace is a program that the public wishes to benefit from, as evidenced by the extension of application periods. However, whether the program constitutes a zoning amnesty has been debated among professional organizations. The issuance of Building Registration Certificates, the provision of services such as electricity and water to buildings holding such certificates, and the responsibility for the accurate submission of information pertaining to the structure being placed on the applicant differentiate it from zoning amnesties. On one hand, it has documented the additions and modifications made to buildings, while on the other, the payment of the registration fee has legitimized the acceptance of building additions or internal modifications when issuing the registration certificates. In this study, the scope, content, and assessments of the "Zoning Peace Law" by professional organizations, local governments, central authorities, and relevant professional bodies are examined in relation to the implications of the application.

Key Words: Zoning Peace, Zoning Amnesty, Building Registration Certificate.

SIGNIFICANCE, ORGANIZATION AND CONTENT OF MUSICAL RHYTHMIC MOVEMENTS IN KINDERGARTEN

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Abstract

The article is devoted to the study of the importance, organization and content of musical-rhythmic movements in music lessons in kindergartens. It is noted here that the foundation of the education system is pre-school education. One of the main conditions for a child's comprehensive development as a personality is his aesthetic formation, acquisition of high artistic taste and cultural habits. Music is one of the powerful means of aesthetic education that serves the education of the young generation. In order to educate and guide children's interest in music in time, it is necessary to properly organize musical education in kindergartens and continue it regularly.

Music education in kindergartens is carried out in three directions: listening to music, singing and musical-rhythmic movements (dances and musical games). It is possible to develop musical hearing, memory, attention, sense of rhythm, and plastic expressiveness of movement in preschool children using special tasks selected through musical-rhythmic movements. The development of children's musical ability depends on the process of improving musical hearing and the ability to coordinate their movements with music. For this, it is necessary to start with forms of these skills that are interesting and easy to understand for children: games, dances, gymnastic movements.

The purpose of the article is to show the importance of musical-rhythmic movements in the comprehensive harmonic development of preschool children, as well as their content and ways of organization.

Key words: musical-rhythmic movements, comprehensive development, dance, musical play

MODULAR EDUCATIONAL TECHNOLOGY - AS AN EFFECTIVE MEANS OF DESIGNING AND CHANGING THE EDUCATIONAL ENVIRONMENT

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Abstract

The article is dedicated to introducing the concept of modular training, examining its essence and giving some recommendations on its application. The article states that the main indicator of a modern specialist's qualification level is his professional competence. In order to train a competent specialist, development and application of appropriate training technology is required. One of these technologies is modular learning technology, which is based on three factors: "compression" (quantity), modularity and complexity. It also shows the structure of the lesson during modular training. Thus, the content of the lesson is made up of several logically interconnected modules, each of which solves a specific educational task. A certain amount of time is given to complete the module. Together, all modular blocks are focused on the achievement of subject and personal results. The article mentions that modular training is divided into modular lesson, modular program and planning in modular format. Modular training teaches students to acquire independent knowledge. Modular training technology includes a target component, leading principles, special methods of educational content development, a system of issues and tasks, didactic materials design, a rating system for monitoring and evaluating educational achievements.

Key words: technology, modular training, competence, flexibility

COMPLEMENTARY AND ALTERNATIVE TREATMENTS (CAM) IN GYNECOLOGICAL CANCERS

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Abstract

Introduction and Objective: The use of early diagnosis/treatment methods in gynecological cancers, together with technological developments, has increased the chance of treatment success and life expectancy in women. These developments have led to a tendency towards complementary and alternative treatment (CAM) practices in addition to standard treatment methods. CAM practices are defined as various health care systems, practices and products that are outside of standard medical treatments. Therefore, CAM practices do not have a definitive evidence level with scientific research. They are often known as treatment methods related to traditions that have been revealed through long-term experiences. Today, there is an increase in the use of CAM practices in women with gynecological cancer. While the rate of CAM use in women with gynecological cancer in the world is 31-87%, this rate was found to be 28.2-61.2% in Turkey. CAM is used in women with gynecological cancer to increase well-being and improve the quality of life while struggling desperately with a life-threatening disease. It is also used for reasons such as getting away from anxiety, relieving pain and preventing cancer from recurring. The aim of this review is to examine current information on complementary and alternative treatment practices in gynecological cancers.

Method: This study is an integrative review of the literature.

Results: CAM practices are examined in two groups as body-mind treatment practices (meditation, yoga) and herbal treatment practices using natural products (ginger, ginseng). In body and mind treatment practices, applications performed by master trainers are taught to individuals with various techniques. In the literature, it has been determined that women with gynecological cancer frequently use body and mind treatment practices (praying (%92.5-94.7), exercise (%37.3)). Herbal practices, on the other hand, were considered harmless to health in the past years. However, the use of cancer-specific drugs together with CAM can cause drug interactions and lead to toxicity and bad results. Therefore, care should be taken to use treatments with proven effects in the use of CAM. The rate of use of herbal treatments in women with gynecological cancer was determined to be between 12.1-80.8%.

Conclusion: It has been determined that women with gynecological cancer commonly use CAM practices to treat cancer, prevent treatment-related side effects, and enhance well-being. Therefore, it is recommended that health professionals primarily provide training/counseling services to women regarding the use of CAM and conduct studies with high evidence value.

Keywords: Gynecological Cancers, Complementary and Alternative Therapies, Women.

A VALUABLE WASTE: CHESTNUT FLOWER

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Abstract

Chestnut (*Castanea* spp.), throughout history, is a tree species of interest both as a food source and for its positive effects on health. Chestnut trees are significant in ecological, economic, and cultural terms. They have spread across various regions of Europe, America, and Asia. In recent years, the area occupied by chestnut trees worldwide has been increasing. The fruits of the chestnut tree are used as food for humans and animals, while its wood is utilized in furniture production, and its leaves are employed in traditional medicine for the treatment of colds, coughs, diarrhea, and high cholesterol. However, the flowers of the chestnut tree are often regarded as waste and are not economically valued. Recent studies have revealed that chestnut flowers contain significant bioactive compounds. Particularly male chestnut flowers contain polyphenols, flavonoids, and tannins. The bioactive components of chestnut flowers include flavonoids such as catechins, myricetin, and kaempferol. These compounds enhance the antioxidant capacity of chestnut flowers and exhibit various beneficial effects on health. The health benefits of chestnut flowers include the treatment of respiratory disorders, protection against cardiovascular diseases, and anti-inflammatory effects. Additionally, the antimicrobial and antioxidant properties of chestnut flower extracts increase their potential for use as functional ingredients in the food industry. Chestnut flower extracts could be utilized as food additives to extend the shelf life of products such as cheese, cakes, and pickles, and to reduce the use of chemical additives. Despite being generally regarded as waste, chestnut flowers hold significant potential in the health and food industries due to their bioactive components. This review discusses the bioactive compounds of chestnut flowers and their potential industrial applications.

Keywords: Chestnut flower, antioxidant, bioactive compounds, functional food

USE OF HYDROPHOBIC DEEP EUTECTIC SOLVENTS IN EXTRACTION OF BIOACTIVE COMPOUNDS

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Abstract

Bioactive compounds are substances obtained from natural sources such as plants, microorganisms, animals, and marine organisms, and they exhibit various beneficial health effects, including antihypertensive, anticancer, and anti-inflammatory properties. Traditional extraction methods typically involve the use of toxic and environmentally harmful organic solvents. In recent years, green solvents, which offer advantages such as low toxicity and cost, have begun to replace organic solvents. In this context, deep eutectic solvents (DES) have emerged as innovative solvents. Deep eutectic solvents are formed by the mixture of hydrogen bond donors (HBD) and acceptors (HBA) and possess characteristics such as non-volatility and biodegradability. The environmentally friendly alternatives offered by DES, due to their biodegradability and low toxicity, have increased the importance of these solvents. DES are widely used in the extraction of hydrophilic compounds, and there has been extensive research on their synthesis and application. Hydrophobic deep eutectic solvents (HDES), which consist of water-insoluble components, can form biphasic systems with aqueous solvents. HDES are prepared by melting long-chain quaternary ammonium salts and poorly soluble carboxylic acids. These solvents show promise for the extraction of biomolecules and can be effectively used in the recovery of bioactive compounds from complex biological matrices. The effective extraction of bioactive compounds will contribute significantly to the health and pharmaceutical industries. Therefore, the exploration and application of DES and HDES across a broader spectrum will lead future scientific research and industrial applications. This review examines their use in the recovery of plant-based bioactive compounds.

Keywords: Bioactive compounds, extraction, deep eutectic solvent, hydrophobic

PROPERTIES OF TAMARIND SEED AND ITS USE IN FOOD INDUSTRY

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Abstract

Tamarind is a tropical plant belonging to the legume family (Leguminosae) that grows in Africa and Asia. Although the leaves and fruit parts of this plant are used in different ways, the most commonly consumed part is the fruit flesh. The fruit is used in condiments, ready-made foods, sweetening confectionery, curries and sauces, and in the beverage industry. It is consumed especially in hot countries due to its cooling properties. Commercial tamarind drinks are sold in many countries. Tamarind seed is a by-product released during tamarind pulp production. The seed is rich in protein, amino acids, polysaccharides and mineral substances. The seeds contain a high level of unsaturated fatty acids (55.6%). It is rich in potassium and copper from the mineral substances. Tamarind fruit has strong antioxidant activity thanks to its polyphenol and flavonoid content and attracts attention with its nutritional and health-improving properties. Pharmacological studies have shown that the tamarind fruits has antibacterial, antidiabetic, antifungal, anti-inflammatory, antimalarial, anti-lipoperoxidant and hepatoprotective effects. Although the use of tamarind fruit flesh for food purposes is widespread, the seed, which constitutes 20-30% of the fruit, is not used for industrial purposes. However, tamarind seed gum (xyloglucan) has a structure that dissolves in cold water and milk, forms thermostable gels and has properties that can be used instead of pectin. The gum, which has the ability to gel in a wide pH range including neutral and basic conditions, is used as a gel former, thickener and stabilizer in the food industry. It is easy to obtain and has a higher yield compared to other gums. In this review, the composition of tamarind seeds, their therapeutic properties and usability in the food industry are emphasized.

Keywords: Tamarind, fruit, gum.

PECTIN AS A PROBIOTIC

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Abstract

In recent years, consumers' interest in health and general quality of life has increased the demand for natural products and food ingredients with functional and/or health properties. Intensive research has been conducted to increase the functionality of foods and to develop new products. Among functional foods, prebiotics have attracted much attention due to their health benefits. Regulation of human intestinal microflora with diet has become a popular subject of nutritional science. It is due to the fact that the gastrointestinal system, especially the colon, is very densely colonized and the composition of the flora can be regulated. Having a balanced structure of intestinal microbiota positively affects many body functions such as digestion, immunity and even brain health. Prebiotics and probiotics play an important role in providing this balance by supporting intestinal health. Pectin is the main source of pectic-oligosaccharides (POS), an excellent prebiotic. Pectin is a complex heteropolysaccharide located in the middle lamella of all higher plants, in the primary cell wall and intercellular regions. They are commercially obtained from fruit processing by-products such as apple pomace and citrus peels. Pectic-oligosaccharides are obtained from pectin by different techniques. These techniques are extraction from plants, synthesis and depolymerization of polysaccharides. To date, physical processes such as enzymatic hydrolysis, hydrothermal processing, chemical methods and dynamic high-pressure microfluidization have been used in depolymerization. This review focuses on prebiotics, their effects on health, pectin sources, extraction, food usage possibilities and probiotic properties.

Keywords: Pectin, Prebiotics, Human health

COMPARISON OF RESPIRATORY FUNCTIONS OF WORKERS USING ELECTROSTATIC POWDER PAINT AND WORKERS USING LIQUID PAINT

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Abstract

Introduction and Purpose: It is known that solvents, which are known to be used in almost every field of industry, affect the lungs and many systems, and it is accepted that the distribution pattern of solvents found in electrostatic powder paint and liquid paint is different. For this reason, the aim of the study is to compare the respiratory functions of workers using electrostatic powder paint and workers using liquid paint.

Materials and Methods: Demographic information, smoking status, 1st second forced expiratory volume (FEV1) measured with a spirometer, forced vital capacity (FVC) values, an evaluation form including modified Borg scale and dyspnea scale was performed at the institution called Momentum Lighting. The data obtained were analyzed with Mann-Whitney U, t test and Pearson C Fisher's Exact Test.

Results: All groups had similar 1st second forced expiratory volume (FEV1), forced vital capacity (FVC), modified borg scale and dyspnea assessments (p>005).

Discussion and Conclusion: Our current study has shown that the use of electrostatic powder paint and liquid paint is effective on respiratory quality but there is no significant difference between

them. We think that the study should be repeated by including a non-smoking group, and that the primary goals are to inform institution owners and employees in detail against possible hazards and to provide a safer environment by taking the necessary precautions.

Keywords: Electrostatic Powder Paint, Liquid Paint and Respiratory Functions.

IN VITRO EFFECT OF ACETYLCYSTEINE COMPOUND ON GLUTATHIONE S-TRANSFERASE ENZYME ACTIVITY

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Abstract

Introduction and Purpose: Glutathione S-transferases (GSTs) have attracted significant interest from researchers due to their diverse activities (detoxification of reactive electrophiles, cell signaling, anti-apoptotic activity, and anti- and pro-inflammatory responses). The GST enzyme is a family of Phase II detoxification enzymes that function to protect cellular macromolecules from attack by reactive electrophiles. In particular, GSTs catalyze the conjugation of glutathione (GSH) to a wide variety of endogenous and exogenous electrophilic compounds. Glutathione conjugation is the first step in the mercapturic acid pathway leading to the elimination of toxic compounds.

N-acetylcysteine (NA), an acetylated cysteine compound, has aroused scientific interest for decades due to its important medical applications. NA is a glutathione precursor and exhibits antioxidant and anti-inflammatory activities. NA may be considered useful in therapies to counteract neurodegenerative and mental health diseases. NA increases cysteine/GSH levels in cells and acts as a scavenger of oxidant species. NA, an acetylated cysteine compound with an acetyl group attached to the nitrogen atom, can be oxidized by various radical compounds. The actions of NA consist of restoring the antioxidant potential in cells by replenishing the depletion of GSH by free radicals and scavenging reactive oxygen species (ROS). As an anti-inflammatory agent, NA can limit the release of cytokines during the early phase of immune proliferation. Considering these properties of acetylcysteine and these roles of the GST enzyme in pharmacological applications, this study may guide the design of new drugs, revisiting the mechanism of action and structure-activity relationship of drugs.

Materials and Methods: Inert waste human blood was obtained from Atatürk University Research Hospital Blood Center for sample preparation and enzyme purification. The blood was centrifuged. The hemolysate was applied to a glutathione (GSH)-agarose affinity column. The enzyme activities of the fractions obtained from the column were measured in 1-chloro-2,4-dinitrobenzene (CDNB). Enzyme assay. GST activity was measured using a 340 nm spectrophotometer with phosphate buffer, 1-chloro-2,4-dinitrobenzene (CDNB) and GSH substrates. IC50 and Ki values were then determined for in vitro experiments.

Results: In this study, GST enzyme was first purified from human erythrocytes. Then in vitro inhibition effects of acetylcysteine compound on GST enzyme activity were investigated. The kinetic results of acetylcysteine compound for GST enzyme; IC_{50} value was found to be 8.88 mM and K_i value was found to be 10.08 ±2 mM.

Key Words: Enzyme, Glutathione S-transferase, Acetylcysteine, Inhibition

FROM LENS TO STRUCTURE: INTERSECTIONS OF ARCHITECTURE AND PHOTOGRAPHY

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Abstract

Introduction and Purpose: Architecture and photography are two significant disciplines that cater to the aesthetic and functional needs of humanity. While architecture is concerned with the design and construction of spaces, photography documents and interprets these spaces, telling a visual story. This article will explore how architecture and photography intersect and how they influence each other as a result. At the point where these two disciplines meet, the article will examine how structures and spaces can be understood more profoundly and made visually compelling.

Materials and Methods: Architectural photography is an art that requires careful planning, the right equipment selection, and the use of appropriate techniques. Photographers meticulously control elements such as light, composition, and perspective to best capture the aesthetic and structural features of buildings. The cameras, lenses, tripods, lighting equipment, drones, and other materials and methods used in this process determine the success of architectural photography. Through these methods, buildings are not only documented but also transformed into visually compelling works of art through artistic interpretation.

Results: Architecture and photography are two disciplines that enrich and complement each other. The art of photography contributes to the accurate and complete realization of architects' drawings by clearly documenting the beauty, features, and details of buildings. The combination of these two disciplines results in works that are rich and impressive from both a technical and artistic standpoint. With the advent of digital technologies and new photographic techniques, the future of architectural photography looks even brighter. In conclusion, by examining the intersections of architecture and photography, this article will detail how these two disciplines contribute to each other.

Keywords: Architectural Photography, Architectural Design, Historical Structures, Photographic Art, Space and Image

RESILIENT, SUSTAINABLE CITIES AND GEOLOGY

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Abstract

Introduction and Purpose: Successful results can be obtained when selecting suitable areas for resilient, sustainable urban planning by taking into account geological features, and human and environmental facts. Today's extreme population increases, unplanned construction, global climate changes, and the transformation of natural events triggered by these phenomena (such as earthquakes, floods, landslides, rock falls, and avalanches) into natural disasters cause loss of life and property. The basis of these negativities lies in incorrect land use and deterioration of the balance of the natural environment.

Materials and Methods: A resilient sustainable urban planning, a planning study carried out with a multidisciplinary working group (such as geology, geophysics, construction, architecture, and landscape engineering) can minimize the transformation of natural events into natural disasters, and underground and aboveground engineering structures suitable for geological structure and geological features can be produced.

Results: With urban planning to be carried out by a multidisciplinary working group, not only geological data but also a sustainable urbanization phenomenon and the avoidance of risky situations for the population will be provided. With such studies, planning of untouched areas, urban transformation areas and zoning plan changes can be made.

Discussion and Conclusion: In the area where Urban Planning will be carried out; Industrialization, transportation and settlement significantly affect the natural environment in that region. It should not be forgotten that controlling these effects on the environment is directly related to the geo-mechanical properties of that region. Engineering geology maps produced for various purposes will make significant contributions to the planning and construction of resilient and sustainable cities.

Key Words: City, planning, geology.

THE IMPACTS OF INTERNATIONAL MIGRATION TO TÜRKİYE ON EMPLOYMENT, UNEMPLOYMENT, AND WAGES

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Abstract

International labor migration refers to temporary or permanent movements from one country to another for work. This migration is usually carried out in search of work and economic opportunities, family reunification, education, or other social reasons. The impacts of migration on employment, unemployment, and wages are diverse. These impacts may vary depending on the source and destination of migration, economic conditions, legal regulations, and other factors. Accordingly, the impacts of migration on employment, unemployment, and wages are miscellaneous and may lead to different results in different projections with the impact of various factors. The participation of immigrants arriving in a country in the labor market may increase the labor supply in the country of arrival. Immigrants may reduce unemployment by meeting the demand in the labor market provided that they are suitably qualified. However, if immigrants have low labor skills and education levels, their integration into the labor market may be more difficult and increase unemployment rates. Migration may have complex impacts on unemployment rates. Migration is one of the main causes of unemployment. Migration may sometimes reduce unemployment rates and sometimes increase them depending on factors such as the qualifications of immigrants, labor demand, and economic conditions. For example, if a country has a shortage of workers in a particular sector, migration may reduce unemployment by providing the appropriate labor for that sector. When it comes to wages, migration has an impact on supply and demand in the labor market. If immigrants' skills and specialties match the needs of the labor market, this may help raise wages. Immigrants who specialize in particular sectors (e.g., science, technology, engineering) may contribute to rising wages by meeting demand in these sectors. However, immigrants in low-skilled jobs may compete with workers in these sectors and reduce wages.

Key Words: International Migration, Immigrant Worker, Labor supply, Unemployment, Employment

TLC AND GCMS ANALYSES OF BLUE WHALE (*BALAENOPTERA MUSCULUS*) BLUBBER

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Abstract

The blue whale (*Balaenoptera musculus*) (Linnaeus 1758) is the largest surviving mammal on earth, have global distribution. Like all other baleen whales, blue whale also migratory in nature. They travel from feeding areas at high latitude during summer and fall, and head towards low latitude area during winter. Blue whale's body covered with thick external lipid layer called blubber help in thermoregulation, hydrodynamic stream and energy provisioning. The TLC and GCMS of blubber of blue whale revealed various compounds, of these 92 were identified. Of these 6 constituents (3 FAs, 2 steroids and a TAG) were identified through TLC and rest through GCMS. Identified 34 FAs from GCMS comprised a PUFA, 8 MUFA and 4 Br FAs and 21 SFA. The 16 oxygenated constituents (post- mortem) included a keto FA, an epoxy FA, a hydroxyl FA, 4 FAlcs and 9 FAlds. The GCMS revealed 35 lipophilic pollutants, including a chloro-alkane, a polyether, an aryl carbonate, 2 siloxane, 2 bisphenol, 4 phthalate and 24 hydrocarbons. Beside these 3 terpenes and a fatty ether was also identified. Prescence of 8 compounds were justified through food chain.

Key words: Blue whale, *Balaenoptera musculus*, blubber, TLC, GCMS, fatty acid.

A LITERATURE RESEARCH ON DETERMINING THE DYNAMIC PROPERTIES OF SOILS

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Abstract

Dynamic laboratory tests performed on soils are essential in determining soil behavior and properties under dynamic loads. Safe design, especially against earthquakes, can be made by modeling the structure-soil interaction by determining the dynamic ground parameters. The effects that dynamic forces acting on the ground can have on the ground can be in many different ways. One of the most common of these effects is liquefaction. Finally, the dynamic effect created by the earthquakes with magnitudes Mw: 7.8 and Mw: 7.5, which occurred on February 6, 2023, and whose epicenters were Pazarcık and Elbistan districts of Kahramanmaraş, created a liquefaction effect in the region, causing large-scale damage to the structures and causing loss of life. Considering these, it can be seen how destructive the consequences of designing by neglecting the effect of liquefaction can be. When examining soil behavior under dynamic influence, it is essential to predict the possible liquefaction problem and consider it in the design. In determining soil parameters, dynamic triaxial pressure tests, shaking table tests, dynamic simple shear tests, and resonant column tests are frequently encountered in the literature. Many soil parameters can be calculated using the data obtained from these tests. In this study, a detailed literature review on laboratory-based dynamic soil tests was made, and the differences in the application of test procedures were discussed. It is planned that this study will serve as a resource for future studies.

Key Words: Dynamic soil tests, dynamic soil behavior, laboratory experiments

EDIBLE ORCHIDS: SALEP

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Abstract

Orchids, one of the largest families of flowering plants, are cultivated for various purposes, including ornamental use, medicinal products, and food. In Turkey, the tubers of naturally occurring orchid species such as Ophrys, Orchis, Himantoglossum, Serapias, Anacamptis, Compreria, Barlia, Dactylorhiza, Aceras, and Neotinea are utilized in the production of salep. The harvested orchid tubers are boiled in water, milk, or yogurt to inactivate the enzymes they contain, then dried and ground into powder. This powdered product is used either in the preparation of the beverage known as salep or as a stabilizer and emulsifier in various food products. It functions as a thickening agent in ice cream, cakes, cookies, and various beverages. Although the composition varies depending on the harvest season and orchid species, salep typically contains approximately 48% mucilage, 1% sugar, 3% starch, and 5% nitrogenous substances. Due to its high glucomannan content, salep is used in traditional medicine. The tubers and glucomannan in salep are known for their antidiarrheal, wound-healing, antipyretic, cholesterol-lowering, blood sugar-reducing, liver-protective, antitussive, expectorant, respiratory-relieving, and tuberculosis-preventive effects. Additionally, it is known to possess aphrodisiac properties. The large quantity of orchid tubers required for salep production complicates the standardization of wild-collected salep. Due to its geographical and geological characteristics, Turkey provides a favorable environment for salep production, with various orchid species growing in different regions of the country. The health benefits of salep and its applications in the food industry further highlight the significance of this traditional Turkish beverage. This review discusses the production of salep, its health effects, and its applications in the food sector.

Keywords: Salep, Glucomannan, Orchid, Health

THE EFFECT OF PROFESSIONAL ATTITUDE ON MOTIVATION WITH A STRATEGIC MANAGEMENT PERSPECTIVE: THE MEDIATING ROLE OF TRUST

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Abstract

Employees' professional attitudes, motivation, and trust perceptions should be positive to be more successful and productive in their professions. High perceptions of professional attitudes of working individuals enable individuals to take responsibility and care about their work, adapt to the corporate culture with a professional attitude, and establish a strong relationship with their colleagues. Individuals with high motivation at work can produce more efficiently by putting forth more devoted labor and effort. Motivation enables employees to cope with workplace stress and turn challenges into opportunities. A trust-based business relationship between employees increases employees' loyalty to their organizations. Based on these research topics, this research aims to measure the effect of the trust mediation role and professional attitudes on the motivation of non-managerial employees working in the provincial units of a public institution in Ankara. The data was obtained from 392 employees. Data was analyzed using SPSS and AMOS programs (structural equation modeling). As a result of the findings, it was understood that professional attitude did not have a statistically significant mediating effect on trust, and trust did not have a statistically significant mediating effect on motivation. According to the results obtained, professional attitude had a statistically significant impact on motivation. Increasing the perceptions of human capital, which is the most crucial resource of organizations, such as motivation and attitude towards work, will prevent negative situations such as leaving the organization and burnout syndrome.

Key Words: Professional Attitude, Trust, Motivation

REGARDING THE RELATIONSHIP OF MIND MAPPING AND THE CHEMICAL LANGUAGE

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Abstract

Purpose: The aim of the paper is to study the effect of wide use of the opportunities of the chemical language on the mastery of the taught topic during chemistry lessons using the mind map method.

Material and Method: Chemistry textbook and teaching aids for Year 9, information booklets, Mindmap program and privately created mind maps, visual observation and comparison methods, pedagogical experiment were used as materials during the research.

The interaction of chemical language with the mind map method, which is recommended to be used in the teaching of chemistry in secondary general education schools, was investigated in the example of the teaching of the Sulfur topic in Year 9. It has been shown that during the teaching of the subject, the written text which interprets the content of the lesson should be sequentially identical to the sequence in the corresponding mind map specially created by each student, and the branching starting from the main idea (the name of the subject) should be carried out in a clockwise direction, covering the details and intricacies of the topic.

It was noted that the key words reflecting the diversification and learning sequence in the mind maps built by the students inure to the correct spelling and pronunciation of chemical language terms, concepts and expressions and lay the groundwork for the enrichment of the chemical language while increasing the productivity of learning.

Result: It has been determined that the productivity of learning the topic increases as a result of the wide use of chemical language terms and concepts during the lesson using the mind map method, the correct spelling and pronunciation of the used words and phrases become easier, and conditions for the enrichment of the chemical language are created.

Key Words: Chemical language, mind map method, sulfur, chalcogen, sulfide.

EXPLORING ECOTOURISM POTENTIAL IN SAMSUN: A PATHWAY TO SUSTAINABLE TOURISM

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Abstract

Today, tourism stands out as one of the most important sectors, as it creates income and employment. The positive effect of tourism on the economy may cause businesses and policy planners to ignore the negative effects of tourism on nature. Sustainable tourism policies can minimize these effects. Ecotourism is a form of sustainable travel to natural areas that conserves the environment and respects the well-being of local people. Natural attractions are among the most important factors affecting people's participation in tourism. People want to visit natural areas in different regions for various reasons. The natural environment contains resources that will enable many nature-based activities to be carried out. Ecotourism includes different special interest tourism types that can be evaluated within the scope of sustainable tourism. The development of alternative tourism products based on special interest areas has the potential to reduce the negative impacts of tourism. Samsun is one of the most important tourism destinations in the Black Sea region. In addition to many cultural and historical tourist attractions, Samsun has important natural resources. In order to promote sustainable tourism in Samsun and develop alternative ecotourism products, it is essential to manage these natural resources in the best way. This study aims to determine the potential of Samsun's ecotourism and to develop suggestions for the implementation of sustainable tourism policies. In this context, the natural attractions of Samsun province were first determined. Then, a SWOT analysis was carried out, and suggestions were presented by revealing the strengths and weaknesses of Samsun along with opportunities and threats.

Key Words: Sustainable Tourism; Ecotourism; Tourism Management; Toursim Policy and Planing; Recreation Management

AI AND INTERNATIONAL TRADE RELATIONSHIP: A SYSTEMATIC REVIEW

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Abstract

This systematic review examines the existing body of research on the intersection of artificial intelligence (AI) and international trade. By synthesizing findings from academic literature, this study aims to identify key research themes, methodological approaches, and empirical evidence regarding the impact of AI on trade patterns, supply chains, economic growth, and trade policies.

The study delves into the potential benefits of AI, such as increased efficiency, improved decision-making, and the creation of new trade opportunities. Simultaneously, it acknowledges the challenges posed by AI, including job displacement, data privacy concerns, and the potential for widening economic disparities. By analyzing empirical evidence and theoretical frameworks, this research aims to contribute to a comprehensive understanding of the complex interplay between AI and international trade, providing valuable insights for policymakers and businesses navigating this rapidly evolving landscape.

Ultimately, this work contributes to a comprehensive understanding of the complex dynamics between AI and international trade, providing valuable insights for policymakers, businesses, and researchers seeking to navigate this rapidly evolving landscape.

Key Words: AI, International trade, Globalization, Industrial revolution 4.0, Digital economy

GROUNDWATER PROTECTION ZONING FOR SUSTAINABLE WATER RESOURCES MANAGEMENT IN SEMI-ARID CONDITIONS

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Abstract

Introduction and Purpose: This study holds paramount significance in safeguarding groundwater within the Issyk-Kul region, emphasizing sustainable water resource management and ecological equilibrium. The primary objective was to develop a comprehensive zoning system, strategically imperative for enduring water management.

Materials and Methods: Such research methods as analysis and synthesis were used to study zoning on the degree of protection of groundwater of Lake Issyk-Kul. The methods of analysis and synthesis were useful in the study of groundwater zoning of Issyk-Kul region by degree of protection from pollution in several aspects. The analysis allowed identifying factors that influence the degree of protection of groundwater from pollution. These factors were analysed in terms of their significance and impact on the degree of groundwater protection.V. M. Goldberg's methodology played a pivotal role in zoning and evaluating groundwater protection levels.

Results: The outcomes provide detailed insights into groundwater contamination, outlining concentrations of heavy metals, pesticides, petroleum products, and various pollutants.

Discussion and Conclusion: Through the application of analysis and synthesis, the study categorized areas into distinct protection levels, identifying potential threats from industries, agriculture, oil extraction, fertilizers, pesticides, and settlement runoff. Recommendations include infrastructure enhancements through stricter environmental law enforcement, the establishment of a

groundwater monitoring system, and the promotion of conservation awareness among residents. Essentially, this study lays a robust scientific foundation for a comprehensive strategy to protect and manage groundwater in the Issyk-Kul region. It advocates regular monitoring of water quality, the adoption of treatment technologies, and the regulation of human-induced impacts and economic activities influencing water resources. In essence, it stands as a crucial guide for the region's sustainable coexistence with its invaluable water resources, emphasizing the pivotal role of responsible water management for the well-being of present and future generations.

Key Words: The Issyk-Kul; District; Hazard; Assessment; Risks; Vulnerability.

EVALUATION OF THE POSSIBLE EFFECTS OF THE USE OF ARTIFICIAL INTELLIGENCE IN ARCHITECTURAL STRUCTURES ON DURABILITY

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Abstract

Introduction and Purpose: The use of artificial intelligence in architectural structures can affect design processes, construction stages, energy efficiency and sustainability, maintenance and durability. It is important that artificial intelligence applications, which have recently been used effectively in various fields, can also be used architecturally. In this research, it is aimed to examine the possible effects of the use of artificial intelligence in architectural structures on the durability of structures.

Materials and Methods: The survey model was used in the research. In this model, it is aimed to evaluate the studies and practices in the literature on the subject. By utilizing the researches on the use of artificial intelligence in different fields, the positive and negative effects of artificial intelligence on the usability of architectural structures will be evaluated as a model proposal in the architectural field. In this context, articles, theses and studies in the international literature will be examined. The studies examined in the research will be categorized as methods that can be used and model suggestions and presented in a systematic way.

Results: It is a critical step for local governments to prioritize modern technologies to realize their urban planning and sustainable development goals. Artificial intelligence and big data offer great advantages in managing urban infrastructure, disaster risks, and improving overall quality of life. These technologies enable more effective and predictable management strategies through data collection, analysis and forecasting capabilities. Furthermore, sensors and smart systems contribute to the creation of safe and quality living spaces with real-time monitoring and interventions. The use of artificial intelligence applications and models together with developing technologies will contribute to minimizing the risks that may arise from various sources.

Key Words: Architecture, Artificial Intelligence, Resilience, Architectural Structures

ADSORPTION ISOTHERM STUDIES FOR A PROCESS USING HYDROCHLORIC ACID-TREATED KIWI PEEL

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Abstract

The aim of the study was to chemically and thermally treat kiwi peels for use in the adsorption process. The treatment was carried out with hydrochloric acid at 90 °C and then the material was prepared by washing and drying. The treated kiwi peels were used for adsorption of a dye from dye containing water. In adsorption studies, the dye removal ability of the treated kiwi peels was investigated with water containing different concentrations of the dye. For the solutions containing different concentrations of dye, concentration values were selected as 5, 10, 15 and 20 ppm. It was found that the kiwi peels provided 91.2, 94.5, 96.2 and 96.3% adsorption and exhibited adsorption capacities of 2.3, 4.7, 7.2 and 9.6 mg/g from the dye-containing solutions at concentrations of 5, 10, 15 and 20 ppm, respectively. Then, the adsorption of the dye onto the treated kiwi peels was investigated using adsorption isotherm models. For this purpose, adsorption isotherm models Langmuir, Freundlich, Sips and Liu were used to determine the realization status of the adsorption process according to the model it fits. It was determined that the highest coefficients in the order of magnitude of the correlation coefficients of the models belonged to Liu and Sips models. Liu and Sips models clarified that the dye adsorption using the hydrochloric acid-treated kiwi peel took place in heterogeneous sites of the tretaed kiwi peel at different energies.

Key Words: Dye; Isotherm Models; HCl; Fruit Peel

KOREAN CUISINE-TURKISH CUISINE FUSION CUISINE STUDIES: MAKING KIMCHI FROM KALE

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Abstract

Introduction and Purpose: One of the traditional dishes of Korean cuisine, kimchi is made by salting vegetables such as cabbage, radish and cucumber and fermenting them with red pepper, garlic, leek and ginger and many other spices. In the 21st century, various social changes caused by technological developments, industrialisation and urbanisation have caused changes in traditional culinary cultures and eating habits. With this change, many culinary trends have emerged. One of them, fusion cuisine, is a gastronomy trend that aims to offer different flavours by combining techniques, ingredients or products from different culinary cultures. While fusion cuisine practices ensure the preservation of culinary culture on the one hand, on the other hand, it gives a universal characteristic to culinary culture. At the same time, fusion cuisine is an interesting element for consumers in search of innovation. In this study, instead of Chinese cabbage, which is the main ingredient of kimchi, kale which is one of the important flavours of Black Sea cuisine, was used for fusion cuisine.

Materials and Methods: Document scanning model, one of the qualitative research methods, was used in the research.

Results: It is thought that kale kimchi, which matches the nutritional properties of Chinese cabbage, will provide success in the fusion application of Turkish cuisine.

Discussion and Conclusion: Today, products for the fusion kitchen trend have started to be preferred by consumers looking for innovation, and therefore, studies on the fusion kitchen trend have become quite widespread recently. Fusion cuisine practices provide a gastronomic attraction. In this context, Kimchi made with kale is thought to add a new value to the country's gastronomic tourism.

Key Words: Kale, Kimchi, Fusion Cuisine

THE CONCEPT OF GENERATION AND CLASSIFICATION OF GENERATIONS IN THE WORLD AND TURKEY

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Abstract

It is seen that the accounting profession has changed over the years and is affected by the events during the period, the structure of the society, and the policies and attitudes of the state. As a result of this influence, it is known that the perception of accounting varies among individuals. Perceptions about the accounting profession consist of six basic dimensions. These; They are listed as ethics, expertise, leadership, vitality, visibility and openness. The ethical dimension of the dimensions; honesty, fairness, justice, etc. Contains ideas.

Key Words: The Lost Generation, the Silent Generation, the Baby Boomers, Generation X, Generation Y, Generation Z.

KEFIRAN: FORMATION, PRODUCTION, AND HEALTH EFFECTS

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Abstract

Kefiran is an exopolysaccharide with multiple hydroxyl groups produced by lactic acid bacteria found in kefir grains. More than half of the dry weight of kefir grains consists of kefiran. This edible biopolymer, containing approximately equal amounts of D-glucose and D-galactose, is water-soluble. Kefiran can be extracted from kefir, which is produced from milk inoculated with kefir grains. However, the extraction procedure on an industrial scale is often challenging, and yields are generally low. The co-culture of *L. kefiranofaciens* with *Saccharomyces cerevisiae* results in higher kefiran production compared to pure cultures. The yield of kefiran is influenced by factors such as the pH of the medium, carbon, nitrogen, and phosphorus content, and incubation temperature. Recently, kefiran has garnered significant interest due to its unique properties, including rheological behavior, biodegradability, biocompatibility, safety, emulsifying effects, barrier properties, mechanical properties, and water vapor permeability. Kefiran has therapeutic applications in medicine due to its antioxidant, antimicrobial, wound healing, antitumor, anti-inflammatory, hypotensive, and protective effects on epithelial cells against microbial toxins. Due to its structure and type of bonds, it is not hydrolyzed by gastrointestinal enzymes and reaches the small intestine intact, exhibiting biological effects such as anti-cholesterolemic activity, immunomodulatory activity, and bifidogenic effect. Furthermore, kefiran can be used as a film-forming material in the production of food packaging films, and as a thickener, water-binding agent, stabilizer, gelling agent, fat replacer, and food additive in the food industry. This review discusses kefiran production, its properties, its use in the food industry, and its effects on health.

Keywords: Kefir, kefiran, fermentation

META-ANALYSIS ON FOOD SUPPLEMENT USAGE HABITS OF HEALTHCARE PROFESSIONALS

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Abstract

Introduction and Purpose: Nowadays, due to reasons such as increasing population and workload, there are disruptions in the nutrition of individuals, and as a result, there is a greater need for the use of food supplements. The need to use food supplements varies according to professional groups. The aim of the study is to evaluate the food supplement usage habits of different healthcare professionals.

Materials and Methods: The Google Scholar database was used for refereed journal articles using the keyword “Food Supplement, Healthcare Professional, Consuption Behaviour” constrained to a time span from 2020 to 2024.

Results: Meta-analysis revealed that the rate of food supplement use increased among healthcare professionals during and after the Covid 19 Pandemic. It has been observed that the prevalence of food supplement use among family doctors and family health center employees is approximately 50%. Immune boosters and vitamin/mineral supplements are among the most common usage preferences. Additionally, it has been determined that herbal products are preferred by healthcare professionals for supplement purposes. While the rate of those who stated that the food supplements they used had a positive effect was high, the rate of those who thought they should stay away from food supplements remained at low levels. It has been observed in the studies conducted that healthcare professionals who use food supplements have a high level of recommendation to their clients.

Discussion and Conclusion: As a result, it is thought that the use of food supplements is common among healthcare professionals and this may be related to their busy work schedule. Before deciding to use food supplements, it is important to carefully evaluate the interactions of food supplements with certain drug groups.

Key Words: Food Supplement; Healthcare Professional; Consumption; Behaviour

INVESTIGATION OF OBESITY IN ADULTS IN TRABZON

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Abstract

Introduction and Purpose: According to the World Health Organization (WHO), overweight and obesity are defined as abnormal or excessive fat accumulation in the body. Studies have reported that obesity causes diseases of the age such as diabetes, cholesterol, insulin resistance, depression, musculoskeletal and cardiovascular diseases and poses a high risk to human health. The incidence of obesity is increasing worldwide and is becoming one of the major health problems. It has been revealed that an estimated 5 million deaths in the world in 2019 were caused by non-communicable diseases caused by obesity. In the last 30 years, the rate of obesity has quadrupled in children and adolescents and doubled in adults. Factors affecting obesity include excessive or improper nutrition, sedentary life, age, gender, education level, income status, smoking or alcohol consumption, environmental, socio-cultural, genetic and psychological factors, etc. According to a study conducted by the Ministry of Health, 35.4% of individuals living in the Eastern Black Sea Region are obese. In this study, it was aimed to investigate the obesity status of some adult individuals living in Trabzon province and whether there is a relationship between generations and gender and weight.

Materials and Methods: The data of the study were collected through interviews with 268 individuals aged 18-76 in Trabzon in 2022. Although there are many methods to determine whether individuals are underweight, overweight or obese, the Body Mass Index (BMI) value, which is an easy and common method, was taken as a basis. BMI (kg/m2) is a value obtained by dividing the body weight (kg) of the individual by the square of the height (m). Chi-square tests were performed on the SPSS program to analyze the data.

Results: In the study, it was observed that there was a moderate relationship between generations and BMI at the level of 0.543. 71.6% of the participants had a weight above normal weight. In addition, it was concluded that as the age of people increases, their BMI also increases; 86.4% of the Baby Boomer generation is overweight and obese. It can be said that this situation is an obstacle for healthy aging and a risk for chronic diseases.

Discussion and Conclusion: As a result, it is seen that there is a relationship between generation, gender and weight of individuals living in Trabzon. In order to protect the health of individuals and prevent obesity, individuals should be informed about the risks caused by obesity and multidisciplinary studies are recommended to change the diet that may cause overweight with healthy eating habits. High-energy foods and beverages that people consume daily, on special

occasions or depending on their emotional states should be identified, and the content that will reduce the energy of these foods they are accustomed to should be determined.

Key Words: Trabzon, Obesity, BMI, Generation, Gender

CORROSION BEHAVIOUR OF COPPER-NICKEL-TITANIUM, NICKEL-TITANIUM AND STAINLESS STEEL ARCHWIRES IN THE PRESENCE OF *STREPTOCOCCUS MUTANS* CORRESPONDING TO A HIGH RISK OF DENTAL CARIES: IN VITRO STUDY

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Abstract

Introduction and Purpose: Orthodontics is a branch of dentistry that deals with properly placing malpositioned teeth on the jaw bones and diagnosing and treating facial irregularities. In orthodontic treatments, fixed orthodontic mechanisms containing metal alloys are generally applied. Corrosion is the wear and tear of metals or metal alloys due to oxidation or other chemical effects. Corrosion products have cytotoxic effects that increase the importance of the corrosion behaviour of alloys used in orthodontic treatments. Poor oral hygiene is an important factor that increases microbial corrosion. *Streptococcus Mutans* (*S. mutans*), a bacteria of the human oral flora, is largely accepted as the main etiological agent of dental caries. For this reason, this study examined the *S. mutans* adhesion and the titanium, chromium, iron, cobalt, copper and nickel releases of copper-nickel-titanium (Cu-NiTi), nickel-titanium (NiTi), and stainless steel (SS) archwires, in Klimek artificial saliva containing *S. mutans*.

Materials and Methods: CuNiTi, NiTi and SS archwires were immersed in Klimek artificial saliva with 10^8 *S. mutans* cfu/ml for 48 hours. The amounts of ions released into Klimek artificial saliva were determined by Inductively Coupled Plasma Mass Spectroscopy. Scanning Electron Microscopy was used to analyse the *S. mutans* adhesion after immersion.

Results: *S. mutans* adhesion was observed to be similar to CuNiTi and NiTi archwires and higher than that of SS archwires. The SS archwires released more chromium ions than CuNiTi and NiTi archwires ($p<0.05$). CuNiTi and SS archwires released higher iron ions than NiTi archwires ($p<0.05$). No statistically significant differences were found between the average amounts of titanium, cobalt, copper, and nickel ion releases ($p>0.05$).

Discussion and Conclusion: The study's data concluded that although less *S. mutans* adhesion was observed at SS archwires; released the highest number of ions, while NiTi archwires released the fewest ions in the environment with *S. mutans*.

Key Words: Streptococcus mutans, Corrosion, Nickel, Titanium, Stainless Steel

CARRYING CAPACITY DECISIONS WITHIN THE SCOPE OF DESTINATION LIFE CYCLE THEORY

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Abstract

Introduction and Purpose: The rapid growth of the tourism sector and the increasing popularity of tourist destinations have made the issue of sustainable tourism management even more important. Exceeding the carrying capacity of destinations has negative impacts on both the natural and social environment, leading to a decline in touristic attractiveness in the long term. In this context, destination life cycle theory is a valuable tool for understanding the development process of destinations and developing appropriate management strategies. The importance of this study lies in its theoretical contribution to sustainable tourism management by demonstrating how destination life cycle theory can be linked to carrying capacity decisions.

Materials and Methods: This study is theoretical research that uses a literature review methodology to examine carrying capacity decisions within the context of destination life cycle theory. It will comprehensively review the existing literature on destination life cycle theory and carrying capacity concepts and include studies that explain the different stages of destination life cycle theory and how carrying capacity decisions are addressed within these stages. The findings will be used to build a theoretical framework that explains carrying capacity decisions within the destination life cycle theory. This framework will include principles to guide the management of carrying capacity at different life cycle stages of destinations.

Results: Within the theoretical framework, important points regarding carrying capacity in the life cycle stages of tourist destinations will be emphasized. It is expected that there will be a comprehensive understanding of how carrying capacity decisions should be made within the context of destination life cycle theory.

Discussion and Conclusion: The findings of the study provide practical recommendations for tourism planners, managers and policy makers. As each stage has its own unique challenges and requirements, destination managers need to develop strategies that take these differences into account. In this context, measures such as promoting sustainable tourism practices, infrastructure improvements, visitor management plans and developing innovative tourism products play an important role in ensuring the long-term success of destinations.

Key Words: Carrying Capacity, Destination Life Cycle, Sustainable Tourism Development

ARTIFICIAL INTELLIGENCE TECHNOLOGIES AND APPLICATION EXAMPLES IN THE TURKIYE FINANCIAL SYSTEM

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Abstract

Introduction and Purpose: In recent years, the Turkish financial sector has experienced a major digital transformation with the impact of new generation technologies. Looking at the sector in general, it is seen that the most important building block of this integration is artificial intelligence technologies. Next-generation technologies have led to revolutionary innovations, especially in sectors where traditional financial services such as banking and insurance operate. These technologies, which are used in many areas from customer service to risk management, from fraud detection to operational transactions in the financial sector, are commonly referred to as FinTech. In this article, the current state of artificial intelligence technologies in the financial system and their usage areas in Turkiye will be discussed. It is aimed to examine FinTech and SupTech, RegTech, InsurTech, which are both sub-branches and have separate architectures, and their usage areas in the sector with examples.

Methods: In this research, the usage areas of artificial intelligence in the finance sector are examined and the use of FinTech, SupTech, RegTech, Insur Tech in the Turkish finance sector is examined with examples.

Results: When the Turkish finance sector is analyzed, artificial intelligence technologies, especially data analytics and machine learning architecture, are widely used in the sector. As a result of the study, it was determined that artificial intelligence technologies reduce operational costs by increasing the speed and efficiency of financial transactions, and contribute to the effective management of risks by financial institutions by making more accurate predictions in risk analysis and management.

Key Words: Financial Technology, Artificial Intelligence, Finance, Türkiye

THE MIGRATION AND TERRORISM NEXUS: AN EMPIRICAL ANALYSIS

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Abstract

Introduction and Purpose: The relationship between immigration and terrorism has been a subject of intense public and policy debate. This paper examines the complex interplay between these two phenomena, challenging oversimplified narratives and exploring the nuances of their connection. The aim of this research is to examine the influence of terrorism and government effectiveness of the selected SSA and African countries on immigration. By examining statistical data, the research aims to provide a more accurate understanding of the issue.

Materials and Methods: Burundi, Cote d'Ivoire, Congo, Dem. Rep., Ghana, The Gambia, Mali, Mauritania, Mozambique, Niger, Senegal, Tanzania, Uganda, and Zimbabwe selected regarding to 2002-2022 period. Data sets are retrived from WB Development Indicators, and WB Governance Indicators. Hausman FE and RE specification tests implied.

Results: The study has demonstrated that when terrorism increases by 1%, immigration increases by 0.00345% and when government effectiveness increases 1%, immigration decreases by -0.00078%.

Discussion and Conclusion: The study emphasizes the need for evidence-based policies that address the causes of terrorism, promote government effectiveness, community integration, and protect the rights of migrants. Therefore, these counties must establish a robust trust ecosystem in and out for all the stakeholders to decrease immigration regarding to selected SSA and African countries due to internal and external conflicts.

Keywords: Migration, Terrorism, Government Effectiveness, Security, Policy, Panel Data, Hausman

EFFECT OF METABOLITES PRODUCED FROM BIFIDOBACTERIUM LONGUM AGAINST STAPHYLOCOCCUS AUREUS AND ESCHERICHIA COLI

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Abstract

Introduction and Purpose: For a long time, the use of antibiotics has been the main way to treat bacterial infections. However, with the rapid rise of bacterial resistance on a global scale and the challenges in developing new antibiotics, there is an urgent need to explore alternative treatment options more than ever before. One such effective compounds is probiotics, which inhibit the growth of pathogenic bacteria by producing effective metabolites and fermentation products. Furthermore, these compounds have minimal side effects and do not induce antibiotic resistance. Therefore, our hypothesis is that by using the metabolites of the probiotic bacteria Bifidobacterium longum obtained in Tryptic Soy Broth (TSB) with/without the combination of inulin and/or polydextrose, can inhibit the growth and spread of the pathogenic bacteria Escherichia coli and Staphylococcus aureus.

Materials and Methods: The growth curve of Bifidobacterium longum 35624 in TSB was obtained, and this information was used to determine the time required to obtain primary and secondary metabolites .Precultured Bifidobacterium longum 35624 incubated in Erlenmeyer flasks contained TSB and TSB/inulin at anaerobic environment. In order to obtain metabolites,cultures were centrifuged at logarithmic growth phase and stationary growth phase.Supernatants obtained from logarithmic growth phase and stationary growth phase were named as primary and secondary metabolites respectively Subsequently,pathogenic bacteria Escherchia coli and Staphylococcus aureus were cultivated on a nutrient culture medium.To determine the antimicrobial activities of these metabolites,disc method has been used against Staphylococcus aureus and Escherchia coli.

Results: Both primary and secondary metabolites obtained from TSB/Inulin contained medium showed more antimicrobial activity when compared to TSB/polydextrose and TSB mediums. **Discussion and Conclusion:** Most studies have focused on Bifidobacterium longum itself, with little research on its metabolites. However, future studies on these metabolites and prebiotics could lead to the development of safer and more effective antibacterial drugs.

Key words: Metabolites, Antimicrobial activity, Bifidobacterium longum, Prebiotic

EVALUATING THE IMPACT OF ARCTIC ROUTES ON MARITIME TRANSPORTATION COSTS AND RISKS

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Abstract

Maritime transportation relies on durable vessels navigating a network of sea routes. Recent global warming and the Industrial Revolution have led to the development of new maritime routes, supplementing traditional sea lanes. This evolution has significantly impacted shipping and transportation costs, as a considerable portion of global trade depends on maritime routes. The Arctic region has experienced notable changes due to global warming, including glacial melting, rising sea levels, and reduced sea ice thickness. These environmental changes not only affect the Arctic's ecosystems and local communities but also have significant implications for global maritime transportation. This study focuses on the economic opportunities associated with Arctic routes. By comparing traditional shipping routes with the Arctic Northern Sea Route (NSR), the study evaluates the cost and efficiency of using the NSR versus the Suez Canal route. The analysis reveals that the NSR reduces the distance between Rotterdam and Busan and shortens the voyage by 16.85 days, which is a 31.7% reduction in transit time. Despite potential risks associated with Arctic navigation, the NSR's advantages in reducing both distance and travel time suggest it could become a more viable option for maritime shipping. This assessment highlights the growing importance of Arctic routes in global maritime trade and their potential to transform shipping dynamics.

Key Words: Arctic Ice Sea, Northern Sea Route (NSR), Voyage Costs

THE RELATIONSHIP BETWEEN RURAL TOURISM AND RURAL DEVELOPMENT AND WELFARE: A THEORETICAL STUDY

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Abstract

Introduction and Purpose: Development, rural development and welfare increase or welfare enhancement are issues that have been talked about for a long time, thought about and strived to realize. Briefly development; it is the social, economic and humanitarian progress of people. It is the reflection of this level in rural development to the countryside. Welfare, on the other hand, is the acquisition of opportunities such as housing, health services, cultural activities, social security, education, etc. In the light of these definitions, the goals of rural development and welfare under the leadership of development are based on the long-term happiness of people in the same direction. It is known that the premise of rural development is rural tourism. In the light of these writings, the aim of the research is to reveal what kind of effects rural tourism has on rural development and welfare increase.

Materials and Methods: Qualitative research method was used in the research. Qualitative research is a research method that includes various data collection techniques such as observation, interview, and document analysis. The systematic literature review model has been adopted as a research design. In this context, a literature review study on rural tourism, rural development and welfare was created.

Results: Rural tourism provides an increase in income, employment and purchasing power in the destination where it develops; It stops the phenomenon of migration and ensures that culture is preserved and transferred to future generations. Subsequently, it provides the development of social and health education opportunities. Finally, people become aware of protecting the environment, and at the same time, infrastructure opportunities are developed. In this way, there is an increase in welfare in people with rural development. In other words, rural tourism, rural development and well-being are interrelated concepts.

Key Words: Rural tourism; Rural development; Welfare.

A NONPHARMACOLOGICAL INTERVENTION IN NEWBORN: REIKI PRACTICE

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Abstract

Reiki is one of the complementary and alternative therapy fields and is defined as universal life energy. It is an energy therapy that can be applied directly through touch or without touching. Reiki energy flows from the practitioner's hands to the blocked energy areas of individuals, increasing the positive energy of individuals. This method, which can be applied in addition to medical treatment and care, helps reduce pain and anxiety by activating the autonomic nervous system. The aim of this review is to present information about reiki application, a non-pharmacological nursing intervention applied to newborns, in line with the literature.

Reiki therapy can be applied to individuals and patients of all ages. Children and newborns are also included in this age group. Due to the lack of life experience of children, there are fewer blockages in their energy fields and a faster response to reiki application is received in this group. Therapeutic touch and touch technique in reiki practice include similar approaches. However, compared to therapeutic touch, reiki treatment was used later in nursing studies, and the number of studies on the use of reiki application in newborns is quite limited. Newborns are exposed to many painful stimuli in intensive care units. Non-pharmacological nursing interventions are very important in coping with these painful stimuli. It has been determined that gentle human touch is safe in premature babies and affects their behavioral parameters positively. It has been demonstrated that touch interventions made to premature newborns during painful stimuli significantly improve endorphin concentration and reduce pain responses. It has also been found that therapeutic touch improves vital signs and pain scores in newborns and helps the baby relax.

Reiki, which is among the energy therapies, is a part of effective and safe nursing interventions in reducing pain in newborns. However, when the literature was examined, limited studies on reiki application in newborns were encountered and it was seen that there was a need for studies with a high level of evidence in this field.

Key Words: Pain; Reiki; Newborn

AN EVALUATION OF THE REGULATIONS MADE IN THE TEACHING PROFESSION LAW

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Abstract

Introduction and Purpose: It is expected that the Ministry of National Education (MoNE) will include regulations regarding the establishment of the National Education Academy and the provision of training to teachers at the academy before appointment, with the proposal envisaging changes in the Teaching Profession Law. The aim of this study is to evaluate the regulations regarding the Teaching Profession Law adopted on 14/02/2022 in the light of the literature.

Materials and Methods: The document review model, one of the qualitative research models, was used in the study. The data collection tools in the study were postgraduate theses and articles written between February 2022 and August 2024 regarding the teaching profession law, the teaching profession law and the new law proposal regarding the teaching profession law. In the study, the data were analyzed using the descriptive analysis method. With in the scope of the study, teaching career stages, violence against teachers, teaching profession and National Education Academy within the scope of the teaching profession law, expansion of the scope of the law, lack of reduction in penalties for violence against teachers, etc.

Results: The before and after situations of all new regulations will be evaluated objectively and the findings will be shown in tables. In addition, the recommendations made in the literature on the teaching profession law will be compared with the new regulations. It is expected that the teaching profession and the practice of the National Education Academy will be criticized by non-governmental organizations and teachers in the regulations made in the teaching profession law. Although the lack of reduction in penalties for violence against teachers is welcomed by teachers, it is expected to be seen as inadequate.

Discussion and Conclusion: The findings will be discussed and concluded in the light of the literature.

Key Words: Teaching Profession Law; New Regulations; Evaluation.

FATTENING PERFORMANCES OF SOME SHEEP BREEDS RAISED IN TÜRKİYE

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Abstract

Animal proteins have an important place in human nutrition. One of the most important animal nutrients is red meat. The number of sheep available is around 42 million 565 thousand. After beef, mutton is the most produced red meat in Türkiye. The high amount of meat depends, first, on the presence of the number of animals and also on the carcass efficiency per unit animal. Good management of the fattening program in animals increases the amount of meat production. Factors affecting fattening performance in sheep are listed as follows: Breed, Age, Gender, Type of Birth, Fattening Period, Origin, Condition, Health, Feeding (Fattening Method, Feed Form, Fattening Season, Water Consumption). In the studies found out in Akkaraman breed lambs, values between Average Daily Gain (213-311 gr) were found during an average of 2.5-3 months fattening period. In addition, the feed conversion ratio varied from 3.28 kg to 6.62 kg. During the 56-day fattening period of Morkaraman lambs, average daily gain in males and females is 272 g and the feed conversion ratio is reported 5,38 kg. In Karakaş lambs, as a result of 70 days of fattening, Average Daily Gain in singleton lambs was found 167.6 gr and 175.6 gr in twins born. In 70 days of fattening, the Average Daily Gain in Awassi sheep is 276 g and the feed conversion ratio is 6,65 kg in average males. In females, Average Daily Gain is 222 gr and feed conversion ratio is 5.63 kg. Average Daily Gain of Dağlıç, Kıvırcık, Malya and Karacabey Merinos breeds were determined as 234, 211, 303 and 279 g, and feed conversion ratio were determined as 5.25, 5.33, 4.53 and 4.34 kg, respectively. If a good fattening performance is desired, first of all, the appropriate breed should be selected in the fattening area. In addition, according to the goals of the breeder or fattening enterprise, making a unique fattening program by taking into account the conditions such as fattening time, ration and costs will ensure that it is more economical and high yield.

Key Words: Sheep breeds, fattening performance, feed conversion ratio, daily weight gain

CLIENTELISM IN A TRANSITION COUNTRY: THE GEORGIA CASE

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Abstract

Clientelism refers to an exchange between political support and material needs. Clientelist policies are prevalent in the political and social structures of developing and transition countries due to a poorly functioning civil society, the disconnection between the center and the periphery, and bureaucratic corruption. In the political dimension, clientelism refers to the relationship between electoral and political mobilization and the redistribution of goods and benefits. Essential forms of this relationship include patronage, vote buying, turnout buying, and brokerage. Analyzing these clientelist relations in a specific country, region, or province reveals the historical conditions of the case.

This study evaluates the situation of clientelist policies and relations in post-Soviet Georgia. It focuses on how significant transformations in the social and political structure and the transition to democratic administration shape clientelist relations. The study examines the democratic situation, economic development, political development, and clientelism in Georgia. Through this analysis, the study aims to fill a gap in research on Georgia and its clientelist practices. By understanding the dynamics of clientelism in Georgia, this study contributes to the broader discourse on clientelism in developing and transition countries, highlighting the intricate interplay between political support and material benefits in shaping political landscapes.

By providing a detailed examination of clientelist policies in Georgia, the study not only enhances our understanding of the country's political and social dynamics but also offers insights into the broader implications of clientelism in similar contexts. This research is particularly relevant for scholars, policymakers, and practitioners interested in the intersections of democracy, development, and clientelism.

Key Words: Clientelism, Patronage, Post-Soviet countries, Georgia

A MEDICINAL AROMATIC PLANT "BLUEBERRY" IN THE CONTEXT OF HEALTH AND AGRICULTURAL ECONOMY: AN EVALUATION ON TRABZON, RIZE AND ARTVIN

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Abstract

Introduction and Purpose: In today's world, people have started to turn towards natural life due to the many health and environmental problems they face. Humans now prefer consuming and producing healthier, natural, organic products. Blueberry is included in medicinal aromatic plants and is one of the riches of the Eastern Black Sea Region. Blueberry is an excellent opportunity for the Eastern Black Sea in terms of health and agricultural economy. Trabzon, Rize, and Artvin, provinces of the Eastern Black Sea Region, have very favorable geography for blueberry cultivation. This study aims to evaluate the blueberry medicinal, aromatic plant within the health and agricultural economy scope through Trabzon, Rize, and Artvin provinces.

Materials and Methods: For this purpose, document analysis, one of the qualitative research methods, was used in the study.

Results: In the light of the findings obtained as a result of the analysis, it is stated that blueberry, which is in high demand in both local and international markets, may affect the health economy and health expenditures thanks to its health benefits such as high antioxidant content, protection against diseases such as heart, cancer, brain function, blood sugar regulator and immune system strengthening structure. It was pointed out that the effects of blueberries on the agricultural economy will emerge through creating a new source of income for the region, employment in rural areas, and export potential. In this context, regional agricultural co-operatives should be established to support blueberry cultivation. In addition, the state and the private sector should provide financial and technical support for these areas. Finally, some problems relate to the cultivation, marketing, and distribution of blueberries. In order to solve these problems, conducting research and development studies on blueberry cultivation, marketing, and distribution is essential.

Key Words: Health Economics, Agricultural Economics, Medicinal Aromatic Plant, Blueberry

EFFECTS OF NANOPARTICLES ON BIOTIC STRESS

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Abstract

Biotic stresses are important stress factors that affect the growth, development and yield of many plants and endanger food safety. Today, the most commonly used method to cope with biotic stress factors such as microorganisms, weeds, animals, diseases, etc. is chemical control. However, chemicals pose a threat to human health, the environment and biodiversity. Scientists are conducting numerous studies for sustainable and environmentally friendly agriculture. One of these studies is nanoparticle applications. With the increase in nanoengineering studies in recent years, it is striking that especially metallic nanoparticles are used in agriculture with new applications such as disease detection and control in plants, targeted distribution of agricultural chemicals, alleviation of abiotic or biotic stress and precision agriculture. It is known that nanomaterials designed to alleviate biotic stresses and contribute to increased agricultural productivity are successfully used for the management of plant diseases and pests. In addition, many nanoproducts, including nanoformulation-based agricultural chemicals, as well as those that play a direct role in the elimination of pathogens, have successfully transitioned from laboratory environments to field and industrial agricultural applications. Nanoparticles obtained using chemical, physical or green synthesis methods can be used in many agricultural areas as fertilizers, for herbicide-pesticide distribution, for improving soil water holding capacity and soil, and as stress resistance enhancing agents. Nanoparticles promise to provide precise measurements to optimize plant growth and productivity under biotic stress conditions. However, their realistic application, integration of nanosensing elements into analytical tools, and commercial production of nanosensors challenges need to be addressed. An ideal nanobiosensor should be stable with low reaction time and long storage life. This review provides detailed information about biotic stress types and nanoparticles used to cope with them.

Key Words: Biofertilizer, Nanoparticles, Sustainability, Agriculture

THE ANTI-CANCER EFFECT OF A NEWLY SYNTHESIZED CHALCONE DERIVATIVE ON BREAST CANCER CELLS (MCF-7): AN *IN SILICO* INVESTIGATION

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Abstract

Introduction and Purpose: Chalcones have attracted interest in recent years due to their potential application in the treatment of numerous cancers, including breast and colon cancer. Casein kinase 2 (CK2) plays a critical role in cancer cell proliferation and apoptosis. The aim of this study was to determine by in silico studies whether the newly synthesized compound (2 E)-1-[3,5-bis(benzyloxy)phenyl]-3-(4-ethoxyphenyl)prop-2-en-1-one (BFEP), a chalcone derivative, causes inhibition of CK2 activity in human breast cancer cells (MCF-7). To this end, *in silico* studies were conducted to inhibit CK2, an important enzyme for proliferation and apoptosis of MCF-7 cells.

Materials and Methods: The CK2 protein structure was used as a macromolecule in *in silico* studies. As a ligand, the effect of 4,5,6,7-tetrabromobenzotriazole (TBB), a standard inhibitor for the CK2 protein, on CK2 was evaluated by molecular modeling studies. Subsequently, the interactions of the newly synthesized BFEP compound, whose proliferation-reducing effect on MCF-7 cells was studied, with the CK2 protein were investigated using the same method and the results were compared in terms of thermodynamic parameters. The hydrogen bonding (carbon-hydrogen and conventional hydrogen bonds) and hydrophobic interactions (such as alkyl, pi-alkyl, pi-sulfur) of both ligands with the amino acid residues of the active site of CK2 and with other amino acids were evaluated in the TBB@CK2 and BFEP@CK2 complexes obtained as a function of the TBB and BFEP application combinations. The Gibbs free energy (ΔG) values calculated as a result of these interactions were evaluated in relation to the binding affinity of the protein to the ligand, taking into account the protein-ligand interaction.

Results: The ΔG value for the interaction between the standard inhibitor TBB and CK2 was -7.4 kcal/mol, while this value decreased to -10.6 kcal/mol for the interaction between BFEP and CK2. Both ligand molecules also showed significant interactions with the active site and other amino acid residues of CK2. The BFEP compound interacted with more amino acid residues than TBB. **Discussion and Conclusion:** The *in silico* results of the BFEP compound led to a very significant decrease in the thermodynamic parameter (ΔG) compared to the results of the CK2 interaction with the standard inhibitor TBB. This decrease indicates an increased affinity of CK2 for BFEP

compared to TBB. In addition, significant hydrogen and hydrophobic interactions took place in the catalytic site of CK2. Finally, there was significant steric blocking of the catalytic site. Considering all these results, it can be predicted that the BFEP compound is a more effective antiproliferative agent for MCF-7 compared to TBB. The results obtained can serve as a reference for future *in vitro* and *in vivo* application results.

Key Words: Casein kinase 2, Apoptosis, MCF-7, Antiproliferation, Molecular docking

A REVIEW OF THE FUSION KITCHEN CONCEPT

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Abstract

Entrance and Purpose: Food, which is a mandatory need for people, plays a role in the culinary culture that develops and becomes universal over time. New dimensions are added to the phenomenon of eating by making creative dishes that combine international flavors. One of these creative initiatives is fusion cuisine. Fusion cuisine, which gained popularity in the 20th century, has influenced many countries and has made its presence known. The concept of fusion cuisine covers a process based on presenting the cultures of at least two cuisines on a single plate. This process can occur by combining the local flavors of two different countries on a plate, or it can occur as a result of using the cooking techniques of two different countries. The popularity of fusion cuisine stems from people's search for new and creative tastes. Today's restaurants and food and beverage establishments have also been affected by these changes and have started to include different flavors and presentations in their menus. It is believed that a clearer understanding of the concept of fusion cuisine will contribute to the advancement and development of gastronomy science.

Equipment And Method: Study, literature review found book, paper and articles to be examined based is qualitative research from the methods source scanning method using prepared. in the literature fusion of the kitchen in history location, development process and use to the fields mentioned is importance on It has stopped.

Results: Detailed One way hand received literature scan as a result fusion kitchen of the concept in the literature sufficient at the level not examined to the conclusion is reached. Moreover, made in studies fusion kitchen of the current a clear importance way not emphasized is seen.

Argument And Result: This study, fusion kitchen to the concept wider one from the frame to be looked after will provide is fusion of the kitchen to date and to the importance contribute to be found aims. Moreover, fusion kitchen with interested academics and chefs for source will create One research will happen It is considered.

Key Words: Fusion, Culture, New Trend in Cuisine

DETERMINING THE CAUSES OF OCCUPATIONAL ACCIDENTS USING THE FISHBONE DIAGRAM (ISHIKAWA): TWO DIFFERENT EXAMPLES OF WORK ACCIDENTS

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Abstract

Introduction and Purpose: The prevention of occupational accidents is a global challenge that the world is trying to address. Identifying the factors that lead to accidents is of great importance to prevent or reduce the occurrence of these accidents. Using a fishbone diagram to identify the causes of workplace accidents is one of the most effective methods. The fishbone diagram is an effective risk analysis method that can be used to systematically identify the causes of accidents and determine the measures to be taken through a cause-and-effect analysis. The aim of this study is to analyze the causes and consequences of occupational accidents using a fishbone diagram.

Materials and Methods: In this study, the causes of two different occupational accidents were analyzed using a fishbone diagram. It was found that many factors that caused both accidents formed the accident chain. In order to prevent such accidents from happening again, it is important to analyze the hazards and risks in detail and to implement the necessary measures in practice. For this purpose, in the study, the main cause of the work accident was graphically represented as the body of the diagram since it is the main problem, and the sub-causes (human, machine, material, measurement, environment, method) that will cause the work accident were graphically represented to form the fishbone parts.

Results: The work accidents were analyzed by visualizing them in the form of cause and effect. The causes of the accidents were identified and the measures to be taken to prevent them from happening again were determined.

Discussion and Conclusion: In both work accidents analyzed, carelessness, haste and failure to follow instructions were the main problems that led to the accident. Therefore, the establishment of a culture of occupational health and safety in the workplace and increased training are of great importance to reduce accidents. According to Law No. 6331 in our country, measures should be taken before occupational accidents occur. In other words, proactive approaches are prioritized in the studies. However, it is crucial to take the necessary measures after a detailed analysis of the main and secondary causes of a work accident in order to prevent the accident from happening again.

Key Words: Work accident, Occupational health and safety, Fishbone diagram

THE FUTURE OF MOLECULAR GASTRONOMY

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Abstract

Entrance and Purpose: In recent years, gastronomy has been gaining popularity day by day, especially with the developments that allow the active use of technology and social media. Due to this popularity, gastronomy has become a social, cultural and touristic product. For the last 20 years, gastronomy players and chefs from all over the world have been working closely with food scientists to design new food items. Thanks to this collaboration, healthy, reliable, and different flavors of food products have been developed in recent years. The new formulations that emerge improve the existing final taste perception and are increasingly thought to have a higher consumer acceptance than traditional ones. From a culinary perspective, good ideas and a comprehensive understanding of the colloidal behavior of different food structures offer new possibilities for creating new textures.

Equipment And Method: Study, literature review found book, paper and articles to be examined based is qualitative research from the methods source scanning method using prepared. Today, there is a need for forward-looking studies to structure the next generation of innovations in business and academic environments, using both scientific and technological tools emerging in the field of molecular gastronomy; this is supported by the creation and use of intellectual protection. With the increasing tendency to use innovative process applications in kitchens, it is necessary to know the microbiological structure of food to ensure the use of safe methodologies, and to understand how to develop new structures in food colloidal systems to provide better and longer-lasting flavor, it is necessary to know the physicochemical properties of food. When food is transformed into art in kitchens, not knowing how its composition and the changes in the applied processes are like a chef in the kitchen not knowing what will happen when cold water is poured into hot oil.

Results: The collaboration/interface between scientists and chefs has not yet been sufficiently established for molecular gastronomy to be successful. In order for molecular gastronomy to be successful and for foods to be transformed into great tastes in the kitchen, more research should be conducted on concepts such as food safety, texture, cooking and taste. It is thought that the future of molecular gastronomy will open up a lot as the properties and basic information of foods are correctly known and what can be done and created with fusion kitchen applications is discovered.

Keywords: Molecular gastronomy; Food science, Fusion cuisine

SYNTHESIS OF 3-ARYL GLUTARIC ACIDS USED IN THE SYNTHESIS OF BIOACTIVE COMPOUNDS BY A NEW AND PRACTICAL METHOD

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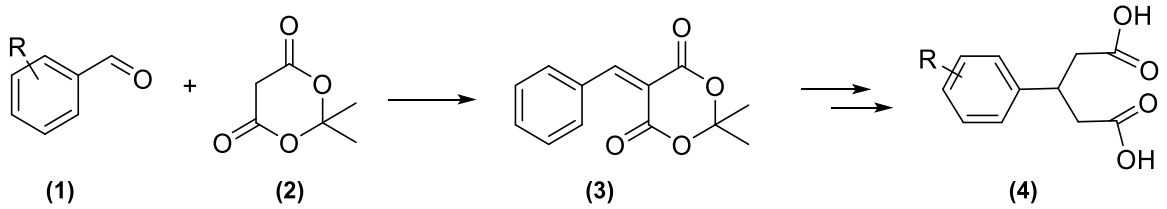
Abstract

3-Aryl glutaric acids are used in the synthesis of some important biologically active compounds. Examples of these compounds are arylidene dimalonate derivatives. Arylidene dimalonate compounds are among the compounds used in the treatment of bone diseases.[1] Another example of these compounds is (*R*)-Baclofen. This compound acts as a Gamma Amino Butyric Acid-B antagonist.[2]

In this work we propose a practical method for the synthesis of 3-aryl glutaric acids which is not available in the literature. According to this new method, in the first step, aldehyde derivatives (**1**) were reacted with Meldrum's acid (**2**) by knoevenagel condensation to give 5-benzylidene Meldrum's acid derivatives (**3**).[3] In the second step, 3-aryl glutaric acid derivatives (**4**) were formed from these compounds as unexpected products.



(1) (2) (3) (4)

Key Words: 3-Aryl Glutaric Acids; Meldrum's acid; 5-benzylidene Meldrum's acid derivatives; Knoevenagel Condensation

References:

1. Thompson, W. J.; Thompson, D. D.; Anderson, P. S.; Rodan, G. A. Eur. Pat. Appl. 1989, 30.

2. Bowery, N. G.; Hill, D. R.; Hudson, A. L.; Doble, A.; Middlemiss, D. N.; Shaw, J.; Turnbull, M. Nature,1980, 283, 92−94.

3. Drennhaus, T., Öhler, L., Djalali, S., Höfmann, S., Müller, C., Pietruszka, J., Worgull, D., Advanced Synthesis and Catalysis, 2020, 362, 2385-2396.

A PRELIMINARY INVESTIGATION ON PERFORMANCE EVALUATION OF MACHINE LEARNING MODELS FOR CHLOROPHYLL-A FORECASTING: ANTALYA BAY (TÜRKİYE)

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Abstract

Introduction and Purpose: An ecological phenomenon known as an algal bloom is characterised by the rapid proliferation and concentrated accumulation of phytoplankton. Harmful algal blooms (HABs), including toxic algal blooms, have the potential to cause significant harm through the destruction of regional coastlines and the associated marine economies, as well as through the contamination of seafood, which may subsequently lead to threats to consumer safety. The implementation of an early warning system and a proactive approach to algae bloom forecasting can effectively prevent the occurrence of these blooms and minimise their negative impacts, thereby ensuring the sustainability of the ecosystem.

Materials and Methods: The objective of this study is to forecast the concentration of chlorophyll-a in the Mediterranean Region (Antalya province) seawater data obtained by Copernicus satellite (2022-2024) in order to gain insight into the concentration of important parameters such as nitrate (NO_3^-), phosphate (PO_4^{-3}), dissolved oxygen (O_2) and silicate (Si). The forecasting was performed with machine learning algorithms in MATLAB Toolbox. The results obtained were compared with accuracy metrics, including RMSE, MSE, R^2, and MAE, to evaluate the performance of various model types.

Results: The results demonstrated that the Gaussian Process Regression (GPR) algorithm exhibited superior accuracy, as evidenced by the following values: RMSE=0.0392, MSE=0.0015, R^2 =0.9059,

and MAE=0.0227. These values were consistently higher than those obtained with the other algorithms. This suggests that the GPR algorithm is more effective than other algorithms in predicting chlorophyll-a, and that the model is a superior fit to the data. The ensemble method demonstrated the second-best results among the other models, with an RMSE of 0.0429 and an R2 of 0.8873. Other machine learning algorithms were also evaluated, including SVM, Tree, Kernel, Neural Network, and regression models. However, these models exhibited less accuracy than Gaussian Process Regression and Ensemble methods. The results demonstrate the effectiveness of machine learning models for seawater quality monitoring and chlorophyll-a estimation, emphasizing the importance of Gaussian Process Regression as a tool in this field.

Key Words: Chlorophyll-a, Sustainability, Artificial neural networks, Machine Learning

EFFECTS OF NANOREFRIGERANT USE IN AN EJECTOR ADDED REFRIGERATION PROCESS

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Abstract

Introduction and Purpose: Ejector refrigeration systems rise as a useful technological application of generating cooling effects. Ejector refrigeration systems are able to utilize from waste heat of industrial processes and vehicles, as well as renewable energy reservoirs. These features render ejector refrigeration systems particularly appealing in the current era focused on energy efficiency. Nanorefrigerants are improving the features of refrigerants (such as improved pool boiling and convective heat transfer coefficients), contributing to the development of smaller volume and more cost-effective refrigeration apparatus. Within this particular context, the application of nanorefrigerants in ejector refrigeration cycles represents a proactive approach towards enhancing system efficiency and facilitating more effective conversion of energy resources. In this study, an ejector refrigeration cycle is analysed to determine the effect of variation in nanoparticle mass fraction and evaporator temperature on coefficient of performance (COP) and refrigeration generation capacity. Nanorefrigerants consists of TiO_2 nanoparticles and base refrigerants of R152a and R290.

Materials and Methods: Variation in temperature of the nanorefrigerant at evaporator exit, on coefficient of performance (COP) and cooling capacity ($\dot{Q}_{rfrg}$) of a heat driven ejector refrigeration cycle is determined by means of a computational program which is developed in Engineering Equation Solver (EES) software. Mathematical modelling of the nanorefrigerant and the refrigeration cycle are carried out and the numerical analysis of the cycle is performed.

Results: It is observed that increase in temperature of the nanorefrigerant at evaporator outlet results in rising cooling capacity ($\dot{Q}_{rfrg}$) and coefficient of performance (COP) of the ejector refrigeration cycle. Additionally, increasing nanoparticle mass fraction exhibit a similar effect on the system: COP and $\dot{Q}_{rfrg}$ of the cycle rise with increasing temperature of the nanorefrigerant at evaporator outlet. Details of the results are extensively presented based on the physical mechanism of the ejector refrigeration cycle.

Key Words: Ejector Refrigeration; Cooling; Nanorefrigerant.

A PRELIMINARY INVESTIGATION ON PERFORMANCE EVALUATION OF MACHINE LEARNING MODELS FOR CHLOROPHYLL-A FORECASTING: MERSİN BAY (TÜRKİYE)

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Abstract

Introduction and Purpose: The sustainable management of coastal ecosystems necessitates the implementation of long-term monitoring programs. The implementation of environmentally friendly ecosystem management and green economic growth is a likely consequence of this approach. One of the most significant threats to coastal ecosystems is the proliferation of algae blooms. The accumulation of phytoplankton in dense concentrations and its rapid growth represent an ecological phenomenon that can potentially compromise consumer safety by contaminating coastal ecosystems and harming marine species. In response, the integration of artificial intelligence-based strategies with early warning systems offers a promising strategy for addressing this challenge. This approach allows for a comparative analysis of a rapid, cost-effective, and sustainable green strategy with more conventional ones.

Materials and Methods: The objective of this study is to forecast the concentration of chlorophyll-a in the Mediterranean Region (Mersin province) seawater data obtained by Copernicus satellite (2022-2024) in order to gain insight into the concentration of important parameters such as nitrate (NO_3^-), phosphate (PO_4^{-3}), dissolved oxygen (O_2) and silicate (Si). The forecasting was performed with machine learning algorithms in MATLAB Toolbox. The results obtained were compared with

accuracy metrics, including RMSE, MSE, R^2, and MAE, to evaluate the performance of various model types.

Results: In the comparative analysis of various model types, the Ensemble model demonstrated the highest level of accuracy. The root-mean-square error (RMSE) value of this model was 0.0476, the mean square error (MSE) value was 0.0023, the coefficient of determination (R^2) value was 0.5412, and the mean absolute error (MAE) value was 0.0129. In comparison to other models, the results yielded by the Ensemble model offer a substantial advantage in predicting seawater quality. The findings are of significant importance for the monitoring and management of coastal ecosystems and will contribute to a more comprehensive understanding of the effects of environmental changes. This study aims to serve as a valuable resource for future green-based research in coastal ecosystem management.

Key Words: Chlorophyll-a, Sustainability, Artificial neural networks, Machine Learning

DETECTION OF WINDOWS MALWARE USING DEEP LEARNING TECHNIQUES

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Abstract

Introduction and Purpose: Malware refers to malicious software developed with the intent to gain unauthorized access to computers and digital devices, cause harm, or steal information. Windows, being a widely used operating system, is a primary target for malware developers. Traditional malware detection methods often struggle to cope with the rapidly evolving and diversifying nature of malware. This study investigates the application of deep learning techniques for detecting malware on the Windows operating system.

Materials and Methods The "Malware Analysis Datasets: Top-1000 PE Imports" dataset, containing characteristics of Windows Portable Executable (PE) files, was used for training and testing the proposed model. A pre-processing phase has been applied to the dataset including balancing the dataset using the SMOTE (Synthetic Minority Over-sampling Technique) and Cluster Centroids methods. In the modeling phase, convolutional neural networks (CNNs), a type of deep learning algorithm, were implemented, and Bayesian optimization was utilized to enhance the model performance.

Results: The study achieved a 98% success rate. Model performance was evaluated using metrics such as accuracy, F1 score, Recall, Precision. Specificity The model's performance metrics were calculated as precision (99.1%), recall (97.7%), F1 score (98.4%), and specificity (99.2%). These results indicate that the model demonstrates high accuracy and effectiveness in detecting both malware and benign software. The high precision and specificity values suggest that the model has a low rate of misclassifying benign software as malicious and minimizes errors. The high recall and F1 score further confirm the model's success in malware detection and indicate that its overall performance is both balanced and reliable.

Discussion and Conclusion: Since the static analysis was employed in this study, in future works we will explore hybrid analysis methods combining static and dynamic analysis techniques.

Key Words: Malware detected, Windows, Deep Learning

THE ROLE OF BACTERIOPHAGES IN BIOTECHNOLOGICAL DRUG DELIVERY SYSTEMS

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Abstract

With the development of pharmaceutical biotechnology, drug designs have gained momentum. The "magic bullet" concept, proposed by Paul Ehrlich in the quarter of the 19th century, was the pioneer of drug delivery studies. Nowadays, undesirable situations may occur such as toxic effects of the active substance, failure to reach the target area, dose interval not being long, and dose being lower than the targeted level. With biotechnological drug delivery systems, it is possible to minimize the increasing problems of drugs and turn new developments into clinical effectiveness. Biotechnological products, which have many applications in the clinic, are important areas of work in the pharmaceutical industry. A large number of nanocarriers (nanoparticles, nanocapsules, micelles and dendrimers) are used in biotechnological drug delivery systems for targeted drug delivery, including liposomes, polymers, nanoparticles, viruses and stem cells. In this field, filamentous bacteriophage and phage-mimetic nanoparticles come to the fore due to their large surface carrying capacity and easy genetic manipulation. Filamentous phages, a rod-like bio-nanofiber suitable for use in many areas, can be easily loaded with drugs and delivered to the lesion site. In particular, synthetic drugs can be conjugated to the phage surface through chemical modification, and gene drugs can also be inserted into the phage genome through recombinant DNA technology. Additionally, specific peptides/proteins displayed on the phage surface can combine with nanoparticles, giving them specific targeting and large drug loading capacity. In this study, in addition to biotechnological drug delivery systems, the production of increasingly important phages, the identification of targeting peptides, and the role of filamentous bacteriophages in drug delivery systems are included. It will also be expressed through exemplary studies on proteins/peptides to target in vitro and in vivo drug delivery.

Key Words: Bacteria, Bacteriophage, drug, Dug Delivery System

IMAGE FORMATION ON TELEVISION

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Abstract

Introduction and Purpose: Television continues to be popular as a means of information and entertainment today. Throughout history, many scientists, inventors and engineers have contributed to this field, from the darkroom to 4K television technology. It has been observed that various inventors made similar inventions simultaneously, and it has been seen that many scientific inventions, starting from the 1800s and up to the digital technologies of the 20th century, played an important role in the development of television technology. The discovery of infrared rays, the advancement of computer science, and the invention of some mechanical devices and chemicals have been the turning points of television technology. The aim of this study is to examine television broadcasting from a technical perspective, to understand the origins and evolution of the technologies used today, and to predict the transformation of broadcasting.

Material method: Qualitative research methods and literature (source) review were used in this research. Academic articles published on topics such as the history of television technology, broadcasting techniques, and digitalization have been examined.

Discussion and Conclusion: Humanity's inventions and devices have made life easier and changed. Television is one of the most effective of these inventions. Television technology has developed in parallel with inventions such as radio, wireless, telegraph, telephone, photography, cinema, and electricity. The use of internet and computer technologies has made television more accessible. Satellite technologies have accelerated communication and made broadcasts over the internet possible.

Results: Today, television has become integrated with the internet, computers, and mobile devices, and the audience has taken on an active role. These developments in communication have added a new dimension to television broadcasting and offered new experiences for the audience.

Key Words: Television Technology, Image Formation, Broadcasting

LIGHTING AS AN IMAGE MANAGEMENT TECHNIQUE

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Abstract

Introduction and Purpose: Light is of great importance for our life and warmth. Light is the first source for vision, one of the basic senses of individuals, and accordingly for visual perception. The texture, size, shape and many features of objects are revealed through light. The use of light in cinema can be analyzed in two categories. These categories are technical and dramatic lighting. Technical lighting contains the light arrangements and related elements required for the formation of the image in the motion picture. Dramatic lighting, on the other hand, is the methods used to realize the emotions desired to be created in the audience.

The aim of this study is to examine the basic principles, techniques and applications of lighting in cinema from an academic perspective, and to examine in detail the technical dimension of lighting and its contributions to cinematographic narrative.

Materials and Methods: Using qualitative research methods and literature review method, this study examines the methods and tools used in the lighting of scenes in cinema. Technical and artistic uses of light in cinematography were examined.

Discussion and Conclusion: This study confirms that light is an indispensable component of cinematography. Light is not only a technical necessity in cinema but also a means of artistic expression.

Results: It is understood that lighting design should be carefully planned at every stage of the filmmaking process. Unplanned or misused lighting can undermine the narrative integrity of the film and negatively affect the audience experience. Therefore, lighting design should be considered from the script writing stage and implemented in a way that supports the director's vision.

Key Words: Lighting, Image Management, Visual Perception, Cinematic Lighting

EFFECTIVE INVENTORY MANAGEMENT OF SEMI-FINISHED PRODUCTS THROUGH SIMULATION METHOD

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Abstract

Introduction and Purpose: The primary objective of this study is to develop a inventory policy for the painted semi-finished goods warehouse of a company that produces products for the healthcare sector. Currently, foremen and engineers make intuitive decisions. Instead of relying on intuitive decision-making, a systematic decision-making approach needs to be developed. The goal of the systematic decision-making process is to reduce lead time and increase output.

Materials and Methods: An ABC analysis was conducted to identify critical products within the company's extensive variety of semi-finished goods. Simulation studies based on these identified critical products aimed to detect bottleneck points and improve these areas. In this context, the Q, R inventory management policy was specifically applied. The values obtained from the implementation of the Q, R policy were further analyzed using the Taguchi experimental design.

Results: Based on the evaluations from the simulation scenarios included in the experimental design, the Q and R values were determined considering the performance measures. Also the factors affecting performance measures were also determined. The analysis of the experimental design revealed that the value of demand has a significant impact on the number of outputs. The value of Q has a significant impact on both the number of outputs and the average time semi-finished goods spent in the system. Moreover, our study reveals that working with high initial stock does not have a significant impact on lead time, which is one of the most important measures for the company. On the contrary, high initial stock increases inventory costs without having a positive impact on lead time.

Discussion and Conclusion: This study includes a real life application on inventory policy management. Since the case considered contains stochastic data, analytical methods are not sufficient to solve the problems in the case. So simulation method is used to model the problem and various scenarios for solution and gathering results. As a result of the analysis, an efficient inventory policy is determined.

Key Words: Semi-Finished Products, Stock Policies, ABC Analysis, Simulation, Experimental Design

EFFECTS OF UVB-PRIMING ON EARLY SEEDLING DEVELOPMENT AT TOMATO UNDER DROUGHT STRESS

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Abstract

Introduction and Purpose: Drought is one of the most important stress factors that plants have been exposed to in recent years. Tomato is an economically important plant that significantly inhibits the growth and development of drought stress. The aim of this study is to investigate the effects of drought and/or UV-B preparation applied to tomato seeds on seedling development.

Materials and Methods: The seeds of the *Solanum lycopersicum* SC2121 variety were kept under UV-B lamp (100 W, 60 cm distance) for 10 and 20 minutes and the preparation process was carried out. The seeds subjected to the sterilization process were planted in MS nutrient medium containing 3% sucrose and 0.7% agar without hormones, and Polyethylene glycol 6000 (5% g/L PEG 6000) was added to the groups that would be subjected to drought stress. After planting in vitro, the seeds were left at 24±2 0C temperature, 16 hours light/8 hours dark photoperiod and 45% humidity conditions for seedling development. Morphological measurements and photosynthetic pigment substance analyses were performed on the seedlings harvested on the 15th day according to the randomized block design.

Results: In root development, a decrease was determined only in seedlings exposed to drought compared to the control, and an increase was determined in UV-B preparation applications; and an increase was determined in shoot development in all application groups. In chlorophyll a, chlorophyll b and total chlorophyll amounts, a decrease was determined in 20' UV-B preparation compared to the control, and an increase was determined in all other applications.

Discussion and Conclusion: It was determined that UV-B preparation of tomato seeds caused an improvement in growth parameters and photosynthetic pigment substances under both stress-free and stressed conditions.

Key Words: Chlorophyll, Drought, Root, Stem, *Solanum lycopersicum*, UV-B

Acknowledgment: This study was supported by the Scientific Research Projects Coordination Unit of Niğde Ömer Halsdemir University with the project numbered FMT 2023/1-LÜTEP and we thank you for its support.

NEW TRENDS IN SOCIAL SECURITY LAW AND POLICY

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Abstract

İntroduction and Purpose: European social security systems have responded quickly and effectively to the COVID-19 crisis, in some cases playing a key role at the national level and going beyond their normal mandate. Various policies and programs have been adopted to ensure adequate and accessible social protection for the unemployed, self-employed, families with children and other vulnerable groups.

Materials: These emergency measures often took the form of temporary cash transfers, such as income support payments and wage supplements, as well as temporary subsidies for short-term employment and similar measures aimed at protecting jobs.

Employers in the European region received help to cope with the crisis in the form of reduced contributions, temporary exemptions from contribution obligations and extension of social insurance payment periods. Workplace accident insurance companies have provided employers with detailed guidance on public health and risk assessment so they can provide a safer and healthier work environment. In many countries, COVID-19 has been recognized as an occupational disease of health workers; At the same time, the requirement to provide additional evidence of a causal link between the infection and the nature of the work was removed, making it much easier for health workers to receive benefits.

Social care organizations have made extensive use of digital technology to recruit new staff or improve the customer experience. Some countries have taken this opportunity to create an inter-agency network to jointly monitor the COVID-19 pandemic and address its impacts on employment and social protection. These innovations demonstrate a shared commitment to improving the quality of social security administration, ensuring that social security services, benefits and emergencies serve their purpose and are delivered on time.

Methods: Comparison and generalization.

Results: Looking ahead, social security organizations and governments will analyze the latest data and try to take lessons learned during the pandemic to improve the quality of social security systems and services.

Key words: social, security, law

THE STRUGGLE AGAINST RELIGION IN THE AZERBAIJAN SSR IN THE 1920s-1930s

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Abstract

İntroduction and Purpose: The policy of framing the goal of forming proletarian culture in the national policy of the Soviet totalitarian regime meant the denial of national traditions and individuality. The inadmissibility of religious faith, which is one of the important features of local traditions, the role that Islam has historically played in the behavior and everyday life of the population, as well as all other religions, was evident from the first days of the existence of the Soviet state.

Materials: Despite the promise of freedom of religious beliefs under the principle of "freedom of conscience" proclaimed in the official ideology of the Soviet state, the regime's attitude towards religion served to create a deep gap between the people and the Soviet authorities. The fact that the Soviet government called Muslim clerics "foreign" and "enemy" elements, confiscating all the property of religious offices, intensified the dissatisfaction of the population with the new regime. However, the opposite would help to strengthen the regime and increase the trust and confidence of the population in it. Following the complete exclusion of religious figures from social life in Azerbaijan, the second severe blow was the termination of their educational activities among the population. However, the vast majority of well-known people who have made special contributions in the cultural and political life of our nation received their first education in Muslim madrasahs.

Methods: Comparison and generalization.

Results: In the second half of the 20s, especially in the last two years, the names of our national intellectuals with a progressive attitude began to be mentioned during the campaign against religious figures. At that time, there were many facts that the former bourgeois intellectuals working in the educational system were almost universally found guilty of both nationalism and the spread of Islamic ideas.

Key words: Soviet, religion, Islam

ABOUT THE SOCIO-POLITICAL ACTIVITY OF YOUNG PEOPLE IN THE REPUBLIC OF AZERBAIJAN IN 2016-2020

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Abstract

Introduction and Purpose: Young people have a great role in improving socio-economic relations in every country. Young people are the future of every country and nation, the basis of its development and growth. The study of factors affecting the development of youth policy in the Republic of Azerbaijan, the study of the main directions and forms of the state youth policy implemented in the country from 2016 to 2020 helps to assess the role and place of young people in social and political changes.

Materials: It is possible to make important conclusions about the content and results of the work done in this field which based on the materials of the "Youth of Azerbaijan" statistical collection published annually by the State Statistics Committee of the Republic of Azerbaijan based on the results of the activities carried out in the field of youth policy. During 2016-2020, educated, intellectual, faithfully serving the state and statehood, the young people successfully represented our country outside of the borders of the Republic and signed successful projects aimed at conveying the truths of Azerbaijan in the world. Looking at the dynamics of development during the research years in our republic, it is clear that the social activity of young people has increased, and their role, mainly in the field of management, has become much stronger. Comprehensive development of young people has become one of the important components of the state's social policy.

Methods: Comparison and generalization.

Results: The people of Azerbaijan can be sure that the flag of our independence raised by National leader Heydar Aliyev on June 15, 1993 is in the hands of educated, patriotic youth. This flag will fly forever in the neighborhood of the most developed countries of the world.

Key words: Azerbaijan, youth, state.

THE CONSTRUCTION OF SOCIAL REALITY: THE SOCIOLOGICAL APPROACH OF BERGER AND LUCKMANN

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Abstract

Introduction and Purpose: Berger and Luckmann's "The Construction of Reality" aims to discuss how social reality is constructed and the effects of this process on individual-society relations. These discussions on reality and relativity raise the question of whether individuals have the capacity to construct the world with their own discourses or whether they are a product of social structures. In this context, the work analyses how individuals co-construct the social world and how it acquires the status of an objective reality. Berger and Luckmann combine the approaches of Durkheim and Weber to analyse social reality in both its objective and subjective dimensions. In explaining their understanding of reality, Berger and Luckmann take Durkheim's approach of treating social phenomena as things and Weber's approach of seeing social action as a subjective composition of meaning as the basis. Sociologists are aware of realities that vary from society to society and try to understand these differences. Berger and Luckmann argue that social reality is constructed as a dialectical result of the processes of externalisation, objectification and internalisation. These processes are both the cause and the effect of each other. They also divide the process of socialisation into primary and secondary, analysing the processes by which the individual belongs to society and is incorporated into other socialities. Vivien Burr explains these processes with the metaphor of birth and states that individuals are born into a pre-constructed world and that this world acquires the status of an objective reality

Methods: The study is a theoretical evaluation study. Literature review and document analyses were conducted.

Results: Berger and Luckmann's research reveals how social reality is reinforced through the primacy of everyday life and language. The reality of everyday life is an interactive and shareable world between individuals. Common-sense knowledge is the knowledge that is shared in the ordinary course of everyday life, and in times of crisis, it enables individuals to recover from these crises by resorting to the stock of knowledge. Berger and Luckmann argue that social structures are formed through repetitive actions and that these actions turn into patterns through the process of habitualisation. If an action is habitualised and typified by the parties, institutionalisation takes place. Bourdieu's concept of habitus is part of this process and social reality becomes understandable through the interaction between both the individual's actions and social structures. In conclusion, according to Berger and Luckmann, social reality is constructed by the combination of objective and subjective realities and these processes offer important analyses for social sciences.

Key Words: Reality; Social Construction; Berger; Luckmann; Everyday Life.

CREATIVE DRAMA IN FOREIGN LANGUAGE TEACHING COURSEBOOKS

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Abstract

In teaching Turkish as a foreign language, rehearsing and learning the difficulties that students will encounter in real life using creative drama will be interesting as well as educational and useful in gaining language skills. For this reason, it is considered important to investigate how often and how activities and techniques based on the creative drama method are used in foreign language teaching textbooks using the descriptive scanning method.

According to Dadandı (2023), the creative drama process not only improves listening and speaking skills, but also advances language skills in a holistic way. Listening and reading skills; Speaking positively affects writing skills. Creative drama directly contributes to the development of language skills by supporting reading and writing activities with a wide range of techniques and application opportunities.

Unlike other studies dealing with the use of creative drama in foreign language teaching, it is thought that the examination of textbooks in this study will contribute and bring diversity to the textbooks for teaching Turkish as a foreign language to be prepared in the future. This study discussed the usage of creative drama, which is used with different techniques in education and training models, in foreign language teaching textbooks.

For this purpose, Yeni Hitit Turkish for Foreigners (YHYİT) and Yedi İklim Turkish (YYE) sets are used for teaching Turkish as a foreign language, and New Headway (NH) (5th Edition) and Cutting Edge (CE) (3rd Edition) for teaching English. sets have been selected. These books were chosen because they are the most widely used and easily accessible. The books examined cover listening, speaking, reading and writing skills based on the four skill model.

According to the findings, improvisation is the most commonly used creative drama technique, followed by role-playing, dramatization and educational game techniques. In the field of language skills, these techniques are most associated with speaking and then writing skills. It was determined that the skill that benefited the least from the techniques was reading. In addition, it was concluded that creative drama techniques are used more at the beginning levels.

Keywords: Creative drama, language skills, foreign language teaching

Urfalı Dadandı, P. (2023). Temel Dil Becerilerinin Geliştirilmesinde Yaratıcı Dramanın Kullanımı: Örnek Ders Planları. SDU International Journal of Educational Studies, 10(2), 132-148. https://doi.org/10.33710/sduijes.1357155

PERFORMANCE EVALUATION OF TENSION-ONLY BRACED STEEL STORAGE RACKING SYSTEMS

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Abstract

Introduction and Purpose: Steel storage racking systems are widely used in many industries. If steel storage racking systems do not perform well in earthquakes, it can cause great economic losses and even loss of life. The earthquake resistant design of steel storage racking systems in earthquake zones is of great importance in order to prevent such losses. In this study, the performance of steel storage racking systems whose structural system consists of only tension central braces under earthquakes is investigated.

Materials and Methods: In this study, pushover and time history analyses were performed on a 6-story and 6-span steel store racking system. Eleven different earthquake records were used in the analyses. In the pushover analysis, the base shear force corresponding to 2% roof slip was compared with the base shear force obtained with equivalent earthquake load. As a result of time history analyses, relative storey drifts and roof drifts were evaluated. The results of the analyses indicate that only tension-only braces can be used in racking systems in areas with high seismic hazard. Pushover analyses show that the base shear force corresponding to 2% roof shear is greater than the base shear force obtained with equivalent earthquake loading. In time history analyses, when the average base shear forces of the earthquakes and the design base shear force are compared, it is observed that the average base shear force of the systems with tension-only braces is smaller than the design base shear force.

Discussion and Conclusion: This study has demonstrated the effectiveness of tension-only braced systems to improve the safety of racking systems used in areas with high seismic hazard. The results of the study have important implications for the design and implementation of such systems.

Keywords:

Seismic Performance; Steel storage racking systems; Tension Only Brace; Pushover Analysis; Time History Analy

EVALUATION OF THE EFFECT OF ROTATION ON SUGAR BEET (*Beta vulgaris* var. *saccharifera* L.) CULTIVATION

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Abstract

Sugar beet (*Beta vulgaris* var. *saccharifera* L.) cultivation is a strategic product in terms of economic, social and environmental impacts. Sugar beet is used in many areas of animal feed and industry as well as human nutrition. It creates employment opportunities in many areas with its integration with the industry and the high number of producers. Sugar beet is a rotation plant and is planted every four or three years depending on regional characteristics. In our country, sugar beet is produced in accordance with the principles of the "Sugar Beet Production Agreement" made with producers every year. Thanks to contract farming, producers do not experience any marketing problems and know where to sell the products produced before starting production. With rotation farming, soil structure and fertility are preserved and sustainability in agricultural production is contributed to. Sugar beet rotation is included in the rotation in 3-4 year periods according to local practices, soil structure, climate, pre- and post-crop compatibility, diseases and pests. If sugar beet is grown as a monoculture, it is inevitable that there will be a loss of yield. For this reason, the application of rotational farming has been made mandatory. The best pre-crops for sugar beet are potatoes, alfalfa and beans. Potatoes improve the physical properties of the soil in sugar beet cultivation and reduce the weed rate to a great extent. In regions where irrigation is possible but the total temperature during the year does not allow the cultivation of two types of products, potatoes enter into a crop rotation with sugar beet and create a healthy production pattern. Legumes, which have a wide root system in the soil, increase the nitrogen content of the soil. In addition, they also enrich the soil in terms of organic matter. Rotation in sugar beet is the pioneer of irrigated agriculture in addition to planned and gradual production. Sugar beet farming carried out with the rotation system provides an increase in yield in the products to be grown after it, as well as a well-maintained field. In sugar beet production, more importance should be given to rotation practices in order to protect soil quality, reduce the negative effects of diseases and pests, prevent environmental and soil pollution, benefit from nutrients in the soil at a high rate, and increase the yield and technological quality of the products obtained. In order to protect the supply security of sugar, which is a strategic product; effective, efficient and economical use of soil and water, which are the most important resources of agricultural production, and to ensure sustainability in beet farming, sugar beet production depends on carrying out contracted, disciplined and in accordance with the rotation system.

Keywords: *Beta vulgaris* var. *saccharifera* L., rotation, sugar beet, production, yield

EFFECT OF ENVIRONMENTAL AND CLIMATIC CONDITIONS ON YIELD AND TECHNOLOGICAL QUALITY IN SUGAR BEET (*Beta vulgaris* var. *saccharifera* L.)

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Abstract

Rapidly increasing temperatures, floods, droughts, tropical cyclones and cumulative changes in rainfall intensity in recent years clearly show that climate conditions are changing. Examining and predicting regional and global changes in climate is important in order to adapt to these effects in the future and to minimize the harmful effects that will occur. For this reason, it has become a multidisciplinary research topic among scientists. Climate change directly and indirectly affects many sectors. The agriculture and tourism sectors are the most affected and the most vulnerable sectors. The production pattern in agriculture is narrowing down even more due to climate change. Sugar beet (*Beta vulgaris* var. *saccharifera* L.), a strategic product, is also affected by the positive and negative elements that arise due to climate change. Although sugar beet requires a gradual increase in temperature from the time the seed meets the soil until it starts to store sugar; when it starts to store sugar, it requires high temperatures during the day and lower temperatures at night. The temperature difference between day and night affects the sugar content as well as the yield. When we examine the relationship between sugar beet and water, the increase in temperature and the high amount of evaporation due to climate change, even if the production period is suitable for sugar beet cultivation due to the increase in temperature, the high evaporation causes water scarcity. In the spring and summer months, when sugar beet needs water the most, short-term drought or water stress causes the leaves with reduced turgor pressure to lose their vitality for a short time, and long-term drought causes irreversible damage to the leaves and the death of the plant. As a result, in addition to the loss of function of old leaves, the formation of new leaves leads to a significant decrease in assimilation power, a decrease in root yield and sugar availability, and causes the accumulation of substances such as potassium (K), sodium (Na) and a-amino acid nitrogen in the plant root, causing deterioration of technological quality. In this context, research should be conducted to adapt to climate changes, which is very important for ensuring sustainable sugar beet cultivation in the future. In order to increase yield as well as sugar content and technological quality, climatic factors must be carefully examined.

Key Words: *Beta vulgaris* var. *saccharifera* L., climate, sugar beet, production, yield, technological quality

DETERMINATION OF PRODUCTION INPUTS, PRODUCTION COSTS AND PROFITABILITY ON COTTON PRODUCTION: THE CASE OF ŞANLIURFA PROVINCE

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Abstract

Introduction and Objective: The cotton plant, which is of strategic importance for both the global and Turkish economies, serves as a raw material for many sectors, primarily in the textile and ready-to-wear industries. It significantly contributes to the national economy through the value it creates and the employment opportunities it provides. Cotton, which has been produced and used in various sectors since ancient times, meets people's clothing needs. Today, the rapid increase in population has also heightened the demand for cotton production. The aim of this study is to calculate the production inputs, costs, and profitability of cotton producers in Şanlıurfa, the region with the highest cotton production in Turkey.

Materials and Methods: To this end, a survey was conducted with 377 producers in Şanlıurfa province. Descriptive statistics were used in the analysis of the data. The Single-Product Budget Analysis Method was employed to determine production costs and profitability in cotton production.

Results: As a result of the study, it was determined that producers have an average of 223.26 decares of operational land, cultivate cotton on an average area of 140.79 decares, and achieve an average yield of 523.29 kg/decare. It was found that 98.14% of the producers benefit from agricultural support, with the most common supports being input subsidies (99.46%) and premium support (98.11%). Production costs are composed of 71.73% variable costs and 28.27% fixed costs. The selling price of 1 kg of cotton in the research area was calculated as 10.40 TL. The net profit, including agricultural support, is an average of 1,971.07 TL/decare, and without support, it is 1,345.07 TL/decare. The proportional profit was found to be 1.48. The effect of the differential payment support on production is greater than that of the input support, and high levels of both differential payment and input support increase cotton production, while low levels tend to reduce it. Calculating the profitability obtained from the strategically important cotton plant will play a significant role in the support policies to be determined by decision-makers.

Keywords: Cotton, Cost, Profitability, Single-Product Budget Analysis Method, Şanlıurfa

A LITERATURE STUDY ON CLIMATE CRISIS AND ENDANGERED ANIMALS FROM A VISUAL ARTS PERSPECTIVE

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Abstract

Introduction and Purpose: Global warming and climate change pose significant threats to biodiversity, with numerous animal species facing habitat loss and extinction. This research investigates the impacts of climate change on wildlife, particularly focusing on endangered species. It aims to contribute to the understanding of these challenges through scientific analysis and by exploring the potential of art to communicate the urgency of the issue.

Materials and Methods: This study employs a comprehensive approach combining scientific research and artistic expression. Scientific literature and data on climate change and its effects on animal populations will be analyzed to identify key trends and challenges. Additionally, artworks by international artists that address environmental themes will be examined to understand how art can contribute to raising awareness and promoting action.

Results: The findings of this research demonstrate the profound impact of climate change on wildlife, with many species facing population declines and habitat loss. The analysis of artistic representations of climate change reveals the power of art in conveying the emotional and aesthetic dimensions of the crisis. The study concludes that both scientific evidence and artistic expression are essential tools for addressing the challenges posed by climate change and protecting endangered species.

Keywords: Climate crisis, globalization, ecological balance, and endangered animal species.

DIAGNOSIS OF COPD WITH VISUAL STUDIO WITH THE HELP OF ARTIFICIAL INTELLIGENCE

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Abstract

Introduction and Purpose: Chronic Obstructive Pulmonary Disease (COPD) is a disease that is commonly seen today and is caused by the combination of polluted air, smoking, and genetic factors. COPD is seen in 10-20% of adults. This rate corresponds to approximately 65 million people. COPD is the third most deadly disease worldwide, and an average of 3 million people die from COPD every year. Methods such as respiratory function tests, imaging techniques, laboratory tests, artificial intelligence, machine learning methods, surveys, and symptom assessments are used in the diagnosis of COPD. Chest radiography and computed tomography (CT) are frequently used among the imaging methods used in the diagnosis of COPD. In this study, it was aimed to speed up the diagnosis process and increase its accuracy by training the chest radiography and lung CT images diagnosed with COPD in artificial intelligence.

Material Method: In recent years, the use of computer-aided diagnostic programs with the use of deep learning in the diagnosis of diseases has become widespread. The computer-aided diagnostic program was implemented in the Visual Studio program. The ML Model add-on was used to use the machine learning method. In order to train the program, both healthy and COPD diagnosed CT and radiography images must be added. For this reason, 1200 healthy lung CT and 1200 chest X-ray images were added to the program. In addition, 1200 lung CT and 1200 chest X-ray images diagnosed with COPD were added, and the system was trained with a total of 4800 images. In order to test the system, 120 lung X-rays diagnosed with COPD and 120 lung CT images were used.

Discussion and Conclusion: The program diagnosed 107 images out of 120 chest X-rays as a result of the test and the sensitivity result for chest X-rays was found to be 89.16%. In the tests performed with computerized tomography images, it diagnosed 111 images out of 120 images and the sensitivity result for CT was found to be 92.5%. It is thought that the computer-aided program developed in the study will help specialist physicians to diagnose COPD accurately and quickly.

Key Words: Image processing, Artificial intelligence, COPD

IMPACT OF PLANT-PARASITIC NEMATODES ON AGRICULTURE OF THE REPUBLIC OF KARAKALPAKSTAN

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Abstract

The agricultural sector in the Republic of Karakalpakstan is confronting substantial challenges due to plant-parasitic nematodes, which significantly threaten crop productivity and soil health. This research aims to assess the impact of these nematodes on various crops, identify the most prevalent and harmful species, and propose effective management strategies. Comprehensive field surveys and soil sampling were conducted across multiple agricultural zones to evaluate nematode populations and their distribution. Laboratory analyses identified key nematode species, including Meloidogyne spp., Heterodera spp., and Pratylenchus spp., which are associated with significant yield reductions in cotton, wheat, and vegetable crops. The study found a direct correlation between high nematode infestation levels and decreased crop yields, with some regions experiencing up to a 40% reduction in productivity. The research also emphasizes the influence of environmental factors such as soil type, irrigation practices, and crop rotation patterns on nematode prevalence and impact. Specifically, sandy and loamy soils with inadequate drainage exhibited higher nematode densities, exacerbating the issue. To alleviate the adverse effects of plant-parasitic nematodes, the study recommends integrated pest management (IPM) approaches tailored to local conditions. These approaches include crop rotation with non-host plants, the use of resistant crop varieties, biological control agents, and chemical nematicides. The implementation of these strategies, along with farmer education and governmental support, is essential for sustainable agriculture in Karakalpakstan. This research highlights the urgent need for comprehensive nematode management programs to protect the region's agricultural productivity. Addressing the nematode challenge can enhance food security, improve farmer livelihoods, and promote sustainable agricultural practices in Karakalpakstan. Future studies should focus on refining IPM techniques and exploring innovative solutions such as genetic engineering and advanced biological controls to further mitigate the nematode threat in this arid region.

Keywords: cotton; wheat; vegetable crops; phytonematoda; fauna; distribution in soils; agrocenosis.

A STUDY ON THE CAUSES AND CONSEQUENCES OF THE FUTURE ANXIETY AND THREAT PERCEPTION CREATED ON THE TURKISH PEOPLE BY SYRIAN REFUGEES IN TURKEY, SPECIFICALLY GAZIANTEP

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Abstract

Introduction and Purpose: Within the scope of migration studies, it is observed that since the studies are mainly based on the perspective of refugees, one-sided orientation and studies towards the problem lead to academic blindness, and the definition of the problem and solution suggestions, and therefore the method, are problematic. Thus, to fill the gap in academic ethics and objectivity, it is necessary to examine the problem from the perspective of the Turkish people. In this context, the increasing number of refugees, their expectations, wishes, and the events they are involved in cause real threat perception and future anxiety in Turkish society in general and in Gaziantep in particular. In this context, the study aimed to investigate local people's perception of the problems caused by refugees based on local news and YouTube comments.

Materials and Methods: In the study, in light of the problems thought to be caused by refugees, video user-viewer comments and local newspaper news on YouTube media channels in the last two years were analyzed using Van Dijk's critical discourse analysis. Comments on 12 news stories published in local newspapers between December 2022 and November 2023 and 6 videos about Gaziantep accessed on YouTube between December 2021 and October 2023 were evaluated.

Discourses frequently mentioned using the MAXQDA program. It was examined on a gender basis under the headings of competition, conflict, emotion, and threat.

Results: The news texts and video comments used were analyzed in the light of social-political-cultural and economic dimensions using Van Dijk's critical discourse analysis method (Van Dijk, 1993), which is based on macro and micro levels. At the macro level, 1398 data were examined under competition, conflict, emotion, and threat headings. In terms of gender, comments were made by 275 men, 82 women, and 215 with uncertain gender identities. The emotions heading has five subheadings at the micro level: hatred, boredom, approval, anger, and reproach. The threat heading is shaped under five subheadings: sexuality, reproduction, threatening Syrians, sending Syrians back, and child marriage. Among the emotions, anger was at the top of the list, while seeing Syrians as a threat and sending them back were at the top of the list of threats.

Key Words: Refugees, Threat Perception, Future Anxiety, Deprivation, Inequality, Favoritism.

A POLICY IMPLEMENTATION FOR RURAL DEVELOPMENT FOCUSED ON ECOTOURISM IN SALT-AFFECTED LANDS: A CASE STUDY OF THE SALT LAKE

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Abstract

In recent years, the concept of ecotourism has become more widespread at the global level and is considered together with the concepts of conservation of natural heritage and rural development. The 2015 TIES definition of ecotourism states that it is "responsible travel to natural areas that protects the environment, sustains the well-being of local people, and includes interpretation and education". Conducting ecotourism activities in arid areas can contribute to the development of local people and prevent migration.

The Salt Lake Special Protection Area is approximately 7,414 km. The study area covers three regions, namely Ankara, Aksaray and Konya. The Salt Lake is also a unique ecosystem with attractive natural areas. The lake is surrounded by cereal fields to the north, east and west; however, extensive seasonally flooded salt steppes occur, particularly to the southwest.

Within the scope of the study, it is assumed that ecotourism activities in and around the Salt Lake can contribute to the development of the local community and, together with ecotourism, will contribute to more sustainable use of salt-affected lands and increase the resilience of the landscape as a whole. Within the scope of these assumptions, S.W.O.T. analysis was conducted and policy implications were proposed.

Key Words: Salt-Affected lands; Ecotourism; Migration; Policy Implementation; Rural Development; Turkey

THEORETICAL DETERMINATION OF GAMMA RADIATION SHIELDING PERFORMANCES OF DIFFERENT CEMENT TYPES

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Abstract

In this study, the gamma radiation shielding properties of different types of cements were investigated. For this purpose, four different types of cement as CEM I 42.5 R, CEM II A-S 42.5 N, CEM II B-W (L-W) 42.5 R, CEM III A 42.5 N were selected in the study. Gamma radiation shielding capacities were investigated by calculating the mass attenuation coefficient (μ/ρ), linear attenuation coefficient (μ), half value layer (HVL), mean free path (MFP), effective atomic number (Z_{eff}), exposure buildup factor and energy absorption buildup factor parameters of the selected cement types. While μ/ρ, μ, HVL, MFP and Z_{eff} parameters were determined in the gamma energy range of 0.05 to 10 MeV, the exposure buildup factor and energy absorption buildup factor parameters were calculated in the gamma energy range of 0.015 to 15 MeV. The calculations were carried out with the help of the EpiXS program. When the calculated parameters were investigated, it was observed that CEM I 42.5 R type cement had a superior gamma shielding capacity than others.

Keywords: Cement type, EpiXS, Gamma radiation shielding

A NEW QUANTITATIVE METHOD PROPOSAL FOR EVALUATION OF TURKISH HEALTH SYSTEM CAPACITY: BULUT SCORING SYSTEM (BSS)

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Abstract

In the study, the capacity of the Turkish health system was evaluated at provincial level with Bulut Scoring System (BSS) method developed within the scope of the study by using the Health Statistics Yearbook data for 2022. In this way, it is aimed to test and demonstrate applicability of the method and to provide insights to decision makers by revealing relative health system capacity gaps of the provinces. The number of decision criteria used in evaluation of capacity of the health system is 14. Decision alternatives are level 3 provinces consisting of 81 provinces. NMV method, which is one of objective weighting methods, was used to determine weights of decision alternatives in BSS. Weights of the decision criteria obtained from NMV method were used as input in BSS method. In determining weights according to NMV method, NMV application algorithm developed by R programming language was used. According to BSS method, health system capacity scores were obtained using Microsoft Excel. The first three provinces with the most optimal health system capacity are Tunceli (BSS_{2022}=6.318), Artvin (BSS_{2022}=6.317), Ardahan (BSS_{2022}=6.316), respectively. According to BSS method, the number of provinces above average of Türkiye (BSS_{2022}=6.057) is 67, while the number of provinces below the average is 14. Adana, Ankara, Antalya, Bursa, Diyarbakır, Diyarbakır, Gaziantep, Hatay, Mersin, İstanbul, İzmir, Kocaeli, Konya, Manisa and Şanlıurfa provinces were below the average BSS score in terms of health system capacity. According to the findings, by determining the relative health system capacity gaps of provinces, decision makers can prioritise resource allocation. In this way, decision makers can build a more resilient and balanced health system in terms of service delivery. At the same time, decision-makers can also contribute to solution of problems in access to health services due to capacity gaps. When decision criteria are equally weighted or unweighted, BSS method can be used alone as it is not dependent on NMV weighting method. NMV method can only be used in integration with BSS when decision criteria are to be weighted objectively. BSS method, which has a compact design, can be used in health sector and other sectors and the results obtained can be evaluated from a wider perspective. In addition, in order to increase use of BSS method, BSS application algorithm developed using R programming language is also shared in the study.

Keywords: Bulut Scoring System, BSS, Health System Capacity, Weighting, NMV

ECONOMETRIC ANALYSIS OF FACTORS AFFECTING FINANCIAL ACCESS: A STUDY ON BLACK SEA COASTAL COUNTRIES

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Abstract

The access of financial services may help people and organisations manage risk more effectively, overcome poverty, and improve their quality of life. Financial access also has indirect effects, such as preventing the shadow economy and increasing public tax revenues by allowing the country's fund demand to be met through the legal system. Today, 1.5 billion people around the world do not have a bank account, a significant finding that demonstrates the importance of the issue. In addition, no previous study on the subject has been found in the literature specifically for countries bordering the Black Sea, or if any, it is very limited. In this context, this study aims to explore the role of political stability, automatic teller machine (ATM) use, and per capita national income indicators on financial access from the perspective of six countries coastal the Black Sea. Data from six Black Sea coastal countries (Bulgaria, Romania, Ukraine, Russia, Georgia and Turkey) were used as the sample for this study. The data were obtained from the official websites of the World Bank and the International Monetary Fund (IMF). In the study covering the period 2002-2022, analyzes were conducted within the framework of panel quantile regression, generalised linear model and robust least squares regression. As a result of these analyses, ATM usage, political stability, and GDP per capita variables have positive effects on financial access. Moreover, among these three independent variables, the largest positive effect on financial access belongs to the political stability variable. In order to ensure and increase access to financial services, political risk elements must be eliminated. If risk factors, such as war, civil war, terrorism, and government crises occur, access to financial resources becomes difficult. In addition, the development of innovative technological financial products, such as mobile banking and Internet banking, can make access to financial services both cheaper and easier.

Key Words: Financial Access; Political Stability; ATM Usage; GDP Per Capita; Panel Quantile Regression

THE ROLE OF DEMOGRAPHIC VARIABLES IN LOCAL FOOD CONSUMPTION VALUE

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Abstract

This study examines how Local Food Consumption Value (LFCV) is affected by demographic variables. While local food refers to foods prepared using traditional methods and products within the geographical boundaries of a region, local food consumption value includes individuals' attitudes and behaviors towards consuming these foods. In the research, within the framework of consumption value theory, the effect of demographic variables on local food consumption value is evaluated by ANOVA and T-test analyzes.

The research was applied to 294 tourists who visited the Eastern Black Sea provinces in the first half of 2024. Data were collected from the participants using the LFCV scale developed by Choe and Kim (2019). The scale consists of two sub-dimensions: emotional value and flavor/quality value. During the analysis of the data, it was determined that there were no missing values, the normality assumption was met, and the validity and reliability conditions of the scale were fulfilled.

The findings reveal the effects of gender, marital status, age, monthly income and education level of the participants on local food consumption value. Gender and age were found not to be determinant on emotional value and flavor/quality value. On the other hand, it is among the findings that marital status, monthly income and education level do not create a significant difference on emotional value. However, marital status, monthly income and education were found to create a significant difference on flavor/quality value.

As a result of the current study, it is emphasized that demographic variables play an important role in understanding local food consumption value, but this effect may differ between dimensions. These differences are very important for the literature and practitioners. The study provides valuable insights for developing strategies to promote local food consumption and support local agriculture. Recommendations for literature and practice are made using the information provided by the findings.

Keywords: Local Food Consumption Value, Emotional Value, Flavor/quality Value, Eastern Black Sea

EVALUATION OF EXPORT PERFORMANCE IN THE KAYSERİ FURNITURE SECTOR USING THE AHP METHOD

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Abstract

This study was conducted using the Analytic Hierarchy Process (AHP) method to thoroughly evaluate the export performance of the furniture sector operating in Kayseri province. AHP is a widely used method in multi-criteria decision-making processes, helping to structure complex systems and make decision processes more systematic. The study examined three main criteria and a total of ten sub-criteria associated with these. These main criteria include financial indicators, firm characteristics, and product features. Financial criteria, consisting of sub-criteria such as export profitability, the ratio of exports to total sales, and the growth of export sales, were identified as the most important factor with a weight of 48.1% in enhancing the export success of Kayseri's furniture sector. Notably, the growth of export sales emerged as the most influential sub-criterion within this group, with a weight of 73.1%. Financial criteria play a crucial role in increasing the sector's competitiveness in international markets. The second main criterion, product features, stands out with a weight of 40.5%, with product cost being the most decisive factor within this group at 60.1%. Product cost is considered a key element that directly affects international competitiveness. Product quality and ergonomics are also among the significant factors in this group, playing a critical role in enhancing customer satisfaction and market share. The third main criterion, firm characteristics, ranks with a weight of 11.4%, with export experience determined as the most important sub-criterion at 55.8%. Export experience enhances firms' ability to overcome challenges they may face in international markets and strengthens their effectiveness in the market. The results obtained in the study reveal that financial factors, particularly the growth of export sales, are crucial in improving the export performance of Kayseri's furniture sector. Additionally, factors such as product cost and export experience stand out as significant elements affecting export success in the sector. In this context, it is recommended that industry representatives and policymakers focus on these criteria to develop strategic plans to enhance export performance. These strategies can contribute to achieving a stronger position for the Kayseri furniture sector in the international market and increasing its competitive power.

Keywords: Furniture Sector, Export Performance, Analytic Hierarchy Process (AHP)

SUPER FOOD: FRUIT AND VEGETABLES

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Abstract

Superfood is a designation used by marketing industries to distinguish food that is claimed to have an advantage over common food, having increased nutritional efficiency and containing greater amounts of antioxidants leading to the prevention of many types of coronary heart disease. Tomatoes, carrots, quinoa, açai fruit, goji fruit, etc. are in the superfood group. It is rich in phenolic compounds, vitamins, minerals and carotenoids contained in foods such as, and thanks to this rich content, it is thought to support the immune system, metabolic system and hormonal system. Foods that support this system should be included in the individual's daily nutritional consumption in order to reduce and treat the incidence of diseases such as cancer, cardiovascular diseases and diabetes. Superfoods are known to have nutritional benefits and physiological effects. In addition, superfoods have positive effects on human health.

Keywords: Super food, Fruit, Vegetable

SUSTAINABLE STEEL STRUCTURES: TECHNICAL AND ENVIRONMENTAL ASPECTS OF THE RECYCLING PROCESS

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Abstract

Introduction and Purpose: Steel is a widely used material in the construction industry and has high recyclability. Sustainable steel structures are crucial for reducing environmental impacts and efficiently using resources. This study examines the technical and environmental aspects of the steel recycling process. The recycling process involves collecting, sorting, processing, and reintroducing scrap steel. In this process, energy consumption, carbon emissions, and other environmental impacts are analyzed in detail. The aim of the study is to improve the efficiency of the steel recycling process and contribute to environmental sustainability by evaluating current methods.

Materials and Methods: The study examined various recycling methods and technologies in the literature. The energy efficiency and emission values of electric arc furnaces (EAF) and other modern technologies were evaluated. Various environmental assessment tools were used to analyze the environmental impacts of the methods used in the recycling process. Data were compared based on criteria such as the amount of energy used in the recycling process, emission rates, and material efficiency.

Findings and Discussion: When comparing the energy consumption and emission rates of different methods used in steel recycling, the highest efficiency was achieved with electric arc furnaces (EAF). The comparison among all groups revealed that EAF technology is superior in terms of both energy efficiency and low emission values. Additionally, the efficiency of the recycling process varies depending on the effectiveness of the technologies used and the success of waste management strategies.

Conclusion: This study found that modern recycling technologies, particularly electric arc furnaces, offer significant environmental sustainability benefits. Consequently, the careful selection and widespread adoption of these technologies in the steel recycling process are crucial for enhancing sustainable practices in the construction industry, benefiting both environmental and economic sustainability.

Keywords: Sustainable Steel Structures, Recycling, Energy Efficiency, Environmental İmpact, Electric Arc Furnaces.

SUSTAINABLE TECHNOLOGY FOR EFFECTIVE WASTEWATER MANAGEMENT: A REVIEW ARTICLE

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Abstract

The discharge of inadequately treated wastewater into natural water bodies can have detrimental impacts on the environment, aquatic ecosystems, causing a serious threat to natural habitat and human health. Heavy-metal pollution is considered a leading source of environmental contamination due to their non-biodegradable nature and persist in the environment. Conventional treatment technologies to remove pollutants from wastewater usually require high maintenance cost, labour intensive, time-consuming, environmentally destructive and mostly inefficient. These drawbacks have led to the emergence of phytoremediation which is a cost effective green technology, efficient, ecofriendly, solar-driven technology with long-lasting applicability. Phytoremediation employs floating aquatic weed plants to take up contaminants. Water hyacinth (*Eichhornia crassipes*), Water lettuce (*Pistia stratiotes*), Water fern (Salvinia molesta) and Duck weed (*Lemna minor*) have been widely used for the treatment of agricultural, domestic and industrial wastewater. The broad application of these plants is due to their availability, resilience in a toxic environment, bioaccumulation potentials, invasive mechanism and biomass potentials. They have the capacity to absorb excess contaminants such as organic and inorganic, heavy metals and pharmaceutical pollutants present in wastewater. Molecular tools are being used to better understand the mechanisms of metal uptake, translocation, sequestration and tolerance in plants. It presents great opportunity of using suitable plant species to detoxify and clean up the environment.

Keywords: Wastewater, Heavy Metal, Phytoremediation, Floating Aquatic Weed Plants, Ecofriendly.

THE IMPORTANCE OF PHOTOSYNTHESIS AND RESPIRATION IN VINE

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Abstract

Photosynthesis and respiration processes are of vital importance for the grapevine plant. Examining these processes provides more detailed information about the plant's energy production, growth, and development. Photosynthesis is the fundamental process that plants use to obtain energy, converting sunlight into chemical energy. This process occurs in the chloroplasts found in grapevine leaves, thanks to the green chlorophyll pigments. Chlorophyll absorbs especially blue and red light, synthesizing the organic compounds necessary for the plant's growth. During photosynthesis, carbon dioxide from the atmosphere, water, and sunlight are used to produce glucose and oxygen. The resulting glucose is used as the plant's energy source, while excess carbohydrates are stored as starch. This process is crucial for the plant's growth and metabolic activities. Respiration, on the other hand, is the process of breaking down the glucose produced during photosynthesis in the presence of oxygen to produce energy. Respiration, occurring in plant cells, generates ATP and is necessary for the continuation of cellular functions. Throughout the grapevine's entire life cycle, respiration continues perpetually. It provides the energy required for growth, nutrition, and metabolic activities. Therefore, photosynthesis and respiration are fundamental metabolic processes of vital importance for the grapevine plant. Understanding these processes has a profound impact on the plant's growth, productivity, and health. Inputs in photosynthesis are Chlorophyll, Carbon dioxide, sunlight and water, while in respiration it is organic nutrients and Oxygen. The outputs in photosynthesis are oxygen and nutrients, while in respiration they are carbon dioxide, water and energy. Photosynthesis and respiration are opposite biochemical processes. These two processes are critical for maintaining the carbon and oxygen cycle in the ecosystem.

Keywords: Grapevine, Photosynthesis, Respiration, Metabolic Activities.

HARVEST AND HARVEST CRITERIA IN VITICULTURE

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Abstract

Harvesting is the process of removing the bunches from the plant when they are ready to be eaten and utilized in various ways. Grape harvesting is carried out using scissors. As with many horticultural crops, harvested grapes accelerate the aging of the grape berries, increase water loss, and shorten the shelf life of the berries due to increased post-harvest quality losses. Since grape is a non-climacteric fruit, it is important to harvest on time as there will be no improvement in eating quality after harvest. Especially for colored table grape varieties, the correct determination of the harvest time is even more important. Harvest time is determined according to the varieties and the way they are evaluated. In early harvested varieties, the quality cannot reach the desired level, while in late harvested varieties, as the maturity of the berry progresses, the texture softens, post-harvest strength decreases, resistance to external factors decreases, and shelf life is shortened. In the vineyard at harvest time, the bunch stalks become lignified and the ripeness index (dry matter/acid), especially in table grapes, should reach the ratio specific to the variety. To determine the harvest time, samples are taken 3-4 times starting 10-14 days before the estimated harvest date. The samples taken should be representative of the vineyard and samples should be taken from intact bunches. Harvesting is done several times for table grapes and once for dried grapes and wine grapes. It is important that harvesting workers are knowledgeable and experienced, and that periodic training is provided if necessary. Harvested grape clusters should be placed gently in the collection container or transport crate, and care should be taken when loading the crates into the vehicles.

Keywords: Vineyard, Grape, Harvest time, Harvest criteria

FUZZY LOGIC BASED NETWORK SLICING APPROACH FOR SLICE SELECTION IN COGNITIVE RADIO NETWORKS

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Abstract

Introduction and Purpose: As number of users in social media increase, need for advanced wireless communication technologies becomes crucial. Besides, number of frequency channels to be assigned is limited. In this case, spectrum scarcity occurs. To solve this problem, dynamic spectrum access techniques are used. Cognitive radio technology is one of the most utilized technique for exploiting empty spectrum channels opportunistically. Primary users have their own assigned channels while secondary users try to detect empty channels in cognitive radio networks. Network slicing is defined as dividing mobile networks into virtual network slices that communicate on a common system. Each network slice is characterized to meet the requirements of devices, customers, applications, services, etc. Choosing suitable network slice is a challenge in cognitive radio networks. The aim of this study is to utilize fuzzy logic for slice selection in cognitive radio networks.

Materials and Methods: Fuzzy logic is an artificial intelligence method frequently used in advanced applications. Fuzzy logic and fuzzy logic-based applications are widely used in areas where mathematical models are difficult to obtain, such as artificial intelligence, engineering, medicine, environment, economy, psychology. Fuzzy logic produces definite solutions from definite or approximate information, similar to human decision-making skills. In this study, fuzzy logic based network slicing approach is proposed for slice selection in cognitive radio networks. In fuzzy logic system, there are 3 input variables and 3 levels of these input variables. Input variables are spectrum usage of primary users, disruptive effects in network slice, and service type where the output parameter is slice selection. The less primary users use the spectrum; the more likely secondary users can utilize spectrum. Three different levels are determined for spectrum usage of primary users: low, medium and high. For secondary users, a high SNR value increases the possibility of using the environment. 3 different input levels are determined as low, medium and high for disruptive effects in network slice. Service type can require high or low bandwidth in the spectrum. Three different levels are determined for service type: low, medium and high. A set of linguistic terms is obtained with 27 rules.

Results: Considering input parameters in fuzzy logic based system, slice selection is carried out appropriately. When spectrum usage of primary users is low, disruptive effect in network slice is low, and service type requires high bandwidth, then network slice that requires high quality communication is chosen.

Discussion and Conclusion: The current study has demonstrated that slice selection in cognitive radio networks is carried out successfully utilizing fuzzy logic based network slicing. In conclusion, approach of fuzzy logic based network slicing is found to be effective in making appropriate slice selection in cognitive radio networks.

Key Words: Cognitive Radio; Network Slicing; Fuzzy Logic; Slice Selection

ADOPTION OF CLIMATE SMART AGRICULTURE AND ITS EFFECT ON INCOME OF SMALLHOLDER FARMERS IN NIGER STATE, NIGERIA

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Abstract

This study was conducted to assess adoption of climate smart agriculture and its effect on income of smallholder farmers in Niger State, Nigeria. Three-stage sampling procedure was used to select 225 respondents for the study; Data were collected from primary source using semi-structured questionnaire complemented with interview schedule. Data collected were analyzed using both descriptive statistics (such as means, percentages and frequency distribution) and inferential statistics (such as OLS regression). The result of the findings indicated that majority (87.6%) of smallholder farmers were aware of CSA, local radio stations (89.3%), farmers' cooperatives (84.9%) and agricultural extension services (78.2%) were the most common source of information on CSA. radio use for weather information (96.0%) and climate knowledge and experience (73.8%) were the most widely weather CSA practices adopted, In terms of water-related CSA practices adopted, the use of crop rotation to improve soil moisture (100.0%) and rainwater harvesting on or near farmland (91.6%) were the major practices adopted by smallholder farmers. Also, crop rotation (97.8%) and mixed cropping (97.8%) were the major carbon-related CSA practices adopted, in addition, planting of legume crops (99.1%) and precision fertilizer application (64.9%) were the major nitrogen-related CSA adopted. Farm size ($p<0.05$), labour access ($p<0.10$), numbers of CSA practices adopted ($p<0.01$), extension contact ($p<0.01$), training received on CSA ($p<0.10$), relative advantage of CSA ($p<0.10$) and observability of CSA ($p<0.05$) were the major factors influencing the level of adoption of CSA practices. The study recommended that, farmers should utilize their cooperative membership in pulling their resources for bulky purchase.

Keyword: Adoption; Climate; Smart; Agriculture and Income

MAINTENANCE MANAGEMENT IN THE INDUSTRY 4.0 ERA: A LITERATURE REVIEW AND FUTURE TRENDS

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Abstract

Maintenance Management in the Industry 4.0 Era: A Literature Review and Future Trends In recent years, Industry 4.0 technologies have significantly transformed manufacturing by enhancing adaptability, large-scale customization, and performance. In today's competitive environment, maintenance has become a crucial challenge, prompting companies to digitalize all aspects of their maintenance processes. This article systematically reviews the literature to analyze the evolution of maintenance management activities and strategies in the Industry 4.0 era. It particularly focuses on the current use of new Industry 4.0 technologies in maintenance activities and their possible future developments. Additionally, it reviews the main trends in current maintenance policies, emphasizing the role of the operator 4.0 and the importance of information sharing. The findings provide implications and practical examples for implementing maintenance in Industry 4.0, supported by concepts and empirical evidence from the literature.

Keywords: Industry 4.0, Systematic review, Operator 4.0, Information sharing, Maintenance.

ACIDITY AND ALKALINITY LIMITS IN MIXING WATER FOR CEMENT MORTAR/PLAIN CONCRETE

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Abstract

The research in this paper was carried out on the “Rethinking pH relevance in mixing water for cement mortar/plain concrete”. Throughout this research, it has been established that pH does not serve as a quantitative indicator. Different countries' codes offer varying recommendations for pH values, and some also suggest different limits for alkalinity. Among these, only IS:456-2000 specifically recommends addressing acidity. Some codes provide guidance on pH but omit alkalinity, while others focus on alkalinity without mentioning pH. Although pH is influenced by mineral acidity, carbon dioxide acidity, and total alkalinity, it may not be a crucial parameter because pH is not a quantitative indicator. Hence, this research suggested that maintaining mineral acidity at 0.01 mg/L, and carbon dioxide acidity at approximately 75 mg/L, aiming for bicarbonate alkalinity at 300 mg/L, carbonate alkalinity at approximately 250 mg/L, and hydroxide alkalinity at 40 mg/L would be ideal. Therefore, it is advisable for various countries' codes to recommend parameters based on their specific environmental conditions, including mineral acidity, carbon dioxide acidity, bicarbonate alkalinity, carbonate alkalinity, and hydroxide alkalinity, for both plain concrete and reinforced cement concrete.

Keywords: pH, Mixing water for cement mortar, Structures, Compressive strength and Codes

DIFFERENTIAL DIAGNOSIS OF LESIONS IN PATIENTS WITH PET / CT FOR ONCOLOGICAL PURPOSES USING XGB AND LGBM MACHINE LEARNING ALGORITHMS

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Abstract

Processing and interpreting medical records, which are created and proliferated by healthcare institutions in the digital environment in the form of text data every day, is important in accelerating the diagnosis and treatment process. The data sets used in studies on textual medical data are generally in English. This is due to the limited number of medical data sets in Turkish and the challenging morphological structure of Turkish in terms of natural language processing. The large number of terms and abbreviations specific to this field in the data generated in the field of medicine poses a complication in terms of the studies carried out The patient PET/CT reports used in this study were produced at Sivas Cumhuriyet University, Health Services Application and Research Hospital, Department of Nuclear Medicine. Taking these reports as a source, a data set was created, and Extreme Gradient Boosting (XGB) and Light Gradient Boosting Machine (LGBM) machine learning algorithms were used for text classification on this data set, and the algorithms were compared according to their diagnostic accuracy value.

Keywords: XGB, LGBM, Text classification, PET/CT, Cancer.

BLOCKCHAIN BASED SMART AGRICULTURE PLATFORM

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Abstract

Introduction and Purpose: There are many different types of problems encountered during the development of agricultural production, which is vital for the continuation of human life. One of these problems is the issue of product pricing. In this study, deep learning algorithms and BlockChain technologies are used together to solve this problem

Materials and Methods: Deep learning algorithms, especially the Long Short-Term Memory (LSTM) algorithm based on Recurrent Neural Networks (RNN), have been successful in various fields such as text classification and error prediction. Due to its high success rates in the agricultural field, the LSTM deep learning algorithm has started to be used in different projects. In this study, a deep learning model containing the LSTM algorithm has been developed for product-based price prediction.

Results: This technology is designed to determine the price at which producers will sell their products, eliminate intermediaries to a large extent, and establish clear price formation through a transparent market. With the help of a software using this developed deep learning model, the change in product prices can be tracked, the future price of the product can be determined, and the trust between producer and customer can be secured.

Discussion and Conclusion: A web-based platform has been developed with a data structure called Agri Coin, derived from Lite Coin based on Bitcoin, for storing records of agricultural products and making instant price determinations, eliminating the price prediction problem, determining product prices through an open and transparent market using the deep learning model.

Key Words: Smart Agriculture, Blockchain, Deep Learning, RNN, LSTM

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DETERMINING THE REASONS FOR OUTMIGRATION FROM ZARA DISTRICT IN SİVAS PROVINCE

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Abstract

Introduction and Purpose: Migration to large cities in Turkey is increasing every day. One of the provinces that contributes most to migration to large cities is Sivas. The aim of this study is to identify the reasons for migration from the Zara district of Sivas to other places.

Materials and Methods: This study is a quantitative research, utilizing a descriptive survey model. The data collection tool used in this research was a questionnaire created via an online Google Form. The collected data were analyzed using SPSS 18 software. The study population consists of individuals who previously lived in Zara but now reside outside the district.

Results: The main reasons for migration from Zara are found to be unemployment, followed by limited educational opportunities. The absence of large industrial enterprises in Zara, the restriction of trade in Zara to expatriate Zaralians outside the district, the limited agricultural land in Zara, and the low agricultural diversity due to the continental climate have been identified as causes of unemployment in Zara. It has been observed that Zara's population pyramid is asymmetric. This situation is attributed to the fact that the number of deaths in Zara exceeds the number of births and that expatriates aged 40 and over continue to live in Zara. It has been noted that migration from Zara is highest to Istanbul, followed by Kocaeli. It has been determined that the economy of Zara district relies on agriculture and livestock.

Discussion and Conclusion: It is suggested that the district's economy should be supported by industrial and tourism revenues, and that social opportunities should be increased to encourage higher education students to continue living in Zara.

Key Words: Sivas Zara, Migration, Unemployment

SIDDHARTHA: A PATH FROM THE MATERIALIST WORLD ORDER TO EASTERN MYSTICISM AND THE SEARCH FOR IDENTITY

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Abstract

Hermann Hesse (1877-1962), one of the most important representatives of traditional narrative art in 20th century German literature, was influenced by Far Eastern philosophy from an early age and had a great interest in it. With the increase in criticism against the materialist system in European society with the turn of the century, Hesse, like most people, turned his face from the outer world to the inner world and a transition from objectivity to subjectivity occurred. Hesse, who wanted to become a new person by assimilating Far Eastern teachings and thus getting rid of spiritual depression, made it a goal to reach the union of existence (Pantheism) by constantly exhibiting attitudes in search of identity and realizing himself.

In this context, Hesse's work "Siddharta", which both deals with the development process of the individual and contains oriental themes, will be analysed. With this study, it will be tried to reveal the efforts and difficulties that Siddhartha, who thinks that spiritual values remain in the background in the materialist Europe, which is fond of entertainment, and who fights against this, closes his doors against the outside world and proceeds on his own path and endeavours on the path of wisdom. On the one hand, the study will make use of aesthetics of reception and hermeneutics, which are text-dependent methods of analysis, and on the other hand, the life-artifact unity method of the existentialist perspective will be utilised. Therefore, a pluralistic method will prevail in this study.

In ‘‘Siddhartha’’, which is both a literary result of the reception of India and one of the results of Hesse's orientation towards the East, the mystical ways of thinking of Eastern philosophy - Buddhism and Hinduism - are inevitably felt. Based on all these facts, this work can be called the epitome of both the orientation towards Eastern mysticism and the search for identity.

Key Words: Siddhartha, Eastern Mysticism, Search for Identity, Union of Existence

SHORT-TERM PREDICTION OF AIR POLLUTION USING LSTM MODEL: A STUDY ON O_3 AND $PM1_0$ IN BURSA

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Abstract

Introduction and Purpose: Air pollution is the condition in which harmful substances in the atmosphere reach levels that can damage human health, the environment, and ecosystems in general. These harmful substances are typically released into the atmosphere as a result of human activities and natural events. Air pollution can lead to various adverse effects, such as respiratory diseases, heart conditions, and environmental degradation. This study aims to predict the levels of O_3 and PM_{10} in Bursa, one of the major cities with advanced industry, using deep learning. The goal is to take preventive measures against air pollution and minimize the damage to the ecosystem as a result of the predictions.

Materials and Methods: In this study, data on O_3 and PM_{10} variables for Bursa were obtained from the Continuous Monitoring Center of the Ministry of Environment, Urbanization, and Climate Change. Hourly data monitored from May 2022 to April 2024 were predicted using a deep learning algorithm called LSTM (Long Short-Term Memory), and a statistical analysis of the obtained prediction results was conducted. LSTM is particularly successful in time series forecasting due to its ability to learn long-term dependencies. The application results were evaluated using MAE, MAPE, and RMSE metrics.

Results: The application results for MAE and MAPE values were found to be 8.33 and 0.2272 for PM_{10}, and 5.57 and 0.2221 for O_3, respectively. These results demonstrate that the LSTM model performs well in predicting PM_{10} and O_3 levels. Additionally, according to the World Health Organization, the measurement of SO_2 and PM_{10}, which are pollutants that alter the natural composition of the air and cause air pollution, is considered sufficient to determine pollution levels. The results of this study also show that the PM_{10} levels are within an acceptable range.

Discussion and Conclusion: This study has demonstrated that the LSTM model is successful in predicting the concentrations of O_3 and PM_{10}, which are important components of air pollution. The model's performance was evaluated using error metrics, and the low error rates in PM_{10} predictions were found to be consistent with the acceptable levels defined by the World Health Organization. As a result, the LSTM model is seen as a potential tool for predicting air pollution components, and its applicability in air quality management has been emphasized.

Key Words: Deep Learning; LSTM; Air Pollution; O_3; PM_{10}.

ENHANCING TRANSFORMER RELIABILITY THROUGH SWEEP FREQUENCY RESPONSE ANALYSIS (SFRA)

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Abstract

This paper explores the application of Sweep Frequency Response Analysis (SFRA) as a diagnostic tool for assessing the integrity of power transformers. SFRA detects issues such as winding displacements, core defects, and short circuits by analyzing the transformer's frequency response to a low-voltage signal. The study provides an overview of SFRA, including its methodology, benefits, and practical applications. Case studies demonstrate SFRA's effectiveness in real-world scenarios, highlighting its advantages over traditional diagnostic methods. Challenges and future directions for SFRA research are also discussed. The findings emphasize the importance of SFRA in proactive transformer maintenance, aiming to enhance reliability and extend operational lifespan.

Keywords: Sweep Frequency Response Analysis, SFRA, transformer diagnostics, winding displacement, core defects, frequency response, power transformer maintenance

COOLING PERFORMANCE ANALYSIS OF HYBRID COOLER BLOCK USING PHASE CHANGE MATERIAL AND LIQUID COOLING IN COOLING LITHIUM ION BATTERIES

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Abstract

Introduction and Purpose: Performance losses occur due to waste heat in lithium-ion batteries in electric vehicles. To prevent this, various cooling methods are used to remove the waste heat produced by batteries. While classically air and liquid cooling methods were used, today the passive cooling method using phase change materials (PCM) has become a new research subject. In this study, the effect of phase change material on cooling performance is investigated. Rather than using FDM alone, it was used as a hybrid system with liquid cooling. To compare PCMs, organic (RT35), inorganic (SP31) and composite (RT44HCEG67) structured materials were used.

Material and Method: A constant heat flux (4000 W/m^2), representing the heat emitted from the battery pack, was applied to both surfaces of the cooling plate A channel design was made in the middle of the cooling plate, and water (300K) was circulated through the channels as a coolant. The flow type is laminar. Phase changing materials were placed in the two areas between the channels. Materials with different structures were used for the effects of the phase change material. Three different flow rates were used for the effect of water: 0.001 kg/s, 0.005 kg/s and 0.01 kg/s. The maximum temperature on the surface and the standard deviation of the temperature were chosen as evaluation criteria.

Results: At moderate fluid flow rate (0.005 kg/s), the effect of phase changing materials is best observed and the cycles are stable.

Discussion and Conclusion: When three phase change materials were compared, the worst cooling performance was given by RT44HC, whose rime degree was higher than the other two phase change materials. The most optimum results were obtained with moderate water flow rate (0.005 kg/s) and SP31, an inorganic phase change material. The most important conclusion is that the melting point of the phase change material must be well chosen and close to the inlet temperature of the fluid used.

Key Words: PCM, Hybrid cooling, CFD

PERFORMANCE OF TRI-DOPED GRAPHENE/TI_3CNT_X MXENE INCORPORATED POLYVINYLIDENE FLUORIDE PIEZOELECTRIC NANOGENERATORS

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Abstract

As global energy demands rise, renewable and sustainable sources become crucial. Traditional fossil fuels are finite and polluting, while alternatives, including solar, wind, and mechanical energy from human motion, reduce greenhouse gas emissions and dependency on non-renewable resources. Self-powered wearables, especially fitness trackers and medical sensors, need reliable power, making energy-harvesting technologies vital. Piezoelectric nanogenerators (PENGs) convert mechanical energy into electrical energy, supporting sustainable wearable electronics. Many studies focus on enhancing PENG efficiency and integration with flexible materials through new material development, optimized designs, and scalable production. Hence, this study introduces a promising heterostructure nanofiller, a blend of nitrogen, sulfur, and phosphorus-doped graphene (NSPG) with Ti_3CNT_x MXene, which significantly enhances the electrical output of PENGs. The chemical analyses, including XPS, Raman Spectroscopy, XRD, and FTIR, reveal that these two-dimensional materials form quasi-three-dimensional heterostructures with exceptional conductivity and surface functional groups. These structures promote the interaction between the filler and the polymer matrix, thereby enhancing the electroactive β-phase and increasing the PENG's output power density. The blend of NSPG and Ti_3CNT_x has led to a significant improvement in PENG performance, with a short-circuit current of 1.48 μA, open-circuit voltage of 14.6 V, and an output power density of 2.2 μW/cm². The PENG's ability to generate practical electrical signals, such as charging a capacitor and lighting LEDs, demonstrates its potential for powering flexible, self-sustaining electronics.

SOLVING REAL WORLD PROBLEMS WITH CURRENT METAHEURISTIC ALGORITHMS

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Abstract

Introduction and Purpose: This study aims to solve CEC2011 real world problems with current metaheuristic optimization methods. The fact that the optimums for these real-world problems are unknown keeps this issue current. Despite the increasing number of metaheuristic optimization methods, this study deals with optimization algorithms that have a high probability of escaping the convergence strategy and local optimum trap.

Materials and Methods: In this study, Ivy algorithm (IVYA), Artificial Protozoa (AP) Optimizer and Lungs performance-based optimization (LPO) algorithms are applied to CEC2011 real-word problems. Parameter Estimation for Frequency-Modulated (FM) Sound Waves, Lennard-Jones Potential Problem, Optimal Control of a Non-Linear Stirred Tank Reactor, Spread Spectrum Radar Polly phase Code Design, Large Scale Transmission Pricing Problem, Static Economic Load Dispatch (ELD) Problem, Hydrothermal Scheduling Problem, Messenger: Spacecraft Trajectory Optimization Problem and Cassini 2: Spacecraft Trajectory Optimization Problem within the CEC2011 problems are discussed.

Results: These three current optimization algorithms are reported by considering their standard deviations, averages and lowest cases with 30 different runs.

Key Words: Ovary Transplantation; Hydrocortisone; Inflammation; Necrosis; Histopathology

IN-VITRO ANTIBACTERIAL ACTIVITY OF HERBAL EXTRACT OF TULSI (*OCIMUM SANCTUM*) AGAINST CLINICALLY ISOLATED OF METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* FROM DISTRICT KOHAT

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Abstract

Objective: The aim of this study was to evaluate and screen the antibacterial activity of medicinal plant which were cultivated in ancient time.

Study Design: Experimental Study.

Setting: Microbiology department, Kohat University of Science and Technology, Kohat.

Period: February 2024 to July 2024.

Material and Methods: The fresh extract of *Ocimum sanctum* (Holy Basil) leaves against the clinically isolated MRSA by using agar well diffusion method. In this study, four selected different compound (Ethanol, Methanol, ethyl acetate and DMSO) were used at different concentration of (100%, 80%, 60 %, 40%, 20%, 10% and 5%) respectively for all compound against *S. aureus*.

Results: All these concentration showed inhibitory effects towards Gram positive S. aureus. In this analysis, on comparison we observed that three compound (Ethanol, Methanol and Ethyl acetate) extract was more efficient and give maximum zone of inhibition on *S.aureus* (40mm), due to their high chemistry. Only DMSO compound showed less antibacterial activity on *S.aureus* as compared to other extracts, because they have less bioactive compound.

Conclusion: The result of this study also elicits their efficacy of all these different compound depends upon the concentration levels. The plant showed maximum zone of inhibition at 100%, 80%, and 60% rather than at 10%, 5% because on higher level they contain high bioactive compounds.

Key Words: *Ocimum sanctum* (*O. Sanctum*), Methicillin- resistant *Staphylococcus aureus* (MRSA), Antibacterial activity, Zone of Inhibition, Agar well diffusion method, Dimethyl Sulfoxide (DMSO),

ACCEPTANCE AND COMMITMENT THERAPY FOR AGGRESSION AMONG UNIVERSITY STUDENTS IN PAKISTAN: A QUASI-EXPERIMENTAL STUDY

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Abstract

Aggression among university students is a growing concern worldwide, with significant implications for mental health and academic performance. This quasi-experimental study investigates the effectiveness of Acceptance and Commitment Therapy (ACT) in reducing aggressive behaviors among university students in Pakistan. A sample of 120 students, identified through a screening process, was divided into an intervention group and a control group. The intervention group participated in an 8-week ACT program, while the control group received no treatment. Aggression levels were measured using the Buss-Perry Aggression Questionnaire (BPAQ) at baseline, post-intervention, and at a 3-month follow-up. Results indicated a significant reduction in aggression scores in the intervention group compared to the control group, with a sustained effect observed at the follow-up. Qualitative feedback from participants highlighted improved emotional regulation and stress management. This study provides evidence supporting the utility of ACT as an effective intervention for managing aggression in university settings, offering a culturally relevant approach tailored to the Pakistani context. Further research is recommended to explore long-term effects and potential integration with other therapeutic modalities. This study contributes to the growing body of literature on ACT and its applications in diverse cultural settings, emphasizing the need for context-specific mental health interventions in higher education.

Key Words: Acceptance and Commitment Therapy, Aggression, Students,

INVESTIGATION OF THE EFFECT OF BEHAVIORAL ATTITUDES TOWARDS SUSTAINABLE NUTRITION ON ANTHROPOMETRIC MEASUREMENTS AND FOOD PREFERENCES IN INDIVIDUALS BETWEEN 18-65 YEARS OF AGE

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Abstract

Introduction and Purpose: A consumer behavior in which processed and packaged foods and animal-based products are minimized, plant-based foods are consumed more, and local products are prioritized is defined as healthy and sustainable nutrition. This study aims to investigate the effect of behaviors related to sustainable nutrition on dietary behaviors and preferences through anthropometric measurements.

Materials and Methods: The study included a total of 408 adult volunteers, comprising 169 men and 239 women, aged 18-65, living in Istanbul. The face-to-face survey form included questions on sociodemographic information, physical activity levels, dietary habits, and food preferences. Body weight and height data, reported by the participants, were used to calculate Body Mass Index (BMI). Additionally, the "Sustainable Nutrition Behavior Scale (SNBS)" was used to assess adults' knowledge levels regarding nutrition.

Results: 43.4% of the participants reported having heard of the concept of sustainability, and 27.7% indicated they had heard of the concept of sustainable nutrition. The concept of sustainable nutrition

was most commonly encountered through social media, at 38.4%. The mean total score on the SNBS for participants was 96.92±20.43, with women having higher median scores compared to men ($p<0.01$). The median scores for the 'Food Purchasing' sub-factor were significantly higher for individuals who do not consume alcohol compared to those who do ($p<0.05$). Individuals who engaged in regular physical activity, took vitamin/mineral supplements, had regular snacks, and had previously heard of the concept of sustainable nutrition had higher SNBS total scores, but this difference was not statistically significant ($p>0.05$). The mean total SNBS score for obese individuals was found to be higher (102.80±17.58) compared to those with normal BMI (94.34±20.94) and those with low BMI (93.35±18.69) ($p<0.05$).

Discussion and Conclusion: A low SNBS score negatively affects the aforementioned dietary behaviors and preferences; however, contrary to expectations, no evidence was found in this study suggesting that it adversely affects anthropometric measurements, indicating a need for further research. This study is thought to contribute to strategies aimed at improving the public's knowledge, attitudes, and literacy regarding sustainable nutrition behaviors and preferences.

Key Words: Sustainable Nutrition; Anthropometric Measurements; Nutritional Behavior; Food Preferences

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EFFECTS OF NI DOPING ON STRUCTURAL, MICROSTRUCTURAL, AND OPTİCAL PROPERTIES OF TIN OXIDE FILMS VIA PSP METHOD

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Abstract

In this study, we employed a pneumatic spray pyrolysis (PSP) technique at a deposition temperature of 450°C to synthesize $Sn_{1-x}Ni_xO_2$ thin films, with the nickel doping concentration varying from 0.0 to 0.10, on glass substrates. The effects of different Ni doping levels on the structural and optical properties of the films were thoroughly investigated. Structural characterization using X-ray diffraction (XRD) confirmed the presence of the rutile phase of SnO_2 in all the thin films. The crystallite sizes were estimated to range between 27 and 47 nm. Optical measurements revealed that the bandgap energy increased from 3.83 eV to 4.01 eV with increasing dopant content, consistent with the Burstein-Moss effect. Additionally, it was observed that both the electrical resistivity and the thickness of the thin films were influenced by the doping levels. The study provides a comprehensive analysis of how Ni doping modifies the intrinsic properties of SnO_2 thin films, highlighting the potential for tuning these materials for specific applications through controlled doping.

Keywords: Thin films, X–ray diffraction, Optical properties.

DESIGN AND CONSTRUCTION OF A ROBOTIC ARM WITH FIVE DEGREES OF FREEDOM (5DOF)

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Abstract

This research involves the design and construction of a robotic arm with five degrees of freedom (5DOF). The robotic arm is coupled to mimic the movements of a human arm, allowing for a wide range of motions and tasks. Key components include links, joints, actuators, sensors, and a controller. The design integrates both mechanical and electrical engineering principles, utilizing an Arduino Uno microcontroller for precise control of the servo motors at each joint.

The system is powered by a combination of AC and DC sources, with Bluetooth for wireless control via a mobile application. This project aims to create a functional robotic arm capable of performing complex pick-and-drop operations, with potential applications in industrial automation, educational demonstrations, and hazardous environment exploration even without human self-presence.

THE RELATIONSHIP BETWEEN INTERNET DECISION-MAKING AND HEALTHY LIFE BEHAVIORS IN RISK PREGNANT WOMEN

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Abstract

Introduction and Purpose: It has been stated in the literature that women use the Internet during the risky pregnancy process for purposes such as searching for information, managing health, providing social support, and repeating information obtained from midwives. Since there is a risk situation in risky pregnancies, pregnant women need to access accurate information and implement healthy lifestyle behaviors correctly and effectively in terms of protecting maternal and fetal health. For this reason, the current study aimed to investigate the relationship between decision-making via the Internet and healthy lifestyle behaviors in risky pregnancies.

Material and Method: This study was conducted with a descriptive and correlational design. The data of the study was collected from 350 risky pregnant women who applied to 4 hospitals affiliated with the Health Directorate of a province in the Central Black Sea Region between 01.03.2024 and 26.07.2024. The "Sociodemographic Information Collection Form," "Decision-Making via the Internet in Pregnancy Scale," and "Healthy Lifestyle Behaviors Scale in Pregnant Women" were used to collect the data. In evaluating the data, number, percentage distribution, mean, ANOVA, independent sample t-test, and Pearson correlation analysis were used.

Findings: The mean age of the pregnant women was determined as 27.50±5.04 and the mean gestational week was determined as 29.51±7.07. The mean score of the Internet Decision Making Scale in Pregnancy was 36.37±8.23 and the mean score of the Healthy Lifestyle Behaviors Scale in Pregnancy was 110.46±14.32. A statistically significant and positive relationship was obtained between the mean scores of the Internet Decision Making Scale in Pregnancy and the Healthy Lifestyle Behaviors Scale in Pregnancy.

Conclusion: It was found that the deci0sion making and healthy lifestyle behaviors of the risky pregnant women via the internet during pregnancy were high. However, it can be said that the healthy lifestyle behaviors of the risky pregnant women increased as the decision making via the internet during pregnancy increased.

Keywords: Internet, Risky pregnancy, Health, Lifestyle

METHODS OF FINANCIAL STATEMENTS IN ENTERPRISE

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Abstract

The main source of information about the activity of the enterprise is the financial report. The largest data for analysis includes the balance sheet, profit and loss statement, all applications in the balance sheet for the financial year can be used for detailed analysis. The analysis of financial statements is a tool for determining the management problems of financial and economic activity, choosing capital investment directions and predicting individual indicators. To ensure the comparability of accounting data for different periods in reports, it is necessary to use comparative methods of financial calculations with sustainability.

Reliability - the information provided must be complete and reliable, free from material errors or biases, and must accurately reflect economic activity.

Continuity of the balance - the possibility to use the final balance of the reporting year as the entry balance of the next year; reveals the possibility to compare the balance data of the relevant reporting periods. The continuity of the balance sheet in an enterprise that has been in existence for several years indicates that each subsequent balance sheet should be taken from the previous balance sheet. The sustainability of the accounting balance also lies in the uniformity of the methods of assessment and compilation.

In the market economy, the concept of liquidity, solvency, and competitiveness is a financial tool that enables the effective implementation of the company's financial policy. The main purpose of the analysis is to detect and eliminate deficiencies in financial activity in a timely manner, to find resources to improve the financial system and the solvency of the enterprise.

Specific methods typical for all areas of economic analysis are used in the analysis of financial reports in sales enterprises. For example, the dynamic method involves the target in a fundamental analysis. The deductive method begins with the generalization of enterprise indicators carried out by departments, and then the materials are summarized in the entire economic system. The method of analysis is the determination of a systematic complex approach to the study of the growth and decline of activity results and the solution through the comparison of economic indicators.

Key words: financial statement, balance, accounting, report, analysis

BIODIVERSITY STUDY OF BARLEY (HORDEUM VULGARE L.) ACCESSION COLLECTIONS FROM ALGERIA, BY THE MORPHOMETRIC TOOL

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Abstract

Little is known about the diversity of barley in Algeria. An inventory has been conducted in western of Algeria to collect local accessions of barley (Hordeum vulgare L.) for their morphological characterization. In this context, a collection of 34 traditional and new accessions of barley was investigated using 12 quantitative and 18 qualitative agro-morphological traits. The phenotypic diversity was determined by the Shannon-Weaver diversity index (H') at different levels (sample Totality, by type of barley and varietal name). The H' estimates showed a wide phenotypic variability for different traits with H’ average of 0.74 and 0.53 from quantitative and qualitative characters, respectively. The results of the multiple correspondence analysis and hierarchical clustering showed a clear distinction between the different accessions. These results indicate that the selected were sufficiently effective in detecting the diversity of the Algerian accessions studied. This study gives us a real genetic potential on barley in Algeria, this result can be very useful in biodiversity management and genetic improvement.

Keywords: barley, accessions, morphological diversity, microsatellite markers (SSR), Algeria

INVESTIGATING HOW LEADERSHIP EFFECTIVENESS INFLUENCES EMPLOYEE RETENTION IN AFGHANISTAN'S HIGHER EDUCATION SECTOR

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Abstract

This study investigates how leadership effectiveness influences employee turnover in Afghanistan's higher education sector. The research aims to understand the dynamics between effective leadership practices and the retention rates of employees within Afghan universities. By examining these relationships, the study seeks to provide insights into how leadership can be leveraged to reduce turnover and enhance stability in higher education institutions in a developing country context.

Survey data were collected from 329 lecturers across various higher education institutions in Afghanistan. The data were analyzed using regression and correlation analyses conducted with SPSS and Excel. The analyses focused on identifying significant relationships between various dimensions of leadership effectiveness and employee turnover rates. Key leadership dimensions assessed include transformational leadership, participative decision-making, and support for professional development.

The findings indicate that leadership practices that promote inclusivity, professional growth, and employee engagement are associated with lower turnover rates among lecturers. Specifically, transformational leadership emerged as a particularly influential factor in retaining employees, suggesting that leaders who inspire and motivate their staff contribute significantly to their retention. This study provides valuable implications for higher education administrators and policymakers in Afghanistan.

Keywords: Leadership Effectiveness, Lecturer Retention, Higher Education, Participative Decision-Making

REGIONAL VARIATIONS IN THE MOLECULAR COMPOSITION OF ROSIN EXTRACT FROM PINE TREES

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Abstract

There is a growing movement towards the development of bioresources for materials with domestic and industrial applications. This work forms part of a National programme “Bioshoes4All” to extend these developments to the footwear industry. Rosin, a material extracted in a very green manner from the resin tapped from pine trees, was a major industry in Portugal in the 20th Century and it was a net exporter of the material. Today it continues in a number of niche industries in Portugal and other countries around the world, mostly as a visocosity modifier. One of the challenges in employing biobased resources in industrial processes is the variation in the characteristics of the material either with time of extraction or in the region from where it was obtained. Rosin in the form supplied is reported to be an amorphous solid. In this work we exploit x-ray scattering to evaluate the regional variation in the molecular organisation of rosin from

various sites in Portugal and in particular to explore the variation with temperature both during heating and cooling.

We have exploited quantitative in-situ x-ray scattering measurements as a function of temperature for different samples of rosin obtained from different regional centres in Portugal. For these measurements we exploited the intense x-ray beams available on the NCD-SWEET SAXS-WAXS Beamline at the ALBA Synchrotron Light Source in Barcelona to record the intensity curves for both small-angle X-ray scattering and Wide-X-Ray scattering regimes. We find that the intrinsic regional variations were small compared to the variations due to the variations in the technology of exraction for the different samples.

REFLECTIONS OF THE OCTOBER 2023 WAR ON THE CONCEPT OF WAR AND ITS EFFECTS ON THE CAPABILITIES OF THE PALESTINIAN STATE

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Abstract

The Battle of the flood of the Al-Aqsa Mosque, launched by Hamas on the seventh of October 2023, created many international and regional repercussions for the Palestinian cause. The Al-Aqsa Mosque flood war has led to many changes in the concept of military wars in order to present the concept of diplomatic war that supports or sues before international forums, economic war against brands that support the occupation army, and propaganda war via social media. The diplomatic war was represented by the position of the United States to support the Israeli army, which has not changed, neither with financial and military support, nor by vetoing the economic obstacles raised by the Security Council. The state of South Africa filed a lawsuit against Israel before the International Court of justice, as well as several non-Arab countries that suspended diplomatic relations in response to the American position in support of Israel, represented by the recall of their ambassadors from Israel and the expulsion of the Israeli ambassador. The escalation of the Palestinian situation has led to the creation of a new concept of electronic propaganda warfare, represented by a trade war against products that support the Israeli army, especially brands that support the army's digital systems such as Amazon, Microsoft and Google. The propaganda war of the peoples of the government came as a reaction to the changing position of electronic digitization companies between the Ukrainian proxy war and non-participation in Palestine, so the main question is to what extent the electronic war contributes to the dismantling of the capabilities of the Palestinian state. Thus, it concludes with the fact that the reality of the matter is the liquidation of the Palestinian cause and the elimination of the humanitarian capabilities of the state, in particular the Hamas movement, which represents the Palestinian resistance. At a time when Israel is trying to weaken the Palestinian standing and is also trying to include the military groups that support Hamas in the Middle East among the parties to the war, Israel is trying to attract Hezbollah and the Houthis to the battlefield in order to weaken the resistance in order to exhaust it financially and militarily. The descriptive-analytical approach was used to study the effects of electronic warfare on the concept of military, economic, diplomatic and propaganda conflict, especially in the light of Israeli efforts to eliminate the capabilities of the Palestinian state.

Keywords: Propaganda War, Electronic War and Economic War

IN VITRO AND *IN SILICO* ANTIBACTERIAL ACTIVITY OF *TRICHODERMA HARZIANUM* AGAINST *STAPHYLOCOCCUS AUREUS*

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Abstract

The rise of antibiotic-resistant bacteria, such as *Staphylococcus aureus*, underscores the urgent need for new antimicrobial agents. Although *Trichoderma harzianum*, a well-known bio control agent, has antifungal capabilities, nothing is known about its ability to combat S. aureus bacteria. Through both in vitro and in silico methods, the antibacterial activity of *T. harzianum* against S. aureus is to be assessed in this study. The antibacterial activity of *T. harzianum* against *S. aureus* was tested in vitro using different concentrations of *T. harzianum* extracts to find the minimum inhibitory concentration (MIC). Molecular docking experiments were conducted as part of the in silico research to anticipate the interaction between *T. harzianum* compounds and important pathogenic proteins of S. aureus. Computational methods were used to analyze the binding affinity and stability of these interactions. Significant antibacterial activity of *T. harzianum* against *S. aureus* was shown by the in vitro experiments, with distinct inhibition zones of up to 12.3±0.2 Strong binding affinities of *T. harzianum* compounds to the pathogenic proteins of S. aureus were shown by the in silico analysis, which corroborated these results and suggested possible mechanisms of antibacterial activity. These findings demonstrate *T. harzianum's* potential as a source of novel antimicrobial compounds, providing a viable substitute for treating bacterial infections resistant to antibiotics.

Keywords: Antibiotic resistance**,** Minimum Inhibitory Concentration (MIC), *Trichoderma harzianum, Staphylococcus aureus*

INFLUENCE OF COMPULSIVE SOCIAL MEDIA USAGE ON PSYCHOLOGICAL WELL-BEING AND LIFE SATISFACTION OF COLLEGE STUDENTS

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Abstract

Social media captures everyone's attention in today's generation, from young people to the elderly. Teenage and younger boys and girls are typically more active on social media. Social media use has a significant impact on a person's life, both positively and negatively. The current study aims to investigate how students' use of social media affects their psychological well-being and sense of life satisfaction. There are 200 college students participating in the study in the Ganjam district. The findings indicate that compulsive social media use is favorably connected with psychological well-being and affects college students' life satisfaction. Overall, the results imply that compulsive social media use disrupts students' psychological wellbeing and has a negative impact on their lifestyle. This study may raise readers' awareness of the adverse effects of compulsive social media use on psychological well-being and life satisfaction.

Key words: Psychological well-being, Life satisfaction, students.

INTERNATIONAL MEDIA COVERAGE OF CURRENT EVENTS IN PALESTINE: ANALYZING ITS IMPACT ON GLOBAL PUBLIC OPINION

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Abstract

The Palestinian-Israeli conflict remains one of the most contentious and widely covered issues in global media. With ongoing developments and escalations, understanding how international media portrays and influences perceptions of events in Palestine is crucial. Media coverage plays a pivotal role in shaping public opinion worldwide and influencing diplomatic responses. This study focuses on analyzing how major international media outlets report on current events in Palestine, examining the narratives, biases, and impact of their coverage on global understanding and policy formulation.

The conflict in Palestine is multifaceted, involving historical, political, and humanitarian dimensions that resonate globally. Media coverage not only informs but also frames these complexities, often influencing public sympathies, international interventions, and diplomatic actions. By examining the nuances of media portrayal, this research aims to uncover how different narratives and agendas shape the discourse around the Palestinian issue on the global stage.

Moreover, understanding the dynamics of media coverage can illuminate broader questions about media ethics, representation, and the power of storytelling in conflict reporting. It raises critical questions about the role of journalism in conflict zones and the responsibilities of media organizations in presenting balanced and accurate information amidst geopolitical pressures.

Through this analysis, we aim to contribute to a deeper understanding of how media influences global perceptions of the Palestinian-Israeli conflict, offering insights into the mechanisms through which media shapes international discourse and policy responses.

Key words: Palestine, International Media, Global Public Opinion, Conflict coverage, Middle East, Political Narratives.

IMPACT OF WORLD BANK ASSISTED INTERVENTION PROJECTS ON THE ECONOMIC DEVELOPMENT OF COMMUNITIES IN IMO STATE, NIGERIA

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Abstract

The study investigated the Impact of World Bank Assisted Intervention Projects on the Economic Development of Communities in Imo State. A sample of 278 respondents was determined from the population of the communities which is 115,465, using Taro Yamane's formula. Ten communities from the Local Government Areas of the state, where World Bank assisted intervention projects had been carried out, were administered a well-structured questionnaire on a four-point Likert scale. Out of this, 253 were completed and returned. Primary data was adopted and used for assessment analysis from the intervening communities. The mean response of the respondents was calculated and compared with the criterion mean of 2.5 to determine if the question was positive or negative. Ordinary Least Square Regression Estimate was used for the analysis. The study used coded data which was obtained from a field survey conducted with a well-structured questionnaire. The findings of the study revealed that poverty reduction, education infrastructure, and health Infrastructure have a positive impact on the economic growth of the communities. A unit increase in poverty reduction, education infrastructure and health infrastructure causes the economic growth of the communities to increase. Consequently, it was concluded that intervention in these areas has improved the lives of the communities. It was therefore, recommended that assisted intervention projects by World Bank should be strictly monitored to ensure adequate project execution.

Keywords: Impact, World Bank, Assisted Intervention, Economic Development, Communities

THE IMPACT OF INFORMATION SYSTEMS ON THE MANAGEMENT OF ELECTRONIC COMMUNICATIONS

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Abstract

Today, information technology and information have become among the most important resources for the executive during the formation of the leadership of an organization alongside people, money, material or machinery.

The information system consists of people and equipment, and its task is to collect data, process, memorize and transmit them. The information system processes information from data, respectively it transfers inputs to outputs according to the needs and requests for information.

Business requirements for information systems have increased a lot, and on the other hand, the rapid development of information technology gives the opportunity for the application of various types of hardware and software, which did not exist a few years ago, where they also help to develop and meet the requirements for information systems.

PREDICTING STUDENT PERFORMANCE USING ENSEMBLE LEARNING TO IMPROVE SUCCESS QUALITY

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Abstract

Introduction and Purpose: For purposes of this study, we sought to find out whether ensemble learning models could be employed to forecast how well learners would perform in the midterm examination given a “Data Course” in a certain local university. Four groups containing between 25-30 students provided data for our study. The assignments are 2 quizzes each weights 7.5% and 4 homeworks each weights 5% including the Midterm exam weights 20%. It is important to note that the first 2 homeworks and first quiz are all before the midterm. To succeed academically on an exam of such great importance as the midterm, students will have to be extensively prepared.

Materials and Methods: We aimed at predicting student performance on the midterm exam using their scores from previous assessments as our primary objective. Identifying those students who are liable to poor performance early enough enables us to take immediate actions like organizing extra office hours and customizing assignments for them. In order to achieve this aim, various ensemble learning models were employed which combine many algorithms for improving prediction accuracy as well as making it more robust when compared to single algorithm-based forecasting systems. Some examples of these models include Random Forest, Gradient Boosting, Ada Boost among other predictive analytics effectiveness tools we used.

Results: Our study results suggested that ensemble learning models are capable of predicting midterm performance fairly well, hence making it an important tool for educators. They can then identify and provide support to students who may be at risk of low academic achievement early enough, leading to the improvement in individual student outcomes and overall course performance. The research demonstrates how predictive analytics can greatly help schools make data-based decisions on educational support programs.

Key Words: Ensemble Learning, Student Performance Prediction, Midterm Exam, Educational Analytics, Data-Driven Intervention, Academic Achievement

FEATURES OF MARKETING PROMOTION AND FINANCING OF STARTUPS

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Abstract

Startups arise in various fields of activity, where there is an opportunity to introduce innovations for different groups of consumers. The main areas of new business projects include technology startups, healthcare projects, FinTech, educational startups, GreenTech, and AgriTech. Within these directions, there is potential for implementing initiatives important for society, which correspond to sustainable development goals. Entering the market of socially responsible startups can ensure high profitability and solve social and environmental problems.

Given the increasing transition of users and companies to the digital environment, it is not enough for startups to develop an effective financial plan and create a product that meets the needs of consumers. An important component of a successful business project is the development and implementation of an effective marketing strategy. Digital marketing tools should be used first to reach a wide audience of potential customers. A comprehensive social media marketing strategy can contribute to the rapid growth of product popularity among users who can freely spread information about the startup to their friends and acquaintances.

For the implementation of any business idea, a detailed analysis of the factors affecting the project should be carried out. Optimal results require the development of a startup implementation plan with financial calculations. At this stage, it is important to draw up a financial plan and obtain predictive estimates of return on investment to ensure the economic feasibility of profitability. Ensuring the transparency of cash flows and their effective management by market conditions, as well as the ability to quickly adjust the strategy in case of changes in the market, significantly increase the probability of successful implementation of the startup in the long term.

Keywords: startup, marketing promotion, funding, investment, profit.

POLLINTING POWER OF HONEYBEES: POLLINATION

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Abstract

Honeybees are social insects that live in colonies. They always work in an organized manner to carry out the work inside the hive and the work outside the hive in a systematic and planned manner. This work continues regularly; there is never any interruption. Field worker bees collect nectar for honey and pollen, propolis, and water as protein sources. It delivers these to other worker bees in the hive and flies back to the pasture. Each worker bee that flies to the pasture to collect nectar flies at a distance that will circle the world five times during the season or in its total lifetime. During this flight, it lands on countless flowers and makes a great contribution to them. In other words, it provides pollination for flowers. Pollination is a very important condition for plants. Good pollination is a must for plants for fruit formation, seed formation, seed quality, grain weight, uniform appearance, brightness, aroma, and taste in fruits and vegetables. The most important pollinators for pollination are honeybees. It is the insect species that most frequently visits orchards, fields, and pastures. That's why nearly 95% of the plants in the world are pollinated by honey bees. Thanks to these wonderful touches of honey bees, the plants survive and produce fruits and seeds again and again every year.

The aim of this review study is to raise awareness that honey bees do not only produce honey; they also add something to plants while taking something from them, and that the continuity of plant species in the world is ensured by pollination and that bees have a great contribution to this.
Keywords: Honeybees, pollination, productivity in plants, quality seeds

ANALYSIS OF FACTORS AFFECTING CONSUMER'S CONSUMPTION OF GEOGRAPHICALLY INDICATED CHEESE

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Abstract

Introduction and Objective: A geographical indication is defined as a sign that identifies a product as originating from a specific region, area, or country, due to its distinct characteristics, reputation, or other qualities. Geographical indication products contribute to the national and regional economy, help preserve local products, support regional tourism, create awareness, and provide quality and trust assurance. For consumers, the trust and quality of geographical indication products are factors directly related to price, purchasing habits, and other factors. Cheese, which comes in many varieties and can be consumed in raw or processed forms, is one such product. Geographical indication cheeses represent the regions where they are registered. Advertising activities and awareness campaigns can influence consumers' preference for geographical indication cheeses, especially in regions where these products are not well-known. The purpose of this research is to determine the purchasing habits of consumers in the city center of Gaziantep and identify the socio-demographic factors affecting their willingness to buy geographical indication cheeses.

Materials and Methods: The main material of the research consists of surveys conducted with 384 consumers living in the city center of Gaziantep. Descriptive statistics and chi-square tests were used to analyze the data. Additionally, multiple regression analysis was employed to determine the sociodemographic characteristics affecting willingness to pay for geographically indicated cheeses.

Results: The study found that 94.8% of consumers consume cheese, 39.1% are aware of the concept of geographical indication, 25.8% have sufficient knowledge about geographical indication, and 34.6% consume products with geographical indications. The chi-square test revealed a significant relationship between the ways of purchasing Antep cheese and the status of cheese consumption ($p \leq 0.000$). Similarly, there was a significant relationship between the consumption of Antep cheese and the willingness to pay for cheeses with geographical indications ($p \leq 0.005$). Multiple regression analysis was used to determine the socio-demographic characteristics that influence consumers' willingness to pay more for products with geographical indications. The analysis showed that variables such as gender, having a university or postgraduate education level, total cheese consumption amount, a monthly income of 21,501-40,000 TL, and a monthly income

of 40,001 TL or more significantly affect the willingness to pay for geographically indicated cheese ($p \leq 0.000$).

Keywords: Geographical Indication, Cheese, Consumer, Income

ANTICARCINOGENIC EFFECT OF FUERTE AND BACON AVACADO TYPES ON A549 LUNG CANCER CELLS

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Abstract

Introduction and Purpose: In recent years, some herbal anticancer treatments are needed as alternatives to chemotherapeutic drugs used in cancer treatment, due to their easy accessibility, low cost and natural. One of these avacado of which 500 different species in the world and 5 in Türkiye. Avocado is a tropical fruit that contains about 20 vitamins and minerals. The main ones, B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B9 (folic acid), C (ascorbic acid), E, K vitamins, calcium, phosphorus, potassium and magnesium minerals. It also contains beta carotene, omega-3, omega-6 fatty acids and glutathione. Through its rich vitamines, minerals and fibrous structure, it has been determined that, it regulates the digestive system, provides glycemic control, protects cardiovascular health by lowering cholesterol, protects eye health and has an anticarcinogenic effect on uterine, colon, larynx and pharynx cancers. One of the species grown in Türkiye, Bacon avocados have an oval shape, medium size and weight of 170-340 grams. Fuerte avocados have a pear-like appearance, medium size and weight of 140-400 grams.

Matherial and Methods: After incubating equal numbers of A549 cells with extracts prepared in 96% and 70% ethanol obtained from the peel, flesh and core parts of fuerte and bacon type avocados for 24 hours, cell viability was determined using the spectrophotometric method CCK-8 test.

Results: The inhibitor effects of different types of avocados and their shell, flesh and core parts on cancer cell viability are similar, in both Fuerte and Bacon Avocados' the shell and seed parts dissolved in 96% ethanol have more inhibitor effects than the parts dissolved in 70% ethanol for viability.

Key words: Fuerte, Bacon, Avocado, A549, Lung cancer

PERFORMANCE AND TECHNO-ECONOMIC ANALYSIS OF HYBRID ENERGY SYSTEM TO IMPROVE EFFICIENCY AND TO REDUCE NET ZERO EMISSIONS OF SUSTAINABLE BUILDINGS

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Abstract

Introduction and Purpose: As the world population increases and countries' economies develop, the demand for energy increases significantly. At the same time, fossil-based fuels are limited and increasingly costly, which creates a serious energy problem. With the use of traditional energy sources such as coal, natural gas, and oil causes environmental problems such as air pollution, global warming, and climate change, increasing the importance of sustainable energy solutions and energy efficiency. When sustainable buildings are designed in terms of energy efficiency, they contribute to both reduction of costs and environmental impacts by reducing energy consumption. This study will be an analysis to increase the energy efficiency of Osmaniye Municipality, which is located in Osmaniye province of Turkey, due to its sustainable structure. The analysis to increase the energy efficiency of a sustainable building will be carried out by photovoltaic-supported energy systems with HOMER Pro software.

Materials and Methods: The integration of photovoltaic panels into the energy systems of buildings is of critical importance in terms of increasing energy efficiency and encouraging the transition to sustainable energy sources. In this context, the optimization of photovoltaic panel systems to meet the electricity needs of a specific building is examined as an alternative to solutions that aim to increase energy efficiency. With the data entered into the HOMER Pro software, the capacity factors, energy production profiles, and economic analyses of photovoltaic panels will be examined in detail.

Results: As a result, it is concluded that the integration of hybrid energy systems for sustainable architectural structures increases energy efficiency and supports environmental sustainability. At the same time, it is observed that hybrid energy systems have a great potential effect on the energy efficiency of sustainable architectural structures.

Discussion and Conclusion: The current study of the energy consumption, environmental impacts, and long-term sustainability of sustainable buildings encourages the development of new energy systems and technologies.

Key Words: Sustainable Buildings; Energy Efficiency; Sustainable Energy Sources

THE EFFECT OF PHYSIOTHERAPY AND REHABILITATION INTERVENTION IN PECTUS EXCAVATUM DEFORMITY: A CASE REPORT

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Abstract

Objective: Among congenital chest deformities, pectus excavatum (PE), commonly known as 'funnel chest,' occurs in 1 in 300 to 400 live births. This deformity is characterized by a posterior depression of the sternum along with the costal cartilages, with the manubrium and the first two ribs usually remaining in their normal position. The aim of our study is to investigate the effectiveness of vacuum therapy and physical therapy and rehabilitation exercises in cases of pectus excavatum.

Material and Method: Our 4.5-year-old patient, who was born by cesarean section at 37 weeks of gestation with a birth weight of 2600 grams, presented to Pamukkale University Hospital with pectus excavatum and postural problems. Although he did not have any other ailments on his resume, it was found that his father had a rib cage deformity in the same way in his family history. After collecting the demographic information of the patient, posture was assessed using the New York Posture Analysis, while balance during the bipedal period was evaluated as good, moderate, or poor in both dynamic and static conditions, and respiratory assessment was performed through chest circumference measurement. The treatments were administered twice a week over a period of 14 weeks.

Results: At the end of the 14-week treatment, an increase of 16 points was observed in the New York Posture Analysis score and an increase of 14 points in the WEE-FIM Scale score. The patient's static and dynamic balance, which were at a moderate level before treatment, improved to a good level by the end of the treatment. At the end of the treatment, chest circumference measurements showed an increase of 1 cm in the axillacostal region, 2.5 cm in the subcostal region, and 5.5 cm at the xiphoid process.

Conclusion: In our case with a diagnosis of pectus excavatum, which was accompanied by postural problems, after applying a personalized physiotherapy program and vacuum therapy, the patient showed improvements in postural problems, increased independence in daily living activities, and enhancements in balance level and respiratory capacity.

Keywords: Physiotherapy, postural disorder, pectus excavatum, vacuum treatment

PARENTAL EXPECTATIONS, ACADEMIC STRESS, AND SUICIDAL IDEATION: A STUDY OF KOTA STUDENTS

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Abstract

Introduction: Suicide among medical students is on the rise. The news of coaching students committing suicide is now a common occurrence. Parental over ambition, student circumstances, and inadequacies can create a conflict between the student's aspirations and the parent's expectations. The aim of this paper is to examine the relationship between parental expectations, academic stress & suicidal ideation.

Method: Data was gathered from 100 ALLEN Institute of Kota (Rajasthan) students.50 NEET and 50 IIT students. The responses were tabulated using frequency distribution tables, and SPSS version 19 was used for t-tests.

Results: The results show that there is no significant difference in parental expectations and academic stress among both the aspirants. While there is a significant difference found in suicidal ideation among both the aspirants. Additionally, it is found that suicide ideation can be influenced by various factors such as personal relationship issues parental pressure, addiction disorders, and competitive atmosphere.

Key words: Kota, Suicide, Competition, Parental Expectations, Academic Stress

IMPACT OF ENVIRONMENTAL FACTORS REPRODUCTION IN RUMINANT ANIMALS

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Abstract

The relationship that exists between ruminant animals such as cattle, sheep, goats, and deer and their environment throughout the reproductive process is complex and has broad consequences for agricultural productivity as well as animal welfare. the complex interplay between physiological, nutritional, and behavioral factors as it outlines the ways in which environmental factors such as humidity, photoperiod, thermal stress, and seasonal fluctuations influence reproductive results. High ambient temperatures cause thermal stress, which negatively affects reproductive efficiency in a number of ways. Th study aimed at exploring Impact of Environmental Factors Reproduction in Ruminant Animals, where the study employed a review strategy and it found that Elevated body temperature has the potential to interfere with the hypothalamic-pituitary-gonadal axis, resulting in modified estrous cycles, decreased rates of ovulation, and impaired motility and quality of sperm. Together with temperature, humidity aggravates heat stress by lowering the effectiveness of evaporative cooling mechanisms, which worsens reproductive problems and lowers the rate of conception. Influences from photoperiod are more noticeable in species that have seasonal breeding patterns. Nutritional dynamics play a key role in regulating reproductive health since they are closely related to environmental factors. Behavioral adaptations and strategic management interventions are critical in mitigating the adverse effects of environmental stressors. Implementing environmental control measures, such as shaded housing, cooling systems, and tailored nutritional supplementation, can ameliorate the physiological impacts of environmental extremes. Advances in reproductive technologies, including precision reproductive management, artificial insemination, and embryo transfer, offer potential avenues to enhance reproductive success in the face of environmental challenges. in conclusion Environmental elements that affect physiological processes and nutritional dynamics, such as humidity, photoperiod, heat stress, and seasonal fluctuations, have a substantial impact on ruminant animals' ability to reproduce. In order to mitigate these effects and improve cattle resilience and productivity in the face of climate change, effective management strategies such as environmental controls and improved reproductive technologies are essential.

Keywords: Environmental Stress, Reproductive Performance, Ruminant Animals, Thermal Stress, Humidity, Seasonal Breeding, Nutritional Imbalances,

GENETIC SELECTION AND BREEDING PROGRAMS IN RUMINANT ANIMALS

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Abstract

The field of genetic selection and breeding practices in ruminant animals, which includes sheep, goats, cattle, and deer, is a fundamental aspect of modern animal husbandry. With a focus on the application of cutting-edge molecular genetics and genomic methods, this abstract explores the complex techniques and technological advancements influencing the genetic engineering of ruminants. The study primarily aimed at exploring genetic selection and breeding programs in ruminant animals where systematic literature review was employed and it was found that Marker-assisted selection (MAS) simultaneously uses the association between QTLs and genetic markers to facilitate the identification of individuals carrying advantageous alleles.A paradigm shift has occurred with the introduction of gene editing tools, such as CRISPR/Cas9. These technologies enable precise adjustments of genetic sequences linked to important traits. This advancement in technology holds the potential to tackle particular issues like disease resistance, feed efficiency, and reproductive success. Notwithstanding these developments, genetic diversity, trade-offs, and the long-term adaptation of breeding populations remain complex issues that must be resolved in the application of genetic selection and breeding programs. The sustainability and acceptance of these technologies are also significantly impacted by the ethical issues surrounding genetic changes and the management of genetic resources. Strong data management systems that combine genetic, phenotypic, and environmental data are essential to breeding programs' efficacy because they improve the accuracy of selection decisions. In conclusion by improving productivity, disease resistance, and trait optimization, developments in genetic selection and breeding programs such as genomic selection, marker-assisted selection, and gene editing technologies are completely changing the production of ruminant livestock.

Keywords: Genetic Selection, Breeding Programs, Marker-Assisted Selection (MAS), Gene Editing, CRISPR/Cas9, Genetic Diversity, Quantitative Trait Loci (QTLs), Sustainable Agriculture

PSYCHOSOCIAL DETERMINANTS OF MENTAL HEALTH PROBLEMS IN ONLINE GAMERS

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Abstract

As the digital landscape continues to evolve, online gaming has emerged as a ubiquitous form of entertainment, drawing millions into its immersive worlds. However, beneath the surface lies a complex nexus of psychological factors that shape individuals' experiences and outcomes. Neuroticism, characterized by emotional instability and susceptibility to stress, may predispose individuals to excessive engagement in digital environments. This propensity towards digital addiction can further exacerbate difficulties in emotional regulation, leading to a cascade of mental health challenges. Exploring these relationships is paramount not only for comprehending the psychological mechanisms underlying online gaming behavior but also for informing targeted interventions aimed at mitigating associated mental health risks. There for this study aimed to explore the relationship between neuroticism, digital addiction, emotional regulation and mental health problems in online gamers. The study included 200 participants of who spend less than 6 hours and more than 7 hours each day playing online games with age range of 18-30 years selected through purposive sampling technique. Four self-report measures used including Big Five Inventory for Adults (Wong & Hodgins, 2014), Emotion Regulation Scale (Durrani & Mahmood, 2019) and Depression, Anxiety and Stress DASS-21 (Lovibond & Lovibond, 2015). Results confirm that neuroticism had positive relationship with agitated withdrawal, emotional dysregulation and mental health problems. Neuroticism had a significant positive relationship with emotion dysregulation and mental health problems. Results of Hierarchical regression analysis revealed neuroticism and emotional dysregulation as predictors of mental health problems in online gamers. Additionally, hours of gaming were found to be a significant predictor of digital addiction. Results of t test revealed that online gamers playing more than 6 hours' game each day will have more neuroticism and digital addiction than those playing game for less than 6 hours. By exploring insights into the mechanisms linking digital addiction with emotional dysregulation and mental health problems can guide the design of targeted therapeutic interventions, both within and outside the gaming environment. By integrating principles of cognitive-behavioral therapy, mindfulness-based approaches, and digital detoxification techniques, clinicians and mental health professionals can offer comprehensive support to gamers struggling with these issues. In future conducting a longitudinal study to track the long-term effects of online gaming on individuals with varying levels of neuroticism would be more effective. Understanding how gaming behaviors evolve over time and their impact on emotional regulation and mental health outcomes can provide invaluable insights.

Keywords: Neuroticism, Digital Addiction, Emotional Regulation, Mental Health Problems, Online Gamers

BIFURCATIONS OF A TWO-DIMENSIONAL DISCRETE TIME PLANT-HERBIVORE SYSTEM

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Abstract

This work is purely dedicated to the bifurcations analysis of a two dimensional discrete time plant-herbivore system formulated by Allen et al. (1993). It is proved that the system undergoes a transcritical bifurcation in a small neighborhood of boundary equilibrium and a Neimark–Sacker bifurcation in a small neighborhood of the unique positive equilibrium. An invariant closed curve bifurcates from the unique positive equilibrium by Neimark–Sacker bifurcation, which corresponds to the periodic or quasi-periodic oscillations between plant and herbivore populations. For a special form of the system, which appears in Kulenovic and Ladas (2002), it is shown that the system can undergo a supercritical Neimark–Sacker bifurcation in a small neighborhood of the unique positive equilibrium and a stable invariant closed curve appears. This bifurcation analysis provides a theoretical support on the earlier numerical observations in Allen et al. (1993) and gives a supportive evidence of the conjecture in Kulenovic and Ladas (2002). Some numerical simulations are also presented to illustrate our theoretical results.

Keywords: Plant-herbivore system; stability; bifurcation; center manifold theorem; numerical simulations

REVIEW ON ADVANCES OF SELF-HEALING CONCRETE

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Abstract

Self-healing concrete is a new type of concrete. It imitates the automatic healing of body wounds by the secretion of some kind of material. To create self-healing concrete, some special materials (such as fibers or capsules), which contain some adhesive liquids, are dispensed into the concrete mix. When cracks happen, the fibers or capsules will break and the liquid contained in them will then heal the crack at once. However, self-healing concrete is only at the research stage. Its application in the concrete industry is still some way off. Self-healing is the process of a healing agent being added to concrete, which then fills cracks when they are created. Current commonly used healing methods include the epoxy resin method, microcapsule method, mineral admixture method, and microbial method. It is also called Bio-Concrete. It can be produced by adding bacteria in concrete along with its nutrients to keep them alive for the production of calcite to fill cracks after precipitation. Bacteria are to be added in concrete along with calcium lactate to repair cracks. This research paper will give an overview of how this type of concrete works along with its pros and cons. Its mechanism is the moat important part which is been discussed in this paper.

RELIABLE IOT PARADIGM TOWARDS RENEWABLE ENERGY PENETRATION AND ENHANCING RESILIENCE OPERATION IN SMART GRIDS

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Abstract

The paper aims to enhance smart grid resilience and integrate renewable energy by incorporating electric vehicles (EVs). It focuses on developing a reliable IoT system and unknown input observer (UIO) for real-time monitoring and control of EVs. These technologies will be embedded in microcontrollers and applied to smart grids, utilizing 4G and 5G networks. The paper also addresses the challenges of cyberattacks, renewable energy fluctuations, and system uncertainties by employing robust UIO and model predictive control for grid stability. The paper involves creating a real-time signal processing model, developing an IoT platform, verifying architectures with various attack scenarios, conducting cybersecurity analyses, and designing defense strategies.

MODELING THE EFFECT OF VACCINATION ON THE RATE OF CORONAVIRUS INFECTION BASED ON FRACTIONAL CALCULUS

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Abstract

Introduction and Purpose: This research will model, analyze the impact of vaccination on the Covid-19 epidemic using the classic susceptible-infected-removed (SIR) epidemic model, but using the fractional derivatives method. The reason for using this method is that it has a higher degree of freedom compared to the SIR model, so the performance is better and more accurate. The data is in accordance with the statistics inside Iran, and finally, an analysis is presented on the trend of increasing the vaccination rate and its impact on the rate of infection and death due to the disease of Covid- 19.

Materials and Methods: Dynamic modeling is one of the methods used for mathematical modeling of infectious diseases. In this type of model, the population is divided into several parts, assuming that all the people in one part of the population have the same behavior. Definite differential equations are usually used in these models. But these models can also be looked at in random frameworks, which are, of course, more realistic; But their complexity will be far more than deterministic models. In these models, it is investigated how infectious diseases spread. The SIR model is one of the simplest types of dynamic models and many other types of models are derived from this basic model. The SIR model is able to make predictions in a suitable way for infectious diseases that are transmitted from human to human and those who have recovered are resistant to re-infection.

Results: In this research, we assumed that this type of virus follows the basic laws of epidemic transmission and we also assumed that instead of the variables S, I and R acting like a Gaussian function and increasing from zero to achieve stability, we used zero day to initialize based on it and the results obtained from the simulation of the designed model are more consistent with the results obtained from the real data. Considering that the real data was from September 1 to March 29, 1400, we have set August 31 as the initial day.

Discussion and Conclusion: The current study was invatigated, the ability of the classic SIR model based on fractional calculations and its use to predict the course of the Covid-19 disease with increasing vaccination rates in Iran. Based on this and the use of fractional calculations in modeling due to having a higher degree of freedom, approximately correct estimation of the existing conditions in the country and matching its data with the population of susceptible people (S), infected people (I) and recovered people (R) caused by the disease of Covid-19.

Keywords: Covid-19, Vaccination, SIR Classic Model, Fractional SIR.

AN ANALYSIS OF NURSING STUDENTS' MINDFUL AWARENESS EXPERIENCES

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Abstract

Introduction and Purpose: Conscious awareness is the individual's ability to focus his/her attention on what is happening in a non-judgmental and accepting manner, and a high level of conscious awareness ensures mental and physical health, good interpersonal relationships, and effective management of pain and stress. In addition to being a university student during their education, nursing students may be exposed to many stressors due to clinical practices, the responsibility of caring for sick and terminally ill individuals, and difficulties in communicating with educators and hospital staff. For this reason, it is necessary for them to acquire practical skills that can be effective in managing stress, starting from their student years.

Materials and Methods: This descriptive study aimed to clarify nursing students' experiences regarding mindfulness practices. In the research conducted with 25 students in the nursing department at a state university, a diary of mindfulness experiences was kept for 30 days, and the research data were examined by thematic analysis by the researcher.

Results: The average age of the students was 20.44±2.01, and they practiced mindfulness an average of 20.48±9.37 times in a month. The students mostly practiced breathing and body awareness, eating with conscious awareness, walking with conscious awareness, and actions with conscious awareness. As a result of the students' experiences, themes such as "difficulty at first", "getting out of autopilot", "increased awareness and focus", "getting more satisfaction from the action", "relaxation and rest", "feeling peaceful and happy" and "reduction in stress" were determined.

Discussion and Conclusion: In line with the research findings, it can be said that student nurses had difficulty in mindfulness practices at first, but then they got out of automatic pilot and their level of awareness and focus increased, which helped increase the enjoyment of life and reduce stress.

Keywords: Nursing Student, Mindfulness, Qualitative Analysis

STUDYING THE POSSIBILITY OF RECONSTRUCTION DESTROYED ARCHAEOLOGICAL BUILDINGS BY ANTI-MISSILE TECHNOLOGY & THE IMPACT OF MISSILES ON STABILITY

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Abstract

The Israeli war on Gaza has affected both stones and humans. It killed and injured tens of thousands, destroyed homes, infrastructure, and hospitals, and forced over two million people to flee. Additionally, there have been initial economic losses estimated at 30 billion dollars.

In this article, we present some information about the Israeli war on Gaza from a heritage perspective, including:

1 .Erasing Cultural Heritage: The rockets targeted Gaza, resulting in the destruction of historical and cultural buildings.

2 .Studying Missile Impact: It's crucial to study the impact of missiles on the ground near heritage and archeological buildings. Is there a specialized organization for this purpose .

3 .Frequency and Vibration Effects: Highlighting the importance of studying the frequency and vibration caused by rocket explosions in the ground and their impact on the stability of these buildings.

Researchers have conducted studies to address these challenges.

Keywords: Blue shield international, Ground vibrations, anti-missile technique

EVALUATION OF MARGINAL ADAPTATION AND FRACTURE RESISTANCE IN ENDO-CROWNS MADE OF ZIRCONIA AND LITHIUM DISILICATE

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Abstract

Aim: Endo-Crowns, a one-piece restoration that replaces the entire crown of the thooth, are a valid alternative in the restoration of endodontically treated teeth. The aim of this study is to evaluate the marginal fit and the fracture resistance in Endo-Crowns made digitally in Zirconia (ZR) and Lithium Disilicate (LD).

Materials and Methods: 5 lower molars, extracted for periodontal reasons, were endodontically treated and then prepared. A digital impression of the teeth was obtained with a Trios 5 scanner and then sent to the lab where the design of Endo-Crowns was performed on Exocad (DentalCAD 3.1 Rijeka). Endocrowns were made in Zirconia (Katana Zirconia HTLM PLUS, Kuraray Noritake Dental Inc.) (n=10) and in Lithium Disilicate (IPS e.max Press, Ivoclar Vivadent AG) (n=10). For each tooth, four resin replicas were created (n=20) (Invicta- 907, XFAB 2500PD), on which the marginal gap was evaluated using a stereomicroscope, and fracture resistance was assessed after insertion into a hydraulic press. Results: The normal distribution of the data was verified using the Shapiro-Wilk test, analysis of variance was performed using a two-way ANOVA, the results were analyzed using Student's t-test and Tukey's HSD test (α=0.05). Regarding the marginal adaptation (micron), there isn’t a statistically significant difference between the two groups, ZR and LD, ($P>0.05$), while statistical tests revealed a statistically significant difference in fracture resistance (Newton) between the ZR group and LD group ($P<0.05$), ZR group has the highest fracture toughness values compared to LD group.

Conclusions: Endo-Crowns can be considered, when indicated, a valid restoration of the endodontically treated posterior tooth. Regarding marginal adaptation, butt-joint finishing line demonstrated optimal outcomes in teeth groups; from the point of view of fracture resistance, the mechanical performance of monolithic zirconia was better than all other ceramics.

IN-DEPTH ANALYSIS OF MATERNAL ANEMIA, ITS CAUSES AND IMPACT ON NEONATAL BIRTH WEIGHT LEADING TO POSTPARTUM COMPLICATIONS

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Abstract:

Materanl Anemia is a condition in which quantity of RBCs decreases more than normal value in Pregnancy. During pregnancy, iron deficiency anemia badly affects the maternal and fetal health, And caused increased in morbidity and fetal death. Anemic mothers frequently feel breathing Difficulties, fainting, tiredness, palpitations, and sleep difficulties. Severe maternal anemia cause Complications during normal delivery, many women that are having severe anemia have C section, That may lead to postpartum complications. Common test uses for the diagnosis of anemia is Include RBC count, mean corpuscular volume, blood reticulocyte count, blood film analysis, or Hemoglobin electrophoresis. Almost 5.5 billion individuals that live on the planet are anemic, or About one-third of them. Around the world, 35% of women, 51% of pregnant women, 40% of Children (0–12 years), and 18% of males are anemic. There are six types of anemia: Iron deficiency Anemia, little amount of iron in the body causes this most common type of anemia, Vitamin Deficiency anemia, anemia of inflammation, aplastic anemia, anemias due to bone marrow disease, Hemolytic anemias, Sickle cell anemia. This study conclude that about 48.6% female are anemic During their pregnancy. About 67.7% physicians believe that women under the age 21- 25 are Anemic during their pregnancy and 57.1% believe that anemia cause complication during pregnancy Along with postpartum complications.

Keywords: RBCs (red blood cell), Hb (haemoglobin), Pregnancy, Iron deficiency, Postpartum

INVESTIGATION OF THE IMPACT OF THE ORIENTATION OF AN EXTERNAL MAGNETIC FIELD APPLIED TO A SQUARE CAVITY FILLED WITH A THERMO-DEPENDENT NON-NEWTONIAN FLUID UNDER HORIZONTAL HEAT FLOW

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Abstract

This article delves into the investigation of the impact of magnetic field orientation on natural convection within enclosed cavities filled with electrically conductive non Newtonian fluids characterized by variable viscosity with respect to temperature. The study considers thermally insulated horizontal walls, while constant heat flux and magnetic field exposure are applied to the normal walls. The fluid dynamics equations are solved utilizing the finite volume (FV) numerical technique. The research scrutinizes the influence of key parameters such as Ɵ, the magnetic field orientation angle, Pearson number m, magnetic field strength Ha, and the index of the exponential law, which ranges between 0.6 and 1.4. Additionally, Prandtl number Pr and Rayleigh number Ra is considered. The findings are presented through isotherms and current velocity lines, showcasing variations in mean Nusselt number, peak flow intensity, and peak temperature Across differents cenarios.

Keywords: magnetic field orientation, temperature-dependent fluids, natural convection, non-Newtonian fluids, square cavity.

HAZELNUT TRANSPORTATION, TRANSFER AND DRYING SYSTEMS: CURRENT SITUATION, TECHNOLOGICAL DEVELOPMENTS AND FUTURE PERSPECTIVES

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Abstract

Hazelnut has a central position in agricultural production, especially in leading producing countries such as Turkey, and makes significant contributions to the national economy. Increasing productivity and maintaining quality standards in hazelnut production necessitates the effective implementation of appropriate transportation, transfer and drying systems. The aim of this study is to examine the current hazelnut transportation, transfer and drying systems, to evaluate the effectiveness of the technologies used and to examine innovative approaches in the sector. In the study, firstly, the processing stages, transportation processes and drying techniques carried out after hazelnut harvesting will be analyzed in detail. In this context, systems such as conveyor belts, conveyor belts, pneumatic systems, mechanical transportation methods and hazelnut drying machines will be examined; the advantages and challenges of these systems will be evaluated. In particular, the effects of the drying process on hazelnut quality and the importance of appropriate drying methods will be emphasized. In addition, the main problems encountered in hazelnut transportation and drying processes, such as physical damage to the product, quality losses and productivity decreases, will be discussed. Rapid developments in technology allow for innovative solutions in hazelnut transportation, transfer and drying systems. In this context, the study will examine the potential of these new technologies to increase efficiency, reduce costs and maintain product quality in transportation and drying processes. Finally, future trends and sectoral needs in hazelnut transportation, transfer and drying systems will be emphasized. With this approach, the necessity to develop more integrated and intelligent systems to increase productivity and quality in the hazelnut sector will be emphasized.

Keywords: Hazelnut Transportation Systems, Hazelnut Drying Machines, Conveyor, Transfer Technologies, Agricultural Logistics

HEAT TRANSFER ENHANCEMENT IN MHD NANOFLUID FLOW ACROSS A SLENDER SURFACE WITH SHAPE EFFECTS

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Abstract

This research scrutinizes the significance of nanoparticle shapes over the magnetized flow of engine-oil-based *Ti6Al4V* nanoliquid across a surface of varied thickness under the action of Buongiorno slip effects. The transmuted dimensionless equations and edge restrictions are exercised using the bvp5c scheme. This research's prime purpose is to enhance the thermal transmission rate due to the suspension of spherical or laminar-shaped nanoparticles into the base liquid. The computational outcomes for flow, energy, and concentration fields were explored via plots and numerical illustrations. Evidently, energy transmission efficiency is developed in spherical-shaped nanoparticles as compared with laminar-shaped nanoparticles. The Buongiorno slip and nonuniform heat source factors tend to enrich the Nusselt number. The shape factor of nanoparticles is significant in enhancing or diminishing the heat flow rate.

Keywords: Nanofluid, MHD flow, slender surface, spherical and laminar shaped nanoparticles, slip effect.

MAGNETOHYDRODYNAMIC ENGINE-OIL-BASED Ti6Al4V NANOFLUID FLOW ACROSS A STRETCHING SHEET WITH VARIABLE THICKNESS

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Abstract

This research scrutinizes the significance of nanoparticle shapes over the magnetized flow of engine-oil-based *Ti6Al4V* nanoliquid across a surface of varied thickness under the action of Buongiorno slip effects. The transmuted dimensionless equations and edge restrictions are exercised using the bvp5c scheme. This research's prime purpose is to enhance the thermal transmission rate due to the suspension of spherical or laminar-shaped nanoparticles into the base liquid. The computational outcomes for flow, energy, and concentration fields were explored via plots and numerical illustrations. Evidently, energy transmission efficiency is developed in spherical-shaped nanoparticles as compared with laminar-shaped nanoparticles. The Buongiorno slip and nonuniform heat source factors tend to enrich the Nusselt number. The shape factor of nanoparticles is significant in enhancing or diminishing the heat flow rate.

Keywords: Nanofluid, MHD flow, slender surface, spherical and laminar shaped nanoparticles, slip effect.

AN EXEMPLARY APPLICATION OF THE SKETCH-TO-CONCEPT PROCESS IN ARCHITECTURE USING ARTIFICIAL INTELLIGENCE

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Abstract

Artificial Intelligence (AI) technologies are bringing fundamental changes to traditional architectural processes and are already offering a broad range of applications in the field of architecture. AI-based drawing tools significantly accelerate the design process by providing architects and designers with quick and diverse design alternatives. These tools generate suggestions based on simple sketches and data obtained from previous projects, thereby reducing the trial-and-error time involved in the design process. Additionally, AI analyzes given sketches within specific parameters and constraints to generate hundreds of different design alternatives. This process enriches the creative processes of architects and designers by offering a broader range of options during the concept development phase.

This study aims to examine how AI supports and optimizes the creative processes of architects during the sketch phase. The study will involve analyzing architectural sketches using an AI program under specific parameters and constraints, and presenting various concept designs generated by AI. This application will highlight how AI contributes to the development of innovative and aesthetically impressive structures in architecture. Ultimately, AI introduces significant changes at every stage from sketches to concept development in the architectural world. These changes enable architects to construct more creative, efficient, and sustainable buildings. In the future, it is inevitable that AI will further expand in architecture, opening new horizons and positively impacting human life. Architects and designers will continue to shape the cities and structures of the future by embracing this technology.

Key Words: Artificial Intelligence, Architectural Sketching Process, Concept in Architecture

MODEL MAKING IN CONSTRUCTION EDUCATION: AN EXAMPLE OF A BUILDING MATERIALS AND TECHNIQUES COURSE APPLICATION

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Abstract

Models have been considered one of the most important architectural expression tools throughout architectural history. The process of materializing abstract design ideas through models allows for the sensory experience of these concepts. Particularly as a support to two-dimensional design tools, models play an effective role as creative forms of expression in contemporary design education. Therefore, models hold critical importance in architectural education as a "design, application, and presentation tool." In recent years, the role of models in architectural education has undergone a transformation alongside evolving design approaches and new architectural representation tools. The proliferation of computer simulations has diminished the importance of models as presentation tools; however, their use as design and application tools remains highly significant. Models enable students to reinforce their theoretical knowledge through practical applications by experiencing different building materials and techniques. Researchers who have noted insufficient transmission of structural design language have emphasized that structural models can lead to the creation of unique and design-excellence structures. Structural models play a crucial role in the development of structural knowledge. These models provide concrete feedback in the design process by facilitating a better understanding of structural details and engineering principles, thereby offering tangible insights to students and professionals. In this context, it has been expressed that structural models enable more effective learning and application of structural concepts and techniques. The aim of this study is to examine in detail the structural designs produced by students in the context of a building materials and techniques course. The study aims to highlight the importance of model-making in education and analyze how models function as a design tool. The examination and evaluation of materials used, techniques employed, and the structural design process will be provided.

Key Words: Model Making, Structure, Building Knowledge

STATISTICAL STUDY OF THE FINANCIAL ACTIVITY OF BUSINESS SUBJECTS IN THE NON-OIL SECTOR

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Abstract

This article aims at the statistical study of the financial activity of business entities operating in the non-oil sector. The article analyzes economic indicators, financial performance, and existing problems in the sector. The research results suggest suggestions for improving the financial situation of these subjects.

Introduction and Purpose: The non-oil sector plays an important role in the diversification of Azerbaijan's economy. The development of this sector is important to ensure economic stability and sustainable development of the country. The purpose of the article is to analyze the financial activity of business entities operating in the non-oil sector and evaluate their economic indicators.

Materials and Methods: The non-oil sector covers a wide area and includes agriculture, industry, trade, tourism and other sectors. Business entities operating in this sector make significant contributions to the country's economic development. Financial activity is the basis of the successful activity of these subjects, and its statistical study is important. Statistical analysis methods were used in the research. First, the financial indicators of business entities (for example, income, profit, expenses, etc.) were collected and analyzed. In the second stage, sectoral comparisons were made and relationships between different economic indicators were studied. Finally, based on the results of the analysis, some suggestions were put forward.

Results: The research results show that the financial situation of business entities operating in the non-oil sector is diverse. While some entities have high financial performance, others face economic problems. In general, it is important to improve financial management in the sector and strengthen state support measures.

Discussion and Conclusion: The following proposals are reflected in the article. Increasing financial support to business entities operating in the non-oil sector. Organization of training programs to increase the knowledge and skills of entrepreneurs in the field of financial management. Promotion of innovation and introduction of new technologies in the sector. Implementation of government programs and tax incentives for the development of the non-oil sector. Conducting research for continuous monitoring and analysis of financial indicators of the sector.

This article covers the state of financial activity of business entities in the non-oil sector and indicates important steps for the development of the sector. The results and suggestions of the study are important in terms of strengthening the sector and diversifying the economy.

Key words: Non-oil sector, business entities, financial activity, financial indicators

Z-CODES

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Abstract

Coding theory is a branch of mathematics that examines issues such as error detection, correction and compression in information transmission or data storage. It plays an important role especially in areas such as communication systems, data compression algorithms and cryptography. It is also widely used in computer science and electronic engineering. Again, this theory plays an important role in modern communication technologies and computer systems and is constantly being developed.

Error Correction Codes: Examines methods for detecting and correcting errors that may occur during data transmission. In this way, the effects of transmission errors are tried to be minimized. Information Coding: Explores the methods used to represent data more effectively. In this way, data compression algorithms are improved and more data can be stored with less memory usage. Cryptography: Examines encryption methods that ensure secure communication. It is used for purposes such as keeping information confidential, authentication and protecting data integrity. Discrete Mathematics: Coding theory is generally based on discrete mathematics principles. Topics such as sets, graph theory, and algebra are mathematical concepts frequently used in coding theory.

Algebraic structures are an important branch of mathematics and have applications in many fields such as computer science and coding theory. The concept of BCK-algebra was defined by Imai and Iseki in 1966, and later Iseki defined the BCI-algebra class as a generalization of these algebras. Since then, several different generalizations of $BCK \setminus BCI$-algebras have been presented and investigated. An example of one of these, in 2001, are Q-algebras made by Neggers et al. and which are an expansion of algebras.

In 2017, Chandramouleeswaran et al. defined Z-algebras and examined some of their properties. This study has shown us that it is not a generalization of Z-algebras $BCI \setminus BCK$ or Q-algebras and that it has a different structure than these algebras.

In this study, we will define Z-functions and Z-codes by using Z-algebras and then examine the properties of these codes.

Key Words: Z-algebra, Z-function, block code

EFFECT OF USING TURBULATORS IN HEAT EXCHANGERS ON HEAT TRANSFER

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Abstract

Introduction and Purpose: A heat exchanger is a device that facilitates the transfer of heat between two or more fluids at temperatures that differ from one another. These devices have a wide range of applications, from domestic heating systems to industrial processes, and are the subject of ongoing research and development with the aim of increasing energy efficiency. In heat exchangers, the use of turbulators has the potential to disrupt the flow structure by breaking the boundary layer, creating secondary flows and turbulence, with the aim of increasing energy efficiency. While increasing the energy efficiency of the turbulators used, the design of the turbulator is of great importance, as it may cause a pressure drop. Upon examination of the studies, it was observed that a multitude of turbulators, designed in various shapes, were utilised. The objective of this study is to investigate the effects of differently designed turbulators on heat transfer.

Materials and Methods: The objective of this study is to examine the impact of diverse turbulator designs employed in heat exchangers on thermal performance. This study examines the fundamental role, significance, and applications of heat exchangers, the concept of turbulators, the functions and objectives of turbulators in heat transfer processes, the advantages of utilising turbulators in systems, and the existing literature on the utilisation of turbulators in heat exchangers. The impact of diverse turbulator configurations on energy efficiency, pressure loss, and heat transfer performance has been evaluated. Systems with and without turbulators have been contrasted, and parameters such as temperature difference, Nusselt number, heat transfer amount, and pressure losses have been assessed. A comprehensive overview is presented to elucidate the influence of turbulators on heat transfer in heat exchangers.

Results: The utilisation of heat exchangers across a diverse array of industrial sectors presents a vast research domain for the investigation of turbulators in heat exchangers. Upon analysis of the studies, it was observed that higher temperature differences were reached, the Nusselt number was higher, the amount of heat transferred was increased, and the thermal and hydraulic performance of the system was enhanced when a turbulator was employed, in comparison to the system that lacked a turbulator. However, the utilisation of turbulators also resulted in an increase in pressure losses. This illustrates the significance of optimising the design of turbulators to minimise unintentional pressure drops within the system while enhancing energy efficiency.

Discussion and Conclusion: The utilisation of turbulators has emerged as a significant method for enhancing the thermal and hydraulic performance of heat exchangers. The potential of these elements to enhance heat transfer performance is of significant importance for the improvement of energy efficiency, particularly in a diverse range of industrial applications. Nevertheless, it is also important to consider the potential negative effects, such as increased pressure losses. It is therefore essential to maintain a careful balance when designing and applying turbulators. Further research could facilitate the development of more efficient strategies for the utilisation of these elements by conducting a more comprehensive investigation into the effects of turbulators in a variety of flow conditions and across diverse application scenarios.

Key Words: Heat exchanger, Heat transfer, Turbulator

THERMAL ANALYSIS OF THE USE OF TURBULATORS ACCORDING TO FLOW DIFFERENCES (LAMINAR - TURBULENCE) IN HEAT EXCHANGERS

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Abstract

Introduction and Purpose: Heat exchangers are a common feature of industrial and engineering applications, serving to enhance energy efficiency and sustainability. The principal aim of this study is to undertake a thermal analysis of the utilisation of turbulators in heat exchangers in accordance with flow differentials (laminar-turbulent). Turbulators are defined as elements that facilitate enhanced heat transfer by modifying the flow regime of fluids. This study examines the performance of turbulators under laminar and turbulent flow conditions, and evaluates the findings of existing studies in this field.

Materials and Methods: A review of the literature was conducted to investigate the performance of turbulators in heat exchangers. The findings of these studies revealed the effects of different turbulator designs and layouts on heat transfer through both experimental and numerical analyses. It was determined that turbulators create turbulent flow by disrupting the boundary layer, thereby increasing the heat transfer coefficient.

Results: A review of the literature reveals that the use of turbulators has the effect of significantly increasing the heat transfer rate and improving the thermal efficiency of the systems in question. The incorporation of turbulators optimises energy efficiency by increasing the mixing of the flow, thus providing cost-effective solutions in industrial applications. However, the design and layout of turbulators should take into account the need to minimise the pressure drop as well as improve the thermal performance.

Discussion and Conclusion: The utilisation of turbulators in heat exchangers has the potential to provide energy-efficient, environmentally sustainable and economical solutions. It is predicted that by focusing more on the design, layout and material selection of turbulators and optimising the performance of heat exchanger systems, more effective and efficient heat exchanger designs can be developed for industrial applications.

Key Words: Heat exchanger, Turbulator, Laminar Flow, Turbulent Flow

HEALTH PROBLEMS OF ELDERLY INDIVIDUALS AND NURSING APPROACH WITHIN THE FRAMEWORK OF PUBLIC HEALTH NURSING

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Abstract

Introduction and purpose: Public health nurses play an important role in evaluating the determinants of health. In particular, determining the health problems of the increasingly growing elderly population and evaluating nursing approaches to these problems are very important. This literature study was conducted to define elderly health problems and determine the nursing approach within the framework of public health nursing.

Material and Method: The study prepared in the form of a review was prepared by the researchers by scanning the literature.

Findings: The research includes important results that reveal the physical, mental and social health problems of elderly individuals. In this review, as in the whole world, methods that will guide the nursing approach to the health problems of the increasing elderly population in our country were discussed. All functional losses and behavioral attitudes experienced during the aging process have caused chronic diseases to be seen in elderly individuals. Chronic diseases in elderly individuals caused them to use medication and negatively affected their quality of life. The increasing need for care with aging has led to abuse and neglect. At the same time, it has been observed that elderly individuals who cannot adapt to old age are far from healthy life behaviors. Adequate and balanced nutrition, regular physical activity, regular sleep, social relationships free from discrimination, which are important factors for elderly health, have increased the quality of life of elderly individuals. In addition, the loneliness of elderly individuals during the pandemic period, current rules, news about the pandemic process, the quarantine process and economic difficulties have affected elderly individuals socially and psychologically.

Conclusion: In the study, elderly problems were determined as chronic diseases, nutrition, sleep problems, physical activity, medication use, immunization, abuse and neglect, discrimination, and pandemic perception. The approaches of public health nurses are very important within the scope of protecting, developing and maintaining the health of elderly individuals. Therefore, providing health education to elderly individuals, providing counseling, and evaluating their quality of life are valuable nursing approaches to the problems of elderly individuals.

Keywords: Public health nursing, elderly health problems, nursing approach

SEGMENTATION APPLICATIONS IN PANORAMIC X-RAY IMAGES

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Introduction and Purpose: Oral health is a very important health area, but it is also related to general body health. Good oral health also affects body health. For this reason, oral health has started to be given importance and studies on oral health and treatment have gradually increased in recent years, improvements have been made in imaging methods, and technological developments have started to be used intensively in the diagnosis and treatment phase. Diagnosis and diagnosis in the treatment of oral and dental diseases are performed manually by specialists. However, it is difficult to obtain accurate results in this situation, which can be error-prone in case of intense workload and limited time frame. Today, with the help of artificial intelligence-supported systems, more accurate, early and precise diagnosis can be made, and the examination and treatment processes of specialist doctors are facilitated.

Materials and Methods: In this study, Panoramic X-ray images are preprocessed and then given as input to CNN-based U-Net architectures. Training was performed using the data set divided into training and test, and then testing was performed. The performances of the models were evaluated and reported.

Results: Several CNN models were used and tested to find the CNN model that gives the most optimal performance in CNN-based U-Net models. As a result of the evaluations, the EfficientNetB5 model, which gives the most optimum performance, was used as the backbone in U-Net models. After the segmentation applications performed with the EfficientNetB5 based U-Net model, the performance of the model was evaluated with several metrics. As a result, binary cross-entropy loss value is 0.0527, Mean IoU value is 0.7835, Dice value is 0.8785, Sharpness value is 0.8787 and Precision value is 0.8785.

Key Words: Panoramic X-ray; Artifical Intelligence; Segmentation

ISLAM UNDER CHRISTIAN RULE FROM THE PERSPECTIVE OF MISSIONARY W. H. T. GAIRDNER

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Abstract

In the 19th century, missionary activity marked a period of significant expansion and influence for Christian missionaries worldwide. Western Christian missionaries carried out extensive missionary work during this time in regions such as Africa, Asia, America, and Oceania. The missionaries contributed to the missionary activities in the areas where they were active through their letters and reports. This correspondence ensured the coordination of missionary activities and provided information about the challenges, successes, and needs that the missionaries faced. These reports were followed with great interest by the missionary societies and supporters and helped to make missionary work more effective and efficient."Islam and Missions: Papers Read at the Second Missionary Conference on behalf of the Mohammedan World, held at Lucknow, January 23-28, 1911" is a compilation that provides valuable insights into the challenges faced by Christian missionaries and the strategies they developed. This conference took place at the beginning of the 20th century, a time of intense activity by Western Christian missions, especially in predominantly Muslim regions. This conference in 1911 was one of the most important meetings organised to evaluate Christian missionary efforts among Muslims and to develop new strategies. The papers presented and published at the conference focused on the presence and influence of Islam in Eastern countries. William Henry Temple Gairdner was a well-known British Anglican missionary who worked in Egypt in the late 19th and early 20th centuries. At this conference, Gairdner gave a lecture entitled "Islam under Christian Rule." In his lecture, Gairdner discussed how Christian missionaries interacted with Muslim communities and the strategies they used to do so. He discussed how Western missionaries dealt with the cultural and religious sensitivities of Muslim societies in colonial areas and how these approaches affected the success of missionary activities. In this study, Gairdner’s lecture, which he delivered at the Lucknow conference, is translated into Turkish and examined in detail. Gairdner's observations and analysis are a valuable resource for understanding the impact of Christian missionary activity on Muslim communities and how this impact should be managed.

Key Words: Missionary, Islam, William Henry Temple Gairdner, Lucknow Conference, Christian States

REVIEW OF RESEARCHES CONDUCTED WITH BIBLIOMETRIC ANALYSIS IN THE FIELD OF NURSING

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Abstract

Introduction and Purpose: The increase in the number and diversity of research in the field of nursing has required a more systematic evaluation of scientific information. Bibliometric analysis method, which is one of the methods used in the systematic evaluation of scientific information, is also used in research in the field of nursing. The aim of this study is to determine the focus, thematic trends and development of the researches conducted using bibliometric analysis in the field of nursing by bibliometric analysis.

Materials and Methods: In this study, a bibliometric analysis of the studies conducted between 1994 and 2024 in the field of nursing using bibliometric analysis was conducted and 229 studies were examined. Web of Science database was searched. The data obtained as a result of the search were analyzed with the Biblioshiny interface using the RStudio program.

Results: In this study, it was determined that publications on the subject have increased noticeably in recent years and the most publications were made in 2020. The most published and cited author on the subject is Peter Kokol. It was found that the country with the highest number of publications on the subject was Brazil and the university was the Federal University of Paraiba in Brazil. The most cited study on the subject was the article titled "Patient engagement as an emerging challenge in healthcare: mapping the literature" published in 2012. It was observed that the most frequently used keywords in the studies on the subject were nursing, care, science, impact, health, quality, education, knowledge and risk.

Discussion and Conclusion: It has been observed that the number of studies using bibliometric analysis in nursing research has gradually increased over the years and this issue has become a frequently used method in nursing research.

Key Words: Nursing; Bibliometric; Bibliometric Analysis; Nursing Research

MUMİN-ZÂDE AHMED HASIB AND THE SİLKU'L-LE'AL-İ OSMAN

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Abstract

It is stated by experts in the field that the formalist, normative and idealist Turkish literature, which has a unique understanding of art, a limited emotional and poetic world, an artistic language, a structure of thought based on the religion of Islam and Sufism, is called "Classical Turkish Literature". This literature, with its high emotions and excitements that appeal to the soul, its beauty of expression and its solid language, and its magnificence in its couplet structure, constituted a large part of the artistic taste in Ottoman society for more than six centuries.

The literature mentioned is a literature that is mostly poetry. Throughout our literary history, many works have been created by countless artists. Researchers and students are working on these works in many fields. But today, thousands of works that are the most important documents of our Literary History are being studied.

With the acceptance of Islam by the Turks, in the period of Classical Turkish literature, which developed with the science, belief and rules of Islamic civilization, hundreds of poets were raised alongside masters such as Necati Bey, Fuzûlî, Bâkî, Nef'î, Şeyhü'l-islam Yahya, Nâbî, Nedim, Şeyh Galib. It is a known fact that important representatives of Classical Turkish Literature mostly demonstrated their art in the field of poetry. In this literature, verse was also used as a means of expression and teaching in scientific subjects. Today, we see that many subjects written in prose are sometimes written in verse in our old literary tradition. Among these, religious works in verse, histories, surnames, travel books, and even sometimes dictionaries have entered the field of use of our literature in our old literature.

One of the types that contain important personal and literary information about Divan poets is the anthologies and they are among the most important sources of our literary history. Anthologies inform us about Divan poetry and poets as well as important information about our culture. One of these works was given by Mümin-zâde Hasib.

Ahmed Hasib Efendi, also known as Müminzâde, was born in Bursa. After his madrasah education, in 1120 (1708-1709), he became a muîd (a teaching staff member who repeats the lessons given by the mudarris to his friends and assists the mudarris) to Süleyman Efendi, one of the famous mudarris of the time. In 1129 (1716-17), he was tested by Şeyhülislam Ebû İshak İsmâil Efendi and started working at the Esediyye Madrasah; later, he served as a mudarris in various madrasahs. He was assigned to Bosnia in April 1735. He served as a judge in Tokat, Kayseri and Manisa. He was dismissed while he was a judge in Manisa. He died a short while after coming to Istanbul.

In this study, after briefly mentioning the life and works of Mümin-zade Hasib, we will try to discuss "Silkü'l-Le'âl-i Al-i Osman", which is written in verse in our literature and some parts of which are accepted as the second anthology, and in which his 180-year life from the foundation of the Ottoman State is told by dividing it into periods according to the sultans.

Key Words: Islamic literature, Tezkire, Hasib, Tabakat, Verse Biography

ACADEMIC STUDIES ON THE SUBJECT OF TURKISH TV SERIES: A BIBLIOMETRIC ANALYSIS

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Abstract

This research was conducted to reveal the bibliometric profile of academic studies on Turkish TV series. The research was carried out with a case study. Academic studies on Turkish TV series in the WoS database; It was examined in terms of different variables, separated by years, genres, authors, WoS indexes, writing language, and countries. Additionally, network maps were created with the help of the VOSviewer software tool. The research is limited to academic studies on Turkish TV series within the research field of "communication", "film radio television" and "cultural studies". It was observed that the first study was written as an article in 2013 and was also the study with the most citations. The most academic studies were written in 2021. The highest number of citations to academic studies were made in 2023. The most current study was written in 2024. The studies were largely written in article type, in English and in the SSCI index. It was determined that the researcher with the most studies was Kaptan, Yeşim. It has been observed that the country with the most academic studies is Türkiye, followed by America, Qatar and Austria. When the network maps are examined, it is concluded that many institutions, authors and countries have co-authorship relationships.

Keywords: Turkish TV Series, Communication, Film Radio Television, Cultural Studies, Bibliometric Analysis.

PHYSICAL ACTIVITY LEVEL AND EXERCISE BARRIERS IN ADOLESCENTS IN COVID-19 PANDEMIC

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Abstract

Introduction and Purpose: In 2019, the World Health Organization China Office reported cases of pneumonia of unknown cause in Wuhan city, China. In 2020, the first case of coronavirus was reported in Turkey. With the quarantine measures in place, the inability to go out on the streets and the necessity to stay at home cause individuals to restrict their physical activities. Therefore, our study, which evaluated the physical activity levels of adolescents during the pandemic and investigated the barriers they faced in exercising.

Materials and Methods: Our study was planned as a cross-sectional study. The study was completed with 70 participants. In the study, demographic information form, International Physical Activity Questionnaire - Short Form, and survey questions examining the factors that may prevent adolescents from exercising in the Covid-19 pandemic were used. Descriptive values are expressed as percentages and numbers. Pearson Chi-Square Test and Fisher Exact test were used in statistical analysis ($p<0.05$).

Results: Among the adolescents who participated in the study, 44.3% (n:31) were very active, 31.4% (n:22) were minimally active and 24.3% (n:17) were inactive. No statistically significant results were found in the examination of factors that may prevent adolescents from exercising. **Discussion and Conclusion:** It is seen that most of the adolescents included in our study are physically active. In this case, especially the fact that most of the adolescents participating in the study lived in provincial and district centers, the sociocultural levels of the place where they lived, and the type of house they lived in may have been effective in ensuring the continuity of physical activity. We believe that determining the ideas of adolescents that may prevent physical activity and increasing awareness about these factors are necessary to maintain a healthier and better-quality life.

Key Words: Adolescent; Exercise barriers; Pandemic

EXPERIENCE PREGNANCY AND BIRTH WITH MY AVATAR IN THE VIRTUAL WORLD: A REVIEW STUDY

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Abstract

This review aims to evaluate applications that provide the opportunity to experience the pregnancy and birth process in the virtual world with game-based platforms in the light of current literature. The articles accessed were evaluated by searching Pubmed, Scopus, Cochrane, Medline, Science Direct, Google Scholar databases with the keywords “Avatar”, “Online Social Interactions”, “Virtual World”, “Pregnancy”, “Birth”, “Game”. 27 studies on the subject between the years 2012-2024 constituted the scope of the study.

The advancement of technology has led to a surge in the popularity of single and multi-user virtual worlds. These virtual environments, which offer boundless creative potential, permit users to assume and inhabit a multitude of roles. Such platforms afford individuals the opportunity to engage in real-life experiences through the use of avatars. The scenarios and visual content presented in the game have the potential to foster a spiritual bond between the individual and their avatar, as well as emotional transfers that could facilitate a transition from the virtual to the real world. The preference for well-detailed human-like avatars with advanced animation technologies serves to reinforce the individual's perception of reality.

The pregnancy and birth process is a process of uncertainty, especially for individuals experiencing it for the first time. This process can cause an increase in individuals' feelings of anxiety and stress and can cause individuals to develop a fear of birth. In the literature, it has been determined that allowing individuals to experience this process through platforms designed in the virtual world makes a positive contribution to the process. In the study conducted by Lomanowska and

colleagues, it was determined that the virtual game examined provided the opportunity to experience birth details such as blood and other body fluids, the presence of the placenta, sounds during birth, and visual and vocal expressions of pain with the user's avatar. Similarly, in the study conducted by Siivola and colleagues, it was stated that the virtual game platform positively affects the pregnancy and birth experiences of expectant parents and can be preferred as an alternative method for childbirth education. Games that provide easy access to their users, provide customized and reliable information and contribute positively to individuals' education and experiences. There are limited studies on this subject in the literature and high reliability studies are needed.

Key Words: Avatar; birth; pregnancy; gaming; virtual world.

ASSISTANCY ROBOTIC SYSTEMS IN MIDWIFERY PRACTICES: A REVIEW STUDY

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Abstract

This review aims to evaluate the use of assistive robotic systems in midwifery practices in light of current literature. The keywords “Assiistant Robotic Systems”, “Midwifery”, “Care Robots” were used to search Pubmed, Scopus, Cochrane, Medline, Science Direct, and Google Scholar databases and the articles accessed were evaluated. 581 articles published between 2020 and 2024 on the subject were listed, and 26 studies with full text were included in the scope of the research.

The global increase in the population and the ageing of the population are placing significant pressure on health care systems, which are facing a shortage of health care professionals, in particular midwives and nurses. Approximately 50% of the healthcare workforce is comprised of midwives and nurses. In parallel with the increasing workforce, it is estimated that there will be a shortage of 12.9 million health care professionals globally by 2035, as health professionals cannot be trained. In this context, it is of great importance to implement effective technological solutions that alleviate the burden on midwives and nurses, reduce costs, and increase their capacities regarding the specified challenges. In parallel with developing technology, artificial intelligence algorithms and assistive robotic systems are being integrated into the health care system.

Assistive robotic systems are used in many different areas in healthcare services such as robotic surgery, rehabilitation, medical assistants and hospital service robots. Robotic systems are divided into subcategories according to the physical and social conditions they provide assistance to users, and the purpose of using robots in midwifery applications is to strengthen healthcare service

delivery, improve general health outcomes and quality of care, and fill current and projected gaps in the workforce required to meet population health needs, including complex assistance systems, information and patient data processing, assistance in daily living activities, tele-presence and communication, monitoring, security and navigation. In the existing literature, there are studies on the use of assistive robotic systems in patient transportation, document classification, transferring and repositioning the patient in bed. In addition to these areas, studies have found that the use of social robots that mimic human touch for emotional care reduces the workload of healthcare professionals.

The time, knowledge and skills of midwives and nurses are very valuable as they have the specific knowledge required to achieve optimum health outcomes. Therefore, it is of great importance to identify alternative solutions that can reduce the time midwives and nurses spend on non-critical tasks. However, ethical and social issues should be taken into consideration when evaluating the effects of assistive robotic systems developed for complex midwifery and nursing activities on midwifery practices.

Key Words: *Care robots; midwifery; assistive robotic systems.*

WISDOM'S IN THE POEMS IN SEYFI SERÂYÎ'S KITÂB GULISTAN BI'T-TURKÎ (GULISTAN TRANSLATION)

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Abstract

Kipchak Turkish, also known as North-Western Turkish, is a historical Turkish dialect that is used in the Kipchak steppes called Dasht-i Kipchak, located north of the Black Sea, in Crimea, along the Danube, in the Balkans and Egypt. The works of Kipchak Turkish have great similarities with Chagatai Turkish, which emerged after Khwarezm Turkish, in terms of both phonetic and morphological features. The works belonging to the Kipchak Turkish period, especially those written in the Egyptian field, generally consist of grammars or dictionaries. One of the important works of this period is Seyf-i Serâyî's Kitâb Gülistan bi't-Türkî, in which he translated the Gulistan written by the Persian poet Sadî in 1258 into Kipchak Turkish in 1391. Rather than translating this work word for word, Seyf-i Serâyî translated the poems in a very free manner and remained faithful to the original only in the prose parts of the work. Kitāb Gulistan bi't-Turkī or Gulistan Translation not only provides important grammatical data in Turkish, but it is also important in terms of providing practical information to the readers with the subjects full of wisdom. This study focuses on this aspect of the work. Some of the poems in the work are discussed. The subjects in these poems are quite diverse and consist of issues that are useful in daily life. It can be said that the work in question, which touches on patience, afterlife, endurance of the world and worldly goods, stinginess, wealth, food and many other issues, has a very fluent and clean language. The poems in the work are generally in the form of stanzas and sometimes in the form of couplets. The poems are generally dominated by the style of wisdom and generally summarise and summarise the subjects in the stories. The number of poems in the work is quite high. However, in this study, only those that are more remarkable in terms of the subject they deal with are discussed.

Key Words: Kipchak Turkish, Seyf-i Serâyî, Gulistan Translation, poems, wisdom.

COMPOUND VERB GROUPS IN SULTAN VELED'S TURKISH POEMS

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Abstract

Old Anatolian Turkish is also known as Old Ottoman Turkish, Old Turkish, Old Oghuz Turkish. This historical dialect of Turkish forms the basis of Western Turkish, which is composed of Turkish, Azerbaijani Turkish, Turkmen Turkish and Gagauz Turkish. This period has a very important place in the Anatolian field with its use as a second written language alongside Karakhanid Turkish, also known as Eastern Turkish, in the 13th century. Old Anatolian Turkish continued until the second half of the 15th century and by some researchers until the 16th century. In the following periods, it was replaced by Ottoman Turkish. In contrast to the language of Ottoman Turkish, which was full of foreign elements, heavy and difficult to understand, Old Anatolian Turkish stood out with its simplicity and comprehensibility. Mevlânâ's son Sultan Veled, who is accepted as the first representative of this period by most researchers, lived in the 13th century. Although he generally wrote in Persian, there are also a considerable amount of Turkish poems. These Turkish poems are found in Sultan Veled's Ibtidânâme, Rebâbnâme and Divan. In this study, the compound verb groups identified in these works are discussed. Compound verbs are encountered both in the form of nouns + main auxiliary verbs (to become, to act, to make, to do) and in the form of those that are fused in meaning and idiomised. The total number of their usage is 133. While 45 of these 133 compound verbs are formed with main auxiliary verbs, the remaining 88 are formed with compound verbs that are fused in meaning and idiomatic. Of the 45 compound verbs formed with noun + main auxiliary verb, 24 are formed with the main auxiliary verb ol-, 12 are formed with the main auxiliary verb ėt-/ėd-, 5 are formed with the main auxiliary verb ḳıl- and 4 are formed with the main auxiliary verb ėyle-.

Key Words: Western Turkish, Old Anatolian Turkish, Sultan Veled.

EXAMPLES OF THE FIRST APARTMENT TYPE HOUSING BUILT IN YOZGAT

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Abstract

Introduction and Purpose: After the revolutions made with the proclamation of the Republic, great developments and changes have taken place in our country. In parallel with these developments, housing culture has also been affected. After industrialization and industrialization studies in our country, migration movements to cities such as Istanbul, Ankara and Izmir have started. Rapid population growth in big cities has revealed the housing problem. Apartment type houses have been the best solution for the housing problem. Although apartment-type residences were shown as the lifestyle of European people at first, they started to replace the traditional Turkish house over time. These houses have started to be preferred due to factors such as the fact that apartment-type houses can be produced quickly and mass-produced, their cost is more affordable, many families can reside in an apartment built on a single parcel, etc. Developments in housing culture have begun to spread all over the country. It started to be built in Yozgat in the 1950s. Apartment-type dwellings have become the dominant type of housing over time. In this study, it is aimed to determine the housing culture and the first examples of apartment type housing in Yozgat in the historical process, to make determinations on the technical features and typologies of these houses, and to evaluate the changes and differentiations in housing typologies by making comparisons.

Materials and Methods: In this study, which deals with the analysis of the technical characteristics and plan typologies of the first apartment type housing examples in Yozgat, definition of the problem, literature review, field study, comparative analysis and evaluation studies were carried out. In the first examples of apartment-type housing built in the city center of the city of Yozgat, relief plans were prepared by determining the buildings, island and parcel information determined by looking at their characteristic features. For architectural projects and building permits, detailed researches were made in the archive of the Yozgat Municipality Zoning Directorate by obtaining technical information about the building.

Results: With the industrialization in Turkey, the use of new building materials such as Iron, Steel, Concrete, developments in building technologies, cultural developments and transformations in social life, which started to be shaped according to the needs of the society, Apartment-type houses, although they resemble traditional Turkish house plan types when they first started to be built, different types of houses began to be produced over time. Evaluations were made on the types of plans in this period.

Key Words: Residential, Cultural, Traditional Turkish Houses, Apartment Type Houses

MYOGLOBIN AND MYOSIN AS POTENTIAL BIOMARKERS OF EARLY-STAGE HEART FAILURE

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Abstract

Heart failure (HF) is a clinical syndrome resulting from abnormalities in cardiac structure or mechanical function, leading to the heart's inability to deliver oxygen at a rate commensurate with the body's metabolic needs which is regarded as the terminal stage of all cardiovascular disorders. Despite advances in primary prevention and therapy, heart failure continues to have a poor prognosis and a high mortality rate. Proteomics offers a valuable tool for discovering and applying novel biomarkers in diagnosing and managing cardiovascular diseases, potentially improving prevention and therapy. A shotgun proteomic approach was utilized to identify and compare proteins in tissue samples from a 3-month-old glucokinase knockout mouse in early-stage heart failure and a normal control mouse. Bioinformatics analysis using MASCOT MS/MS ions search was also employed to further identify, characterize, and quantify the proteins from established databases. 156 cardiac proteins were identified in the normal mouse tissue sample, while 163 cardiac proteins were identified in the diseased mouse tissue sample. Among these, 104 cardiac proteins were common to both samples, 35 were differentially expressed in the diseased tissue and 49 were unique to the diseased tissue. Myoglobin OS, and Myosin-6 OS, cardiac proteins with high exponentially modified protein abundance index (emPAI) values were selected as potential biomarkers. This study shows that the identified proteins play vital roles as indicators to aid diagnosis, prognosis, and risk stratification of HF for the evaluation of therapy.

Keywords: Cardiovascular Diseases, Proteins, Biomarkers, Proteomics

BOSNIAN ALAADDİN SABİT AND HIS ZAFER-NAME

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Abstract

History and literature are two branches of social sciences that feed off each other. These two branches of science constantly move in common areas, both in terms of their content and the products they produce. A work in the field of literature can also be a source material for history.

Zafername is called “gazannames that result in the defeat of the enemy”. Gazanname is derived from the word “gazâ” meaning “war for the sake of religion” and can be said to be a single war fought with the enemy; gazavatname is a work that deals with the various wars of a person”. There are many types of poetry and prose in classical Turkish literature that tell of wars fought for the sake of religion. These are called fetihname, Zafername, şehname, fütûhat, fethiye, Selimname, Süleymanname, cenkname, cihadname.

It is observed that the writing of these types of works reached its peak during the rise of the Ottoman Empire. These types were written in order to encourage the soldiers and open the door to new conquests during the rise of the state. The first examples of these types, especially in the 15th century, increased in parallel with the rise of the Ottoman Empire in the 16th century and ended with the "Crimean and Greek wars" until the 19th century.

The Zafernames, which are the most important of these genres, are important works for literature and history researchers. One of these works is the Zafername, a literary and historical work by the Bosnian Alaaddin Sabit, which describes the encounter between the Russian and Crimean armies at Urkapı in May 1689 and the victory of the Crimean army commanded by Selim Giray Khan and his nephew Mirza Kadir Shah.

In this study, since the aspect we are looking at is literature, brief information will be given about Bosnian Alaaddin Sabit, and Zafername will be introduced by analyzing it in terms of its literary value and examining its content, language and style features. We will try to convey the general evaluation of the work in the conclusion section.

Key Words: Islamic Literature, Bosnian Sabit, Zafername, Fetihname, Content Analysis,

RELATIONSHIP BETWEEN TEACHERS' PERCEPTIONS OF EQUALITY AND THEIR ATTITUDES TOWARDS PROFESSIONAL COOPERATION

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Abstract

Introduction and Purpose: The perception of equality among teachers generally includes the understanding of equality and justice based on gender, age, experience and other social factors. For teachers to work in cooperation, school administrators need to create the necessary healthy environments. In order for healthy environments to be created, teachers need to cooperate, and equality needs to be ensured among teachers. The school administrators are responsible for preparing the environment that will meet this requirement. By ensuring equality in the tasks given to teachers, rewards given, lesson hours, etc., it will strengthen the relationships between teachers and create continuity and willingness for teachers to carry out their work in cooperation. In this context, the purpose of the study is to examine the relationship between teachers' perceptions of equality and their attitudes towards professional cooperation and to determine whether there is a statistically significant difference between their perceptions according to the variables of gender, length of service at school, educational status and the educational institution they work in.

Materials and Methods: This research was conducted with the survey model, which is one of the quantitative research models. The study group of this research consists of teachers working in preschool, primary school, secondary school, and high school educational institutions in the 2023-2024 academic year. The study group of the research consists of 200 teachers who agreed to participate in the research. The data of the research were collected from teachers working in preschool, primary school, secondary school, and high school educational institutions via Google form during the period covering November-December 2023. The data collection tools used in the research consist of three parts. The first part includes personal information created to collect information about the participants in the research. The second and third parts include scale items.

The data collected in line with the research objectives were analyzed using the SPSS package program using appropriate statistical techniques.

Results: The total of the equality perception scale, culture and division of labor sub-dimensions are at the "agree" level, while the evaluation and branch sub-dimensions are at the "undecided" level. From here, it was observed that teachers' perceptions of equality in the culture and division of labor sub-dimensions are high, and in the branch and evaluation sub-dimensions they are at a medium level. Teachers' attitude towards professional collaboration is at the level of "strongly agree". According to the research results, gender was not found to be a variable that created a difference in teachers' perception of equality according to the total of the scale and its sub-dimensions. It was found that teachers' perceptions of equality and their attitudes towards professional collaboration did not create a difference according to the variable of tenure at the school they worked. While the school type variable did not make a difference in teachers' perceptions of equality in the evaluation and division of labor dimensions of the scale, a significant difference was observed in the culture, branch sub-dimensions and the total scale. While a positive and low relationship was observed between teachers' attitudes towards collaboration and their perceptions regarding the evaluation and branch sub-dimensions, a positive and moderate relationship was found in the equality total, culture and division of labor sub-dimensions.

Key Words: Equality, Professional Collaboration, Teacher, Attitude

RECYCLING AND WASTE MANAGEMENT: ENVIRONMENTAL AND ECONOMIC PERSPECTIVES

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Abstract

Introduction and Purpose: Efficient use of recycled industrial raw materials and waste provides environmental and economic benefits. However, for the effective implementation of this process, it is important to create and develop mechanisms such as government support, legislation, training and technological innovation. Only in this way, we can ensure economic efficiency by reducing the environmental impact of industrial waste. Industrial enterprises waste millions of tons of waste and raw materials every year. Reuse of these resources: Recycling of waste reduces environmental pollution, prevents groundwater and surface water pollution, through recycling, the need for natural resources is reduced, raw material resources are preserved, recycled materials are cheaper than new raw material production, and the production costs of industrial enterprises are reduced.

Materials and Methods: It is important to create certain mechanisms to ensure the efficient use of recycled raw materials and waste:

1. State Support and Incentives: The state should support enterprises interested in the recycling process through tax incentives and subsidies.

2. Legislation and Regulations: Legislation and regulations should be adopted to regulate waste recycling and proper management.

3. Training and Awareness: Awareness campaigns should be organized among businesses and society about the importance of recycling.

4. Technological Innovations: Waste treatment processes should be improved and made more efficient through new technologies.

Results: Efficient use of recycled industrial raw materials and waste provides environmental and economic benefits. However, for the effective implementation of this process, it is important to create and develop mechanisms such as government support, legislation, training and technological innovation. Only in this way, we can ensure economic efficiency by reducing the environmental impact of industrial waste.

Discussion and Conclusion: Development of State-level Strategic Plans: State-level strategic plans should be developed and implemented for widespread recycling. Studying International Experience: The successful experiences of other countries in the field of recycling should be studied and applied in our country. Supporting Scientific Research: Funding should be allocated to support scientific research in the field of recycling and to develop new technologies in this field. With the implementation of these mechanisms, it is possible to protect the environment and increase economic efficiency by ensuring the efficient use of industrial waste and recycled raw materials.

Key words: economic efficiency, industrial waste, environmental and economic benefits, efficiency

WOMEN'S EXPERIENCES WITH VAGINAL BIRTH AFTER CESAREAN SECTION (VBAC)

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Abstract

Introduction and Purpose: It is observed that vaginal birth rates after cesarean section are low in many parts of the world and in our country. Although women's birth mode preferences are affected by many factors, it is known that one of the most important factors is the experience during labor. The aim of this study was to examine the literature on women's experiences of vaginal birth after cesarean section.

Materials and Methods: This study was planned as a literature review. PubMed/MEDLINE database was searched, and studies published between 1990 and 2024, published in English, and whose full text could be accessed were included in the review.

Results: The main factors affecting women's experiences of vaginal birth after cesarean section were women's autonomy, supported, loss of control, desire to explore the naturalness of birth, birth planning, and the language, attitudes and care practices of health professionals. Women described their experience of vaginal birth after cesarean section as empowering, healing, and proud, an important aspect of their femininity and a sense of motherhood. It was determined that the interaction of healthcare professionals with women in the process from the planning of birth to the moment of birth and after birth affected their birth experience, and that negative experiences with healthcare professionals negatively affected women's birth experience. It was determined that the interaction of healthcare professionals with women during the birth process affected their birth experience, and negative experiences with healthcare professionals negatively affected women's birth experience.

Discussion and Conclusion: Women It is recommended that healthcare professionals should be aware of the impact of their interactions with women in labor on women's birth experiences, and obstetricians should provide evidence-based information to women not only about the risks of vaginal birth after cesarean section but also about its positive aspects.

Key Words: Birth Experience; Vaginal Birth After Cesarean; VBAC; Maternal Health; Women's Health

CHARACTERIZATION OF ELECTROCHEMICALLY SYNTHETIZED BI DOPED ZNO NANORODS

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Abstract

Zinc oxide (ZnO) is a n-type semiconductor which is abundant, stable and non-toxic material and a promising candidate for solar energy conversion thanks to its good absorption coefficient in the visible range and its direct band gap. In this report, we discuss the synthesis of Bi doped ZnO nanorods by the electrodeposition technique. The as-electrodeposited Bi doped ZnO nanorods, via two steps at applied potentials of -1 V and -1.4 V for 30 min in acidic aqueous solution (pH = 6), have revealed a good crystallinity with a preferred orientation along the plane (002). Moreover, the transmittance of Bi doped ZnO nanorods is demonstrated that they have high optical transmission (>75%) with a direct band gap energy of 3.5 eV. Then, the PL measurements have showed an increasing in the emission intensity at 670 nm with the increasing of the doping level by Bi from

1% to 6%. This result can be associated to the electron transitions from the bottom of the conduction band to the levels corresponding to the antisite oxygen O_{Zn} defect. The reported results on ZnO nanorods is a promising route for future investigations on the photovoltaic sector.

Keywords: ZnO, Bi, nanorods, band gap energy, transmittance, XRD, SEM, UV-visible, PL.

OPTIMIZATION AND PREDICTION OF HYDROGEN PRODUCTION USING RESPONSE SURFACE METHODOLOGY

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Abstract

Introduction and Purpose: Finding alternative energy sources has become a priority due to the rapid depletion of fossil fuel reserves and the harmful impact of their combustion on the environment. One suitable answer to this problem is the use of green fuels like hydrogen. In this study, a laboratory-scale, two-electrode system has been set up for hydrogen gas production using an alkaline electrolysis cell. Graphite has been used as the anode, while mild steel electrodes have been used as the cathode. The efficiency of the experimental electrolysis cell has been optimized with Response Surface Methodology (RSM) analysis. This study's goal is to first identify the purpose and parameters of process design, then work with a suitable process model to create a performance index. Then, sensitivity analysis is used to identify the effective design variables, and response surface methodology (RSM) and experimental design (DoE) are used to optimize the system. This strategy saves unnecessary experimental trials, allowing us to efficiently arrive at the ideal design.

Materials and Methods: The volumes of hydrogen obtained using a mild steel electrode have been measured. With an increase in potential, the amounts of hydrogen gas produced have varied between 2.5 and 3.0 V. The independent parameters effect on hydrogen generation were statistically analyzed using the Design-Expert program (trial version). These two independent parameters chosen were the electrode voltage and the molarity time. This method's ability to analyze several variables with a limited number of experimental performances is one of its key features.

Results: Optimal desirability is determined to be 1.0 with 4.15 ml of hydrogen produced at ideal conditions of 2.65 V and 1.1 M for electrode voltage and molarity, respectively. The determined values of the adjusted R^2, anticipated R^2, and R^2 coefficient were 99.79%, 98.96%, and 99.88%, respectively. Correlation between optimized and experimental findings indicated that 1.5% was an acceptable error limit for hydrogen production

Discussion and Conclusion: The experimentally obtained hydrogen volume result and the predicted hydrogen volume result indicated good agreement in the validation test result. The results of this study enable us to conclude that RSM optimization of operating parameters is crucial to maximizing hydrogen production performance and saving time.

Key Words: Hydrogen production; Response surface methodology; Prediction; Optimization

BIOCONVERSION OF WASTE ORGANIC MATTER INTO PROTEIN CONCENTRATES: AN ASSESSMENT OF THE FEED CONVERSION PROCESS VIA A PROXIMATE NITROGEN BALANCE

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Abstract

Food remains one of the basic human needs. One of the major factors limiting animal production for food is the high cost and low availability of animal feed. The use of insects as feed has garnered significant research attention, not just because of the low cost of insect production, but also because of the potential to reclaim food nutrients from waste organic matter, promoting a circular economy. Studies with black soldier fly larvae have shown that the feed conversion ratio (FCR) of the larvae could range from 1 to 15 (in a span of < 15 days), depending on the substrate on which they are raised. This wide variation in FCR, irrespective of the nutritional composition of the substrates, suggests that certain nutrients/growth factors could be acquired or lost during the bioconversion of substrates, warranting a material balance. As a result, this conference paper assesses the feed conversion process of black soldier fly larvae via a proximate elemental (nitrogen) balance. We examined the nutritional compositions of the substrate and larvae before and after the bioconversion of various agricultural wastes. We then accounted for the elemental nitrogen content to ascertain any generation or disappearance of nitrogen in all the substrate samples, respectively. We believe this study could lead the way into a better understanding of substrate-larvae conversion for both proteins (for animal feed) and oils (for fuels and other applications).

Keywords: black soldier fly; insect larva; waste valorization; nutrients; proximate analysis; material balance

ANTIBACTERIAL ACTIVITY OF BITTER KOLA (Garcinia kola) EXTRACT ON ORAL BACTERIA

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Abstract

This study was carried out to determine the antibacterial activity of Garcinia kola on oral bacteria. Bitter kola samples were collected from North Bank Market, Makurdi. Standard biochemical tests were carried out to identify the Bacterial isolates from the samples. Antibacterial activity of bitter kola extract of Garcinia kola was tested on the organism using agar well diffusion method at different concentration of 500,250,125,62.5 and 31.25mg/ml. Organisms identified were Streptococcus spp, Salmonella spp, and Staphylococcus spp. The phytochemical screening indicated the presence of flavonoids, tannins, steroid, alkaloid, saponin and glycoside in the ethanol extracts while Tannin and glycoside were found to be absent in aqueous Garcinia kola extract. Statistical analysis of results using ANOVA shows that there was significant difference ($P< 0.05$) in the zones of inhibition at different concentration between the ethanol and Aqueous extract of the root. The zones of inhibition for the ethanol extract of Garcinia kola ranges from 9.33mm - 29.00mm while that of the aqueous extract ranges from 2.00mm– 22.00 mm. This study demonstrated that the ethanol extracts were more effective than the aqueous extracts. The ethanol extracts demonstrated a higher antibacterial activity than the aqueous extracts. The Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) for the test organisms in both extracts (ethanol and aqueous) of Garcinia kola extract were31.25 mg/ml and 500mg/ml respectively. The demonstration of antibacterial activity of Garcinia kola extract against the test organisms is as a result of its phytochemical constituents.

CHANGES IN POULTRY PRODUCTION IN TURKIYE AFTER 2010 AND 2024 – 2026 PRODUCTION FORECASTS

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Abstract

Introduction and Purpose: The poultry sector in Turkiye is one of the sectors that is constantly growing, supports agriculture and contributes greatly to the economy with its intensive employment structure. While the most intensive production in poultry production in Turkiye is in chicken production, according to 2021 FAOstat database, Turkiye ranked 10th in the world in chicken meat production with a production of 2 417 995 tons, and ranked 13th in chicken egg production with a production of 19 808 539 eggs. Increasing raw material and feed prices due to negative factors affecting the country after 2018 have caused negativities in the poultry industry.This study aims to reveal the situation of the poultry industry after 2010 and to make 3-year forecasts for the future in order to better analyze the changes in poultry production in Turkiye.

Materials and Methods: In the study, poultry production and foreign trade data obtained from FAOstat and Turkstat databases were used and cover the years 2010 - 2023. While making future forecasts, the number of chickens slaughtered, the amount of chicken meat produced and the amount of chicken eggs produced were taken into account. During the analysis, it was determined that the most suitable models for the chicken products were cubic regression models.

Results: As a result of the trend analysis, there will be an increase in these parameters between 2024 and 2026 and by 2026; It is predicted that the number of slaughtered chickens will be 1 461 106 000 heads, the amount of chicken meat production will be 2 616 707 tons and the chicken egg production will be 21 075 886 units.

Discussion and Conclusion: The demand for the poultry meat industry is increasing day by day due to reasons such as increasing red meat prices and input costs. As a result of the information obtained in the study, it would be more accurate to say that the increase in chicken products in the next 3 years will not close the gap between supply and demand when associated with the increase in the country's population.

Key Words: Poultry Production, Trend Analysis, Forecasting, Turkiye

OBESITY AND NUTRITION RELATIONSHIP

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Abstract

Obesity is the negative effect of excess fat tissue accumulated in the body on health. Having physiological and sociological negative health effects on the individual directly affects people's quality of life. Nowadays, there are factors that directly affect obesity such as sedentary life, unhealthy diet, eating habits, age and gender. In order to prevent obesity, it is expected to have positive effects on weight loss if high carbohydrate consumption, simple sugar consumption, unhealthy animal food consumption, high fat consumption are reduced and physical activity is increased. Excessive body weight in individuals with obesity causes many physiological and psychological diseases. The most common of these diseases are type 2 diabetes, hypertension, cardiovascular diseases, dyslipidemia, musculoskeletal disorders, depression and anxiety. Obesity, which is at the forefront of preventive health policy, can be recognized and treated even when it is not associated with any disease. Obesity is of great importance both individually and socially, with the health problems and chronic diseases it causes. A decrease in the workforce causes an increase in health expenditures. In order to solve the widespread obesity problem, we can support the prevention of this problem by raising awareness in the general public.

Keywords: Obesity, Chronic disease

NAVIGATING SCREEN TIME: THE EFFECTS OF YOUTUBE ON TODDLERS AND PRE-SCHOOLERS

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Abstract

YouTube is one of the most widely used social media platforms, attracting users of all ages and genders. It hosts a diverse range of videos, including entertainment, education, music, gaming, news, and more. Notably, children under the age of five are frequent users and can become easily addicted to YouTube. This excessive screen time often leads to behavioral imbalances among toddlers. A pilot study revealed that many parents give their children mobile phones and access to YouTube to keep them occupied and avoid potential messes.

For this study the researcher has formulated 3 objectives. 1) To analyze the role of YouTube as a pacifier for children below the age of 5. 2) To identify the behavioral changes among children due to the excessive use of digital media and 3)To assess the role of YouTube as an academic assistant for children.

For this study, the researcher employs a triangulation research design. The sample area is Trivandrum Corporation, with a sample size of 120 parents of children under the age of five. For the qualitative aspect of the research, the researcher conducts intensive interviews with Pre-KG teachers and child psychologists.

Key words: - You Tube, pacification role of social media, behavioural changes, academic assistances

References

Saleem, 2022, IMPACT OF YOUTUBE ON CHILDREN'S BEHAVIORS AND ACTIVITIES, Journal of Journalism, Media Science & Creative Arts Volume 2, Issue 1

Buzzi, 2012, What are your children watching on YouTube?, LNISA, volume 7547

Sengil Akar , 2023 , Examining YouTube videos with Counting and Numbers Content for Pre-school Children , Osmangazi Journal of Educational Research

A RETROSPECTIVE ANALYSIS OF MEDICATION ERRORS AMONG TYPE-II DIABETES DIAGNOSED PATIENTS WITH HYPERTENSION IN DHQ HOSPITAL KDA KOHAT

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Abstract

The World Health Organization (WHO) reports a substantial rise of almost 170% in the prevalence of diabetes among those living in impoverished countries. The management of several chronic illnesses in patients with Type-II diabetes and hypertension may be greatly affected by medication mistakes, leading to major impacts on patient outcomes. Gaining insight into the incident and characteristics of these mistakes is essential for enhancing patient safety and effectiveness of therapy. Patients with Type-II diabetes and hypertension typically have an increased number of drug-related issues because they are often prescribed many drugs and have multiple coexisting medical conditions. The purpose of this retrospective investigation is to identify prevalent medication mistakes in this specific group and provide measures to avoid them. A retrospective cross-sectional study was conducted at DHQ Hospital KDA Kohat to evaluate the frequency and intensity of interactions between medications in adult patients with type-II diabetes and hypertension. An assessment of Drug-Related Problems (DRPs) was carried out using the Pharmaceutical Network Care Europe (PCNE) program. A grand total of 300 patients were discovered, with a cumulative count of 281 DRPs. Among them, 93.6% exhibit the presence of at least one DRP. The DRPs that were recognized as the most encountered were drug choice problem at 60.5%, Adverse drug events were 17 (6%), Unnecessary drug treatment 65 (23%) and Unclear problems were 27 (9.6%). Micromedex, the drug information database labeled the most interactions are as Major (56.2%), followed by Moderate (41.8%) and Contraindicated (1.8%) in smaller amounts. The majority of these interactions (77.9%) had a beginning that is Not Specified, followed by Delayed interactions (16.6%) and Rapid interactions (5.3%). The bulk of interactions have a documentation quality rating of Fair (70.4%), with a lesser percentage of interactions receiving ratings of Good (23.5%) and Excellent (5.9%). The prevalence of medication-related problems among patients with Type-II diabetes and hypertension underscores the need for enhanced strategies in managing medications. Ensuring patient safety and treatment outcomes is of utmost importance, achieved through effective management of drug interactions, informed decision-making, and proper dosing. To ensure the accuracy of our findings and collect further data, future research should conduct a thorough investigation with a significant sample size, including various areas of Pakistan.

Keywords: Retrospective analysis, Medication errors, Diabetes, Hypertension, Drug-related problems, pharmaceutical network care Europe.

ADVANCED NITROGEN COOLING SYSTEMS FOR ENHANCED TRANSFORMER EFFICIENCY AND SAFETY

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Abstract

This paper explores using nitrogen as an alternative cooling medium in transformers. Traditional cooling methods, such as oil and air cooling, are analyzed alongside the potential benefits of nitrogen cooling, including improved thermal management and reduced fire risks. The study presents design considerations, implementation strategies, and case studies to demonstrate the effectiveness and feasibility of nitrogen cooling systems.

Keywords: Nitrogen Cooling, Transformers, Thermal Management, Transformer Efficiency, Safety, Power Systems

A NEW ECOLOGICALLY VALUABLE WILD MUSHROOM ISOLATED FROM THE TIRUMALA FOREST

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Abstract

Background of the study: It is commonly acknowledged that the accumulated secondary metabolites in medicinal mushrooms are sources of secure and efficient medicines, cosmeceuticals, and nutraceuticals. Edible and medicinal mushrooms are delicacies loved for their wonderful flavour and therapeutic qualities. Mushrooms' nutritional benefits and biologically active ingredients hold enormous promise for the development of novel medications that will greatly improve human health. The use of medicinal mushrooms has increased recently due to the discovery of novel, all-natural chemicals that have the potential to modify immune cell responses and have antibacterial, antioxidant, and anticancer activities.

Aim and Objectives: The aim of this proposal is to examine and comprehend the biological and medicinal qualities of the common wild mushroom species found in Tirumala, with the following specific objectives. To assess the chemical composition of the isolated wild mushroom and evaluate the antioxidant properties of the wild mushroom aqueous extract to understand its ability to scavenge free radicals and protect against oxidative stress. Further, evaluate the cytotoxicity and anticancer potential of the mushroom extract.

Methodology: Aqueous and methanol (70%) solvents were used to extract phytochemicals from *Lactarium resumes*, and subsequently, standard methods were employed to detect the presence of specific classes of compounds, such as alkaloids, flavonoids, tannins, saponins, cardiac glycosides, terpenoids, and phenols. To analyze the aqueous extract of an edible mushroom and identify its organic compounds based on their absorption spectra The UV-Vis spectrophotometer was used.

Results and discussion: We performed a simple cytotoxicity assay of mushroom extract using HeLa cell lines with an extract concentration of 20 all for three different time points (0, 6, and 12 hours). The assay employed a colorimetric cell viability assay, specifically the MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) assay. The results clearly indicate that the aqueous mushroom solution has the ability to inhibit the growth of HeLa cell lines by almost 98% within 12 hours. The mushroom demonstrated notable antimicrobial activity, inhibiting the growth

of various microorganisms. Additionally, the mushroom extract displayed potent ROS (Reactive Oxygen Species) inhibition, indicating its potential as an antioxidant agent.

Conclusion: These findings suggest that the wild mushroom from Tirumala Forest possesses significant therapeutic potential, making it a promising candidate for further research and exploration in the fields of antimicrobial and anticancer therapies.

Keywords: Reactive Oxygen Species, Cytotoxicity assay, HeLa cell lines, Antioxidant agent, Mushroom.

UNRAVELING LONELINESS: A PSYCHOLOGICAL ANALYSIS OF ANURADHA ROY'S *THE FOLDED EARTH*

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Abstract

Loneliness, characterized by a profound sense of isolation and lack of connection with others, is a growing concern in the 21st century. This feeling can persist regardless of whether one is alone or in the company of others, leading to a pervasive sense of emptiness. Over time, chronic loneliness can have severe mental and physical repercussions. In contemporary discourse, loneliness is increasingly recognized as a significant issue affecting many lives. Anuradha Roy's novel *The Folded Earth* delves deeply into the social and psychological dimensions of loneliness. Through its rich narrative and complex characters, the novel illustrates how loneliness can manifest and impact individuals in varied ways. This paper aims to explore the depiction of loneliness in the novel, analyzing its causes and consequences as portrayed in the story. Additionally, it will provide insights into how the novel's portrayal of loneliness can offer practical strategies for addressing and overcoming this challenge in real life. By examining both the fictional representation and real-world applications, this research seeks to help individuals better understand and manage their own experiences of loneliness.

Keywords: Loneliness, Social, Psychology.

ASSESSMENT OF REAR EARTH ELEMENT POLLUTION IN MINING SOIL FROM POCOS DE CADAS, BRAZIL USING INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS (INAA)

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Abstract

REE is an important element and have application in many areas such agriculture, general pure science, medical science and technology. The aim of this research was to evaluate the rate of pollution level of REEs in soil of the study area and this was achieved through the following objectives: determination of the concentration of REE, the Pollution index (P_{IX}) and the level of pollution of REEs. INAA was used to determine the REE present in the soil sample at IPEN, Brazil. The REEs determined in the soil sample were: Ce, Lu, Nd, Sm, Tb and Yb in mg/kg. The mean concentration was 933.2±30.15, 1.82±0.08, 37.54±1.94, 6.14±0.35, 1.16±0.18 and 11.91±1.8 in mg/kg respectively. The P_{IX} mean value are 14.89841, 7.866667, 1.44537, 1.488298, 2.189286 and 6.10375. The mean value of REEs compared with Upper Continental Crust (UCC), Kabata-Pendias (K-P), North American Shale Composite (NASC) and Chondrite (CHDT), shows that this study is higher than UCC, K-P, NASC and CHDT. The determined value of P_{IX} where higher than 1 (> 1) meaning that there is existence of high pollution in the study area. The summation of REE, LREE and HREE area: $\sum \mathrm{LREE}$ = 3938.48, $\sum \mathrm{HREE}$ = 64.4 and $\sum \mathrm{REE}$ = 4002.88. Hence, there is depletion in HREE than the LREE. From the finding of this work, the mining site is polluted the following REE Ce, Lu, Nd, Sm, Tb and Yb.

Keywords: Soil, Rear Earth Element, Instrumental Neutron Activation Analysis, Pollution, Brazil.

UTILIZATION OF INORGANIC PHOSPHATE BY PHOSPHATE SOLUBILIZING FUNGI IN THE SOIL

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Abstract

One of the main bio-elements limiting agricultural output is phosphorus (P). For plants to function properly, they need the macronutrient phosphorus. The bioavailability of soil phosphates to plants is significantly increased by phosphate solubilizing fungi. In this study, phosphate-solubilizing fungi from various rhizospheres were isolated and characterized comparatively using both solid and liquid pikovskaya (PVK) medium of different phosphate sources. The phosphate sources used in this study were the rock phosphate, calcium phosphate and CAHPO4. The moisture content, organic matter content and water holding capacity of the rhizosphere soil ranged from 3.89 to 34.49%, 1.19 to 13.83% and 0.23 to 0.36% respectively. The isolates were obtained from 7 soil samples of sorghum, maize, water melon, melon, cowpea, cassava, groundnut. Among the isolates, the best three isolates were identified as Aspergillus niger, Aspergillus terreus and Cunninghamella spp. The highest phosphate solubilization value when CAHPO4 was used as phosphate source was obtained from Aspergillus niger strain II at 1077.50ɥg/ml. The highest phosphate solubilization when Ca3(PO4)2 was used as phosphate source was obtained from Aspergillus niger strain I at 904.50ɥg/ml and then F cowpea in rock phosphate with a value of 11.00ɥg/ml. The Fourier transform infrared spectrophotometry analysis revealed the liberation of carboxylic acids by the organisms. This study indicates the presence of diverse plant associated P-solubilizing fungi that may serve as potential biofertilizers in Agricultural system.

Keywords: Bio-elements, phosphorus, solubilizing Fungi, pivoskaya medium, fourier transform infrared spectrophotometry, carboxylic acids

LIPID METABOLISM REGULATION BY BASIL POLYPHENOLS VIA INCREASING FECAL AND BILLIARY CHOLESTEROL ELIMINATION IN MICE

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Abstract

Introduction and Purpose:

Hyperlipidemia is the primary known cause of cardiovascular, metabolic, and tissue toxicity complications, such as hepatic steatosis, atherosclerosis, and obesity. Therefore, numerous studies have shown that polyphenols can modulate lipid metabolism and mitigate dyslipidemia through various mechanisms. These include inhibiting lipid absorption, enhancing lipid catabolism, and modulating lipid-regulating enzymes and transcription factors. The present study aims to evaluate the effect of phenolic compounds extracted from *Ocimum Basilicum* on lipid parameters in hyperlipidemic mice.

Materials and Methods: The antihyperlipidemic activity was evaluated using a high-fat-sucrose and rich egg yolk diet (HFSED) induced hyperlipidemic mouse model. The mice were treated simultaneously with basil extract at concentrations of 100 mg/kg and 200 mg/kg, or with fenofibrate. After 45 days of treatment, the livers and abdominal adipose tissues were weighed and lipid measurements for each group were performed.

Results: the basil extract at 100 and 200mg/kg significantly reduced plasma total cholesterol (TC), LDL-cholesterol (LDL-C), triglycerides, atherogenic index and LDL-C/HDL-C ratio and increased HDL-C. Besides, the phenolic extract significantly repressed the gain in body, liver and adipose tissue weights while the food intake was not significantly hindered. Moreover, basil extract decreases TC and triglycerides in the liver and adipose tissue and increases their fecal excretion. The basil extract exhibited a protective effect against plasma lipoprotein oxidation (IC50=4.64±0.42 µg/ml) and neutralized DPPH free radical (IC50=2.83±0.05 µg/ml) in a manner relatively similar to that exerted by butylated hydroxyanisole (synthetic antioxidant). Total phenolics in the extract represent 234.45±0.84 mg/g and HPLC analysis reveals that the extract includes four main phenolics, with caftaric acid being particularly abundant.

Conclusion: This data suggests that sweet basil is an interesting plant food rich in phenolic compounds that might significantly reduce hyperlipidemia and prevent atherosclerosis and related cardiovascular complications.

Key Words: Ocimum basilicum; Caftaric acid;Hyperlipidemia;Lipoprotein oxidation

MICROBIOLOGICAL CHARACTERIZATION AND ANTIMICROBIAL POTENTIAL OF OLIVE MILL WASTEWATER

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Abstract

Olive mill wastewater, a liquid by-product of olive oil production, is an environmental challenge due to its high content of phenolic compounds and other organic substances. However, these compounds also have interesting antimicrobial properties. The aim of this study was to characterise the microbial flora present in olive mill effluents and to evaluate their antimicrobial potential against various pathogens. We carried out a detailed microbiological analysis of olive mill wastewater, determining the average concentrations of total germs, total coliforms, faecal contamination indicators (faecal coliforms and faecal streptococci), staphylococci, yeasts and fungi, in order to identify the main microbial populations. In parallel, in vitro tests were carried out to assess the antimicrobial activity of the effluent against a range of gram-positive and gram-negative bacteria and fungi. The microbiological study showed that only yeasts and fungi can thrive in olive mill wastewater, while the bacterial load is low or even absent due to the antibacterial substances present, particularly polyphenols. The tests confirmed a remarkable antimicrobial activity, mainly due to the high content of phenolic compounds. These results suggest that olive mill effluents, often considered as waste, can be exploited for their antimicrobial properties, offering promising prospects for the development of new natural antimicrobial agents. In addition, the sustainable management of this by-product could help to reduce the environmental impact of the olive oil industry.

Keywords: Pollution, olive oil industry, olive mill wastewater, antimicrobial characterization, antimicrobial potential.

EXAMINATION OF PHYSICAL ACTIVITY LEVELS OF ADMINISTRATIVE STAFF IN TERMS OF SOME VARIABLES

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Abstract

The study aims to determine the physical activity levels of administrative staff at Kilis 7 December University with the cognitive behavioural physical activity scale. A total of 213 administrative personnel, 163 male and 50 female, participated in the study voluntarily. Demographic information and cognitive behavioural physical activity scale were used to determine the physical activity levels of the participants in our study. The prepared questionnaires were delivered to the participants through face-to-face interviews and questionnaires prepared in electronic environment and the participants were provided to answer. SPSS 22.0 programme was used to perform the statistical procedures of the answers given by the participants. The significance level in our research was accepted as $p<0.05$. The Kolmogorov-Smirnov test was applied to determine whether the data were taken normally or not, the Independent Sample T test was applied to examine the paired groups and the Independent Sample T test was applied to examine the differences between the groups. One Way Anova test was applied. As a result of our research, it is revealed that participants aged 33 years and over are more than other age groups and male participants are more than female participants. It is thought that the high number of married participants is due to the intensity of the personnel who are older and have reached the age of marriage. It was observed that the proportion of bachelor's degree graduates was higher than the other education levels, and this may be a result of the universities' policy of recruiting personnel without contract and KPSS. It has been suggested that the tendency of the participants to do sports for 1-2 hours a week may be due to the intensity of their working hours and shifts. The study provided important insights into the general health and physical activity levels of administrative staff. However, the limitations of the study and the importance of future research with a larger participant population were emphasised.

Key Words: Physical Activity, Administrative Personal, Health, Exercise

RADIATION SHIELDING PROPERTIES OF SOME NICKEL-BASED ALLOYS

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Abstract

Ni-based alloys are frequently used in industrial areas such as aerospace, robotics, biomedical and automotive. These alloys can resist oxidation and corrosion even at high temperatures, and these unique properties expand their use in industrial areas. Apart from these areas, their usability in the field of gamma radiation shielding has also been investigated in this study. For this purpose, the gamma radiation shielding capacities of Ni-based alloys such as Ni50Mn28Ga22, Ni77Fe14Cu5-Mo4, Ni57Cr22Co12Mo9 and Ni61Cr22Mo9Fe5 were determined. In order to investigate the gamma radiation shielding capacities of some Ni-based alloys, mass attenuation coefficients (μ/ρ), linear attenuation coefficients (μ), half value layers (HVL) and effective atomic numbers (Z_{eff}) were obtained. While the mass attenuation coefficient from these parameters was determined with the help of the WinXCOM program, other parameters were derived with the help of the mass attenuation coefficient. These parameters were calculated in the range of 0.015 to 10 MeV gamma energy. The twenty-four different gamma energies were selected in the energy range of 0.015-10 MeV. It was determined that the best gamma radiation shielding material among the investigated Ni-based alloys was Ni77Fe14Cu5Mo4 alloy. Furthermore, the investigated Ni-based alloys were compared with lead (Pb) and ordinary concrete, which are frequently used in gamma radiation shielding.

Keywords: Ni-based alloys; Radiation shielding; WinXCOM.

THEORETICAL CALCULATION OF GAMMA-RAY SHIELDING CHARACTERISTICS OF SOME HIGH PURITY SALTS

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Abstract

High purity salts are preferred in areas such as nanoparticle synthesis, catalysts in chemical production and electrolyte mixtures for batteries. In the presented study, gamma-ray shielding characteristics of high purity salts like tungsten (vi) chloride (WCl_6), copper (ii) chloride ($CuCl_2$), indium (iii) chloride ($InCl_3$) and barium chloride ($BaCl_2$) were determined. WCl_6 is a salt used in solar cells, fluorescent devices and catalysis. $CuCl_2$ is a preferred chemical in biomaterials due to its antibacterial properties. $InCl_3$ is used as a photo-anode in dye-sensitized solar cells and a catalyst in aqueous organic reactions. $BaCl_2$ is used in the purification of salt water solution in chlorine plants and in the hardening of steels. WinXCOM program was used to investigate the gamma-ray shielding characteristics of these high purity salts. WinXCOM is a program that presents some cross sections and attenuation parameters of elements, compounds and mixtures. The mass attenuation coefficients (μ/ρ), linear attenuation coefficients (μ), half (HVL) and tenth value layers (TVL) for these high purity salts in the gamma-ray energy range of 0.015-10 MeV were calculated. The μ, HVL and TVL parameters were determined using the leading parameter, the mass attenuation coefficient. The order of the linear attenuation coefficients of the investigated high purity salts was generally determined as WCl_6>$BaCl_2$>$CuCl_2$>$InCl_3$. In other words, it was observed that WCl_6 salt is a better gamma-ray radiation shielding material than the other salts.

Keywords: Salts; Radiation shielding; WinXCOM; Mass attenuation coefficient; Half value layer.

THE LEVEL OF INFLUENCE OF THE EXISTING URBAN PATTERN ON THE MICROCLIMATE AROUND THE GREEN AREA

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Abstract

Historically, green spaces have a potentially important role in mitigating the negative effects of urban microclimate. They play an important role in regulating the urban climate and have positive effects on urban temperatures even if they have different characteristics. Accordingly, the aim of this study is to test an urban green space in Erzurum, which has a cold climate and has different urban texture characteristics around it, through climate simulations and to determine its effect on microclimate. During the study, the current situation analysis and temperature measurements of the residential area around the selected urban green area were made. ENVI-met program was used to produce the maps. As a result of the simulation, it was determined that the urban green area was 2.01 ºC cooler in summer and 1.2 ºC warmer in winter compared to its built-up surroundings. As the distance from the urban green area increases, the temperature increases in summer and decreases in winter. In the built-up areas around the urban green area, it was observed that the region with low density / high-rise construction was hot in summer and cold in winter compared to other regions. In the region with high building density but low storeys, it was found that the temperature was cooler in summer and warmer in winter compared to other regions. The results showed that the temperature differences vary according to the urban texture, the microclimate effect of the urban green area is not only dependent on the green area and the characteristics of the immediate built environment are also effective.

Key Words: Microclimate, Green Area, Urban Pattern, Envi-Met, Erzurum

EXPLORING BACTERIAL RHIZOSPHERE COMMUNITIES USING AMPLICON-BASED ASSESSMENT

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Abstract

Introduction and Purpose: Plants and microorganisms are under the influence of many environmental stress factors. Heavy metal pollution, one of these, causes many serious problems such as soil quality, productivity, microbial diversity reduction and vegetation damage. Plant-microorganism interaction is one of the new approaches for the remediation of heavy metal-contaminated soils. Among the various methods used to reduce heavy metal pollution, biological remediation is considered to be a sustainable and cost-effective technology. Many bacteria have defense mechanisms against heavy metals and can improve the plant's response to heavy metal stress through various complex processes. Since beneficial microbial symbionts can provide plants with resistance to heavy metal stresses, this partnership can be used in the bioremediation of heavy metal-contaminated areas. The rhizosphere zone is a microhabitat where intense chemical interactions occur between plants and the bacterial community. Plants and microorganisms coexist and develop synergistic actions, which can improve plant functions and productivity, as well as their ability to respond to stress conditions, including heavy metal pollution.

Materials and Methods: In this study, bacterial microbiota associated with the rhizosphere of red pine plant growing in the organized industrial zone was identified using next generation sequencing techniques. Illumina MiSeq technology was used for metagenomic sequencing and QIIME 2 was used for statistical microbiome analysis.

Results: Metagenomic analysis revealed that the most common bacterial phylum were Actinobacteria (42.388%), Proteobacteria (24.37%), Chloroflexi (8.22%) and Acidobacteria (8.06%) for the industrial zone area. In the future, Determining the bacterial communities associated with the rhizosphere of plants growing in areas with intense heavy metal pollution will be useful for future studies.

Keywords: Bacterial microbiota, Rhizosphere, Bioremediation, Metagenomics, Heavy metal

A ROUTE TO DELIVERING BIOMIMICRY THROUGH ADDITIVE MANUFACTURING

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Abstract

Biomimicry is a powerful concept in the design of materials and products. Biomimicry, learning from Nature, is about function, whereas engineering design is centered on form or shape. Although, chemistry and physics have made great progress in the last 2 centuries, function has not advanced beyond single molecule properties such as surface tension or pharmaceutical agents. In this work we centre our attention on polymers. One approach to bottom-up design is self-assembling which does not progress far in producing complex structures, block copolymers provide an approach which extends the range. Humans generally approach chemistry on a large scale and then belatedly attempts to nanostructure the resultant material. The development of additive manufacturing, such as 3D printing towards the end of the 20th Century can be considered as delivering the first manufacturing technology which could support biomimicry. Additive Manufacturing or 3D printing fabricates an object layer by layer, inherently each layer can be different and exhibit different properties. More recent research has shown that different properties within the same layer and material are possible by adjusting the processing parameters[1-3]. This work explores these possibilities and provides examples of how this approach can be used and the effects amplified.

1. Daniel P. da Silva; João Pinheiro; Saba Abdulghani; Christina Kamma Lorger; Juan Carlos Martinez; Eduardo Solano; Artur Mateus; Paula Pascoal-Faria; Geoffrey R. Mitchell. "Changing the Paradigm-Controlling Polymer Morphology during 3D Printing Defines Properties". *Polymers* 14 9 (2022): 1638-1638. https://doi.org/10.3390/polym14091638

2. Joao Pinheiro, Saba Abdulghani, Paula Pascoal-Faria, Dora Sousa, Pedro Carreira, Tânia Viana, Christina S. Kamma-Lorger, Geoffrey Mitchell; Tools to define and evaluate morphology mapping, a route to complex structures using direct digital manufacturing. AIP Conf. Proc. 24 July 2019; 2116 (1): 230003. https://doi.org/10.1063/1.5114229

3. Silva, D.; Pinheiro, J.; Abdulghani, S.; Kamma-Lorger, C.S.; Solano, E.; Martinez, J.C.; Pascoal-Faria, P.; Mateus, A.; Mitchell, G.R. Controlling Morphological Development during Additive Manufacturing: A Route to the Mapping of Properties. *Mater. Proc.* **2022**, *8*, 116. https://doi.org/10.3390/materproc2022008116

MATHEMATICS TEACHERS' KNOWLEDGE ABOUT GEOGEBRA SOFTWARE AND THEIR USE IN THEIR LESSONS

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Abstract

Introduction and Purpose: The aim of this study is to examine the knowledge of primary school mathematics teachers about the dynamic mathematics software GeoGebra and their use of this software in their classes.

Materials and Methods: The research was organized according to the case study method. The participants of the study consist of 16 mathematics teachers with different professional experiences. The participants include 11 mathematics teachers working in 10 different provinces of Turkey and 5 mathematics teachers who are not actively working. The data collection tool used in the research was an interview form prepared by the researcher on Google Forms. This form includes short-answer questions, open-ended questions, rating questions, and multiple-choice questions aimed at examining the knowledge of the mathematics teachers about GeoGebra software and their use of it in their lessons.

Results: According to the findings obtained from the research, although the majority of mathematics teachers received training on the use of GeoGebra software during their undergraduate education, half of them use GeoGebra software in their lessons, while the other half do not. The teachers think that the information on the use of GeoGebra in textbooks is insufficient and that they need GeoGebra activities prepared for use in lessons and lesson plans supporting the use of GeoGebra software to use it more actively in their lessons.

Discussion and Conclusion: It is thought that examining the reasons for the negative changes in the technology usage habits of mathematics teachers throughout their careers will be a guide to preventing these negative changes. In addition, it is considered important to increase the number of ready-made GeoGebra activities and lesson plans supporting the use of GeoGebra software, which teachers need, in order to increase the frequency and quality of technology use in mathematics lessons.

Keywords: GeoGebra, mathematics education, technology

ARCHITECTURE AND SEDIMENTARY EVOLUTION OF THE CARBONATE PLATFORM (TIGHZA AREA, MARRAKECH HIGH ATLAS) DURING THE EARLY JURASSIC

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Abstract

The goal of sedimentological research in the southeast part of the Marrakech high Atlas belt (Morocco) is to record the stratigraphic development of a massive carbonate platform developed on the western margin of the Tethian Basin during the early Jurassic period. Based on their different facies patterns and platform configurations, two primary sequences are identified: (1) a Sinemurian Sequence, and (2) a Pliensbachian Sequence. The carbonates were produced in a restricted inner platform environment and are arranged into small-scale shallowing upward cycles. Major sea-level changes are notably responsible for the recurrence hiatal surfaces of and condensed intervals recorded in the early Jurassic deposits of Tighza area .

During the Sinumerian age, mudstones, bioclastic/peloidal limestones, massive dolomitic limestones and thinly bedded limestones with teepees, carbonate breccias and gypsum terms reflecting peritidal platform areas and supratidal sabkhas, were produced. At the top, permanently agitated shallow water zones that developed to the Tighza sections generated oo-bioclastic grainstones. The Carixian Sequence consists of metre-thick alternations of pellet packstones to grainstones, microbial oncoid packstones, ooid grainstones, and mudstones, which have likely accumulated in the north-east part of the study area. The top of the Carixian Sequence is a regional discontinuity that could have formed by subaerial exposure of the platform. This likely hiatus may document a significant change in the climate associated to the Carixian-Domerian transition.

Towards the top of the lower Jurassic Sequence, the quantity of gypsum and clay progressively rise, culminating in a thick accumulation of silty-gypsum complex that recorded the progression of a large-scale sabkha over the carbonate platform. This phenomenon is related to a progressive aridification and restriction of the Tighza Basin that could have begun during the Domerian. The occurrence of similar events in this Jurassic platform, situated along Tethyan edges, suggests that sedimentation is subject to both global and regional influences.

Keywords: Marrakech High Atlas, Tighza area, Early Jurassic deposits, Carbonate platform.

MAPPING THE TRANSFORMATION OF INFORMAL HOUSING: A SPATIO-TEMPORAL APPROACH

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Abstract

The upgrading and formalization of informal settlements remain an important strategy in the context of urbanization, especially in the expanding cities. This study, titled "Mapping the Transformation of Informal Housing: One of the papers titled ‘The Applied Dynamic and Transitional Expansion of Informal Neighborhoods: A Spatio-Temporal Approach,’ looks at the temporal changes of informal settlements by offering a detailed spatio-temporal analysis. In this study, changes in land use, transport and socio-economic conditions within informal housing environments over time are established by employing Geographic Information Systems (GIS) and longitudinal data. The study results show that informal housing is not a simple state but a constant process that constantly develops and adapts to external socio-economic conditions and city politics. Combining qualitative data derived from the interviews with the quantitative spatial analysis, the discussed study reveals how residents’ agency and structural profiling intersect in the context of housing alterations. Hence, this paper’s dual methodology highlights the need for effective urban planning approaches that take into account informal settlements’ needs and roles. From the literature, the study establishes that proper understanding of the interventions by comparing the time and space will assist in the magnitude of intervention that will have a positive impact in increasing the sustainability and resilience in geographical space. This research enriches the academic literature on urban informality and offers a policy guideline to policymakers who seek to make cities better places to live for everyone as the world becomes more urbanized.

Keywords: Informal Housing; Spatio-Temporal Analysis; Urban Transformation; Socio-Economic Dynamics; Community Adaptation.

INNOVATIVE DEVELOPMENT ENVIRONMENT IN THE AGRICULTURAL FIELD AND ITS CURRENT SITUATION

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Abstract

The development of the agricultural sector serves to solve vital problems at the national and global level. The characteristics of innovative development, including the pace of innovative development, depend on many and various factors. They are the main factors that shape the macroeconomic and microeconomic environment of development. The discussed factors affect the environment for solving a wide range of problems, from the sensitivity of agricultural production processes to innovations and the efficiency of promotion measures, to the adjustment of depreciation policy to innovative development requirements and to raising the level of investment protection. For these and other reasons, in order to increase the pace of innovative development in the agricultural sector, it is necessary to first of all evaluate the innovation potential and determine the ways of its realization. In our opinion, the speed aspect of the realization of innovation potential in the agricultural field should be considered in a single perspective with its quality aspect. Such a situation dictates the need for a complex approach to the issues of discovering and realizing the possibilities of accelerating innovative development in the agricultural field.

During the identification and assessment of directions for the acceleration of innovative development in the agrarian field, the positive factors that limit the mentioned speed from above, and first of all the requirements of sustainable development, should be taken into account. For this purpose, the possibilities of adaptation of innovation processes in the field to the requirements of sustainable development should be discovered, and the means and directions should be determined.

However, it should be noted that the innovative development environment has not been sufficiently characterized to reveal the possibilities of accelerating innovative development in the agricultural field, and the factors determining the pace of innovation processes in the field have not been unambiguously defined. At the same time, the current state of the information base that characterizes the innovation potential of the agricultural sector has not been evaluated. That base will allow to characterize the innovation potential of the agricultural sector in the country based on a unified approach to aspects of quality and speed of realization.

The above-mentioned and a number of other factors determine the relevance of the article dedicated to determining the directions and means of accelerating innovative development in the agricultural field.

Keywords: innovative development, innovation activity, economic mechanism, stimulation, agrarian sector

INVESTIGATION OF HIGH SCHOOL STUDENTS' FUTURE ANXIETY AND HOPELESS IN TERMS OF VARIOUS VARIABLES

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Abstract

Introduction and Purpose: When people experience fearful and anxious emotional states regarding conditions or situations that may occur in the future, this indicates that they are anxious. Especially in their youth, individuals who frequently dream and have high hopes feel anxious about what kind of person they want to be in the future and what conditions they will have. Anxiety about the future can be experienced by everyone very often and everywhere, and this feeling is also common among students and sometimes causes despair. This study examines the future anxiety and hopelessness levels of high school students studying in private or public schools according to some variables (gender, number of siblings, family economic status, parental attitude, parental education level, grade level, general grade point average) is intended to be examined.

Materials and Methods: Survey technique was used in the data collection phase of the study. A personal information form developed by the researcher was used in the survey. In addition, the "Trait Anxiety Scale" created by Spielberger et al. (1983) and the "Beck Hopelessness Scale" created by Beck et al. (1974) were used to measure the students' future anxiety and hopelessness levels. “Trait Anxiety Scale” constitutes the 20-question section of the “State-Trait Anxiety Scale” that measures trait anxiety. In the research, Descriptive Research Method, one of the quantitative research methods, was preferred. The population of the study consists of students studying at high school level in Adana in the 2023-2024 academic year, and the sample consists of 300 students. The surveys were administered face to face to people reached through convenience sampling method. Percentage and frequency values were used when analyzing the data. The normality of the data obtained was examined with the Kolmogorov-Smirnov Normality Test and it was determined that the data did not have a normal distribution. In this regard, Kruskal Wallis H Test and Mann Whitney U Tests were used.

Results: As a result of the research; It has been determined that most of the students often experience future anxiety and are hopeless. There are statistically significant differences between the students' trait anxiety levels according to the number of siblings, mother's education level, GPA, mother and father attitude variables; It was determined that there were statistically significant differences between the hopelessness levels of the students according to the variables of gender, mother's attitude, general grade point average, and mother and father's education level. In addition, it was concluded that there were no statistically significant differences between the students' trait anxiety levels and hopelessness levels according to the family's economic status and grade level variables.

Key Words: Future Anxiety, Hopelessness, Student, Non-Parametric Tests.

LETTERS SENT BY OUR CITIZENS TO THE PRESIDENT AND PRIME MINISTERS OF THE PERIOD ABOUT THE CYPRUS ISSUE (1956-1965)

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Abstract

Introduction and Purpose: The Cyprus Issue is a broad topic covering the historical and political issues of the island of Cyprus. Cyprus was conquered by the Ottoman Empire in 1571 and remained under Ottoman rule for nearly 300 years. During this period, Turks and Greeks lived together on the island. In 1878, the administration of the island passed from the Ottomans to England. The Cyprus Issue is generally associated with the division of Cyprus in the 20th century and the conflicts between the two communities. The Cyprus Issue greatly affected Turkey's domestic and foreign policy in the years following 1950. Turkey was actively involved in this issue since the London Conference (1955) and became one of the guarantor states in 1959. Although a republic was declared in Cyprus in 1960, with the Greek and Turkish communities as partners, this situation did not last long. The oppression (Bloody Christmas) that the Greeks started against the Turks in December 1963 left the Turks in a very difficult situation. This situation caused a serious reaction from our citizens in Turkey.

In international relations, the public's reaction in situations such as war and peace is very important. The oppression suffered by the Turks in Cyprus caused our citizens to raise their voices and seek some solutions. These letters, which we examine in our study, are important in terms of showing the reaction of the Turkish society.

In this study, letters sent by some sensitive citizens to the presidents and prime ministers of the period (1956-1965) regarding the Cyprus Issue were examined.

Materials and Methods: It consists of letters sent by some citizens to the president and prime minister of the period between 1956 and 1965, which is a research and examination type. These letters were obtained from the State Archives Presidency. Although many letters were obtained for our study, some of them were examined.

Results: In the letters they sent to the state administrators, citizens stated that Cyprus was a part of Turkey. Many of the citizens who sent letters stated that they wanted to go to Cyprus voluntarily. It was seen that some of the letters were typed, many were handwritten, and it was noticed that a few of them were written in Ottoman Turkish. It has been seen that the main idea of the letters is love for the country and the nation. The fact that some of the citizens who sent the letters stated that they were married and had children shows how much they prioritized the Cyprus Issue.

Discussion and Conclusion: The Cyprus Issue is one of the important issues affecting Turkey's foreign policy. This issue is frequently brought to the agenda by some states in order to pressure Turkey in foreign policy. A fair and human rights-compliant solution to the issue is possible with a state administration that includes both the Turkish and Greek sides. The Greek side's reluctance to resolve the issue is the biggest obstacle to resolving this issue. Finally, we can say the following. If the oppression and murders against our compatriots begin in Cyprus again today, it is obvious that many of our citizens will voluntarily go to Cyprus and fight without state intervention.

Keywords: Cyprus Issue, Greeks, Turks, Love of Homeland and Nation.

GENDER DIFFERENCES IN PAIN

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Abstract

Introduction: Pain is a persistent health issue throughout human history that negatively impacts individuals' quality of life and leads to significant economic losses. Gender-related differences in pain can be influenced by both physiological and psychological factors. Observations suggest that women are more sensitive to pain and seek healthcare services more frequently than men. Women commonly experience more headaches, musculoskeletal pain, and arthritic conditions, whereas men are less prone to such pain. Clinical research findings on how gender affects pain experience are often complex. The impact of gender differences on pain reports and disability may be influenced by factors such as comfort with seeking help. Additionally, inconsistencies and challenges in identifying gender differences in clinical studies may arise. Consequently, researchers are employing experimental pain procedures with asymptomatic individuals to better understand the relationship between gender and pain. Ongoing research in this field may lead to significant benefits, including the development of gender-specific pain treatments and a deeper understanding of prevalent pain conditions across genders.

Objective: This study aims to determine the differences in pain related to gender.

Methods: The keywords 'Pain', 'Pain Behavior', and 'Gender Differences' were searched in the databases Web of Science, PubMed, Google Scholar, and DergiPark. As a result of the search, 30 articles closely related to the topic were identified and examined in detail.

Results: A comprehensive understanding of the mechanisms by which gender affects pain perception and management directly influences our approach to and application of clinical practices. This topic presents a rich area of discussion for both clinical applications and scientific research. Increased awareness, exploration, and development in this area could provide new perspectives in the treatment of diseases.

Key words: Pain, Pain Behavior, Gender Differences.

ASSESSMENT OF MICROBIAL COMMUNITY IN ANAEROBIC DIGESTION OF POULTRY WASTES FOR BIOENERGY PRODUCTION

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Abstract

The anaerobic digestion (AD) of poultry waste offers a promising solution for both waste management and renewable energy production. Anaerobic digestion is a biological process in which microorganisms break down organic materials in the absence of oxygen. This study assessed the microbial community involved in the AD of organic wastes using poultry wastes as the organic substrate under batch conditions with a hydraulic retention time (HRT) of 56 days in 15-liter fabricated digesters at 37°C. Parameters such as pH, total solids (TS), moisture content (MC), total ammonia nitrogen, and volatile solids (VS) were measured before and after digestion, while microbial community diversity was analyzed using 16S rRNA amplicon-based next-generation sequencing (NGS). Results showed a decrease in pH from 7.91±0.04 before digestion to 7.33±0.06 after digestion, and a reduction in TS from 56.40±0.6% to 6.30±0.34%. The collective biogas yield was 5.21±21.00 bars, with methane content analyzed at 50.31±1.33% using a non-dispersive infrared (NDIR) gas analyzer. Dominant microbial phyla identified included Bacteroidetes (46.37%), Firmicutes (48.37%), and Proteobacteria (8.17%). This study reveals the importance of molecular analysis in providing insights into the microbial dynamics of anaerobic digestion, ultimately contributing to the optimization of biogas production and effective waste management.

Keywords: Anaerobic digestion, Poultry Wastes, Microbial, Community, Biogas

THE ROLE OF INFORMATION SYSTEMS IN THE CREATION AND USE OF ELECTRONIC PROCUREMENT PLATFORM IN THE REPUBLIC OF KOSOVO

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Abstract

The implementation of e-procurement in the Republic of Kosovo started in 2012, as if the goals, developments and implementation of e-procurement in the Republic of Kosovo were not fully realized. Electronic procurement is not an electronic system only for the publication of public procurement results but is a reflection of a defined legal process on the implementation of procurement procedures. Data of all claims are presented on the Internet, also through the Internet can be sent to all offers.

Research: Through the management system throughout the procurement process electronically it will be possible to maintain the technical and financial evaluation of bids. So, presenting this process in a transparent way increases the reliability and efficiency.

Manner: Also through the management system of this process, according to the rights defined by law, each party can see the grievance process and remotely via the Internet. Implementing e-procurement will enable the removal of barriers presented earlier, increasing the confidence of all parties involved. Access will be given to all interested parties allowing access to the law, while in case of restrictions electronic identification (e-ID) should be used.

Result: The categorization of approaches will be for each separately, including the contracting authority, contractors, bidders, complainants, representatives of budget units, auditors and other categories defined by applicable laws. Information security in e-procurement will be maximal. As with any other service, access to e-procurement will be provided through the state portal.

Keywords: E-procurement, digital software, public procurement, procedures, economic costs, information systems management, etc.

EVALUATION OF BIOMASS AND CARBON STOK IN AGROFORESTRY LAND USE TYPES IN NIGER STATE, NIGERIA

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Abstract

This study provides an evaluation of biomass and carbon stock in agroforestry land use types in Niger State, Nigeria. Biometric forest inventory techniques, direct biomass sampling and laboratory analysis methods were employed for data collection. Descriptive statistics was used to summarize the data while variation in carbon stock among the agroforestry land use types across study area were tested by use of analysis of variance (ANOVA). The student's t –test was used to test for differences in carbon stock and vegetation parameters between pairs of vegetation communities. Thereafter, biomass values were converted to carbon stock equivalent. Satellite imageries of NIGERIASAT-1 of 2003, 2013 and 2023 respectively were used to estimate vegetation cover and carbon stock change over 20 years. The results showed four major agroforestry land use types in the study area include Savanna Woodland, Scrubland, Grassland and cropland. Results obtained also revealed that, average carbon stock (Mg C/ha-1) of the agroforestry land use type was in the decreasing order; Savanna woodland (490.92±19.21), Scrubland (306.33±26.45), Grassland (146.09±14.23) and Cropland (140.56±24.31). The mean carbon stocks projections of agroforestry land use types in the study area showed that natural forest will continue to decrease to 0.24 km2 (14.37%) in 2050. Similarly, agroforestry land with areal coverage of 0.41 km2 (23.49%) in 2023 will decrease to 0.29 km2 (17.27%) of the land cover type in the area in 2050. A successful assessment and monitoring of carbon stock in savanna plant communities will largely depend on the establishment of baseline inventory data on species composition, diversity and distribution of plant communities in the study area. This study recommends the preservation of tree species such as Anogeissus leiocarpus, Parkia biglobosa, Pterocarpus erinaceous, Irvingia gabonensis and Vitellaria paradoxa for carbon offset purposes; because they are indigenous, ecologically important and show high carbon sequestration potential by virtue of their biomass stocks and the carbon stock predictor models derived provide an ideal opportunity for further work on the verification of woody biomass/carbon stock calculations, thus leading to estimations that are more meaningful in the study area.

Key words: Biomass, Carbon, Stock, Savanna woodland, Agroforestry and Vegetation.

MULTI-ANALYTICAL CHARACTERIZAITON OF LAPIZ LAZULI PIGMENTS OF AJANTA MURALS FOR IDENTIFICATION AND ITS GEOLOGICAL PROVENANCE

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Abstract

Lapiz Lazuli is a semi-precious stone falls under the category of blue coloured minerals that played a vital role in the cultural historic art work. Lapiz Lazuli has been treasured and used as prizes during the ancient civilization of Mesopotamia, Egypt, China, Greece, and Rome. The occurrence of Lapiz Lazuli exists in the very few places of the world due to extremely different geological conditions needed for its formation. Finding the provenance of Lapiz Lazuli is a slightly challenging task. Although several studies had been done on the basis of geo sourcing through the identification of different molecular compositions, as well as different between natural and synthetic origin, Lapiz Lazuli used at Ajanta caves has not been studied yet. Lapiz Lazuli pigments of Ajanta murals were characterized using multi analytical techniques i.e Raman Spectroscopy, FTIR spectroscopy and XRD studies. The strong Raman band observed at 547cm^{-1} which attributed to the S_3^- symmetric stretching mode and bending vibration of S_3^- ion was also observed at 258 cm^{-1}. FTIR study shows typical IR absorption band at about 2340 cm^{-1}. The study results confirm that the Lapiz Lazuli od Ajanta murals belong to natural ultramarine origin not the artificial one.

Key words: - Lapiz lazuli, Raman Spectroscopy, Ajanta Murals, Lazurite, XRD, FTIR Spectroscopy

TOTAL PHENOLIC CONTENT, ANTIOXIDANT PROPERTY, AND ALPHA GLUCOSIDASE INHIBITION OF METHANOLIC EXTRACT OF PECHAY (*Brassica rapa* L. ssp. *chinensis* L. cv. Black behi) LEAVES

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Abstract

Introduction and Purpose: Diabetes poses a significant threat to public health in the Philippines, with limited access to healthcare resources and government insurance coverage. This study aimed to evaluate the total phenolic content, antioxidant property, and alpha-glucosidase inhibitory activity of methanolic leaf extracts of Pechay (Brassica rapa L. ssp. chinensis L. cv. Black behi).

Materials and Methods: For this experimental study, the research design used was descriptive and quantitative. Samples were analyzed in triplicates. Results were expressed in mean and standard deviation with significant differences determined using one-way ANOVA. Pechay leaf samples were dried, macerated with methanol solvent, and proceeded to rotary evaporation prior to subsequent assays.

Results: At varying concentrations, findings for antioxidant property demonstrated a significantly ($p<0.05$) lower percent inhibition for the extract (32.50±0.73 %) compared to ascorbic acid (88.80±0.100 %). Also, there is lower alpha-glucosidase inhibition for the extract (19.10±0.65 %) than acarbose (71.20±0.076 %). The IC50 values of the extract against the radical (354.6±2.3 ppm) and enzyme (483.3±3.7 ppm) were found to be higher than the positive controls for both assays. Thus, lower IC50 values are indicative that ascorbic acid (46.8±2.3 ppm) and acarbose (137.2±3.3 ppm) is a more potent antioxidant and alpha-glucosidase inhibitor, respectively. **Discussion and Conclusion:** Taken together, the bioactivity of phenolic compounds in Pechay methanolic extract support its antidiabetic potential but not as alternative to conventional drugs used in diabetes management.

Key Words: alpha-glucosidase, diabetes, Phenols, Methanolic extract, antioxidant

GUIDING LEXICAL CHALLENGES IN ESP EDUCATION

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Abstract

Proficiency in a foreign language is becoming one of the principal indicators of students' professional training. Lexical competence is the ability to accurately express oneself and comprehend others' speech, relying on a complex and dynamic interplay of relevant skills and knowledge. In obtaining lexical knowledge, primary importance is placed on explanation.

Still, when introducing professionally oriented vocabulary, it is insufficient to merely present the terms and explain certain aspects of their form, meaning, and usage norms. One needs to ensure that new lexical content is correctly understood and activated in students' memory. Utilizing many contexts where specific lexical items are repeated frequently in texts is the most effective way of enhancing the quality of lexical material activation in students' memory. The assignments can be:

- Look back in the text and find words that have a similar meaning…;
- Look back in the text and find words that have an opposite meaning…;
- Use the information to help you match the terms with the appropriate explanation or definition;
- Using the line reference given, look back in the text and find the reference for the words in italics;
- Find the hidden words in the square. Some appear vertically, some horizontally, some diagonally. They may be upside-down or back to front. The number of letters in each word and the first letter of the word appear in brackets.
- Find words in the text which mean…
- Look at the text again and find examples of sentences that include the following words…[1,2].

Our experience of a foreign language teaching shows that various issues must be resolved for students to overcome lexical difficulties in acquiring a foreign language. Students find the latter phase particularly challenging. Speech exercises are used to represent various real-world problems. They are intended to help the students apply their newly obtained knowledge and expertise in practice.

It is advisable to proceed to scientific and creative projects targeted at building speech abilities at the motivational and incentive level of foreign language speech activity after reaching the final stage of vocabulary mastery on a particular topic.

Keywords: lexical challenges, foreign language, lexical competence, speech activity

References:

1. Boecker, K., Brown, C. (2001). *Oxford English for Computing*. Oxford: OUP.
2. Walker, R., Harding, K. (2010). *Oxford English for Careers. Tourism*. Oxford: OUP.

SMALL AND MEDIUM SCALE RETAIL STORES EXAMINING PERSPECTIVES TOWARDS THE E-COMMERCE MARKET

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Abstract

Introduction and Purpose: Both the production and distribution, as well as advertising and sales of goods and services through e-commerce, today have a significant impact on the country's economy, production, employment, etc. It makes important contributions in many areas. With the rapid spread of internet use, small and medium-sized retail stores have the opportunity to acquire new customers not only domestically but also beyond country borders with e-commerce. The prediction that e-commerce volume will increase in the near future is considered important for small and medium-sized retail stores to increase their market shares and take the necessary measures to compete. This study aims to examine the perspectives of small and medium-sized retail stores towards the e-commerce market.

Materials and Methods: In the research, a field study was conducted in small and medium-sized retail stores on the European side of Istanbul, using a face-to-face or online survey technique with people reached by convenience sampling method. The owners and employees of 250 retail stores reached within the scope of the research constitute the sample of the study. An information form reflecting the demographic characteristics of the participants and containing questions regarding the e-commerce transactions of the businesses was used in the survey. Additionally, the survey includes the "E-Commerce Market Perception Scale" created by the researcher to measure the perspectives of retail store owners and employees towards e-commerce. While creating scale items; Bulut et al. (2006), Nikonova (2010), Sucuoğlu (2008) and Şimşek's (2012) studies were used. Descriptive Research Method, one of the quantitative research methods, was preferred in the study, and percentage and frequency values and Kolmogorov-Smirnov, Kruskal Wallis H and Mann Whitney U Tests were used in the analysis of the data.

Results: As a result of the research; It has been determined that a significant portion of businesses engage in e-commerce through online shopping sites, that e-commerce increases the market share of businesses and will be used more in the future, and that businesses provide easier access to potential customers with e-commerce. It has also been concluded that e-commerce saves time for both businesses and consumers, and that the cost of e-commerce is lower than traditional commerce. It has been determined that there are statistically significant differences between the perception levels of the participants towards the e-commerce market according to the variables of age, education level and the duration of the business's e-commerce sales, and that there are no statistically significant differences according to the gender variable.

Key Words: Electronic Commerce, Small and Medium Sized Enterprises, Marketing, Non-Parametric Tests.

EFFECT OF Ni AND Si ADDITION ON MICROSTRUCTURE, MECHANICAL AND THERMOELECTRIC PROPERTIES OF Al-Cr-Mn EUTECTIC ALLOY

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Abstract

Introduction and Purpose: One of the ways to improve the mechanical properties of alloy systems is to create new alloys with elements such as magnesium, silicon, copper, zinc, manganese, chromium and nickel that can perform solid solution hardening. Therefore, in the project, by adding Ni and Si elements to the eutectic Al-Cr-Mn alloy, quaternary Al-Cr-Mn-XNi and Al-Cr-Mn-XSi alloys and quinary Al-Cr-Mn-Ni-Si alloys will be obtained. The microstructure changes, microhardness changes, tensile strengths and thermoelectric properties of the obtained new alloy systems compared to the eutectic alloy were investigated.

Materials and Methods: Al-0.3% Cr(wt)-2.0% Mn-0.5% Si(wt), Al-0.3% Cr(wt)-2.0% Mn-0.5% Ni(wt) and Al-0.3% Cr(wt)-2.0% Mn-0.5% Si-0.5% Ni(wt) alloys were produced by directional solidification in the casting furnace using high purity aluminum, chromium, manganese, silicon and nickel elements. The microstructure images of these alloys were obtained using an FEI-Quanta FEG 250 model Scanning Electron Microscope (SEM). In addition, Energy Dispersive Spectrometry (EDS) and X-Ray Diffraction (XRD) peaks were measured, and image mapping was carried out. The hardness of the samples was determined using a Future Tech FM700 model Vickers hardness tester. Tensile strength tests were performed on the samples using the Shimadzu Universal Tester in accordance with the ASTM E4 standard. In addition, the effect of the heat treatment process on the thermophysical properties of the alloy was investigated by the Differential Thermal Analysis (DTA) method.

Results: The hardness value of the material increased with the addition of Si and Ni to the eutectic Al-Cr-Mn alloy. On the other hand, there was no increase in the hardness value with the addition of Si+Ni. In terms of tensile strength, again compared to the eutectic alloy, there was a significant increase in the tensile strength of the materials with the addition of Si and Ni, but the tensile strength decreased with the addition of Si+Ni. In addition, the changes in the melting temperature, fusion enthalpy and heat capacity, which are important in characterizing the kinetics of the liquid-solid phase transition, were determined from the thermophysical properties of the alloys with Si, Ni and Si+Ni additions.

Key Words: Alloy; Microstructure; Mechanical properties; Heat capacity

USE OF BLOCKCHAIN TECHNOLOGY IN TURKISH NAVAL FORCES

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Abstract

Technological developments continue to affect every aspect of our lives day by day. Considering that this change will naturally not bypass the maritime and defense sectors, it is evaluated that blockchain technology, among many Technologies that have come to the fore in recent years, can offer new nad exciting opportunities in the Turkish Naval Forces. While preparing this article, it was taken into consideration whether the studies on blockchain technology in the literature could have an application area in the Turkish Naval Forces, then current studies on this subject in the literature were identified through keywords, and examined if they are thought to be more beneficial to the Turkish Naval Forces. Within the scope of the theoretical information obtained as a result of the literature review, studies that can be applied in the Turkish Naval Forces are grouped under four main headings. These topics include possible usage areas of the blockchain technology in; UAV/ Weaponized UAV control/video signals, logistics and supply chain processes, military communications, and the processes of preserving soldiers' information on the battlefield. The information obtained as a result of the literature review shows us that blockchain technology will first be tested for its applicability in the Turkish Naval Forces in the mentioned areas, and if its usability is determined, it should be implemented. At the that point, it is thought that it will provide an advantage to Turkish Naval Forces in personnel, information and material security areas.

Keywords: Blockchain, Turkish Naval Forces, Military Communication, UAV, Logistics.

FACTORS AFFECTING THE FREQUENCY OF COPD EXACERBATION

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Abstract

Objective: Chronic Obstructive Pulmonary Disease (COPD) is a preventable disease characterized by respiratory distress and exacerbations, in which the lung tissue is damaged, mostly as a result of exposure to harmful gases and particles, and airflow restriction with disruption of the normal structure of the airways and alveoli. In this literature review, it was aimed to review the studies examining the factors affecting the frequency of COPD exacerbations.

Materials and Methods: In this literature review, PubMed and Google Scholar databases were searched using the keywords “COPD”, “exacerbation” and “risk factors” in Turkish and English without any date limitation.

Conclusions: Exacerbations in COPD affect the general course of the disease, the general health status of the patients, their quality of life and their readmission to hospital. Prevention of exacerbations before they develop is among the basic treatment principles. Among the factors affecting the frequency of COPD exacerbations, cigarette smoke is the primary risk factor. Exposure to cigarette smoke decreases the 1st Second Forced Expiratory Volume (FEV1) value quite rapidly and the FEV1 value returns to the normal range with smoking cessation. Therefore, it has a very important place in the management of COPD. Other risk factors include advanced age, male gender, productive cough, frequency and severity of previous exacerbations, presence of comorbidities, especially diabetes and hypertension, chronic mucus hypersecretion, theophylline intake for treatment, low FEV1 value and occupational exposures. Interventions to prevent COPD exacerbations include smoking cessation, patient education, nutrition, nutrition, physical activity, respiratory exercises, control of vaccines, use of inhalers and oxygen, and pulmonary rehabilitation.

Results: Exacerbations affect the prognosis of the disease very badly. They significantly reduce the quality of life of patients. In this process, nurses play important roles in the protection of health, prevention of diseases, adaptation and management of diseases.

Keywords: COPD; Exacerbation; Rehospitalization; Risk factors

ANATOLIAN 'CYBELE MOTHER GODDESS CULT' AS A LINK BETWEEN EASTERN AND WESTERN ARTS AND CULTURES

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Abstract

Anatolia has been home to many civilizations throughout history and has formed a bridge between the religious, cultural and artistic heritage of these civilizations. Cybele, one of the oldest and most important goddesses of Anatolia and known as the Mother Goddess, was worshipped as the protector of fertility, fertility, nature and wild animals. The cult of Cybele, which first appeared in Phrygia in the 8th century BC, was adopted by other Anatolian civilizations and surrounding cultures over time.

The cult of Cybele, which started from Anatolia and spread to Greece, Rome and other Mediterranean civilizations in the historical process, spread to Greece, Rome and other Mediterranean civilizations starting from Anatolia. Cybele, known as 'Meter' or 'Magna Mater' in Greek mythology, was also accepted in the Roman Empire; During the Roman period, it became an official state religion and large temples were built in its name. The most important temple of Cybele in Rome is located on the Palatine Hill. This spread is also of great importance in terms of showing how the cult of Cybele formed a bridge between the East and the West.

In this context, the cult of the Anatolian Cybele Mother Goddess has left deep traces in the cultural and artistic life of both the Eastern and Western worlds and has been an important link element in the art and cultures of these two different worlds. In this study; It is aimed to examine the origins of the cult of Cybele, its spread and its effects on art and culture; It is aimed to draw attention to the unifying and developing elements of cultures on each other.

Keywords: Art, Culture, Cult of Cybele, Mother Goddess, Intercultural Interaction.

EVALUATION OF ANTIBACTERIAL PROPERTY OF LIQUID SOAP MADE FROM BLEND OF NEEM AND PINE OIL

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Abstract

This research used neem oil and pine oil in preparing liquid soap, which were subsequently characterized. The physical properties of the prepared soap, including foamability and pH, were analyzed. The foamability and pH of the produced soap is 8cm and 9 while that of the commercial soap is 9cm and 9 respectively. The antibacterial properties of the prepared soaps in terms of sensitivity, minimum inhibitory concentration, and minimum bacterial concentration were analyzed. Minimum inhibition concentration (MCC) and minimum Bacteriocidal concentration (MBC) of the produced soap with respect to Staphylococcus aureus and Escherichia coli were 25, 50 and 0 respectively. The antimicrobial properties of the prepared soap in terms of sensitivity and minimum inhibitory concentration (with respect to Staphylococcus aureus and Escherichia coli) are 14 and 10 for produced soap while 13 and 0 for commercial soap respectively which indicated that the properties observed from the produced liquid soap correlate with those obtained from the commercial soap sample and clearly agree with the standards of the World Health Organisation for antiseptic soap.

Keywords: neem, pine, soap, antibacterial, pH, foam height

Reference

Abdulhanan Bello, Abdulazeez A. Abdulazeez, Abdulmutalib O. Usman, Yunusa G. Sariki, Adamu Ibrahim Agiteh. (2019). Optimisation of Antiseptic Soap Production from a Blend of Neem Seed Oil and Eucalyptus Oil.

Andrew, A. M. (2001). Determination of a minimum inhibitory concentrations and minimum bacteriocidal concentration. *Journal of Antimicrobial Chemotherapy*, Vol. 48: no.1.

Ameh, A. O, Muhammad, J. A dan Audu, H. G. (2013). Synthesis and characterization of antiseptic soap from neem oil and shea butter oil. Afr. J. Biotechnol.Anggraini, D., Rahmides, W.S., dan Malik, M. (2012). Formulasi sabun cair dari ekstrak batang nanas (*Ananas comosus*. L) untuk mengatasi jamur *Candida albicans*. *Journal Penelitian Farmasi Indonesia*, 1: 30–33.

FINITE ELEMENT MODELING OF RC BEAMS STRENGTHENED FOR FLEXURAL STRENGTH WITH EXTERNALLY BONDED FRP REINFORCEMENT

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Abstract

Researchers have made significant strides in developing models to understand the behavior of reinforced concrete structures strengthened with fiber-reinforced polymers (FRP). These materials effectively enhance structural strength and durability. However, a comprehensive understanding of the various failure modes, particularly debonding at the FRP/concrete interface, remains challenging. Strengthened concrete structures with FRP often face issues as flexural failure, shear failure, and debonding. Debonding, where the FRP separates from the concrete, can critically reduce the reinforcement's effectiveness, leading to premature structural failure. Addressing this issue is crucial for ensuring the reliability and safety of these structures. To tackle these challenges, advanced two-dimensional and three-dimensional nonlinear finite element models have been developed. These models aim to accurately simulate the flexural responses and debonding phenomena in reinforced concrete beams strengthened with FRP.

This study proposes a numerical analysis of the flexural behavior of reinforced concrete beams externally strengthened with FRP plates, conducted with ANSYS APDL, based on previously published experimental data. The main objective is to compare the experimental results with those from the numerical simulations to validate one of the developed models. The cracking patterns observed in the beams are also presented. The load-deformation curves obtained from the numerical analysis demonstrate satisfactory agreement with the experimental results.

Keywords: RC beams, FRP, finite element, ANSYS, Debonding.

COMPARISON OF THE PIOUS AND THE ECONOMIC MAN IN THE KARZ-I HASEN INSTITUTION

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Abstract

Economic stability and welfare depend on the most efficient meeting of fund suppliers and fund demanders within the circular flow of income in the economy. Households spend part of their post-tax income from the business sector on their consumption and keep the rest as savings in the financial/banking sector. This leakage that occurs in the economic cycle needs to be reintroduced into the economy as spending. The financial sector channels these collected funds to those who demand funds through the instruments it develops, allowing leakages to return to the economy as spending. Thus, all the income earned in the economy is spent, and all the goods produced are sold. In the next period, the business sector does not need to reduce its production or lay off workers.

Correct economic institutions are needed to collect funds in the financial sector and direct them to those who demand them. Understanding the relationship between the values of economic actors and financial practices will contribute to preventing current and potential economic crises. In this study, the economic man, considered the fundamental actor of capitalist economies, and the pious man, the economic actor of Islamic economics, are examined. Their attitudes toward the financial sector are discussed, and the results obtained are compared. Mainstream economic theory was chosen for capitalist economies and the Just Economic Order for Islamic economics, and the compliance of both actors with these models was discussed in the context of Karz-i Hasen. According to the results obtained, the economic man is active in mainstream economic theory, while the pious man is active in the Just Economic Order.

Keywords: Karz-i Hasen, Capitalism, Debt, Fair Economic Order, Capitalist Economic Order

BIBLIOMETRIC ANALYSIS OF ACADEMIC PUBLICATIONS ON "FORENSIC ACCOUNTING"

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Abstract

Forensic accounting and forensic accountancy are of great importance for enhancing the security and transparency of financial systems, combating financial crimes, and providing critical evidence in legal proceedings. Forensic accounting involves the use of specialized accounting techniques in the detection and investigation of financial crimes, and research in this field contributes to the effective handling of financial fraud and deception. Forensic accounting plays a vital role in the detection and resolution of financial crimes, making it highly significant. The uncovering of financial fraud, deceptive transactions, and corruption is made possible through the special techniques and methods provided by forensic accounting. This process helps to enhance the transparency of financial systems, thereby bolstering public and investor confidence. Additionally, forensic accountants provide detailed financial analyses and reports in courts, supplying critical evidence in legal proceedings, thus contributing to the delivery of fair judgments. Moreover, forensic accounting aids businesses in strengthening their internal control systems and identifying potential financial risks. This support helps in preventing fraud and reducing financial losses. In summary, forensic accounting plays a fundamental role in maintaining public order and ensuring the integrity of financial systems.

Bibliometric analysis is a method used to understand the development, trends, and influential authors of a specific academic field. The aim of this study is to identify the fundamental trends, leading authors, and influential journals in the forensic accounting literature, as well as to discover research gaps and future research opportunities in this field. The analysis evaluates the years of publication, citation counts, most relevant authors, most relevant institutions, most relevant sources, and impact factors of the articles in the literature. These data help to identify the most influential studies and authors in the forensic accounting literature, providing information for future research directions. In this context, it guides researchers and practitioners in understanding the current state and future trends of the field.

According to the findings of the study, the number of academic studies has shown fluctuations recently, despite a generally increasing trend over the years. The country with the most citations and the origin of the topic, where most studies have been conducted, is the United States. However, it has also been identified that different countries and institutions have shown interest in the topic.

Keywords: Forensic Accounting, Forensic Accountancy, Bibliometric Analysis**.**

A BIBLIOMETRIC ANALYSIS OF STUDIES ON "SUSTAINABILITY AUDIT"

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Abstract

Sustainability audits have gained significant importance in modern times, encompassing a wide range of entities from businesses to public institutions. Sustainability is defined as the ability to meet the needs of future generations by balancing environmental, social, and economic dimensions. This concept includes the preservation of natural resources, energy efficiency, reduction of carbon footprints, and social equity. Sustainability encompasses not only environmental but also economic and social responsibilities, making it increasingly valued by businesses, governments, and non-governmental organizations.

A sustainability audit refers to a systematic examination aimed at evaluating an organization's sustainability performance. This audit includes various criteria such as environmental impact, energy consumption, waste management, labor rights, and social contributions. Sustainability audits are typically used to determine how well organizations are achieving their sustainability goals and to identify areas for improvement. Additionally, they play a crucial role in the data collection and verification process for sustainability reporting.

Bibliometric analysis involves the quantitative examination and evaluation of academic works on a specific topic. Bibliometric analyses reveal the volume, trends, and prominent researchers in a particular field. This analysis helps researchers identify which topics garner more interest, which journals receive more citations, and which researchers stand out in the field. Consequently, bibliometric analysis provides insights into future research directions and contributes to the accumulation of knowledge in the field.

The primary objective of this study is to address sustainability and sustainability audits while statistically analyzing academic publications on the topic of "sustainability audit." In line with this aim, the study seeks to identify the contributions of different research groups from various universities and countries to the theme by examining the number of publications in international databases. The results indicate that the concept of sustainability audits has shown an increasing trend since the first publication in 1998, with a focus mainly on articles. It has garnered interest from different countries, authors, and universities. The findings suggest that sustainability audits are an increasingly important, noteworthy, and research-friendly topic.

Keywords: Sustainability, Audit, Sustainability Audit, Bibliometric Analysis**.**

THE ROLE OF CHILD SUPPORT CENTERS IN SUPPORTING CHILDREN VICTIMS OF SEXUAL ABUSE WITHIN THE JUDICIAL SYSTEM

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Abstract

The phenomenon of child sexual abuse is known to be an extremely traumatic process for both the child and her family. Since sexual abuse cases usually occur in places where no one is around, the only eyewitnesses in these crime cases are children who are victims of abuse. This situation increases the importance of the statements given by children. It is extremely important for children who are victims of sexual abuse to tell the incident they experienced to forensic interviewers trained in this field in order to catch the perpetrators of the crime.

Cases related to children exposed to sexual abuse generally follow a cycle including police or gendarmerie, child monitoring center, forensic interview rooms and courtroom. Because it is known that the child or the family first conveys the abuse incident to the law enforcement forces, then the forensic examination and forensic interview process takes place in the child monitoring center upon the instruction of the public prosecutor, and after the case is opened, stages such as participating in the case in the forensic interview rooms and courtroom take place.

Especially in the social examination of children who are victims of sexual abuse, incest etc. If it is risky for them to stay with thier family for some reason, they must be taken from the family and placed in an institution. In this case, children are placed in Child Support Centers affiliated with the Ministry of Family and Social Services. In these centers, children who are victims of sexual abuse receive both psycho-social support and legal support during the abuse case hearings.

Keywords: Judicial support, sexual abuse, child, child support center, crime.

CYBER SECURITY DURING INFORMATION MANAGEMENT

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Abstract

Along with innovations in science and technology, rapidly advancing developments have created the information society. The development of the information society in the changing world order is possible with information and its management. Today, the changes in the management of information as a result of the evolution of information are undeniable. Protecting the integrity and value of information in all processes from the production, use, reproduction and classification of information is one of the main objectives. For this reason, the need for information security has emerged. The spread of information in digital environments has also revealed the need for updating protection methods. In order to ensure information security, this study has been detailed by addressing the issues of how information management should be in the event of cyber attacks, where information is vulnerable, what the precautions should be, and what the strategies should be. The importance of cyber security in the information management process, the place and importance of cyber security in today's world, what cyber strategies are and cyber security applications have been touched upon. The current position of cyber security in the field of Information and Document Management and the role it should be in the future have been addressed. Because effective cyber security measures deeply affect the protection, management and sustainability of information. The deepening of security measures in information organizations and their compliance with cyber security protocols positively affects everyone from individuals to the state. The main purpose is to examine the requirements of information security and cyber security and to address the effects of focusing on the determined procedures in institutions and organizations. It is to manage the necessary process with cyber security procedures under the roof of information security and to raise cyber security awareness to a higher level by creating awareness in individuals working in this field. Thus, it is aimed to standardize information security studies in institutions by creating an information security management process and to make positive contributions. By looking from a holistic perspective, national and international studies were taken into consideration in the information management process and samples were created. The fact that many strategic studies were carried out under the leadership of the Information Technologies Authority (BTK) and the Scientific and Technological Research Council of Turkey (TÜBİTAK) has provided a different perspective to the society against cyber security. The importance of the first step taken by the Cyber Security Board was emphasized and many national studies were taken into consideration. It was stated that it would be advantageous for institutions in Turkey to join ENISA (European Union Agency for Cybersecurity) for cyber security awareness. As a result, addressing information security within the framework of cyber security shows that it will contribute to individuals, institutions and states in the long run.

Keywords: Information management, Information security, Information Security Management Process, Cyber, Cyber security

INCIDENTAL PELVIC PATHOLOGIES DETECTED ON LUMBAR MAGNETIC RESONANCE IMAGING

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Abstract

Introduction and Purpose: Disc pathologies are most commonly seen in the lumbar region. Lumbar magnetic resonance imaging (MRI) is frequently used in daily practice for suspected lumbar disc herniation. Lumbar MRI is used to evaluate disc pathologies, spinal cord lesions and spinal canal. In addition, other pathologies (kidney cysts, liver cysts, etc.) in the examination area can also be detected. Pelvic organs are also included in the area of examination in lumbar MRI. The aim of this report is to determine the incidental pelvic lesions detected on lumbar MRI and to detect their frequency.

Materials and Methods: In this study, 1000 consecutive adult patients (420 males, 580 females, mean age: 52±14 years) who underwent lumbar MRI with a 3 Tesla MRI device in our hospital between February and April 2024 were included. Twelve patients with motion artefacts were excluded from the study. All MRI examinations were performed by a single radiologist and incidental findings were detected.

Results: The most common incidental finding in male patients was prostate gland hypertrophy (n=200, 47%). Prostatic utricular cyst was found in 2 patients (0.47%) and seminal vesicle cyst in 1 patient (0.23%). In female patients, uterine myoma was the most common incidental finding (n=120, 20.6%). Nabothi cysts (6.89%), adenomyosis (2.06%), endometriosis (1.72%), and hydrosalpinx (0.17%) were other incidental findings. Mild free fluid in the pelvis was also detected in 220 female patients.

Discussion and Conclusion: In lumbar MRI examinations, it is necessary to pay attention to incidental pelvic organ pathologies. These lesions may affect the patient's clinic. Therefore, reporting these lesions and directing them to treatment may relieve the patient's symptoms. Therefore, it is important to pay attention to possible pelvic pathologies along with lumbar pathologies in lumbar MRI examinations.

Key Words: Lomber, MRI, Incıdental Pelvıc Pathologıes

DETERMINATION OF FIRST AID KNOWLEDGE LEVEL AND SELF-EFFICACY BELIEFS OF FACULTY OF EDUCATION STUDENTS

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Abstract

It is necessary for student life for teachers to know what to do in case of any injury. Due to the lack of first aid education in other departments except preschool teaching, it is important to determine the first aid knowledge levels of the students studying in the faculty of education, to determine their self-efficacy beliefs and to determine the relationship between them. This study is the relational survey model. The study was carried out with 220 students studying at Girne American University Faculty of Education. Study data; It was obtained with the "First Aid Knowledge Level Questionnaire" developed by Karaçetin, 2021 and the "First Aid Self-Efficacy Scale" developed by Gülmez, 2018. Descriptive statistical methods (SPSS) were used to evaluate the data. In the study, it was determined that the first aid knowledge levels of the students were at a medium level. There was no difference in terms of gender between the knowledge test scores, but there was a difference in terms of gender in both sub-dimensions of the self-efficacy scale. While knowledge test scores did not show significant differences in age groups, it was determined that self-efficacy scores increased with increasing age. Knowledge test scores show a significant difference according to the department studied and grade levels. There is no difference between the knowledge test and self-efficacy scale scores in terms of the education level of the parents. There is a significant difference in knowledge test scores according to the duration of first aid training. Those who have not received first aid training have significantly lower scores. There is no difference between the knowledge test and self-efficacy scale scores in terms of the place where first aid training is received. Participants with very poor and poor perception had significantly lower scores. After all; In order to increase the level of first aid knowledge of students and to improve their first aid self-efficacy, they are first or more interested in the programs of the Faculty of Education. In addition, in practical applications, students' knowledge level and self-efficacy beliefs can be improved.

Keywords: First aid, First aid self-efficacy, health education, science education, faculties of education.

SURFACE MODIFICATION OF IMPLANT MATERIALS USING COATING METHODS

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Abstract

The need for implant materials is increasing to improve the quality of life of human beings. Although current implant materials may be a solution for many patients, their long-term performance is not satisfactory. Implant materials used in orthopedics must have mechanical properties compatible with bone, contain biocompatible elements, and have good surface properties. Polymer materials used in this field generally cannot form a chemical bond with bone tissue. They may release small wear particles due to friction during surgical procedures or in the long term. Improving the surface properties of high-cost implants can reduce the wear rate. In addition, these materials must be economical and environmentally friendly.

In this study, the surface properties of Polyetheretherketone (PEEK) material were investigated using different coating methods with metallic particles obtained from plants by the green synthesis method. The surfaces of the test samples were coated in a controlled atmosphere using various parameters. After coating, characterization processes were carried out by measuring the structural, morphological, and surface roughness of the samples. Metallic particle formation was proven by size analysis and structural characterization. SEM images showed that the coated surfaces changed according to the coating materials and methods. In the study, it was also seen that the surfaces were coated successfully without crack formation. It was also determined that the surface roughness decreased with the decrease in metallic particle sizes. The obtained results were compared with the findings of other researchers and it was found that they agreed. In this context, the study emphasizes the potential of using particles obtained by the green synthesis method to increase the performance of polymeric implant materials.

Keywords: Polyetheretherketone, green synthesis, metallic particle, surface coating.

CONSTIPATION IN HEART FAILURE PATIENTS

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Abstract

Objective: Heart failure (HF) defined as a cardiac, structural or functional defect causing the heart to be unable to provide oxygen at a rate meeting the metabolic requirements of the tissues, despite normal filling pressures. Heart failure can cause various complications. One of these is constipation. It is reported that the complication of constipation seen between 25% - 42% in heart failure patients. The aim was to review studies examining the complication of constipation in heart failure patients.

Materials and Methods: In this literature review, the keywords "heart failure" and "constipation" were searched using PubMed and Google Scholar databases in different combinations in Turkish and English, without any date limitation. 23 research articles published in Turkish and English between 2009 and 2024 were included in the study.

Results: In this review, constipation symptoms in heart failure patients were examined. Various reasons like restricting fluid intake, increasing fluid excretion with diuretic drugs, impaired mobility, long-term hospitalization, pelvic floor dysfunction may cause hardening of the stool structure and decrease in bowel movements. Therefore, fecal retention in the intestine increases. These symptoms are observed in individuals.

Conclusion: Constipation impairs individuals' life, affects hospital stays, causes workforce losses and leads to an increase in health care costs. Nurses should take detailed history from patients and follow patients in terms of risk factors, signs and symptoms. Patients must be educated about high-fiber foods, adequate hydration, regular exercise, and proper toilet habits. They must monitor the effects of medications and collaborate with doctors to change treatment plans when necessary. These are important to reduce hospital stays and improve patients' life. Therefore, the complication of constipation in heart failure patients should be evaluated effectively and comprehensively.

Key words: Heart Failure; Constipation; Nursing Care

THE IMPORTANCE OF SEXUAL EDUCATION IN ALBANIA HIGH SCHOOLS AND ITS IMPACT ON ADOLESCENT HEALTH AND WELL-BEING

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Abstract

This study delves into adolescents' perspectives on sexual education, aiming to highlight its significance and inform its future implementation in Albania. Sexual education remains a highly sensitive and often neglected topic within Albanian society, seldom discussed openly at home or integrated into the school curriculum. This prevailing silence has left many adolescents with insufficient knowledge, which can lead to risky and promiscuous sexual behaviors. A total of 150 adolescents, aged 15-19, participated in this study. Through surveys and focus group discussions, the research sought to capture their views on sexual education and its relevance to their lives. The findings reveal a strong consensus among adolescents on the importance of sexual education. They articulated the need for a curriculum that includes the following key components:

- Adolescents expressed a desire for practical guidance on how to navigate social pressures and make informed decisions about their sexual behaviors.
- Participants highlighted the need for accurate, comprehensive information about human sexuality, including physical, emotional, and relational aspects.
- There was a significant emphasis on the consequences of unprotected sex, particularly focusing on the transmission of sexually transmitted diseases (STDs) and the risks of adolescent pregnancy.
- Adolescents underscored the importance of learning about personal boundaries, consent, and strategies to protect themselves from sexual harassment and exploitation.

These findings underscore the urgent need for parents, educators, and policymakers to develop and implement comprehensive sexual education programs. Such programs should be tailored to address the specific concerns and informational gaps identified by adolescents, fostering a well-informed and responsible approach to sexual health.

Keywords: Sexual education, adolescents, sexual health, adolescent pregnancy, sexual harassment

INVESTIGATION OF THE LDHA ENZYME INHIBITION POTENTIAL OF SOME SESQUITERPENE LACTONES BY MOLECULAR DOCKING

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Abstract

In this study, the inhibitory potentials of 15 sesquiterpene lactones (SL) on the enzyme lactate dehydrogenase A (LDHA) were investigated using molecular docking methods. Among the tested compounds, eremanthin and leucodin exhibited the highest MolDock scores of -102.72 and -106.13, and ligand efficiency (LE) values of -6.04 and -5.90, respectively. Eremanthin formed hydrogen bonds with GLY28 and GLY31, and hydrophobic interactions with VAL30 and VAL135. Leucodin interacted through hydrogen bonds with TYR82 and multiple hydrophobic interactions, particularly with PHE118, ILE119, ILE115, VAL25, VAL52, and ALA95. NADH displayed similar interaction patterns with the active site of LDHA, reinforcing the potential of eremanthin and leucodin as competitive inhibitors. These findings suggest that these SLs could serve as promising candidates for further experimental validation in cancer therapy targeting LDHA.

INVESTIGATION OF NEURAL CORRELATES OF COGNITIVELY HEALTHY AGING

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Abstract

There is an icreasing number of elderly people all around the world. Usage of the terminology related to healthy cognitive aging has been increased in different disciplines. In neuroimaging area, aging is characterized by significant changes in structural and functional architecture in the brain. However, cognitively heathy aging individuals maintain their cognitive capacities. The purpose of the present study is to extract and introduce a common findings related to the cognitively healthy aging concept in neuroimaging studies. The current study aims to investigate neural correlates of compensatory mechanisms in cognitively healthy elder individuals. By using keywords such as elder, aging, healthy aging and searching different scientific databases including ISI Web of Science, PubMed, Scopus, Science Direct, all related published scientific articles were retrieved. The findings of this study were categorized in three main concepts including “defining cognitively healthy aging”, “factors that contribute cognitively healthy aging” and “neural correlates of cognitively healthy aging”. Revieving many studies, cognitively healthy individuals were defined based on various factors including perception, cognitive control and processing speed. In addition, functional connectivity between brain areas in cognitively healthy elder individuals were assesed with different neuroimaging tasks. The results of the present study will provide a ground for cognitively healhty aging. Other health professionsals and researchers can benefit from our study. Detailed programs can be designed to preserve and promote cognitively healht aging for increasing population of elderly people.

Key words: cognitively healthy aging, cognition, neuroimaging

INTEGRATING HEALTH LITERACY INSIGHTS IMPROVES HEALTH CRISES AMONG CHILDREN WITH DISABILITY IN A MODERN INCLUSIVE SOCIETY

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Abstract

Integrating health literacy concepts into an inclusive society can greatly enhance the outcomes for children with disability. Improving condition management can be achieved by making information about a child's medical needs and potential disability-related emergencies easily accessible to families. By enhancing their understanding of healthcare systems and medical terminology, families can be empowered to participate actively in their child's treatment. Teach healthcare personnel plain language and ask children with disability when they understand to ensure they are well informed about treatment plans, medications, and emergency procedures. Health literacy programs should incorporate cultural competency to ensure families receive factual information while respecting their culture. Providing resources in various formats, such as written, visual, and digital, helps ensure that families with different literacy levels and preferred learning techniques can access important health information. Families can receive assistance during health crises, and access gaps can be filled through community health literacy programs. By learning to recognize the symptoms of illness, when to seek medical attention, and how to adhere to treatment regimens, children with disability and their families strengthen their ability to cope with health challenges and become their best advocates. Families can boost their health literacy and receive emotional support by joining peer support groups and exchanging personal experiences and strategies. Policymakers should prioritize health literacy to improve health outcomes for people with disabilities. With enough funding, health literacy initiatives for children with disability can reach more individuals. Health literacy interventions designed specifically for children with disabilities can increase participation and success in the face of these obstacles. When applied to today's inclusive society, these insights into health literacy help with the short-term management of medical emergencies and the long-term enhancement of children's health and welfare. When families are better informed and comfortable talking about their children's health, it could lead to better outcomes and a more inclusive society.

Keywords: Integration, Health Literacy, Insights, Improvement, Health Crises, Children with Disability, Modern, and Inclusive Society

INHIBITION OF SOME METABOLIC ENZYMES AND ANTIOXIDANT POTENTIAL OF ROYAL JELLY

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Abstract

Royal jelly is a miraculous staple food that is vital for queen bees and larvae. Royal jelly is produced by the digestion of nectar and pollen in the salivary glands located in the upper jaw and throat of five- to fifteen-day-old worker bees. It is viscous and cream-colored. The chemical content of royal jelly is mostly water, followed by protein and carbohydrates. There are also lipids, amino acids, vitamins, minerals, and polyphenols. In addition, the component 10-hydroxy-trans-2-decenoic acid (10-HDA) is only naturally present in royal jelly. This component is responsible for many biological activities. It is acidic with a pH between 3.6-4.6. Antioxidants act as a pioneer in the treatment of many diseases by removing free radicals and oxidative stress in biological systems. Due to the harmful effects of synthetic antioxidants, the antioxidant potential of natural products such as royal jelly is the subject of intensive scientific studies. This review includes recent studies revealing the antioxidant potential of royal jelly. In addition, the inhibition potential of metabolic enzymes is utilized in the treatment of many diseases. Inhibition potentials of acetylcholinesterase and butyrylcholinesterase enzymes for Alzheimer's disease, a-amylase and a-glycosidase enzymes for diabetes, carbonic anhydrase II enzyme for glaucoma disease and carbonic anhydrase I enzyme for epilepsy disease are very important. Those with high inhibition potentials of these enzymes are used in the treatment of diseases and also in drug production. For this reason, in this study, current studies determining the inhibition properties of royal jelly on these enzymes were reviewed. In general, it was found that royal jelly showed antioxidant properties and strongly inhibited metabolic enzymes.

Keywords: Royal jelly, antioxidant, enzyme inhibition, anti-Alzheimer, antidiabetic, antiglaucoma

ADAPTATION OF THE ACCOUNTING PROFESSION TO INDUSTRY 4.0

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Abstract

Industry 4.0, recognized as beginning in Germany in 2011, emerged with the digitization of production and industrial processes. This study, emphasizing digitization as a fundamental element, aims to raise awareness in the accounting profession about the necessary competencies for this new era and to accelerate the educational process in this regard. Industry 4.0 has introduced digital transformations in areas such as cyber-physical systems (CPS), the Internet of things (IOT), big data, cloud computing, system integration, augmented reality, simulation, and cybersecurity.

An accounting analyst capable of meeting the requirements of the era is the implementer and manager of the process. CPS can bring together the virtual and physical worlds through storage systems and production facilities. IOT facilitates machine-to-machine communication and information flow, enabling product ordering, production, implementation, and delivery without human intervention. Big data offers access to high-volume, fast, and diverse information assets at low cost, enhancing decision-making and the development of new products and services. Cloud technology allows for the storage of large amounts of data in different locations, maintaining data generation rates and volumes. System integration benefits from automatic data exchange through the integration of various systems and subsystems, while augmented reality provides real-time information. Simulation mimics real-life systems and processes in an artificial environment, reducing human labor and costs, leading to realistic results. Cybersecurity aims to protect data and transactions from attacks.

This paper, considering recent literature, aims to help the accounting profession keep up with Industry 4.0 and ensure that professionals are not just participants but also contributors to and implementers of the transformation. To achieve this, it is crucial to closely follow global digital developments and incorporate these technologies into university education.

Keywords: Industry 4.0, accounting profession, digital transformation.

SOLUTION OF PROBLEMS FOR THIRD-ORDER MIXED DISCRETE ADDITIVE AND DISCRETE MULTIPLICATIVE DIFFERENTIAL EQUATIONS

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Abstract

Different issues for discrete differential equations have been considered in our previous works. In the presented work, Cauchy and boundary problems were considered for the third order discrete derivative differential equation, which depends on two variables, the second order discrete additive derivative with respect to the first variable, and the third order discrete derivative derivative with respect to the second variable. Analytical statements were obtained for both cases.

Keywords: Discrete multiplicative derivative, discrete additive derivative, Cauchy problem, boundary value problem, differential equation with discrete derivative, general solution of the equation depending on the general constant.

AN ANATOMICAL STUDY ON FOOT PADS IN PIED MARTEN

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Abstract

Introduction and Purpose: The spotted polecat or polecat (Vormela peregusna) is a monotypic species of the genus Vormela in the family Weaselidae. The mass of thickened epidermal layers on the sole of the foot is called a pad. These pads have a pad on the palmar/plantar surface of each toe and, depending on the limb, a pad called a metacarpal or metatarsal pad.

The aim of this presented study was to provide anatomical information about the foot pads of Pied marten, which has not been reported before.

Materials and Methods: One male peregrine falcon weighing 336 g was used. After the dissection, the foot pads were photographed. After the arterial system of the cadaver was cleaned, 10% formaldehyde was given to the system via cannula for fixation and kept in 10% formalin solution for preservation. The length, width and thickness of each foot pad section were measured using a digital caliper.

Results: In Alacasansar, it was found that the surface of the pads was very slightly keratinized and there were no protrusions visible to the naked eye. It was determined that there were 5 digital pads on the forefoot and hindfoot of the peregrine falcon. It was determined that there were 3 metacarpal pads on the forefoot and 4 metacarpal pads on the hindfoot. No carpal pads were seen on the forefoot and hindfoot.

A carnivorous species, the Pied marten are one of the protected animal species that are on the verge of extinction. With this presented study, anatomical information was given about the foot pads that have not been reported before in Pied marten. These pads are also important in the statics of the foot. It is thought that this presented study will contribute to the anatomical, physiological, and surgical operations related to the foot in carnivores.

Key Words: Anatomy; Foot pads; Pied marten; Wild animal

ANATOMICAL EXAMINATION OF FOOT PADS IN A BROWN BEAR CUB

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Abstract

Introduction and Purpose: Brown bears are classified as the genus Carnivora, family Ursidae, species Ursus arctos, subspecies horribilis. The thickened epidermal layer mass on the sole of the foot is called a pad. These pads have a pad on the palmar/plantar surface of each digit and a pad called a metacarpal or metatarsal pad, depending on the limb.

The aim of this presented study was to provide anatomical information about the foot pads of brown bears, which has not been reported before.

Materials and Methods: A dead male Brown bear cub (weight 50 kg) was used as animal material. After the arterial system of the cadaver was cleaned, 10% formaldehyde was given to the system via cannula for fixation and kept in 10% formalin solution for preservation. Digital caliper was used for morphometric measurements.

Results: It was determined that there were 5 digital pads, 1 metacarpal and 1 metatarsal pad in the forefoot and hindfoot of the brown bear. The metatarsal pads were longer, while the metacarpal pads were wider.

With this presented study, anatomical information was given about the foot pads that have not been reported before in brown bears. These pads are also important in the statics of the foot. It is thought that this presented study will contribute to the anatomical, physiological and surgical operations related to the foot in carnivores.

Key Words: Anatomy; Foot pads; Brown bear; Wild animal

PRODUCTION AND CHARACTERIZATION OF METALLIC NANOPARTICLES FOR USE IN IMPLANT APPLICATIONS

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Abstract

Nanotechnology has recently become an inevitable part of technology and provides convenience in people's daily life applications. Nanoparticles and nanostructured materials have become an active research topic due to their wide applications in biological, chemical, and physical sciences. Medical applications of nanoparticles offer great potential for biomedical research and clinical applications. Due to their small size and surface properties, nanoparticles offer innovative solutions in many areas such as drug delivery, diagnosis, cancer treatment, vaccine development methods, and tissue engineering. These innovative solutions for implant applications of nanoparticles can increase the effectiveness and safety of medical devices and treatment methods, accelerate the healing processes of patients, and reduce the risk of complications.

In this study, silver (Ag) and copper (Cu) nanoparticles were produced by the green synthesis method using plant extract. Size analysis, structural and morphological characterizations of the produced Ag and Cu nanoparticles were performed by Zetasizer particle size analyzer, UV-Vis spectrophotometer, FTIR spectrophotometer, and SEM-EDS microscope. Characterizations show the formation of Ag and Cu nanoparticles. The findings obtained in this study show that green chemistry methods can be used successfully in nanoparticle synthesis and more effective results can be obtained by optimizing these processes. Further research may reveal the potential of these optimized nanoparticles in medical applications and contribute to the development of innovative treatment methods.

Keywords: Nanotechnology, metallic nanoparticles, biomaterials, green chemistry.

BARRIERS FACED BY PRIMARY SCHOOL TEACHERS IN THE IMPLEMENTATION OF STEM EDUCATION

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Abstract

In the 21st century, societies are developing various strategies to equip individuals with the necessary knowledge and skills, promote sustainability, and ensure equal opportunities in education. In this context, education systems and policies aim to equip individuals with competencies that align with the demands of the contemporary era. The need for Science, Technology, Engineering, and Mathematics (STEM) fields plays a central role in modern societies' technological and economic development. STEM education is critical in preparing students for a complex and technology-focused world. This multifaceted concept represents an interdisciplinary educational approach to develop individuals' analytical thinking, problem-solving, and innovation skills. Despite its numerous benefits, the effective implementation and widespread adoption of STEM education face various challenges. This study aims to investigate the barriers encountered by teachers in implementing STEM education in the Turkish Republic of Northern Cyprus using qualitative research methods. In this study, the authors conducted interviews with a randomly selected sample of 30 teachers working in public schools. The results of the thematic analysis reveal the primary barriers that teachers face in the implementation of STEM education. These barriers include the low availability of computers and internet access in STEM education schools, lack of teacher training, insufficient implementation of innovative teaching methods, shortage of science teachers, absence of a STEM curriculum, administrative constraints, and inadequacy of laboratory facilities. Based on the findings, a series of strategic steps are recommended to ensure the effective implementation of STEM education. In this context, it is essential to first increase the employment of science teachers. The instruction of science courses, one of the core components of STEM education, by qualified teachers is critically important for developing students' knowledge and skills in this field.

Keywords: Science Teachers, STEM Education, Primary School

THEORETICAL CALCULATION OF THE RADIATION SHIELDING PROPERTIES OF SOME MINERALS

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Abstract

Minerals are naturally occurring homogeneous solid and generally inorganic materials with a specific chemical composition and a highly ordered atomic arrangement. There are several thousand known mineral species. Since a mineral has a specific composition, it can be expressed by a chemical formula. Most minerals are likely to be found in nature. In this study, four minerals were determined to theoretically determine their radiation shielding capacities. The determined minerals are perovskite, kuramite, nitrobarite and chromatite. The radiation shielding parameters of mass attenuation coefficient, linear attenuation coefficient, tenth value layer and effective electron density were determined theoretically with the help of WinXCOM at twenty-four different energy values in the range of 0.015-10 MeV photon energy. The obtained data were compared with the shielding capacities of lead and ordinary concrete, which are traditional shielding materials. As a result, when the kuramite mineral was evaluated in terms of radiation shielding capacity, it was determined that it was more effective than the investigated other three minerals. In this context, it was determined that the investigated minerals could be an alternative to traditional materials used in gamma radiation shielding.

Keywords: Mineral; Gamma radiation; WinXCOM; Lead; Ordinary concrete.

INVESTIGATION OF THE GAMMA RADIATION SHIELDING CAPACITIES OF SOME CHALCOGENIDES OVER A WIDE ENERGY RANGE

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Abstract

Chalcogenides have emerged as promising materials in technology for photocatalysis driven by visible light due to their narrow band gap energy range. Chalcogenides are compounds consisting of at least one chalcogen anion (S^{2-}, Se^{2-}, or Te^{2-}) and at least one electropositive element. Apart from this characteristic, they have attracted the interest of researchers due to their significant and highly sought-after properties such as being non-toxic, biocompatible, low-cost, and easy to synthesize. Chalcogenide-based materials are also sensitive to the absorption of electromagnetic radiation. Furthermore, they are physically robust and important properties such as refractive index, electrical resistivity, melting point, boiling point, and radiation attenuation coefficients can be significantly adjusted through compositional variation. In this study, the mass attenuation coefficient, linear attenuation coefficient, half-value layer, and effective atomic number values of four chalcogenides such as FeS_2 (iron disulfide), Bi_2Te_3 (bismuth III telluride), Sb_2Se_3 (antimony III selenide), and Al_2S_3 (aluminum sulfide) were theoretically using WinXCOM investigated for twenty-four photon energy ranging from 0.015 to 10 MeV. The obtained results were compared with those of lead and ordinary concrete in terms of their radiation shielding properties. It was observed that the highest gamma radiation shielding parameters among the studied chalcogenides belong to Bi_2Te_3 chalcogenide.

Keywords: Chalcogenide; Gamma radiation shielding; WinXCOM.

EFFECTS OF DIGITAL DEVICES ON THE ACHIEVEMENT AND RETENTION OF PHYSICS CONCEPTS IN POST-BASIC SCHOOLS IN ILORIN, NIGERIA

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Abstract

A digital device is an electronic device that processes information using binary code (0s and 1s) and can store, retrieve, and transmit data digitally. These devices are built on digital technology and include various types of gadgets and equipment. They have become integral to modern life, enabling communication, entertainment, education, and work through their various functionalities and applications. Hence, this research work was carried out to investigate the effect of digital devices on the achievement and retention of physics concept in post-basic schools in Ilorin. Three research questions and two hypotheses were raised and formulated to guide the study. Five schools were simple randomly selected and 100 students were sampled. Questionnaire was the research instrument used to generate data for the study, while percentage was used to analyze the demographic data of the respondents, and t-test was used to establish the differences between the independent and the dependent variables. The findings of the research indicated that the students are familiar with the use of digital devices, there was a significant difference in the performance of students taught physics using digital devices and those taught using the traditional approach among others. Based on these findings, it was recommended that the government and school owners should provide and make accessible digital devices materials in order to be able to create effectiveness in teaching and learning as required in the 21st century.

Keywords: Digital Devices, Achievement, Retention, Post-Basic, 21st Century and Physics Concept

NUCLEAR AND RADIOLOGICAL ACTIVITIES CONSIDERATIONS OF ENVIRONMENTAL CONTROL ON HAZARDOUS PRODUCTS AND SUBSTANCES REGIME

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Abstract

The considerations on environmental control for nuclear and radiological activities is essential to ensure the safe and secure use of nuclear technology. This paper provides an overview of the key elements of an effective regulatory framework, drawing on international best practice and lessons learned from past experience. The regulatory infrastructure needs to be built on a solid legal foundation, with clear roles and responsibilities for the regulator and other stakeholders. The independence and competence of the regulator are essential to maintain public confidence and to make impartial decisions. Transparency and openness in regulatory activities, including stakeholder engagement, are also essential to enhance effectiveness and efficiency. The regulatory framework should cover all aspects of the nuclear fuel cycle and radiation applications, from siting and design to operation, decommissioning and waste management. Harmonization of regulations with international safety standards and guidelines is important to facilitate cooperation and exchange of information between regulators. Emerging challenges such as new reactor technologies, supply chain issues and the need for capacity building need to be addressed through innovative regulatory approaches. Regulators must also be prepared to respond to nuclear and radiological emergencies through robust emergency preparedness and response plans.

In conclusion, a robust and adaptable regulatory system is the foundation for the safe and sustainable development of nuclear energy and radiation applications. Continuous improvement and learning from experience are key to enhancing the effectiveness of nuclear and radiation safety regulation worldwide.

Key words: nuclear and radiological activities, regulatory framework, environmental control

THE ASSISTING AND OPPOSING FLOWS EFFECT OF ETHYLENE GLYCOL AND TITANIUM OXIDE NANOPARTICLES ON WALTER'S B NANOFLUID OVER STRETCHING SHEET WITH THERMAL RADIATION AND HALL EFFECT

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Abstract

The present investigation the combined impact of assisting and opposing flow characteristics, titanium oxide, and ethylene glycol nanoparticles on Walter's B nanofluid flow over an extensible sheet, considering the influence of thermal radiation and the Hall effect. The objective of the study is to comprehensively understand the complex interactions between these parameters and their effects on flow behavior and heat transfer in the system.Numerical simulations are conducted using appropriate mathematical models and computational techniques to solve the modified governing equations and boundary conditions. The presence of nanoparticles, thermal radiation, and the Hall effect are incorporated into the analysis.The study analyzes key parameters such as velocity profiles, temperature distributions, and heat transfer rates to quantify the impact of assisting and opposing flow conditions, nanoparticles, thermal radiation, and the Hall effect on the nanofluid flow over the stretching sheet.The findings offer valuable insights into the intricate interplay between these factors and their combined influence on flow characteristics and heat transfer rates. The results contribute to a deeper understanding of nanofluid behavior under different flow conditions and can be utilized to optimize the design and performance of various engineering applications involving nanofluid flow and heat transfer processes in the presence of thermal radiation and the Hall effect this researh enhances our understanding of nanoparticles behaviour under different flow conditions and provides valuable information for practical applications in areas such as energy systems,heat exchangers,and chemical processes.

Keywords: Walter's B nanofluid, thermal radiation,MHD, Hall parameter,titanium nanoparticles,ethylene glycol,mixed convection,chemical reaction.

MOLECULAR IDENTIFICATION OF LIPOLYTIC FUNGAL SPECIES ISOLATED FROM PALM OIL MILL EFFLUENT OBTAINED IN IKARE AKOKO, ONDO STATE, NIGERIA

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Abstract

Background: Palm oil mill effluent (POME) is a major liquid waste from crude palm oil production which serves as a nutrient-rich environment that supports the growth of microbial communities, including lipolytic fungi. This study aimed to isolate and molecularly identify lipolytic fungal species from POME obtained from Ikare Akoko, Ondo State, Nigeria.

Materials and Methods: Collected samples from effluent discharges from one of the palm oil mills (POMs) at Oloyo farm settlement of Oyinmo quarters, Ikare Akoko, Ondo State, Nigeria; were subjected to serial dilution and pour plate technique isolation procedures to obtain fungal cultures. Screening for fungal isolates with lipolytic activity was primarily and secondarily performed using a Phenol Red Agar Plate and Titrimetric method respectively with a total of 30 fungal isolates that produce yellow zones indicating lipase production. DNA extraction of selected potent lipolytic fungal isolates was done using ZR fungal DNA miniprep. ITS gene PCR amplification was carried out with stipulated cycling conditions. Sequencing of the PCR products enabled the identification of fungal species through comparison with the GenBank database using the Basic Local Alignment Search Tool (BLAST) and phylogenetic analysis elucidated the evolutionary relationships among the isolated strains.

Results: The results revealed a diversity of lipolytic fungi obtained from POME, with the presence of 10 different fungal species: *Aspergillus niger*, *A. flavus*, *A. aculeatus*; *Fusarium oxysporum*, *F. verticillioides*, *Penicillium chrysogeum*, *P. citrinum*, *Trichoderma harzianum*, and *Candida tropicalis*. These fungi initially coded as MP-B4, MP-A1, MP-A2, MP-C3, FP-C3, FP-C4, FP-C5, FP-C8, FP-B5, FP-B2 were recognized for their different lipase production as their molecular

identification may provide valuable insights into strategies for downstream application. Among these species, phylogenetic analysis revealed that *A. aculeatus* showed the highest and most potent lipolytic hydrolysis considering the diameter of the change in colour from pink to yellow.

Conclusion: This study highlights the importance of molecular techniques in identifying and characterizing fungal communities in agroindustry liquid waste of crude palm oil production. And also provides a foundation for the development of novel lipase for both industrial and biotechnological utilization of indigenous fungal species. However, further research may explore the optimization of lipase production from these fungal species for industrial use.

ENCAPSULATION OF ROSEMARY AND GINGER OILS IN SIMPLE HONEY VEGETABLE OIL EMULSION

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Abstract

Emulsions are colloidal systems consisting of at least two immiscible liquids in which fine droplets of one liquid are dispensed in another liquid and are stabilized by an emulsifier. Rosemary (Rosmarinus officinalis L) and ginger (Zingiber officinale Rescoe) oils are unstable and are extremely affected by the environmental conditions. However, exposure of rosemary and ginger oils to environmental conditions like oxygen, temperature, and light will lead to the degradation of the oils and subsequently their biological activities will be reduced. Therefore, there is need to protect these oils from environmental conditions. Thus, encapsulation of rosemary and ginger oils could be an effective method. Simple honey-vegetable oil emulsions containing rosemary and ginger oils were prepared and stabilized by fumed silica. The honey and vegetable oils used were characterized. Stability index of honey-vegetable oil simple emulsions were obtained. Optical micrographs of the emulsion without and with essential oils were obtained. Rosemary and ginger oils were encapsulated in honey-vegetable oil simple emulsions and their effects on microorganisms where checked. Simple emulsions containing essential oils show significant antimicrobial activity against Staphylococcus aureus, Escharichia coli and Aspergillus flavus.

Keywords: Emulsion, encapsulation, antimicrobial, collide, emulsifier optical micrographs, essential oil

IS ELECTRONIC WORD-OF-MOUTH'S (E-WOM) INFLUENCE THE TRAVEL INTENTION? TESTING THE INFORMATION ADOPTION MODEL (IAM)

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Abstract

The ever-increasing market competitiveness of commerce has made eWOM information an effective instrument for shaping consumer behavior, in multifunctional industries such as tourism. The major goal of this study is to develop and evaluate an integrated conceptual framework that considers the influence of eWOM on travel intentions. In addition, the association between various dimensions of eWOM were tested. Correlation analysis was used to test the association between eWOM dimensions. A multiple regression analysis procedure was used to investigate the influence of eWOM on travel intentions. The research model was empirically tested using a sample of 248 respondents who had consumed online travel services at least once in their lives. The findings demonstrate that eWOM quantity has a more positive association with travel intentions in comparison to eWOM quality and credibility. Further, the study's findings indicate that quality, quantity, and credibility of eWOM have a considerable influence on travellers' travel intentions.

BICOMPLEX SEQUENCES WITH HYPERBOLIC-VALUED NORM

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Abstract

From the end of the first half of the 19th century, especially in Great Britain, a theory was developed on the geometric interpretation of complex numbers, which led to the emergence of new hypercomplex number systems. In particular, the discovery of quaternion numbers by the well-known Irish mathematician Hamilton in 1843 revealed the existence of an algebraic system that had all the properties of real and complex numbers, except for the commutative property of multiplication. This system has also been defined as the extension of the concept of complex numbers to four dimensions.

The idea of bicomplex numbers came to James Cockle from Horner's observation on the existence of irrational equations that have neither real nor complex solutions. In 1892, Segre rediscovered the algebra of bicomplex numbers and presented it as an analytical representation of the points of bicomplex geometry, and found that Hamilton introduced the same quantities in his study of bicomplex numbers and also defined the geometric interpretation of the algebra of bicomplex numbers. Studies on bicomplex numbers were developed between 1928 and 1940. The most fundamental book in the field of bicomplex analysis was prepared by G. Baley Price. Again, Danial Alpay and et.al. laid the foundations of bicomplex scalar functional analysis. However, the importance of bicomplex numbers has increased even more. Luna-Elizarraras and et.al. examined modules and linear functionals on these modules and the fundamental theorems of analysis in their book.

Bicomplex analysis, which is a fairly new subject, has important applications not only from a mathematical point of view, but also in physics and engineering. The new set produced by adding a number that cannot be in real numbers and whose square is 1 to the set is called the set of hyperbolic numbers. In the three basic books mentioned above, the real norm, hyperbolic norm and the relations between these norms are given on bicomplex modules. In this study, bicomplex sequences are widely introduced using the hyperbolic valued norm, convergence criteria are given and supported with examples. Thus, the idea that the existence of the limit of a bicomplex sequence is equivalent to the existence of the limit of its real and imaginary parts has been extended to bicomplex sequences with respect to the hyperbolic valued norm.

HEMOSYNC: REVOLUTIONIZING BLOOD BANK OPERATIONS

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Abstract

HemoSync aims to bridge the gap between hospitals, blood banks, and donors through a comprehensive digital platform. It employs a coin-based reward system to incentivize blood donation, coupled with demand prediction algorithms to optimize resource utilization and minimize wastage. Key features include user registration for donors, hospitals, and blood banks, with a homepage displaying real-time blood needs or excess.Leveraging geospatial data and advanced matching algorithms, the system efficiently identifies potential donors, expediting the procurement process and bolstering response times during critical situations. Conversely, in scenarios where blood wastage is detected, the system swiftly intervenes, orchestrating the redistribution of surplus blood to nearby hospitals or blood banks where demand is anticipated. For hospitals requiring blood, the system prompts them to input specific requirements, triggering a search for nearby donors. Conversely, in cases of blood wastage, the system identifies potential recipients through predictive analytics, directing surplus blood to where it's needed. Donors can track their contributions through earned coins, redeemable for vouchers or coupons via contracted partnerships within the app.

Keywords: Hospitals, Blood Banks, Donors, Digital platform, Coin-based reward system, Demand prediction algorithm.

2IN SILICO EXAMINATION OF A HIGH-THROUGHPUT VIRTUAL SCREENING STUDY AGAINST GASTRIC CANCER CAUSED By *Helicobacter pylori*

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Abstract

Nowadays, the incidence of stomach problems such as reflux, gastritis and stomach cancer has increased considerably. Gastric cancer is a disease that gives symptoms in the patient with acute symptoms and has a prognosis that affects the patient's quality of life very badly. It is known that there is a bacterial physiopathological factor among the causes of gastric cancer. It is known in the literature that this source is *Helicobacter pylori*. Since there is a resistance problem between antibacterial agents in clinical treatments against *Helicobacter pylori*, combined treatments are used. However, the drugs used in combination cause different antibacterial responses in individuals due to polymorphism. According to this information, it is realised that the discovery of new agents is mandatory. One of the ways of drug discovery is to investigate the use of drugs that have already passed the clinical stages for different purposes. This research is called repurposing by pharmaceutical chemists. This computer-aided drug design, in which artificial intelligence gains importance and combines with the principles of computational chemistry, remains very popular. Computationally approaching the effect of many drugs against the target using databases is called High throughput virtual screening method.

In this study, the DrugBank database was used to determine the possible efficacy of clinically used drugs against the drug target that will disrupt *Helicobacter pylori* metabolism from an *in silico* point of view.

Keywords: Docking, Gastric Cancer, *Helicobacter pylori*

GAMMA RADIATION SHIELDING PROPERTIES OF SOME Zn COMPOUND SEMICONDUCTOR MATERIALS

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Abstract

The used semiconductors in electronic devices and integrated situations are important in today's technology. Although there are many types of semiconductors, some zinc (Zn) based semiconductors are preferred in the presented study. The preferred semiconductors are zinc oxide (ZnO), zinc sulfide (ZnS), zinc selenide (ZnSe), and zinc telluride (ZnTe). ZnO is an antibacterial compound with a high refractive index and thermal conductivity. Due to these properties, it is used to produce ceramics, plastics, glass, and paint. ZnS, which has strong fluorescence properties, is used in cathode ray tubes and the production of optical windows and lenses due to its optical properties. ZnSe, which uses in infrared optical materials, is preffered to produce laser, thermometers, and scintillator materials. ZnTe, which is widely used in optoelectronics, has an area of use in LEDs, lasers, diodes, solar cells, and microwaves. The gamma radiation shielding properties of these selected Zn-containing semiconductors were investigated. The gamma radiation shielding properties of these semiconductors were investigated with the help of mass attenuation coefficients determined by the WinXCOM program. The linear attenuation coefficient, the tenth value layers and mean free path parameters were derived by using the mass attenuation coefficients determined by WinXCOM program. These calculations were performed in a wide energy range (0.015-10 MeV). When the calculated parameters were examined, it was observed that the ZnSe semiconductor has the highest gamma radiation shielding property while the ZnS semiconductor was reported to have the worst gamma radiation shielding property.

Keywords: Zn-based semiconductors; Gamma shielding; WinXCOM.

DETERMINATION OF GAMMA RADIATION SHIELDING PERFORMANCE OF SOME W-CONTAINING HEAVY ALLOYS: A THEORETICAL STUDY

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Abstract

Tungsten is one of the materials used in ionizing radiation shielding. However, due to its brittleness in pure form, alloys or compounds of this element are more preferred in radiation shielding. In the presented study, the shielding performances of some tungsten heavy alloys for gamma-rays, which are ionizing radiation, were theoretically investigated. The tungsten heavy alloys whose gamma-ray shielding performances were investigated are W50Co50, W95Re5, W95Ti5 and W80Cu20. Since W50Co50 has high wear resistance, it is preferred in applications such as cutting tools and drill bits. The ductility and impact resistance of the W95Re5 alloy are high, and these properties are improved by adding 5% rhenium to tungsten. This alloy is used in electrical discharge electrodes and rocket nozzles due to its high temperature resistance and creep resistance. W95Ti5 is used in ballistic protection and kinetic energy pneumatic devices due to its high wear resistance. W80Cu20 is preferred as an anode material in X-ray tubes and electrical contacts due to its ductility and thermal stability. In order to investigate the gamma-ray shielding performance of these heavy alloys, mass attenuation coefficient, linear attenuation coefficient, half value layer and effective atomic number parameters were calculated. These calculations were performed at twenty-four different energies in the gamma-ray energy range from 0.015 to 10 MeV. Theoretical calculations were made with the help of WinXCOM interface. This interface is a simple Windows-based program frequently used in such studies. This program presents the mass attenuation coefficients of the materials together with their coherent and incoherent scattering, photoelectric and pair production cross sections. When the half value layers of the examined tungsten-based alloys were investigated, it was determined that they were ranked as W95Re5<W95Ti5<W80Cu20<W50Co50. This ranking shows that W95Re5 alloy has better gamma-ray shielding performance than the others. Additionally, the gamma ray shielding performances of these alloys were compared with those of lead and ordinary concrete.

Keywords: Tungsten alloys; Gamma shielding; WinXCOM; Lead; Ordinary concrete.

HARNESSING AIR FOR ELECTRICITY: A REVIEW OF THE HUC ENZYME'S ROLE IN RENEWABLE ENERGY

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Abstract

The discovery of an enzyme that can convert air into electricity represents a groundbreaking advancement in energy science. This enzyme, identified by scientists as Huc, utilizes atmospheric hydrogen to produce electrical currents. This process fundamentally involves hydrogen oxidation and promises a sustainable, low-emission energy source. The enzyme's efficiency in capturing and converting atmospheric hydrogen offers potential applications in developing eco-friendly energy storage systems, portable power sources, and possibly large-scale power generation solutions, contributing to the worldwide effort of clean and renewable energy alternatives.

Keywords: Huc enzyme, bioelectrochemistry, hydrogen oxidation, renewable energy, bioelectrocatalyst, microbial fuel cells.

THE RELATIONSHIP BETWEEN EXERCISE ADDICTION AND BODY PERCEPTION IN SEDENTARY INDIVIDUALS

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Abstract

This research aims to examine the relationship between exercise addiction and body perception in sedentary individuals. The study investigates the demographic characteristics such as gender, age, weight, perceived body weight perception, as well as the relationship between exercise addiction and body perception among 200 sedentary individuals. The data collection tools used include the Exercise Addiction Scale (EAS) and the Body Perception Scale (BPS). The EAS, developed by Daniel Symons Downs and adapted into Turkish, consists of 21 items and 5 sub-dimensions. The BPS, developed by Secord and Jourard and adapted into Turkish, consists of 40 items and one sub-dimension. SPSS 22 software was used for data analysis. Mann-Whitney U test was employed for pairwise comparisons, and Kruskal-Wallis variance analysis was conducted for intergroup comparisons. The findings indicate that a significant portion of the sample consists of young adults and individuals with moderate weight, with the majority perceiving themselves as normal. While the number of participants who smoke is higher than non-smokers, non-alcohol users outnumber alcohol consumers. Strong correlations were observed among the sub-dimensions of the EAS and positive correlations were found between the EAS and BPS. These results highlight the relationship between exercise addiction and body image in sedentary individuals ($p < .05$). These findings play an important role in the development of health policies and individual health programs.

Keywords: Sedentary, Exercise Addiction, Body Image

THE RELATIONSHIP BETWEEN EXERCISE ADDICTION AND BODY PERCEPTION IN SEDENTARY INDIVIDUALS

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Abstract

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Keywords: Sedentary, Exercise Addiction, Body Image

AMELIORATIVE EFFECT OF PROBIOTICS IN ALZHEIMER'S DISEASE

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Abstract

Alzheimer's disease (AD) is one of the most common neurodegenerative disorders in older adults. It is characterized by difficulty in writing and speech, weak memory, and struggle with cognition. Bidirectional communication between the gut and brain via the gut–brain axis plays a very important role in normal brain functioning. Dysbiosis has been linked to various neurodegenerative disorders; hence, a healthy gut microbiota is essential for normal brain function. Probiotics can prove to be effective therapeutic agents against Alzheimer's Disease as they restore gut–brain homeostasis. The steadily increasing prevalence of Alzheimer's disease (AD) worldwide and the lack of effective therapeutic agent attract novel therapeutic approach in recent years. In view of the close relationships between gut microbiota and AD, probiotics have been suggested as potential therapeutic options for AD in recent years. **Methods:** We have done review of literature available on probiotics treatment of Alzheimer disease, which indicate probiotic uses have beneficial effect on the Alzheimer disease by increasing the ameliorate cognitive decline and increase gut-brain axis permeability. **Result**: After literature review, Probiotics are known to be one of the preventative measures against cognitive decline in AD. Numerous clinical trials have proven the effectiveness of selected bacterial strains in slowing down the progression of AD. It is proven that probiotics modulate the inflammatory process, counteract with oxidative stress, and modify gut microbiota. Most of the studies are concentrated on the advantages of *Lactobacillus* and *Bifidobacterium*. Each study reported a noticeable improvement in cognition and memory. **Conclusion:** This review highlights the evidence supporting probiotics potential in treating Alzheimer's disease (AD). In vivo and clinical trials show no side effects, suggesting further research to identify AD specific gut microbiome changes. Large-scale studies linking microbial diversity to cognitive status and disease progression could provide valuable prognostic results. An interdisciplinary approach could advance AD treatment and prevention.

THE RELATIONSHIP BETWEEN INTERPERSONEL COMMUNICATION AND EMOTION MANAGEMENT: A CONCEPTUAL ASSESSMENT

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Abstract

Introduction and Purpose: From the beginning of humanbeings, the most important element on sharing emotions and thoughts is communication. The mutual communication people affects all of the life aspects. The interpersonal communication people have on social and family lives shape both their emotions and, others' emotions they interact and their interpersonal behaviors. The Management style of their emotions while developing healthy relationships play an active role on their social life. Since it is not possible for the individual to keep the natural flow of life under control, the way the individual interprets and manages their emotions as a result of her interactions is in an important position. Emotions are determinant factors on revealing the level of the interpersonal communication. The thoughts and emotion of the individual who is in a interpersonal communication is reflected on the communication style. Individuals who position their emotions correctly avoid being a slave to emotions such as anger, stress, panic, depression and unhappiness that negatively affect their lives, and this positively affects their relationships in their social lives. This mutual interaction between emotion and communication determines the course of interpersonal communication. In this context, the aim of the study is to consider the role of emotion management in effective interpersonal communication and to evaluate how emotion management is reflected in the mutual communication of people. In addition, this research, which aims to combine the perspectives of emotional management, which is the subject of important studies in the field of interpersonal communication and psychology, will guide future studies.

Discussion and Conclusion: Studies and discussions clearly show that emotional management is one of the most important skills in a person's life. It seems that properly managed emotions help the individual make more effective decisions and also have solid relationships. This emotional balance not only leads the individual to success in all areas of thr lives, but also is an important factor in establishing healthy relationships. Individuals who can educate their emotions without ignoring them or suppressing them can be aware of their emotions, manage them effectively, and enrich their social life efficiently. In line with the study, it is clearly seen that individuals who can read, care about and manage their own and others' emotions can achieve psychological and sociological well-beings.

Key Words: Communication, Interpersonal Communication, Emotion Management

THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS

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Abstract

Background A growing body of evidence highlights that intestinal dysbiosis is associated with the development of psoriasis. The gut–skin axis is the novel concept of the interaction between skin diseases and microbiome through inflammatory mediators, metabolites and the intestinal barrier. The gut microbiome affects skin homeostasis through its influence on the signaling pathways that coordinate epidermal differentiation.

The objective of this study was to synthesize current data on the Deniplant natural modulator of the gut microbiome in patients with psoriasis.

Materials and methods All studies confirmed the association of psoriasis and gut microbiota dysbiosis. We describe the recent advances regarding the interplay between gut microbiota and the skin. Thus, the microbiome can be considered an effective therapeutical target for treating this disorder.

Results This presentation provides a detailed and comprehensive systematic study regarding gut microbiome in patients with psoriasis. These results are supported by clinical observations based on a case serie showing improvement in psoriatic skin lesions after Deniplant natural modulator. It is still not clear whether psoriasis is an effect or a cause of the observed disbalance between beneficial and pathogenic microbes. In this context, the study provides very interesting results, showing significantly greater changes in the gut microbiome of patients with psoriasis treated Deniplant natural modulator

Conclusion There is a significant association between alterations in gut microbial composition and psoriasis. Intestinal dysbiosis is a state of imbalanced gut microbiome that eventually has a negative impact on skin function and integrity. Deniplant natural modulator is a potential therapeutic strategy in patients with psoriasis

Keywords: dysbiosis, microbiome, psoriasis, gut-skin axis, gut barrier, Deniplant nutraceuticals

A SHORT LIFE DEDICATED TO TRADITIONAL TURKISH ART MUSIC: ŞEVKİ BEY AND HIS WORKS IN THE MAQAM OF UŞŞAK

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Abstract

Introduction and Purpose: Şevki Bey (1860-1891) lived in a period when the processes of change and transformation were intensely felt in every institution and social level of the Ottoman Empire. It is possible to see various reflections of this period, which started especially with the Tanzimat, in traditional Turkish classical music and its members. Şevki Bey, who is considered one of the pioneering names of the song form, has forty-one works composed in the uşşak maqam recorded in the TRT repertoire. The aim of this study is to analyze Şevki Bey's composing behaviors in the uşşak maqam and to determine the motivational bond (internal/external) that the composer established with the uşşak maqam.

Materials and Methods: In the first part of this three-part study, literature review and document analysis methods were used and a text-centered historical approach was applied while explaining the composer's life, upbringing and professional artistic life. In the second and third chapters, a structuralist method that deals with the composer and his composing behaviors is used. Determinations of the genre, mode, tempo and melodic material section (EMK) of the works constitute the scope in which structural data are determined.

Findings: It has been observed that the works of Şevki Bey, one of the iconic names of the song form that has risen with the change process, in the uşşak maqam are largely similar to each other in terms of structure. The composer, who used the song form extensively in the context of his dominant composing behavior, showed a behavior compatible with the descriptions of the uşşak maqam defined by members of the tradition.

Discussion and Conclusion: This study has shown that Şevki Bey's works in the uşşak makam are largely similar to each other in terms of makam structure, genre, style and EMK. According to some researchers, while this situation can be explained in a negative sense, such as "the composer repeating himself", it can also gain positive value from a style-oriented perspective, which is a part of the composer's composing behavior.

Key Words: Şevki Bey, Composing Behaviors, the Maqam Uşşak

TAXATION IN REAL ESTATE PURCHASE AND SALE TRANSACTIONS AND EXAMINATION OF TITLE DEED FEES

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Abstract

The real estate sector is of great importance for national economies and capital markets. The continuation of housing construction and other constructions is seen as the locomotive of the economy with its employment, investment, and other added values. Real estate is defined as assets that cannot be moved from one place to another. The subject of immovable property in the Turkish Civil Code 704. Article 704 states that land, independent, and permanent rights are recorded on a separate page in the Land Registry, and independent sections are registered in the Condominium Registry. It is known that real estate tax is paid to municipalities by real estate owners, title deed fees paid in real estate purchases and sales, and income tax due to the increase in the value of real estate under certain conditions during the purchase and sale of real estate. Within the scope of the Income Tax Law, the earnings obtained by real persons who buy and sell real estate are taxed. In real estate purchase and sale transactions, title deed fees are charged as 20 per thousand buyers and 20 per thousand sellers by the Law on Fees. Due to the high fee rates, citizens generally realize the purchase and sale price based on the real estate declaration value rather than the real value. Therefore, the state loses significant amounts of fees, causing citizens to be victimized from time to time. With a new regulation to be made, it will be possible to reduce the fee rates, allowing citizens to buy and sell at real value and preventing the state's fee losses. The main purpose of the study is to investigate the importance of taxation and fees in real estate purchase and sale transactions by reviewing the literature. This study, which is a compilation, will try to bring problems and solution suggestions in the payment of taxation and title deed fees in real estate purchases and sales.

Keywords: Real Estate, Taxation, Title Deed Fee, Capital, Property Tax

TENSILE STRENGH BEHAVIOR OF THERMALLY MODIFIED ASH WOOD IN BONE SHAPE

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Abstract

Introduction and Purpose: Thermally modified wood refers to wood that has undergone a controlled heating process to enhance its properties, making it more suitable for various applications. The thermal modification process involves heating wood to temperatures typically between 160°C and 240°C (320°F to 464°F) in the absence of oxygen. This process alters the chemical and physical properties of wood, resulting in a material that is often more stable and durable. While thermal modification improves certain aspects of wood performance, it generally reduces its mechanical strength. The heat treatment can weaken the wood by degrading its cellulose and hemicellulose, leading to decreased tensile strength and modulus of rupture (MOR). Generally the tensile strenght of thermally modified wood samples were always prepared in rectangle shape. In this study bone shape was used for tensile strenght test. The aim of this study is 1) to compare the tensile strengh with tensile specimens of polymer composite materials which are always prepared for tensile test as in bone shape, 2) to compare the tensile strength of bone shape wood samples with th eones of rectangular shape wood specimen which have been always prepared in previous studies.

Materials and Methods: In order to measure the tensile strenght behaviour thermally modified ashwood, the samples were prepared in bone shaped in CNC router machine. The samples were tested in Besmak Universal Testing Machine and the ultimate tensile strengths and failure modes were recorded.

Results: Results indicated that the tensile strength of the thermally modified ash wood samples were 50 % lover than control ones as expexted due to thermally modified wood. However failure mode of the specimes are mostly from the radius part of the bone shaped specimens. This result showed that preparing wood specimen in rectangle shape might show higher and real tensile strenght of either thermally modified or control wood specimens.

Key Words: Thermally Modified Ash Wood, Tensile Strength, Mechanical Properties, and Bone Shape Wood.

PROGRESSIVE COLLAPSE IN CONFLICT ZONES: ANALYZING THE IMPACT OF VARIOUS ATTACK VECTORS

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Abstract

Design engineers use the loads and load combinations specified by regulations in structural design. Many countries establish load values in their regulations based on their geographical conditions, workmanship and material quality, temperature, or seismic conditions. These loads commonly include dead load, live load, wind load, earthquake load, and effects such as temperature. However, structures, although rarely, may be exposed to unexpected loads from the date of construction onwards. These loads can impact structures during their service life as well as during the construction phase. Such events can initiate a progressive collapse mechanism in a part of the structure, or even lead to a total collapse. Particularly, large shock impacts from events such as gas explosions and terrorist attacks can trigger this progressive collapse mechanism. These types of events, known in the literature as progressive collapse, have especially been observed on battlefields in recent years. This study investigates the damage levels resulting from attacks on structures in the Belgorod Oblast of Russia (Russia-Ukraine war) and the place of progressive collapse among these damages. Additionally, the effects of different and modern attack techniques on structures are examined. The damage levels considered are classified as Minor Damage, Moderate Damage, Severe Damage, Total Collapse, and Progressive Collapse. Modern attacks considered include FPV kamikaze drones and aerial elements shot down by unmanned aerial vehicles (UAVs) and air defense systems. Traditional attack methods are identified as rocket launchers, bombings, mortars, and Multiple Launch Rocket Systems (MLRS). The study considers the period between May 6, 2024, and June 16, 2024. Data were obtained daily from officially provided information by the Belgorod Governorship and the Ministry of Defense. All this information is supported by photographs and locations. Daily data were converted to weekly data and presented in the study. At the end of the study, it was observed that structures in residential areas such as Belgorod city center, Shebeniko, and Murom village were more exposed to attacks. It was found that modern warfare techniques did not directly cause total collapse or progressive collapse of structures, but indirectly caused damage through fires they started, leading to economic losses especially in roofs and facades. Progressive collapse in structures did not occur as frequently as expected. It was seen that traditional warfare methods more often caused progressive collapse in structures.

Keywords: Progressive Collapse, Unexpected Loads, Blast Loads, Drones, UAV.

THE ROLE AND IMPACT OF PIGMENTED CONCRETE IN MODERN CONSTRUCTION

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Abstract

Pigmented concrete has become increasingly popular in modern construction due to its exceptional combination of structural durability and aesthetic flexibility. By incorporating pigments into the concrete mix, this material not only provides outstanding resistance to wear but also offers surfaces that can emulate the look of high-end materials such as stone or brick. Recent developments in colored cement technology have expanded the color range far beyond the traditional gray, allowing architects and designers to work with a broader spectrum of hues to meet their design objectives. These innovations in pigmented concrete enable the creation of various colors, which enhances its visual versatility for different architectural and design needs. Whether for driveways, patios, walkways, or distinctive architectural features, pigmented concrete is chosen for its ability to deliver both functional durability and aesthetic appeal. The selection of pigmented concrete methods is influenced by the project's specific requirements, design preferences, and budget considerations. Pigmented concrete represents a significant advancement in construction materials, combining technical innovation with creative design possibilities. It supports the structural demands of modern construction and contributes to the artistic expression of built environments. This adaptability makes pigmented concrete a valuable choice for projects where performance and visual impact are important

Keywords: Pigmented concrete, Construction Techniques, Visual Design, Pigment Integration, Architectural Design.

SUSTAINABLE CONCRETE: ENVIRONMENTALLY FRIENDLY SOLUTIONS

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Abstract

Transitioning from traditional Portland cement (PC) to supplementary cementitious materials (SCMs) is a vital strategy for reducing carbon emissions from cement production. Concrete, the second most widely used material globally after water, is produced over 10 billion cubic meters yearly. The production of Portland cement is particularly environmentally taxing due to its high CO2 emissions, which result from the energy-intensive process of heating limestone and other materials to extreme temperatures. Supplementary cementitious materials like blast furnace slag (GBFS), silica fume (SF), and fly ash (FA) provide effective alternatives to traditional PC. GBFS, a by-product of steel manufacturing, reduces the need for PC while enhancing concrete's strength and durability. Silica fume, derived from silicon metal production, improves the density and overall strength of concrete, extending the service life of structures. Fly ash, a by-product of coal combustion lowers CO2 emissions and improves the workability of concrete when used in place of some PC. Using SCMs offers multiple advantages, such as better workability, increased resistance to environmental damage, and reduced permeability. These benefits contribute to more durable and long-lasting concrete, reducing maintenance costs and supporting sustainability goals. Additionally, SCMs promote the circular economy by repurposing industrial by-products, minimizing waste, and conserving natural resources. Embracing SCMs not only lessens the environmental impact of concrete production but also advances sustainability in construction, making it a crucial step towards a greener industry.

Keywords: Sustainable Construction Practices, Green Building Materials, Low-Impact Concrete Solutions, Eco-Conscious Cement Alternatives.

SOLUTIONS TO COMPLETE CURRENT VIETNAMESE LAWS ABOUT PARTNERSHIP AGREEMENT

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Abstract

Partnership contract is a concept that has appeared in many laws of many countries around the world such as India, Japan, France, USA. In these laws, there are many Chapters including many Articles regulating Partnership Constract contracts. However, in Vietnam in practical and scientific terms, legal research on partnership contracts has so far been modest. A survey of Vietnamese laws and recent studies show that there is almost no theoretical system to comprehensively and fully assess the concept, characteristics and legal nature of partnership contracts; lack of appropriate theoretical framework, which serves as a foundation for research, formulation, enactment of laws and organization of implementation.

In the content of this article, on the basis of legal analysis and comparison on the need to perfect the current Vietnamese law on partnership contracts such as: Requirements set forth in building a socialist rule of law State; meet the requirements of building a market economy, improving competitiveness, creating transparency in investment, business and law enforcement; the requirements placed on the development of the Partnership; orientation to complete the law on partnership contracts; The author has proposed directions to improve the law on partnership contracts

Keywords: Partnership contract, partnership, contract

THORACIC EPIDURAL ANAESTHESIA EXPERIENCE IN A GERIATRIC PATIENT UNDERGOING CHOLECYSTECTOMY: CASE REPORT

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Abstract

Introduction and Purpose: Geriatric patients are at increased risk of morbidity and mortality for anaesthesia due to age-related physiological changes, existing comorbidities, polypharmacy, cognitive impairment, decreased effort capacity and high risk of frailty. In these patients, regional anaesthesia reduces the risk of postoperative respiratory complications and cognitive dysfunction.

In this case report, we aimed to share the experience of epidural anaesthesia in cholecystectomy and choledochoduodenostomy procedures performed in a geriatric patient.

Case Report: A 92-year-old woman with hypertension and valvular heart failure was hospitalised with a prediagnosis of acute cholecystitis. In the preoperative evaluation, in addition to comorbidities, the patient was immobilised and could only stand with support. An epidural catheter insertion was planned for intraoperative anaesthesia and perioperative analgesia in an elderly female patient with an anaesthesia risk classification of ASA 3, metabolic equivalent score (MET) 1 and high-risk surgery class.

An epidural catheter was inserted through the thoracic 8-9 intervertebral space in a sitting position in the operation room. For anaesthesia, 20 ml of 0.25% bupivacaine was administered into the epidural space. After anaesthesia of the surgical field was achieved, the surgical procedure was allowed. A total of 3 mg midazolam and 25 mcg fentanyl were administered for intraoperative sedoanalgesia. A total of 15 mg ephedrine was administered for intraoperative hypotension. Choledochoduodenostomy was performed after cholecystectomy. The total surgical time was 85 min. 0.125% bupivacaine infusion into the epidural space was performed for analgesia in the postoperative period. She was followed up in the postanesthetic care unit after surgery. Laboratory parameters improved dramatically. No complication was observed in the perioperative period and the patient was transferred to the ward on the 5th postoperative day.

Discussion and Conclusion: In geriatric patients undergoing open cholecystectomy, thoracic epidural analgesia may be preferred due to effective sensory block, stable haemodynamics and reduced risk of postoperative complications.

Key Words: Geriatrics; Cholecystectomy; Thoracic Epidural Anesthesia; Perioperative Analgesia

REVIEW: STUDIES FOR DROUGHT-RELATED GENE IDENTIFICATION AND EXPRESSION ANALYSIS IN FRUIT SPECIES

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Abstract

Introduction and Purpose: To date, many studies have been carried out on the identification of drought-related genes in many plant species, especially field crop species such as wheat, corn, sunflower and rice, and vegetable species such as tomatoes, peppers, beans and peas. There are also many review articles that focus specifically on such agricultural products that are essential for human nutrition. On the other hand, there are similar study examples in fruit species regarding the identification of drought-related genes. However, no examples of studies produced by compiling examples of studies on this subject have been found. The aim of this study is to create a compilation of studies conducted to date to identify drought-related genes in fruit species. Thus, such studies can be used to evaluate potential solutions for drought conditions.

Abiotic factors account for 50% of the causes of yield loss in agricultural crops worldwide. The share of drought stress, which is among the abiotic stress factors, is expressed as 26%. Drought in fruit species is an important factor that negatively affects the growth and productivity of plants. Drought reduces plants' water and nutrient uptake, slowing their growth processes and can prevent fruit formation. Such conditions can reduce fruit yield and negatively affect quality. In this study, an introduction of drought-related genes is included. In addition, a summary of examples of drought-related gene identification studies conducted in fruit species to date is presented.

Results: According to the review of the final reports of these studies; It has been emphasized that there are effective studies to shorten the process of breeding studies in fruit species. However, it has been also emphasized in the final reports of these studies that much more work is needed to fully elucidate the cellular events and metabolic pathways in response to drought stress.

Key Words: Fruit Species; Drought Stress; Gene Identification; Expression Analysis

AN EVALUATION OF SOLFEGGIO LESSONS FOR STUDENTS WITH AUTISM

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Abstract

Introduction and Purpose: In our country's professional music education, particularly in conservatories, the number of students with autism is rapidly increasing. The educational process for these students in individual instrument and vocal lessons continues thanks to the efforts and experiences of their educators. However, in group lessons such as solfeggio, theory, orchestra, chamber music, music history, form knowledge, and harmony, the mixed-education environment leads to new and different experiences for the autistic students, the educators, and the other students. As an interesting experience, the first solfeggio class entirely composed of students with autism was established in our country within the scope of the Autism and Music Summer School.

Materials and Methods: This study focuses on the behaviors observed in students with autism during the Autism and Music Summer School Solfeggio lessons, the attitudes and behaviors of the educator, the compromise strategies and teaching approaches preferred, classroom management techniques followed, reward and punishment practices, how discipline is maintained, the influence of peers alongside the roles of parents, the sources of motivation for the students, and the types of students involved. One of the researchers is also the instructor of the course, making this study autoethnographic. Data obtained through observation techniques were analyzed using qualitative methods.

Results: The study is considered to be both contributory and original in its field. As a result of the research, it was found that in solfege lessons with autistic students - especially with individuals with absolute hearing - sensation studies and melody dictation studies were quite enjoyable, and in general, there was no problem in solfege reading studies, but they had difficulty in theory subjects and rhythmic readings.

Key Words: Autism, Diverse Learners, Solfeggio

ASSESSMENT OF THE JOINT USE OF FLY ASH AND MARBLE COARSE AGGREGATES ON CONCRETE PROPERTIES AND DURABILITY

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Abstract

Rapid infrastructure development, urbanization, and industrial expansion are driving up the global demand for concrete, putting pressure on natural resources and disrupting ecological balance. To address this demand without compromising quality, incorporating recycled materials into concrete presents a promising solution. This study investigates the use of environmentally friendly concrete by substituting natural coarse aggregates with marble coarse aggregates from local industries and partially replacing cement with Class F fly ash from power plants. The goal is to enhance concrete properties while maintaining strength. Both destructive and non-destructive testing methods, including ultrasonic pulse velocity (UPV) and rebound hammer (RH), are employed to evaluate workability and strength. Various concrete mixtures are tested, with marble waste and fly ash levels compared to conventional concrete using only natural aggregates. Fly ash replaces 10% of the cement, and natural coarse aggregates are substituted with marble aggregates in proportions ranging from 10% to 90%, increasing in 20% increments. Mixtures with marble aggregates exhibit increased slump, while those with 10% fly ash show a slightly lower slump. Replacing 10% of cement with fly ash and 70% of natural aggregates with marble aggregates results in a compressive strength improvement of approximately 9.94%, 13.5%, 23.83%, and 24.04% on days 7, 14, 28, and 56, respectively. Concrete containing marble aggregates and fly ash demonstrates normal ultrasonic pulse velocity and shows a good correlation between destructive and non-destructive tests. These results underscore the potential of marble waste and fly ash as viable, sustainable alternatives to natural aggregates in the concrete industry.

Keywords: Marble coarse replacement, Fly Ash, Workability, Strength, Schmidt Hammer, Ultrasonic velocity.

DETERMINATION OF ANTIOXIDANT CAPACITIES OF FRAGRANT BASIL (OCIMUM BASILICUM ODORATUM)

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Abstract

Introduction and Purpose: Basil (*Ocimum basilicum*), known as reyhan in some regions of our country, is an annual plant species from the Lamiaceae family that generally grows in temperate regions. Basil, also called the "king of herbs," is considered a sacred plant in India. This study investigated the phytochemical structure and antioxidant capacity of Fragrant Basil (*Ocimum basilicum odoratum*), a variety of Basil.

Materials and Methods: The total phenolic content of the plant extract was determined using the Folin-Ciocalteu method, with gallic acid used to construct the standard graph. The total flavonoid content in the extract was determined using the Aluminum Nitrate method, with the standard graph constructed using quercetin. The free radical scavenging capacity of different concentrations of the plant extract (250, 500, 750, and 1000 µg/ml) was also determined. 1,1-Diphenyl-2-picrylhydrazyl (DPPH•) was used as the free radical, with 2,6-di-t-butyl-1-hydroxytoluene (BHT) used as the standard. The Fe^{3+}-Fe^{2+} reducing power and Cu^{2+} reducing antioxidant capacity were also determined for the plant extracts at different concentrations.

Results: The total phenolic content in the plant extract was found to be 296.66±13.64 mg GAE/g. The total flavonoid content in the extract was determined to be 32±6.00 mg QE/g. The plant extract's DPPH radical scavenging activity was measured at 250-1000 µg/ml, and at 1000 µg/ml, it was 94.02±0.02%, which is higher than the 90.26±0.29% observed for BHT. Similarly, the plant extract's Cu^{2+} reducing antioxidant capacity and Fe^{3+} reducing power increased in parallel with the increase in concentration in the 250-1000 µg/ml range. Particularly at the highest concentration, the Cu^{2+} reducing antioxidant capacity was found to be very close to that of BHT. **Discussion and Conclusion**: The study results show that O. basilicum odoratum, which is widely used as a spice and medicinal plant, has antioxidant potential. In addition to its widespread use, the plant has the potential to be used as a natural antioxidant source.

Key Words: *Ocimum basilicum odoratum*, Basil, Secondary metabolite, Antioxidant

STUDY OF EIMERIA INFECTION AND RELATED RISK FACTORS IN POULTRY AND RUMINANT ANIMALS ACROSS LOCAL GOVERNMENTS IN GWANDU EMIRATE

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Abstract

This study investigates the prevalence and associated risk factors of Eimeria infection in poultry and ruminant animals across local governments in the Gwandu Emirate. Eimeria infection, commonly known as coccidiosis, is a significant parasitic disease impacting the livestock and poultry industries, leading to considerable economic losses due to reduced productivity and increased mortality rates. The research aimed to assess the incidence of Eimeria infection, identify the species involved, and evaluate the effects of veterinary care, vaccination, and sanitary conditions on infection rates. Key findings reveal that Cattle, Sheep, and Broiler Chickens benefit from better veterinary care, higher vaccination rates, and improved sanitary conditions, resulting in lower Eimeria infection rates. In contrast, Local Chickens face significant challenges due to poor access to veterinary services (1.2% "Yes"), low vaccination rates (1.5% "Yes"), and inadequate sanitary conditions (12.5% "Yes"). This disparity in management practices contributes to a higher prevalence of Eimeria infections among Local Chickens compared to other animals. The study concludes that addressing the deficiencies in veterinary care, vaccination, and sanitation for Local Chickens is crucial for reducing Eimeria infection rates and improving overall animal health. Recommendations include enhancing veterinary services, increasing vaccination coverage, improving sanitation practices, and supporting educational and policy initiatives to promote better disease management. This research provides valuable insights into the factors affecting Eimeria infection and offers practical solutions to mitigate its impact, benefiting farmers and the livestock industry in the Gwandu Emirate.

Keywords: Chicken, Sheep, Cattle, Eimeria, Gwandu

INVESTIGATION OF THE RELATIONSHIP OF SOCIAL MEDIA ADDICTION WITH UNEMPLOYMENT ANXIETY IN PHYSIOTHERAPY AND REHABILITATION DEPARTMENT STUDENTS

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Abstract

Introduction-Purpose: With the widespread use of technology in every aspect of daily life, social media addiction can cause negative situations such as anxiety about the future and increased unemployment anxiety. The purpose of this study is to examine the relationship between social media addiction and unemployment anxiety of Physiotherapy and Rehabilitation Department students.

Material-Method: 180 students between the ages of 18-35 studying at Bandırma Onyedi Eylül University Physiotherapy and Rehabilitation Department participated in our study (Female n=148 (%82.2), male n=32 (%17.8)). “Social Media Addiction Scale (SMAS)” was used to assess social media addiction, and “Unemployment Anxiety Scale (UAS)” was used to determine unemployment anxiety. SMAS consists of the sub-dimensions “Busyness” (SMAS-B), “Emotion-State Regulation” (SMAS-E), “Conflict” (SMAS-C), and “Repetition” (SMAS-R). UAS consists of the sub-dimensions “Personal Pessimism and Lack of Self-Confidence” (UAS-P), “Environmental and Social Pressure” (UAS-E), “Qualitative Knowledge and Skill Deficiency” (UAS-Q) and “Employment Difficulties in the Economy” (UAS-ED).

Findings: Our participants’ social media addiction was at a low and moderate addiction level (88.68 ± 27.34). Their unemployment anxiety levels were moderate (71.73 ± 1.06). A positive and low-level correlation was found between social media addiction and unemployment anxiety ($r=0.209$ $p<0.05$). Between SMAS-B and all subdimensions of UAS ($r=0.193$ $p=0.009$, $r=0.246$ $p<0.01$, $r=0.220$ $p=0.003$, $r=0.184$ $p=0.013$, respectively); between SMAS-E and UAS-E and UAS-Q ($r=0.223$ $p=0.003$, $r=0.277$ $p<0.01$, respectively); between SMAS-R and UAS-P, UAS-E and

UAS-Q (r=0.155 p=0.038, r=0.275 p<0.01, r=0.190 p=0.011, respectively); It was observed that there was a low level of positive correlation between SMAS-C and UAS-E and UAS-Q (r=0.231 p=0.002, r=0.215 p=0.004, respectively).

Conclusion: The level of unemployment anxiety increases with social media addiction in Physiotherapy and Rehabilitation Department students. Ensuring the use of social media without addiction and developing strategies for this can contribute positively to reducing the unemployment anxiety levels of students.

Keywords: Social Media Use, Social Media Addiction, Unemployment Anxiety

This paper is derived from the project with the application number 1919B012216534 accepted within the scope of Tübitak 2209-A - University Students Research Projects Support Program.

A RESEARCH ABOUT SERIES ON THE EXXEN DIGITAL PLATFORM

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Abstract

There are various applications in digital platforms which were created as a result of the intersection of computer and internet technologies with publishing technologies. One of these applications Exxen platform was chosen as the subject of this study. The purpose of the study is; to provide general information to users about the Exxen platform, discussing whether it can be watched in family environment and to give users a general idea about the platform by analyzing the “Series” section which was selected from the platform. In this study, information about the general operation of the platform is given determinations have been made about the extent to which they can meet the needs of the audience in the context of the uses and gratifications theory. It has been observed that at this platform whose owner is a Turk, is a local production. In this study where qualitative and quantitative research methods were used, it was determined that only one of the series was produced in 2024, while others were from 2022 and 2021. It was observed that the duration of almost half of the TV series was between 14 and 30 minutes. It has been determined that only three of the warning screens that appear when the series are started are suitable fort he general audience, while the others contain warning explanations containing negative behavior. At the same time, it has been observed that the main actors in the series are different in each series. As a result of all the analyses, it has been determined that the Exxen platform which can be watched by paying a monthly subscription fee, can not adequqately meet the viewer’s need to watch TV series or movies. Except for football competitions which the platform offers to its viewers by paying an extra fee, it has been observed that it is quite inadequate in all other branches. In addition to the the fact thatthe programs on the platform are not up to date, the fact that no content is shared for those who want to watch movies has been identified as the biggest shortcoming of Exxen. In this study, which also investigates the economic and political situation of the Exxen platform, which can not meet the needs of the audience, espicially for watching TV series and movies, it has been seen that the platform is financed by a subscription system with or without advertising.

Keywords: Digital Platforms, Exxen, TV Series, Movies, Uses and Gratification.

EVALUATION OF THYROID HORMONE LEVELS IN TERM INFANTS WITH POSTNATAL RESPIRATORY DISTRESS

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Abstract

Introduction: Thyroid-stimulating hormone (TSH) contributes to fetal lung maturation and thyroid hormone levels are affected in serious illnesses including respiratory distress, especially in premature infants. However, there are few studies in the literature regarding this issue in term infants. This study aimed to investigate whether thyroid function is affected in term infants with postnatal respiratory distress.

Materials and Methods: Free thyroxine (fT4) and TSH levels were retrospectively evaluated within the first 5-7 days of life in term infants (≥37 weeks of gestation) admitted to the Recep Tayyip Erdoğan University Training and Research Hospital Neonatal Intensive Care Unit with a diagnosis of respiratory distress, as well as in healthy-term infants.

Results: A total of 101 newborns, 52 in the respiratory distress (RD) group and 49 in the control group, were evaluated. There were no differences in gender and weight between the groups. The RD-group was at 37-38.6 weeks of gestational and had a higher cesarean rate. TSH levels were significantly higher and fT4 levels were significantly lower in RD-group compared to controls; 3.76-9.18 (max 18.63) vs 3.24-5.01 (max 6.95) μu/ml, $p=0.005$, and 1.29±0.3 vs 1.80±0.4 ng/dl, $p<0.001$, respectively. There was no difference in thyroid function between the RD-group who received surfactant and those who did not. In addition, according to a cross-sectional study reporting the reference values of healthy newborns within the first 10 days of life, it was found that TSH levels were high and ST4 levels were close the lower limit in the RD-group. Thyroid function in the RD group showed improvement during the follow-up period.

Conclusion: A term infant with postnatal respiratory distress may have abnormal thyroid function that requires monitoring, such as transient TSH elevation.

Keywords: Term, respiratory distress, thyroid hormone levels

EVALUATION OF EARTHQUAKE BEHAVIOUR OF HISTORIC ŞİRVANİ MOSQUE'S STONE MINARET

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Abstract

This study was carried out to investigate the earthquake behavior of the Şirvani Mosque minaret in Gaziantep in Turkey. The minaret, which stands 35 meters tall, presents a considerable structural challenge. Following the catastrophic earthquake in Turkey on February 26, 2023, many historical structures, including the Şirvani Mosque minaret, suffered extensive damage or collapse. To understand the structural behavior of the minaret during seismic events, we utilized the Extreme Loading for Structures (ELS) program for a detailed non-linear time history analysis.

In summary, the earthquake in Turkey underscored the susceptibility of historical structures to natural calamities. The analysis using the ELS program replicated the real-life collapse of the minaret under seismic forces.

Keywords: Historical Stone Minaret, Non-linear Time History Analysis, Extreme Loading for Structures (ELS).

EVALUATING THE REGULATORY DYNAMICS OF THE GENE EXPRESSION NETWORK OF SACCHAROMYCES CEREVISIAE

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Abstract

Living cells can adapt to diverse environmental factors, sometimes severe ones, primarily through variable gene expression, which is precisely regulated by an elaborate transcriptional network. By making use of the most recent version of the YEASTRACT database, we performed reconstruction of the full network of transcriptional regulatory interactions currently known for S. cerevisiae. Then, we studied the topological properties of this network, depending on the types of experimental data for support and on already available published networks. Assembly of the yeast transcriptional network evidently affects both motif enrichment and in-degree distribution. Overall, we have validated some of previously obtained results and contested others. These analyses also indicated that there is little experimental evidence to back up theories, and that our understanding of the entire network is incomplete.

Keywords: Gene, Gene Expression, Saccharmyces Cerevisiae, Yeast,

THE IMPORTANCE OF HOME-BASED REHABILITATION

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Abstract

Introduction: With the development of new rehabilitation approaches, the importance of encouraging home-based rehabilitation has increased in recent years to optimize patient well-being and family participation and to reduce burden and costs. At the same time, rehabilitation programs based on the integration of Information and Communication Technologies (ICT) into clinical and research practice are increasingly offered in the home environment. Self-administered home programs are more likely to be accepted by patients without time and space constraints and additional costs. Home-based rehabilitation programs also provide compliance and interaction with healthcare professionals.

Objective: In this study, we aim to evaluate the effects of home-based rehabilitation programs applied in various disease populations.

Findings: The keywords ‘Physiotherapy’, ‘Rehabilitation’, ‘Home-based exercise’ were searched in Web of science, Pubmed, Google scholar and DergiPark databases. As a result of the examinations, 24 articles that were found to be closely related to the subject were examined in detail within the scope of the study.

Conclusion: As a result of the literature review, positive results of home-based exercise were observed in various areas such as hip fractures, knee arthroplasty, cerebral palsy, Parkinson's disease, stroke and cardiac problems. Our study reveals that there is a need for studies investigating the effectiveness of home-based exercises in more areas.

Key words: Physiotherapy, Rehabilitation, Home-based exercise

ROLE OF EDUCATION IN PERSONALITY DEVELOPMENT

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Abstract

The author states that a metaphysical and dialectical concept of the development of modern society, as well as the causes of events, driving forces and patterns within it, has been developed. Highlighting the important role of education in the development of human personality, the author notes that currently scientists also confirm the presence of three factors that play a significant role in this process: education, environment and genetics. However, while one group of researchers gives preference to education in the development of personality, others emphasize the importance of genetics and environmental factors. Expressing his own opinion on this matter, the author points out the need for every person to be aware of these factors and the degree of their influence on the formation of his own personality. The article also mentions the role of family and school in the development of a child's personality, and provides quotes from the holy book of Islam, the Qur'an, and the epic Dede-Gorgud. In conclusion, the author expresses the opinion that each parent bears personal responsibility for his children, thereby being obliged to raise them adequately and in line with educational principles.

Keywords: metaphysics, dialectics, progress, heredity, psychological, biological, physiological, perception, thinking, evolution, experiment, modesty.

EMPIRICAL ANALYSIS OF THE EFFECT OF TAX BURDEN ON FERTILITY RATE

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Abstract

Introduction and Purpose: Fertility rate is critical for the sustainability of the population structure. The aim of this paper is to investigate the impact of tax burden on fertility rate with the help of empirical methods in Türkiye.

Materials and Methods: In this paper, ARDL cointegration approach is applied as an empirical method. The model analyzes the period 1990-2022 and seeks to answer the question of how tax burden, economic growth, unemployment and inflation rates affect the fertility rate.

Results: First, the stationarity of the variables is tested by unit root tests. Secondly, ARDL cointegration approach is applied to variables that are stationary at different levels. The cointegration findings of the ARDL method reveal that the variables in the model move together in the long run. According to the long-run coefficient results, a 1% increase in tax burden, economic growth, unemployment and inflation rates negatively affect the fertility rate by 8.5%, 1.7%, 0.8% and 14.4%, respectively. Finally, the effect of a shock in the model is compensated in approximately five periods.

Discussion and Conclusion: In Türkiye, the government has been discussing new policy proposals to increase the fertility rate, which has been on a downward trend in recent years. With this motivation, this paper examines the effects of various macroeconomic indicators, particularly tax burden, on the fertility rate. The paper first provides evidence that tax burden, unemployment and inflation rates have a negative effect on fertility. The results show that the decline in disposable income, i.e. the level of welfare, puts pressure on the fertility rate. On the other hand, the negative impact of economic growth can be explained by low fertility rates in industrialising cities, where living conditions become more challenging.

Keywords: Fertility Rate, Tax Burden, ARDL

DO AUTOMATIC STABILIZERS WORK IN TURKEY? EVIDENCE FROM THE VAR MODEL

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Abstract

Introduction and Purpose: As a result of living in a society, the production of various goods and services is required. This production is undertaken by the public and is realized through public expenditures. Tax revenues have an important place in the financing of public expenditures. Tax revenues can be sensitive to changes in gross domestic product (GDP). This situation is called tax elasticity. When tax elasticity is high, it is understood that tax revenues will increase as a result of increasing GDP. In other words, it can be said that automatic stabilizers are working. Increasing tax revenues eliminate the problem of financing public expenditures and ensure that public expenditures increase. The increase in public expenditures is an indicator of size of public sector. This study aims to analyze the relationship between tax elasticity and size of public sector in Turkiye.

Materials and Methods: The study uses quarterly data covering the years 2006-2024 for Turkiye. Tax revenues, public expenditures and GDP data were obtained from the Central Bank of the Republic of Turkey (CBRT). Tax elasticity and size of public sector series were calculated by us. As a result of the conventional unit root tests applied to the data sets, it is understood that the tax elasticity series is stationary at the level, while the government size and GDP series have a unit root process. Thus, it is decided that the series are suitable for analysis with the VAR model method. According to the VAR model test results, concrete evidence is presented that both the size of public sector and GDP series do not have a statistically significant relationship with tax elasticity. In other words, automatic stabilizers do not work in Turkiye. In addition, the increase in size of public sector has a negative effect on GDP for approximately 1 period.

Results: According to the findings obtained from the study, a discretionary fiscal policy should be implemented in Turkey. In fact, no relationship was found between the increases in GDP and tax elasticity. Therefore, automatic stabilizers cannot be used as an countercyclical policy. In addition, considering the negative effect of size of public sector on economic growth, it can be said that public expenditures should be used more meticulously.

Key Words: Tax Elasticity, Size of Public Sector, Fiscal Policy

EPIDEMIOLOGICAL PROFILE OF COMMUNITY-ACQUIRED INFECTIONS IN A UNIVERSITY HOSPITAL IN SOUTHERN TUNISIA

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Introduction

Community-acquired infections (CAI) continue to emerge and threaten the health of communities. Understanding their epidemiological characteristics is essential for the development of appropriate prevention and control strategies. In this context, we aimed to study the epidemiological profile of CAI in patients hospitalized at the University Hospital Hedi chaker in Sfax, Tunisia.

Methods

This was a cross-sectional prevalence study carried out among patients hospitalized in the University Hospital Hedi Chaker in Sfax, Tunisia between 29 April and 25 May 2024. All patients admitted to hospital at 8am on the day of the survey were included.

Results

A total of 583 patients were enrolled, 84 (14.4%) of whom were admitted for CAI. We noted 86 infections giving a prevalence of CAI of 14.7%. The sex-ratio of infected patients was 1.04. The mean age was 37.12±22.2 years. The median length of hospital stay was 7 days (Interquartile range (IQR)= [3 – 16 days]). The most frequently noted medical histories were diabetes (15.5 %, n=11) and high blood pression (13.7%, n=10).

According to infection site, lower respiratory tract infections are the most prevalent CAI (56.4%, n=39). In the second range, were the skin and soft tissue infections in 14.3% of patients (n=12). Ten CAI were microbiologically documented (11.9%) and 7 germs were found. The most frequently identified pathogens were *Escherichia coli*, *Shigella dysenteriae* and *Candida albicans*, which were isolated from 2 patients (20%), respectively.

An antibiotic therapy was prescribed in 50% of patients (n=42). The most prescribed antibiotics were third-generation cephalosporins (21.4%, n=18) and penicillin (10.7%, n=9).

Conclusion

Our study shows that CAI are common in our population, with a notable predominance of lower respiratory tract infections. It is therefore important to adopt effective preventive measures to limit the spread of these infections. The cooperation between the various public health players is the key to an appropriate approach.

ENHANCING THERMAL PROPERTIES OF GLASS MATERIALS THROUGH NANOSTRUCTURING TECHNIQUES

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Abstract

The improvement of thermal properties in glass materials using nanostructuring technics is one of the most prospective directions in the materials science which has great potential for different high-performance applications. In this research effort, newcomers like silica nanoparticles, titanium dioxide, and graphene are embedded in glass matrices to provide sufficient enhancements in thermal conduction, thermal stability, and other thermal and mechanical attributes. The dispersion of nanoparticles was done uniformly and accurately by using sol-gel processing, chemical vapor deposition and laser ablation Maryland and by doing so reducing the thermal conductivity by more than 30-35% and better thermal stability was observed.

Being a systematic laboratory to manufacturing scale process, systematic process control was employed to produce parts with high manufacturing precision and reliability, while solving other issues associated with the scale up research in the laboratory to manufacturing application. These enhanced thermal properties were measured using various detailed tests in proving the versatility of the nanostructured glass in different real life applications. Specifically, these materials dependencies demonstrated appropriate application in energy consuming construction structures, superior and modern circuits of electronic devices, and extraordinary high temperature environments including aerospace and automobile engineering.

The interdisciplinarity among materials scientists, chemists, and engineers played a crucial role in fine-tuning the nanostructuring routes which boiled down to tailoring the nanocomposites. Thus, based on our results, we can stress on the importance of nanostructuring for the creation of multifunctional glass materials, which meet the demand for thermal management in modern technologies and even exceed these demands.

In addition, the findings of this study reveal that the innovation of nanostructured glass has environmentally friendly results towards the realisation of the sustainable development goals. Optimised thermal performance helps to reduce energy used for heating and cooling, which in turn reducing the energy bills and the emission of greenhouses gases by buildings and electronic

gadgets. As improvements are being made to such techniques and the field progresses in the discovery of new nanomaterials, these potential applications appear to reach beyond only electronics.

Future prospects will involve optimization of the processes of manufacturing at an industrial scale, and achieving cost-effectiveness to support the concepts of these novel materials, and further tests on durability to ensure the applicability of these materials and products in reality. Nanotechnology in glass manufacturing is in its infancy, but this has great potential to bring in major changes in glass engineering and science since it applies the principles of nanotechnology to its processes to realize creations that can be both useful and futuristic. These findings provide a solid foundation for subsequent progress in the creation of new types of high-performance, eco-friendly glass materials with the help of nanoscale processing.

Keywords: Nanostructured Glass; Sol-Gel Processing; Thermal Conductivity; Advanced Materials; Sustainable Technology.

ENHANCED SOLUBILIZATION OF ANTIBIOTIC DRUGS (LEVOFLOXACIN) VIA SINGLE AND MIXED MICELLAR SYSTEM; A UV-VISIBLE SPECTROSCOPY ANALYSIS OF SAPONIN AND PLURONIC F-127

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Abstract

This study examines how the antibiotic medicine levofloxacin behaves under the influence of bio-surfactants, saponin, and the polymeric surfactant Pluronic F-127. UV-visible spectroscopy was utilized to analyze drug-surfactant complexes and determine parameters such as binding constants (K_b), partition coefficient (K_x), free energy of binding (ΔG_b), and free energy of partitioning (ΔG_p). Solubilization studies were conducted to determine the system's solubilization effectiveness, which was observed to rise in correlation with the concentrations of Saponin and Pluronic F-127. UV-visible measurements allowed us to ascertain the alteration in crucial micelle concentration. The partition coefficient (K_x) in the single micellar system and the binding coefficients in the presence of Saponin and Pluronic F-127 were computed. The partition coefficient for the Saponin/ Pluronic F-127 system reaches its maximum value in the presence of saponin, indicating a considerable enhancement in the solubilizing power of micelles by saponin in the mixed micellar system. The results offer important information for creating pharmaceutical products, especially intravenous solutions. They enhance our knowledge of how drugs dissolve at a molecular level, which can help in designing better drug delivery systems for drugs with low water solubility.

BIOINFORMATIC ANALYSIS OF ADAM-17 SNPs AND SARS-COV-2 INFECTION

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Abstract

ADAM17 is a type I transmembrane protein responsible for the proteolysis of numerous substrates on the cell surface. The wide variety of substrates cleaved by ADAM17 and the extreme complexity of its function regulation present an important research field. Exploring this area will aid in understanding the physiological and pathophysiological mechanisms involving ADAM17. Additionally, ADAM17 plays a significative role in the entry of SARS-CoV-2 into the human body. The nsSNPs that have a direct relationship with SARS-CoV-2 were studied. After demonstrating that the four nsSNPs of interest had the highest conservation scores and were predicted to be deleterious as well as to decrease the protein stability of ADAM-17, we hypothesized that these residues effectively participate in the cleavage of the ACE2 enzyme by ADAM-17. Therefore, a mutation in any of these positions could damage the entire cleavage process. To confirm this hypothesis, we established a series of tools to deduce the pathogenicity of these mutants. The methodology used for this study is based on a bioinformatics analysis of ADAM17 utilizing various tools, namely SIFT, PANTHER, SNP&GO, interpro, Sparks-xl, and PROCHECK. Our study, which is a bioinformatics analysis, suggests that the application of prediction tools, stability, and conservation analysis could provide an alternative approach to selecting candidate nsSNPs of the ADAM-17 gene and their impact on SARS-CoV-2 infection.

Keywords: Bioinformatic, Genomic, Covid-19, SARS-CoV-2, molecular modelling.

SOME PROPERTIES AND THE SEM IMAGE OF THE MARDIN MAZIDAĞI APATITE MINERAL

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Abstract

The Mardin Phosphate Deposits region is home to rich mineral reserves that supply a significant portion of Turkey's phosphate needs. Phosphate mining and processing activities in this area not only produce phosphate but also contribute to the spread of heavy metal pollution. This pollution has substantial effects on both local ecosystems and, on a broader scale, global climate change. In this study, the chemical properties and SEM images of the geologically formed apatite mineral in the Mardin phosphate deposits will be examined in detail. The findings obtained will contribute to the development of environmental management strategies in the region and will serve as a foundation for policy recommendations aimed at mitigating the environmental impacts of phosphate mining.

Keywords: Apatite mineral, Mardin, Mazıdağı, Phosphorus, SEM

EFFECTS OF DIFFERENT FOLIAR PHOSPHORUS FERTILIZATION RATES ON GROWTH PARAMETERS OF CORN (*ZEA MAYS* L.) AND SOIL ALKALINE PHOSPHATASE ENZYME ACTIVITY

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Abstract

Adequate nutrition is crucial for plant growth and development, as well as for ensuring optimal crop production. The judicious use of phosphorus (P) fertilizers is particularly important due to their significant impact on agricultural output and environmental sustainability. Our study assessed the effects of various foliar P application rates on the agronomic properties, macro and micronutrient concentrations in maize (*Zea mays* L.) plants, and soil enzyme activities. This field experiment was conducted on a farm in Mardin Province, Turkey, during the 2020 and 2021 growing seasons. Foliar P was applied at rates of 80, 160, 240, and 320 mg P kg^{-1}. We observed significant enhancements in soil biological properties, including increases in alkaline phosphatase (APA) and dehydrogenase (DHA) enzyme activities, which correlated with higher rates of P application across both seasons. Notably, the most pronounced effects on physiological parameters of the maize plants, as well as macro and microelement concentrations in the leaves and soil enzyme activities, were observed at the P application rate of 80 mg P kg^{-1}. Therefore, we consider this rate to be optimal for improving all examined soil properties under the conditions of this study. However, to generalize our findings and achieve the highest yields and soil activity, further research involving multiple locations and different soil types is necessary.

Keywords: Alkaline, Corn, Soil enzymes, SPAD, Phosphorous

EMERGINGING POLLUTANTS OF ENVIRONMENTAL CONCERNS

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Abstract

Pollutants enters the environment from various sources and get distributed throughout the environmental matrices. Any natural, organic, engineered, synthetic substances or microorganisms which likely seem not to be ordinarily monitored or controlled in the environment are known as contaminants of emerging concern or emerging pollutants. Although great advances have been made recently in the detection and analysis of trace pollutants, due to the continued development and enhancement of specific techniques, a wide array of undetected contaminants of environmental concern need to be identified and quantified in various environmental components, media and biological tissues. These contaminants may be mobile that possess potentials to penetrate and persist in the surrounding soil, air, water bodies, sediments and ecological receptors as a result of both natural processes and anthropogenic activities. Their present if left unchecked and unregulated in the environment could pose serious threat to human wellbeing and the ecosystem. Lack of sufficient data and knowledge has been a drawback for comprehensive conclusion regarding their behavior and fate in the environment. This article attempts to bring out the understudied areas, potential sources, route and their health implication. The presence of emerging contaminants in our environments is a global health issue that requires urgent attention.

Keywords: Emerging Contaminants/Pollutants, Ecological, Anthropogenic activities, Global health.

EMDR THERAPY IN SOLVING INTERPERSONAL INTERACTION PROBLEMS: A CASE REPORT

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Abstract

Introduction and Purpose: Eye Movement Desensitization and Reprocessing (EMDR) therapy is a psychotherapy method that is especially effective in reprocessing traumatic life experiences. According to EMDR, the fact that the majority of psychological and/or psychosomatic disorders are due to unprocessed memories has gradually expanded its clinical application area, and it has been observed that many problems can be treated efficiently and quickly. EMDR; It does not work with diseases or certain pathologies. It targets past negative life experiences that cause spiritual, mental, emotional and relational problems.

Materials and Methods: AY, 24 years old, male, is a student in the Department of Physical Education and Coaching. The client started the therapy process by expressing that he had an intense fear of losing and was therefore uneasy because he trusted and valued his bilateral relationships too quickly. The Childhood Trauma Scale score is 5. He received a score of 36 on the Impact of Events Scale. The client determined "Being a peaceful person who establishes more balanced relationships, thinks and acts logically, and copes with his problems" as his general therapy goal, and an eight-stage EMDR protocol was applied.

Results: In line with the protocol studied, the client, who said "I am worthless" as a negative cognition, strongly reached the positive cognition of "I am valuable" when the therapy process was completed.

Discussion and Conclusion: With this case report, it is aimed to convey the process of reprocessing childhood traumas of the client who has problems in interpersonal relations in his adult life. It can be said that EMDR therapy is effective in resolving childhood traumas and interpersonal interaction problems experienced in adulthood.

Key Words: EMDR, Therapy, Case Report

ELECTRONIC WORD-OF-MOUTH AND CUSTOMERS PREFERENCE FOR TELECOMMUNICATION FIRMS AND THEIR SERVICES IN KARU LOCAL GOVERNMENT AREA, NASARAWA STATE, NIGERIA

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Abstract

The study assessed the relationship between electronic word-of-mouth (ewom) and customers preference for telecom firms and their services in Karu Local Government Area Nasarawa State, Nigeria. Four major telecom firms that operate in the study area as at the time of this research were used for the study and these are MTN, Glo, Airtel, and 9moblie. The study specifically examined how online comment and experience sharing on the internet as dimensions of electronic word-of-mouth influence customers preference for one telecom firm and its services over another in terms of brand preference, repeat purchase, and referral. A cross-sectional survey design rooted on the philosophy of methodological triangulation was adopted in the research. The researcher worked with a conservative population estimate of 372 customers/respondents which also formed the sample size for the research. Judgmental sampling technique was employed in sharing the 372 respondents among six major towns – Mararaba, Ado, New Nyanya, Masaka, Tudu-Wada, and New Karshi in the local government area with each having 62 respondents. Individual respondents from the six major towns used for the research were randomly selected through convenience sampling method. Questionnaire formed the data collection instrument for the research while the data collected were analyzed with Analysis of Variance (ANOVA) with the aid of SPSS version 22. At the end of the analysis and interpretation of results, the study revealed that online comment and experience sharing on the internet positively and significantly influenced customers preference and buying behaviour of customers of the telecom firms in terms of brand preference, repeat purchase, and referral. Based on the findings, the study concluded that electronic word-of-mouth is a strong determinant of customers preference for one telecom firm and its services over another. The management of the telecom firms were therefore adviced to give adequate attention to electronic word-of-mouth as marketing information strategy not only to attract customers but also to convince them to patronize their services. **Key Words:** Online comment, Experience sharing on the internet, Brand preference, Repeat purchase, Referral

EFFECTS OF SALT STRESS ON GERMINATION OF *ERUCA SATIVA*: EFFETS DU STRESS SALIN SUR LA GERMINATION *D' ERUCA SATIVA*

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Abstract

Salt stress is a major abiotic stress affecting plant growth, development and yield. Seed germination and the early stages of growth play a vital role in saline environments, as they represent critical stages where plants face challenges such as salt resistance, regulation of water balance and management of osmotic stress.

The aim of this study was to compare the behavior of two arugula ecotypes collected throughout Morocco and subjected to salt stress conditions. Seeds were tested in the laboratory during the germination phase under salt stress conditions. These seeds were placed in petri dishes containing either one of the NaCl solutions (at concentrations of 3, 6.9 or 12 g/l) or distilled water (control).

However, germination rates fell from 85% for ecotype I and 80% for ecotype II to 0% for the highest salt concentration (12 g/l).

Both ecotypes showed a significant impact of salt on germination rate, although this effect was more marked for ecotype II than for ecotype I. This effect is more significant for ecotype II than for ecotype I, with a germination rate of 30% and 80% for the lowest concentration.

The results show that salt stress has a negative effect. Germination capacity for both ecotypes shows a delay and reduction in germination with increasing salinity in general.

Key words: Eruca sativa, salt stress, germination.

TESTING PROCESSES OF EQUIPMENT USED IN INFANTRY RIFLES

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Abstract

The defense industry is critically important for ensuring and safeguarding national security. Weapon systems and related advanced defense technologies are fundamental components of the defense sector. These technologies not only enhance military capabilities but also drive technological innovation, significantly contributing to both national and international security stability.

In addition to weapons, the equipment used is also crucial. Testing this equipment is vital for the success and safety of the defense industry. These tests ensure the performance, reliability, and safety of weapons, minimizing risks for both military and civilian users. Therefore, investments in testing processes and research and development activities are essential for sustaining national security and military capabilities. Testing involves comprehensive evaluations to determine how equipment functions under various conditions, meeting both technical and operational requirements.

Weapon equipment testing must comply with national and international standards, including safety, performance, and durability criteria. Adherence to these standards enhances the operational reliability of weapons, preventing unexpected failures and potential hazards. Therefore, all weapon equipment undergoes thorough and systematic testing for standard compliance before market release.

This paper will examine the national and international standards for testing equipment used in key weapon systems, such as infantry rifles. These standards, established by military organizations, include criteria related to safety, performance, and durability. Compliance helps ensure the operational reliability of weapons, preventing unexpected failures and dangers.

Additionally, alternative testing methods have been considered, alongside the commonly used tests. Various weather conditions, geographical features, obstacles, and targets can be simulated in a virtual reality environment, allowing observation of weapon performance in different scenarios. Integrating new technologies like virtual reality and artificial intelligence into these tests can minimize human and mechanical errors.

Key Words: Infantry Rifles; Equipment Test; Military Standards

ECOLOGICAL ENVIRONMENT IN THE CREATIVITY OF NIZAMI GENCEVI: NATURE-HUMAN RELATIONS

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Abstract

Introduction and Purpose: The works of Nizami Ganjavi, one of the most prominent poets and philosophers of Azerbaijani literature, are rich in religious-philosophical ideas about the essence of man, his place and role in society, and his relationship with nature. The poet skillfully and poetically expresses his thoughts on the problem of man and nature in his poems. Nizami Ganjavi calls man the supreme being of the universe. In the poet's works, the relationships between man, nature, and society are taken as a unity.

The great Nizami was not only a poet but also a natural scientist. In his "Khamsa," he artistically explained and promoted his thoughts on all the sciences of the time. Nizami Ganjavi's works mention nature, the environment, up to 50 species of animals, and numerous medicinal plants growing in Azerbaijan and other countries. His works contain highly valuable ideas about the creation of the world, the process of photosynthesis, physiology, anatomy, metabolism, etc. The article analyzes the ideas of the great Azerbaijani poet Nizami Ganjavi on nature conservation and human ecological education based on facts.

Materials and Methods: The relevance of Nizami Ganjavi's heritage also lies in the fact that he seemed to foresee the ecological crisis of the modern era from his time and pointed out the solution to these problems. In almost all of his works, the poet called on people to love nature and show a caring attitude towards it. Today, the ecological security problem faced by humanity was seen by the great poet nine centuries ago, and he called on people to protect nature as a universal value. The issues of environmental protection promoted in the poet's poems are still relevant today and help to form an ecological worldview in the young generation. The article analyzes the poet's ideas on ecological education with examples from his works.

Results: As a continuation of the thoughts of the great Nizami, today Azerbaijan is among the few countries that approach the processes of global climate change with the utmost sensitivity. On December 25, the President of the Republic of Azerbaijan, Ilham Aliyev, signed a decree declaring 2024 as the "Year of Solidarity for a Green World" in our country. The decree states that Azerbaijan, as a reliable and responsible member of the international community, contributes to the fight against the consequences of climate change.

Discussion and Conclusion: In the extensive restoration and reconstruction process being carried out in the liberated Karabakh and Eastern Zangezur regions, innovative approaches such as "smart city" and "smart village" are being applied, and the ecosystem is being restored. This is why the 29th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP29), a prestigious event, will be held in Azerbaijan this year, and Azerbaijan will once again convey to the world the importance of the idea that protecting nature is the duty of every person, a tradition created by Nizami in the 12th century.

Keywords: Nizami, nature, environment, ecological education, relevance, COP29

THE ROLE OF DRONES IN SUSTAINABLE FARMING: REDUCING CHEMICAL USAGE AND ENHANCING CROP SUSTAINABILITY

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Abstract

The integration of drone technology into agriculture offers significant advancements in sustainable farming practices. This research explores the role of drones in reducing chemical usage and enhancing crop sustainability. By utilizing high-resolution aerial imagery and multispectral sensors, drones enable precise monitoring of crop health, soil conditions, and pest populations. This precision agriculture approach allows for targeted application of fertilizers and pesticides, significantly reducing the overall chemical inputs and minimizing environmental impact. The study evaluates various drone technologies and their effectiveness in optimizing input use while maintaining or improving crop yields. Additionally, it investigates the economic benefits of reduced chemical usage, including cost savings and potential improvements in soil health. By comparing drone-based methods with traditional practices, the research highlights the potential of drones to contribute to more sustainable and efficient farming systems. The findings suggest that drones play a crucial role in modernizing agriculture, offering a path toward more environmentally friendly and resource-efficient farming practices.

Keywords: Drones; Sustainable Farming; Precision Agriculture; Chemical Reduction; Crop Health Monitoring; Resource Efficiency

USING BIOLOGICALLY SYNTHESIZED TIO_2 NANOPARTICLES AS POTENTIAL REMEDY AGAINST MULTIPLE DRUG RESISTANT *STAPHYLOCOCCUS AUREUS* OF BOVINE MASTITIS

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Abstract

Presently, there is considerable emphasis on biological synthesis of nanoparticles containing bioactive reducing compounds with an aim to mitigate the harmful effects of pollutants. The approach under study is simple and ideal for the production of durable antimicrobial nanomaterials by novel single-step green synthesis of TiO_2 metal oxide nanostructures using ginger and garlic crude aqueous extracts with bactericidal and catalytic activity. A variety of experimental techniques were used to characterize the synthesized nanomaterials. As demonstrated using x-ray diffraction and ultra-violet visible spectroscopy, the produced nanoparticles exhibited high absorption at 318 nm with size varying between 23.38 nm for ginger and 58.64 nm for garlic in biologically-reduced TiO_2. At increasing concentrations (500, 1000 µg/50 µl), nanoparticles reduced with garlic exhibited enhanced bactericidal efficacy against multiple drug-resistant *S. aureus* and effectively decomposed toxic methylene blue (MB) dye. In conclusion, biologically-reduced TiO_2 nanoparticles may prove an effective tool in the fight against microbial illnesses and drug resistance. (Published in Scientific Reports, 2023).

Keywords: Nanomaterials, bactericidal, TiO_2, methylene blue, ginger

MOBILE MEDICATION MONITORING AND INTERACTION ALERT SYSTEM (DOZaDOZ)

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Abstract

Introduction and Purpose: Accurate and regular monitoring of medication use is of great importance for the effectiveness of healthcare services. The mobile application we have developed in this direction aims to provide an innovative solution to ensure that users take their medication on time and to prevent potential interactions between medications.

Materials and Methods: Users are reminded to take their medication on time through notifications by determining their medication and medication times through the application. In addition, the application encourages the safe use of medicines by warning users about combinations between medicines with potential side effects and providing brief information about the points to be considered. In this way, it is planned to increase the level of health awareness of users. This application, with its user-friendly interface and effective reminder systems, creates the necessary technical infrastructure to ensure user satisfaction and facilitate medication follow-up. Users can easily manage their medication and medication times and are informed about potential side effects. This innovative solution helps users better manage their health conditions while increasing the efficiency of healthcare services. Medication reminders and interaction alerts provide users with proactive health management and increase trust in healthcare services. At the same time, the app makes the process of medication tracking more practical and efficient by collecting information about users' medication use on a single platform. Thanks to the information and reminders provided by the application, users can manage their treatment processes effectively by taking their medication on time.

Results: It aims to enhance the overall quality of healthcare services by making medication use safer and more organized. Additionally, by consolidating all information about medications in a

single platform, the medication tracking process has become more practical and efficient. Our application plays a crucial role in helping users protect their health and support their treatment processes in the best possible way. This is an important step in preserving health and improving treatment processes.

Key Words: Medication Interactions; Medication Reminder; Medication Side Effects; Mobile Application; Flutter

DETERMINANTS OF FINANCIAL DISTRESSED COMPANIES: EVIDENCE FROM INDUSTRIAL GOODS FIRMS IN NIGERIA

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Abstract

This study investigated the determinants of financial distress among industrial goods firms in Nigeria from 2014 to 2023. The analysis focused on key financial metrics such as the Altman Z-score, return on assets (ROA), liquidity, financial leverage, firm efficiency, and firm size. Descriptive statistics showed insights on the distribution and characteristics of these metrics among the sampled firms. The Hausman Test was used to determine the appropriate model for interpreting financial distress determinants, favouring the random effect model. Regression analysis using the Panel EGLS method revealed significant findings: ROA (coefficient = 0.120744, p-value <1%), firm efficiency (coefficient = 0.283435, p-value <1%), and firm size (coefficient = 0.563578, p-value <5%) were significant determinants of financial distress risk. However, liquidity (coefficient = 0.146447, p-value >5%) and financial leverage (coefficient = 1.637088, p-value >5%) showed insignificant effects. The study recommended that firms should prioritize strategies that enhance profitability, such as cost control, efficient resource utilization, and revenue growth. This can improve the overall financial health of the company and reduce the risk of distress.

AN EXAMPLE MODEL OF PRO-SOCIETY BEHAVIOR: AUTISM AND THE MUSIC SUMMER SCHOOL COMMUNITY VOLUNTEERS

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Abstract

Introduction and Purpose: We are celebrating the 100th anniversary of institutional music teacher education in our country. Since the establishment of the Musiki Muallim Mektebi in 1924, the work of teacher training has continued under different names. The primary goal in these schools is seen as training qualified teachers in the field of music education. Future music educators are equipped with knowledge and skills in the areas of special field knowledge, music culture, teaching formation, and general culture. Their mission emphasizes the production of knowledge, following technology, national and spiritual values, and international standards, while their vision includes competition, an analytical perspective, and, most importantly, lifelong learning. In conservatories and faculties of music and performing arts, the main aim is seen as training artists in the field of music and performing arts.

It is widely believed that qualified educators and artists are trained in both fields, and there is some truth to this. However, the education of individuals with different learning needs (e.g., Down syndrome, Tourette syndrome, dyslexia, visual impairment, autism, giftedness) is not given much attention in the education system of both fields. In fact, it is a common belief that many academicians think individuals with autism should not study in these schools.

Method: In this study, the attitudes and behaviors of the volunteers working in the annually held Autism and Music Summer School will be described. The study covers community-oriented behaviors, helping processes, lived experiences in music, and observed and self-reported behavior changes in volunteers during the Autism and Music Summer School.

Data in this qualitative and descriptive study will be collected through structured interviews.

Results: It is believed that the study will contribute to the field and support future studies. The research concluded that the volunteers were happy to contribute to an important project, found the free nature of the education significant, valued idea sharing, recognized their personal development, and noticed the experiences they gained.

Keywords: Autism, behavior, altruism

DETERMINATION OF GENDER CLASSES OF SPEAKERS USING A TWO-LEVEL APPROACH BASED ON PITCH FREQUENCY

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Abstract

Introduction and Purpose: The ability to identify the gender of a speaker based on their speech signal is crucial for speech processing systems. This task can enhance the performance of various systems like speaker, speech, and emotion recognition. It can also lead to improved customer satisfaction by enabling the provision of gender-specific services. In this study, a new gender classification model is proposed based on a two-level classification approach using pitch frequency

Materials and Methods: To achieve high accuracy with low complexity, the classification is initially based on the pitch frequency of the speech, and any speeches whose gender cannot be determined based on pitch frequency are classified using the K-Nearest Neighbors (KNN) method in the second stage. This approach reduces the computational requirements in the first stage, leading to an overall reduction in the complexity of the model.

Results: In the study, three different models were developed using the TIMIT dataset, which includes 10 speeches from each of 680 speakers. First, a threshold level (161 Hz) was determined by calculating the pitch frequencies of the recordings of 512 speakers in the training section of the dataset and classification was made accordingly. Using this method, the gender classes of 1680 speeches in the test set were estimated with 96.25% accuracy. Secondly, a model was implemented in which the MFCC features extracted from the speeches were classified using KNN. The parameter optimization of the KNN was carried out with the speeches in the training section of the dataset, and the classes of the speeches in the test section were estimated with the determined parameters. The gender classification accuracy of the KNN model on the test section was measured as 97.02%. Finally, a two-stage model was implemented using pitch frequency and KNN together. In the first stage, speeches with a mean pitch frequency lower than 125 Hz were classified as male, and those with a mean pitch frequency higher than 192 Hz and a minimum pitch frequency higher than 150 Hz were classified as female. The recordings outside these limits were classified with KNN in the second stage. With this method, 67.56% of the speeches in the test set were classified with 100% accuracy in the first stage, and the remaining 32.44% were classified with 92.11% accuracy in the second stage with KNN, and a total accuracy of 97.44% was achieved. These results show that the two-level gender classification approach based on pitch frequency reduces model complexity and improves accuracy. It is evaluated that using different approaches in the second stage can further increase accuracy.

Key Words: Speech Processing, Gender Recognition, Pitch Frequency, K-Nearest Neighbors (KNN), Machine Learning.

PROVISIONS PROTECTING THE SEAFARER'S PERSONAL RIGHTS IN THE MARITIME LABOUR CONVENTION 2006

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Abstract

The main criterion that distinguishes labour contracts from other private law contracts is that the employee performs the performance of work under the supervision and control of the employer and is dependent on him. In the case of work on ships, the dependence of the worker on the employer and the effect of the employer's supervision and authority emerge more dominantly. This is because, in a narrow physical environment such as a ship, the seafarer is constantly under the supervision and control of the employer during voyages, sometimes for days without setting foot on land. The exercise of the employer's powers of surveillance and control, on the other hand, creates the risk of violation of the seafarers' personal rights and private life.

The International Labour Organization (ILO) is an organisation of the United Nations that aims to establish standards in the legislation and practices of member countries in the field of labour. For this purpose, ILO aims to establish a universal common legal order in labour life by establishing conventions, directives and recommendations. In this sense, there are legal texts prepared by the ILO to regulate the working conditions and principles of seafarers, which are approved by many member countries and are binding in terms of the domestic laws of those countries. The ILO's 94th Conference held in Genoa in February 2006 Conference of the ILO in Genoa in February 2006, the "Maritime Labour Convention 2006" (MLC 2006) is the latest legal text aiming to revise and unify all the conventions previously adopted by the organisation in the maritime labour sector under a single roof. MLC 2006 aims to guarantee the fundamental rights and freedoms of maritime workers. Although the Law dated 02.03.2017 and numbered 6898 on the ratification of the MLC 2006 was published in the Official Gazette dated 25.03.2017/30018, the enforcement procedure of the Convention has not yet been completed. However, the fact that the enforcement procedure of the Convention has not been completed does not relieve the ship operators flying the Turkish flag from liability. In this study, the provisions and regulations for the protection of the personal rights and private lives of seafarers and the responsibilities imposed on the employer in this regard in the MLC 2006 Convention, which brings universal high-level rights for seafarers, will be examined.

Keywords: Seafarer, seafarer's personality, seafarer's private life, Maritime Labour Convention 2006

EVALUATION OF NON-CONFORMITIES IN A TUNNEL BY L TYPE MATRIX METHOD

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Abstract

Introduction and Purpose: Tunnelling projects are critical for infrastructure development and the expansion of transport networks. However, the success of these projects depends not only on engineering and construction techniques but also on the effective management of safety risks. Hazards encountered during tunnelling construction can pose serious safety risks and these risks need to be assessed in a systematic manner. In this context, the L-type matrix is an important tool for analysing the hazards and risks that may be encountered in tunnelling projects. The L-type matrix helps to prioritise risks and take appropriate measures by assessing the probability and severity of hazards. The aim of this study is to identify the nonconformities in the tunnel construction in a dam construction and to provide a systematic evaluation of the hazards and risks in this tunnel project by using the L-type matrix method.

Materials and Methods: In this context, the L-type matrix is an important tool for analysing the hazards and risks that may be encountered in tunnelling projects. The L-type matrix helps to prioritise risks and take appropriate measures by assessing the probability and severity of hazards. Using the 5x5 matrix, the probability and severity of each hazard will be determined, and the risks will be prioritised. This assessment process aims to effectively manage the hazards that may be encountered in tunnelling construction and to improve safety standards. It will also provide project managers and engineering teams with a strategic approach to minimising potential risks

Results: The probability and severity values of the identified nonconformities were determined by the 5 x 5 L type matrix method and risk values were calculated for each risk and risks were classified as low, medium and high according to these calculated risk values. **Discussion and Conclusion:** As a result of the risk assessment, 2 of the 23 risks identified at the Tunnel site were identified as low risk, 13 as medium risk and 8 as high risk. Risks with low-risk values should continue to be controlled, while those with medium and high risk values are in the noteworthy and unacceptable risk group, and therefore urgent corrective measures should be taken. These corrective measures will ensure that these risks are reduced to an acceptable risk level. Thus, a healthy and safe working environment will be provided by effectively controlling the hazards and risks in the tunnel work.

Keywords: Mining; Dam Tunnelling; Risk Assessment; Non-Conformities

STRUCTURAL AND FUNCTIONAL MODIFICATION IN CYMBOPOGON JWARANCUSA (JONES) SCHULT. INHABITING HOT HYPERSALINE DESERT

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Abstract

Deserts are generally prone to a number of ecological hazards which act as agents for the development of particularly a very diverse group of grasses, which can resist to salt stress through multiple morpho-anatomical characteristics. Of such grasses, *Cymbopogon jwarancusa* is found inhabiting different saline patches of the Cholistan desert, so its different populations were selected from five saline habitats [least saline Derawar Fort (DF); moderately saline Trawaywala Toba (TW) and Bailahwala Dahar (BD), and high saline Ladam Sir (LS) and Pati Sir (PS)] and tested for their salt tolerance mechanism. Differentially adapted populations of this grass showed specific modifications in terms of anatomical features, mainly increased sclerification in both external hypodermis and internal endodermis, cortical layers, and increased size of xylem vessels with increase in salinity of the habitat. Increased endodermal thickness may control radial movement of water in roots. The reduction in leaf area is found to be the principal strategy that makes *C. jwarancusa* promising to attenuate the effects of the reduced availability of water under saline stress. Moreover, increased density of trichomes is found critical for checking undue water loss through the leaf surface and increase in these tissues at high salinity level may indicate that this species has better adapted to saline habitat.

Key word: *Cymbopogon jwarancusa*, Anatomical features; Bulliform cells; Salinity tolerance; Sclerification.

ASSESSMENT OF KNOWLEDGE TOWARDS CARDIOVASCULAR DISEASE RISK FACTORS AMONG GRADUATE STUDENTS IN KUNTHAVAI NAACCHIYAAR GOVERNMENT ARTS COLLEGE IN THANJAVUR

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Abstract

Methods: Prospective Cross Sectional Study was conducted cardiovascular disease and its risk factors among graduate students in Kunthavai Naacchiyaar Government Arts College in Thanjavur. The data were analyzed using descriptive and inferential statistics. **Results:** The overall percentage of KAP in Hypertension (88.5), Cancer (20.3), Diabetes Mellitus (47.5), Asthma (49.5), Stroke (42.7), Sedentary Lifestyle (75.9), Stress (89.8), Smoking Habits (86.4) and Obesity (77.6). **Conclusions:** The respondent is sufficiently aware of the risk factors for CVD, but more work has to be done to increase awareness throughout time in order to lower the prevalence of CVD. Age, level of education, religion, place of residence, and family type were all significantly correlated with respondents' awareness of CVD risk factors and preventive measures.

Key words: Diabetes Mellitus, Hypertension, Cardio Vascular Diseases and Prevalence.

THE ROLE OF CRITICAL REFLECTIVE PRACTICE IN TEACHING: ONLINE TEACHERS' INSIGHTS

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Abstract

The research aimed to investigate the significance of critical reflective practice in the teaching process based on insights from online teachers, offering perspectives on the benefits of such practices and areas for improvement. This qualitative study utilized a hermeneutic research design and employed semi-structured interviews for data collection. The instrument used was adapted, validated by three experts, and modified based on their feedback. Data was gathered from 15 online teachers teaching in private universities in Lahore, selected through purposive sampling. The researcher collected and interpreted the participants' lived experiences, highlighting a disparity between the theoretical understanding and practical application of critical reflective practices among teachers. The study concluded that teachers need to be more cognizant of reflective practices and their significance in teaching and learning. As a result, the research recommended the integration of critical reflective practices into teacher training and professional development programs, making them mandatory for all educators and prospective teachers.

Keywords: critical reflective practice, online teachers' insights, hermeneutic phenomenology, qualitative research

CRISPR-CAS9: REVOLUTIONIZING GENETIC ENGINEERING

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Abstract

The genome editing tool or technique named CRISPR-Cas9 technology abbreviated as Clustered Regularly Interspaced Short Palindromic Repeats are basically DNA sequences mainly found in prokaryotic genomes most commonly bacterial and archaea-derived from bacteriophages that left their genomic parts into them following infection. Basically it uses two main components to work: a guide RNA (gRNA)- RNA sequence transcribed by the bacteriophage infected bacterial genome and Cas9 protein- an enzyme exhibiting the exonuclease activity that cuts the DNA sequences at regions complementary to the gRNA. The gRNA and Cas9 protein works together by making a complex in which gRNA recognises the regions complementary to the host DNA and Cas9 enzyme cuts that part of DNA thus creating a double-strand break which is later sealed by cells' natural repair mechanism (gene indels). CRISPR-Cas9 technology allows for scientists to generate transgenic animal models more efficiently and quickly. With CRISPR-Cas9 tools, researchers can produce useful and reliable knock-out, knock-in, and double mutant models with protein tags and fluorescent reporters, within targeted genes to study various human diseases in the laboratory. CRISPR-Cas9 technology has been used to knock out DNA in research mice and rats, meaning the animal gene for a particular target is silenced and the defective gene for human disease is knocked in. CRISPR is much more efficient technique due to its precision, specificity, accuracy and versatility. Such properties of CRISPR cause it to continuously evolve with new applications emerging as various fields such as personalised medicine, functional genomics and biomedical engineering driven by ongoing research and innovation. Despite its precision, it is still not competely reliable technique due to some off-target effects, incomplete editing and delivery challenges. Ethically it is also considered immoral in concern with designer babies and genetic inequality. However advances in gRNA design and Cas9 protein variants may solve this issue thus enhancing its applications in various fields.

Keywords: CRISPR-Cas9, gRNA, knock-out, knock-in.

COST OPTIMIZATION PROJECTS AND ECOLOGICAL MODELING USING INTEGER LINEAR PROGRAMMING: A SURVEY

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Abstract

One of the earliest applications of linear programming arose from the increasing need to solve optimal resource allocation and logistics problems during World War II and since then many industries have been utilizing linear programming for logistics and allocation problems. In 1939, Leonid Kantorovich developed the mathematical technique for organizing and planning production. Later on George B Dantzig (the father of linear programming) devised simplex algorithm and in the process founded the field of linear programming. The various extensions of linear programming such as stochastic programming, non linear programming, integer programming etc have been studied by researchers with numerous applications. R. E. Gomory (1958) introduced integer linear programming and showed how to systematically generate the cutting planes which guarantees that optimization solution will solve in integers. In this survey paper, we have discussed the applications of integer linear programming in solving three different projects/case studies viz. construction project (Beyer et. al., 2018), plastic manufacturing project (Galindo et. al., 2021) and ecological modeling (Beyer et. al., 2016). Firstly, a method to find out the minimum construction cost for all houses in the project within the constraints such as total number of houses, project duration, cost-time methods for each house construction, number of contractors and size of construction team of the contractors in the project has been presented. Further, an integer linear programming model has been discussed to minimize the total cost incurred in a plastic manufacturing project. Lastly, the conceptual and practical aspects of implementing a variety of conservation planning problems in an integer linear programming framework have also been discussed.

Keywords: Integer linear programming, precast concrete construction, reserve selection

CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINBILITY STRATEGIES (STUDY CASE IN COMPANY SUGAR SINERGI NUSANTARA SRAGI)

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Abstract

Corporate Social Responsibility (CSR) is a concept that demonstrates the care and responsibility of the organization to the environment and society in all aspects of the company's operations with triple bottom line 1) profit 2) people 3) panet. Companies need to balance these three indicators so that the image given by consumers is compared to the offer and offer from the company. This research aims to find out the impact of CSR consisting of variables profit, people and planets significantly influence the strategy of sustainability of the image of the company Sugar Sinergi Nusantara and the dominant variable. The sample of this research is 88 people who come from workers, stakeholders, consumers and the community around company Sugar Sinergi Nusantara Sragi. The type of data used is kuantitative metodology and secondary data and primary data with techniques of statistical data analysis descriptive. The results of the research showed that there is a simultaneous influence on CSR Profit (X1), CSR People (X2) and CSR Planet (X3) sustainability strategy Corporate Image (Y) it is proved t count > t table of 13.325 > 2.60. The most dominant influence variable on the corporate image is the CSR variable Planet (x3) that has a value contribution of 26.6%.

Keywords: CSR, Corporate Image, Development Economy, Sustainability, Enterprise

INTERNATIONAL STUDENTS' OCCUPATIONAL HEALTH AND SAFETY AWARENESS: YOUNG MIGRANT WORKERS IN BUSINESS LIFE IN TÜRKİYE

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Abstract

Introduction and Purpose: In globalizing world, young people who want to get a better education, build a better future, experience different cultures, and because of the compulsory reasons such as war or unemployment ratio in home country, continue their education in different countries. 2.9% of all international students worldwide are in Türkiye which became one of the top 10 countries in the world. This study aims to analyze the occupational health and safety perceptions of international students as young migrant workers and also figure out the barriers to safety practices and the role of safety training in reducing occupational accidents and disease.

Materials and Methods: A total of 425 students from 44 countries participated in the study. Syria with 138 (32.5%) students is the most participating country. One out of every three students has to live and take education in our country because of the forced migration. 75.8% participants have to work mostly to pay their living expenses and tuition fees.

Results: We concluded that the participants (N=425) who are between 19 and 23 years old ($p<0,015$), working mainly 6 days a week ($p<0,000$), in part-time ($p<0,016$), indoor conditions ($p<0,031$) other than cleaning or the restaurant sector ($p<0,001$) don't have any OHS training or take online OHS training have more occupational accident risks than others. One of every three participants (34.1%) didn't have any information about the potential hazards and safety protocols before starting work, and unfortunately, they couldn't discuss their safety concerns with their supervisor or employer. Language and culture are the most important barriers to understanding and reporting OHS issues. In order to address the safety concerns of these students, the effectiveness of their language classes should be improved, and they should be able to communicate the issues they encounter at work, for the purpose to reduce the worries of international working students over their safety.

Key Words: International Students; Young Migrant Workers; Occupational Health and Safety

TAMSIL READING, WHICH IS A METHOD OF RECITATION AND TILAWAT IN THE CONTEXT OF COMPREHENSING THE MEAN

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Abstract

Introduction and Purpose: One of the important branches of science within the basic Islamic sciences is the science of Quran Reading and Recitation. Since the science of recitation is a branch of science that directly includes the reading forms of the Quran, it has important issues waiting to be researched. There is no doubt that bringing these issues to light and subjecting them to research will improve the field. In this sense, it is important to address various issues that have not been touched upon before. Starting from this point, in our study we will talk about tamsil reading, which is a recitation and reading method in the context of comprehending the meaning. In the dictionary, representation means (to portray, liken, describe), but in the reading terminology, it refers to reading the prepositions, conjunctions and words in the verses according to the meanings and roles they contain. In this sense, it can be said that reading tamsil is a recitation/reading method that reveals the meaning of the Quran in all its subtleties in terms of eloquence.

Materials and Methods: In tamsil reading, the issues of nabr/emphasis, hafd-ı savt/lowering the voice and raf-ı savt/raising the voice come to the fore. Because some of the prepositions in the verses and the words attached to them may change in meaning depending on the emphasis and the ratio of tone of voice, and in this case, the meaning of the verse may be distorted. It is known that the distortion in the recitation of the Quran, which constitutes the essence of Islamic worship, especially prayer, will also harm the worship performed. Because of this problem, it is important to recite the Quran while paying attention to the subtleties of the meaning. In order to solve this problem, it is necessary to understand tamsil reading and the elements of tamsil reading, nabr, hafd-ı savt and raf-ı savt. In our study, we will define these elements separately and try to make the necessary transfers to solve the problem.

Results: As a matter of fact, this method of recitation and reading, which prioritizes meaning, should be given more space in the teaching of the Quran. In this way, it is aimed for the interlocutors who are familiar with the subtleties of figurative reading to be more conscious in the recitation of the Quran and to transfer this awareness to the students they teach.

Key Words: Tamsil Style Recitation, Nabr, Hafd-ı Savt, Raf-ı Savt.

HYPOGLYCEMIC ASSESSMENT OF AQUEOUS LEAF EXTRACT OF *MORINGA OLEIFERA* ON DIABETIC WISTAR RATS

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Abstract

Background

Moringa oleifera leaf is used for diabetes due to its pharmacologic effects. Patients with hyperglycemia experience beta cell destruction. However, no research on risk awareness has been done to ascertain its safety. This study examines the hypoglycemic effect and possible toxicity of aqueous leaf extract of *Moringa oleifera* in Wistar rats with diabetes.

Method

This was an experimental study. Forty-five Wistar rats weighed 160±10 g and were divided into nine groups. There was no induction of diabetes in the Normal control Group I. 150 mg/kg of Alloxan in a 1% solution was given to the diabetic Group II. Insulin and extract doses of 200, 400, and 800 mg/kg were given to diabetic groups III-VI. Normal animals in Groups VII–IX were given extract at doses of 200, 400, and 800 mg/kg for 28 days. Target organs were retrieved for histological investigation, and blood samples were obtained for biochemical tests.

Result

Reduced relative body weight in diabetic animals along with increased levels of urea, creatinine, and liver enzymes points to organ damage due to hyperglycemia. In addition, the morphology of the liver showed vacuolations with increased polymorphs, and the pancreatic islet cells were atrophied, indicating tissue degradation. But when 200, 400, and 800 mg/kg of extract were given to diabetic animals, there were significant decreases in urea, creatinine, liver enzymes, and blood sugar levels. Furthermore, there were visible alterations in repair as the hepatic cells became denser. Moreover, there was no glycogen accumulation in the liver. When compared to the control, the atrophied pancreas appears to be doing better. Further discovery revealed that extract elevated antioxidant enzyme expression. Furthermore, no notable histological alterations were observed in the kidneys of the diabetic rats in contrast to the control group.

Conclusion

Leaf extract from *Moringa oleifera* reduces blood sugar and lessens the damage caused by hyperglycemia in the pancreas and liver.

Keywords: Antioxidants, Diabetes, *Moringa oleifera*, Toxicity.

A THREE-LAYER VİSCOELASTİC NONLİNEAR MODEL OF MUCOCİLİARY CLEARANCE

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Abstract

This paper deals with a circular three-layered mathematical model of mucus flow through the trachea in the human respiratory tract due to mild cough and outlines the quasi-steady state flow of air, mucus and viscoelastic fluids under a time-dependent pressure gradient. Air and mucus are regarded to be incompressible Newtonian fluids, whereas viscoelastic fluid as Voigt elements. It is noted that there is no effect on the viscosity of the viscoelastic fluid and elastic modulus in the above two layers i.e. air and mucus. It is observed that as the viscosity of viscoelastic fluid and elastic modulus increases the flow rate of viscoelastic fluid decreases. It is also observed that the mucus flow rate decreases as the mucus and viscoelastic fluid viscosities increase but mucus and air flow increase as its thickness increases. The study highlights the significant impact of layer thickness and fluid properties on mucociliary clearance, particularly in viscoelastic fluids. The viscosity and elastic modulus of the air and mucus layer remain unchanged, offering insights for addressing airway clearance disorders.

Keywords*:* Mucociliary clearance, Elastic modulus, Newtonian fluid, Cough, Viscosity, Mucus Transport

E-COMMERCE EXPANDS THE SCOPE OF ENTREPRENEURSHİP

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Abstract

Due to the impact of globalization, e-commerce has significance in the business sector. Following the launch of the "Digital India" campaign, the significance of e-commerce has increased in India. The introduction of efficient governance in e-commerce has resulted in remarkable development in the field of entrepreneurship. Amazing improvements have been seen in Indian stores and trades during the past few years. E-commerce efforts have taken the business world by storm and caught the imagination of an entire generation of entrepreneurs through the use of several business and commercial models. The most lucrative industries among these businesses have already crossed the $1 billion threshold as a result of the recent rapid development. The study draws material from secondary sources to support the study's conclusion and is conceptual and descriptive This study has attempted to highlight the factors promoting entrepreneurship through e-commerce in India. Simultaneously, it points out the challenges of e-commerce in India and investigates the role of the government in the Indian e-commerce sector. The findings of the study highlighted that the challenges of e-commerce are Online identity verification is not available, providing a multi-channel consumer experience, Analyzing competitors, Stagnant with the traditional approach to selling, Battling for market share in terms of shipping and price, An issue with data security whereas the role of government found in the following areas: Tax and Personal Liability, FDI Norms, Absence of Data Protection Legislation.

Key Words: Entrepreneurship, E-commerce, Digital India, challenges, the role of government.

SYNTHESIS OF BINDER-FREE NANOFIBERS ZnS/MoS_2/NiF ELECTRODE MATERIAL FOR ASYMMETRIC SUPERCAPACITOR APPLICATIONS

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Abstract

Molybdenum disulfides (MoS_2) have layered nanostructures which accomplished as potential electrode materials (E-Ms) for lithium-ion batteries and supercapacitors. Herein, binder-free hierarchical MoS_2 and heterostructured ZnS/MoS_2 E-Ms are synthesized on nickel foam (NiF) via a simple and homemade chemical vapor deposition (CVD) system. The interconnected nanofibers via nanorods improve the porosity, active sites, surface area, structure stability, chemical stability and volume expansion resulting in fast electron and ions kinetic for excellent electrochemical performance of heterostructured ZnS/MoS_2/NiF E-Ms. The heterostructured ZnS/MoS_2/NiF E-Ms exhibited a maximum specific capacitance (C_{sp}) of 3540 F/g in contrast to individual MoS_2/NiF E-Ms 1666 F/g (1 A/g) owing to their unique nanofibers/nanorods like surface morphology. The interconnected nanostructures of ZnS/MoS_2/NiF offered no charge transfer resistance (absence of semicircle) as compared to MoS_2/NiF E-Ms (0.51 Ω cm^2) during the whole kinetic process. The energy density and power density of ZnS/MoS_2/NiF E-Ms from 72-122 Wh/kg with power density ranging from 250-2500 W/kg. Moreover, after 20000 cycles, more than 95% of C_{sp} is retained by ZnS/MoS_2/NiF E-Ms thereby indicating excellent cyclic stability. The Power law and Dunn's model simulations also indicated that the synthesized ZnS/MoS_2/NiF E-Ms have both battery-grade and pseudocapacitive behavior. Additionally, assembled ZnS/MoS_2/NiF ASC device exhibited maximum C_{sp} of 494 F/g, energy density 203-109 Wh/kg, power density 860-17200 W/kg along with cyclic stability of 97% for 5000 cycles. The unique electrochemical properties of ZnS/MoS_2 E-Ms able them to be used as potential candidate for the next generation of best performing pseudocapacitors.

Keywords: Chemical vapor deposition, Nanostructure, ZnS/MoS_2/NiF, Nanofibers, Pseudocapacitor, Power density

MODEL STATE OF TRAVANCORE AND DEWAN MADHAVA RAO: A HISTORICAL REAPPRAISAL

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Abstract

The Native State of Travancore is the southernmost princely kingdom of British India, with abundant natural resources. Since ancient times, the region has gained renown and prestige due to the abundance of spices and timber resources. Moreover, Travancore became a Subsidiary Ally under British authority, which allowed them to enjoy the advantages of being under colonial rule. Madhava Rao, who served as the Dewan to Travancore, played a crucial role in transforming it into an exemplary Native State of India. Through his dynamic and diplomatic strategies, Travancore successfully achieved significant advancements in several domains, resulting in the implementation of numerous contemporary facilities.

EFFECT OF ASSESSMENT METHOD ON ACADEMIC PERFORMANCE OF STUDENTS IN CERTIFICATION PROGRAM IN RIVERS STATE UNIVERSITY

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Abstract

Introduction and Purpose: The success of certification programs is heavily influenced by the assessment methods used. Different assessment techniques can vary impacts on the overall success of these programs. The study investigated the effect of assessment method on academic performance of students in certification program in Rivers State University.

Materials and Methods: The study was carried out in Rivers State University, Port Harcourt. This study adopted quasi experimental research design. The population of the study consists of all the student that enrolled in certification programs (Regular Evening Programme) at Rivers State University. The sample for the study was 120. The study was randomly assigned to four groups to ensure equal chance of being placed in any of the assessment method(Group A:Traditional assessment, Group B:Peer assessment, Group C:Performance-based assessment and D: Computer-Based and Online assessment).The instrument for data collection used in this study was " Student Assessment Performance Test (SAPT). The SAPT contains 30 items which was designed on a 30 -item multiple -choice test. The consistency reliability coefficient of 0.73 was tested using Kuder -Richardson reliability. The research questions were answered using mean and standard deviation. The hypotheses were tested using t -test at 0.05 level and Anova.

Results: The results of this study will be beneficial for both educators and students as it will help to improve the teaching and learning process and ultimately lead to better academic Performance. The study also considers various factors such as student engagement, satisfaction, and achievement to determine the impact of different assessment methods. It was recommend that we should invest in reliable technology to support online quizzes and other digital assessment tools.

Keywords: Assessment method, Academic Performance, Certification Program

THE EFFECT OF DEVIATIONS IN ROBOT WELDING FIXTURES ON WELD MACROS

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Abstract

Introduction and Purpose: Validation is a systematic process that verifies whether a process produces results that meet specified requirements and are reliable in critical industries, like medical device manufacturing. This process involves extensive testing, including standardizing requirements and ensuring axial repeatability and parameter appropriateness. In this study, the robotic welding processes within the company were analyzed, and the critical role of fixtures in the validation process was examined in detail, focusing on their contributions to the optimization and validity of process parameters.

Materials and Methods: The Fanuc ARC Mate 120iC welding robot and associated fixtures at a medical device manufacturing company were examined during validation activities from 2018 to 2022. The study aimed to assess process capability using the Process Capability Index (Cpk) as a key metric. Validation included detailed analyses of robot axis repeatability and the positioner, with 30 repetitions and deviation values recorded using a digital comparator. Additionally, deviations from 15 iterations of mounting and dismounting on the fixture's Schunk clamp system were measured with an arm device. To evaluate the impact of cumulative axial deviations from fixture connections on welding quality, a new fixture was developed, and macro analyses were conducted on five welded samples from both PF and PB welding positions.

Results: For all axes, the Cpk index is greater than 1.30 according to the specified upper and lower limit values, indicating that the system is sufficient. The robotic MAG welding delivers welding outputs with acceptable stability.

Discussion and Conclusion: The validation data from existing welding robots have been found to significantly guide new product development efforts. It has been observed that deviations of fixtures, which are disassembled and reassembled, need to be monitored as closely as the repeatability of the robot's axes.

Key Words: Welding Robot; Robotic Welding Fixture; Capability; Repeatability; Welding Quality

OPTIMAL SOLUTION OF THE MULTI-FUEL COMBINED HEAT AND POWER ECONOMIC DISPATCH PROBLEM USING IMPROVED NEWTON-RAPHSON-BASED OPTIMIZER

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Abstract

Introduction and Purpose: Combined heat and power economic dispatch (CHPED) problem is often discussed in the literature since it plays a crucial role in improving the sustainability and efficiency of modern power systems. The goal is to minimize operating costs while meeting demand constraints by optimizing the generation of both heat and electricity in a power system. In addition, it is a nonlinear and non-convex optimization problem due to the system constraints, such as power and heat balance, and generation limits of the production units. Conversely, the MF-CHPED problem, which involves the utilization of multi-fuel power-only units, becomes an increasingly difficult optimization problem as its complexity rises. For this reason, the MF-CHPED problem requires a strong solution approach.

Materials and Methods: In this study, an improved Newton-Raphson-Based (INRBO) optimizer was proposed to solve the MF-CHPED problem. In the proposed method, the guiding mechanism of the NRBO was redesigned with the Fitness-Distance Balance (FDB) method to improve the convergence performance and strengthen the expolariton ability.

Results: To prove the performance of the proposed INRBO algorithm, it was applied to solve two different MF-CHPED case studies, considering different operating constraints. The proposed algorithm obtained 9292.2401 $/h for Case-1 and 9292.6612 $/h for Case-2 of the MF-CHPED problem.

Discussion and Conclusion: According to the simulation results, the INRBO algorithm achieved an improvement of 1.3129 % and 0.0115 % compared to the base NRBO, respectively. These results demonstrated the success of the INRBO algorithm in solving the MF-CHPED problem compared to the base algorithm.

Key Words: Multi-fuel CHPED; Optimization; Newton-Raphson-Based Optimizer; Fitness-Distance Balance.

SPECTACLES OF SUFFERING: ANALYZING SLOW VIOLENCE IN THE TURKISH REINTERPRETATION OF *TITUS ANDRONICUS*

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Abstract

William Shakespeare's late sixteenth-century tragedy *Titus Andronicus* focuses on the Roman general Titus, whose vengeance on Tamora, Queen of the Goths, sets off a cycle of bloody violence and brutal retribution. It delves into the brutal repercussions of revenge and the repetitive nature of violence. This study examines *Titus Kompleks* (*Titus Complex*, 2023), the Turkish adaptation of *Titus Andronicus*, from an environmental literary perspective. It focuses on Rob Nixon's "slow violence" concept, which refers to the gradual, often invisible, and delayed destruction caused by environmental and social injustices. Using this perspective as a starting point for our argument, the study aims to reveal how the intrinsic features of environmental degradation arise in a fiercely capitalistic world in this thought-provoking new version of Shakespeare's bloodiest tragedy. The play offers a unique digital experience to the audience, as the performance is captured live by two non-acting camera operators, with the footage then projected onto three large multimedia monitors mounted on both sides and above the stage, creating a voyeuristic influence reminiscent of today's social media frenzy. Thus, it aligns with Nixon's concept of slow violence by demonstrating how digital media can desensitize audiences to ongoing social injustices, portraying them as fleeting and insignificant despite their long-lasting impacts. The collaboration between T&T (Titus & Tamora) as a construction and farming corporation disregards natural balance and animal rights. It highlights environmental degradation and resource exploitation which are overlooked in the pursuit of capitalist gains. *Titus Kompleks* not only offers a fresh perspective on the rewriting strategies of a canonical play but is also a powerful tool for examining modern-day issues such as violence, environmental destruction, and social inequality.

***Keywords*:** Shakespeare, *Titus Andronicus, Titus Kompleks,* Adaptation, Turkish theatre

THE CALL FROM THE UNDERGROUND: HABITATION IN *ŞATONUN ALTINDA*

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ABSTRACT

Shakespeare's *Macbeth* generously offers arguments regarding the exploration of the concept of habitation, mainly connected to the grandeur and power of the castle, Dunsinane. The castle, as a spatial habitation, symbolizes ambition, moral decay, and spatial dominance. This study, however, intends to explore the theme of habitation in *Macbeth's* Turkish reinterpretation of *Şatonun Altında* (2016, *Under the Castle*), a radically experimental physical theatre performance influenced by LeCoqian bouffons. The play depicts two physically deformed, beast-like laundry women who live beneath Macbeth's castle. These marginalized characters recount the familiar plotline in a funny, jovial, yet eye-opening fashion, laying bare the dirty relations above the ground. The adaptation reveals the striking disparity between the tragic events above and the ordinary yet insightful lives of those below. It provides a unique, subversive commentary on power, ambition, and societal norms. The concept of habitation definitively delves into how individuals occupy and interact with spaces, encapsulating cultural, political, and psychological dimensions. The study extends its theoretical perspective based on Henri Lefebvre's *The Production of Spac*e, Michel Foucault's views on *heterotopias*, and Doreen Massey's *For Space*, which emphasizes space as dynamic and relational, constantly reshaped by human interactions. Based on these perspectives, the study offers an inspiring and original approach to habitation through the enigmatic, (un)real world of *Şatonun Altında*. Through their humorous and often subversive depiction of events, the laundry women push filth deeper into the human psyche, defying our traditional perspectives of political power, corruption, and authority.

Keywords: *Macbeth*, Shakespeare, *Şatonun Altında*, *Under the Castle*, adaptation

EVALUATING RAW, CARBONIZED, AND COATED CARROT PEELINGS AS BIOSORBENTS FOR EFFECTIVE DYE REMOVAL IN WASTEWATER TREATMENT

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Abstract

The main objective of this research was to evaluate the effectiveness of raw (RCP) and modified carrot peelings - coated with chitosan (CPC), polyaniline (CPP), tetraethyl orthosilicate (CPT), and carbonised under vacuum (CPAC) - as biosorbents for the elimination of Methylene Blue (MB) and Methyl Orange (MO) dyes. This study is part of an approach to recovering agricultural waste and developing environmentally-friendly and economically viable water treatment solutions.

FTIR characterisation of the various samples revealed the presence of various functional groups, such as carboxyls and hydroxyls, which contribute to adsorption interactions with the dyes. An increase in the content of functional groups was also observed in the treated materials, with the exception of those coated with tetraethyl orthosilicate (CPT), where a decrease in the intensity of functional groups was observed.

Tests on the adsorption of MB and MO dyes by the various raw, chemically, and thermally treated adsorbents showed that the biosorbents studied have a much higher affinity for cationic dyes compared with anionic dyes. Raw carrot peels show exceptional adsorption properties for cationic pollutants, with rapid adsorption kinetics and a high adsorption capacity of up to 250 $mg.g^{-1}$. Activated carbon (CPAC) proved to be the most effective medium, not only in terms of maximum adsorption capacity (Q_e = 301.23 $mg.g^{-1}$) but also because of the significant quantities adsorbed even at low concentrations. In contrast, materials coated with chitosan, polyaniline, and tetraethyl orthosilicate performed less well than raw carrot peels, indicating that these treatments did not improve adsorption efficiency in this study.

Modelling of the different isotherms, using two-parameter models (Langmuir, Freundlich, Dubinin-Radushkevich (DR), and Temkin) as well as three-parameter models (Sips and Redlich-Peterson (RP)), showed that the Sips model was the most appropriate for describing the adsorption isotherms of MB on RCP, CPT, CPC, and CPAC, as well as for the adsorption of MO on CPT. On the other hand, the Freundlich model was the most appropriate for describing the adsorption of MO on RCP and CPC, as well as for the adsorption of MB on CPP.

In conclusion, RCP and CPAC have been shown to be promising biosorbents for the treatment of coloured wastewater, offering an environmentally-friendly solution and recovering an agricultural waste product. This research opens up prospects for large-scale applications and the optimisation of biosorbents.

Key words: Raw Carrot Peels, Carbonized Carrot Peels, Coated Carrot Peels, Dye removal, Water treatment.

EVALUATING THE DRUG POTENTIAL OF THE NATURAL AGENT GINSENOSIDES FOR THE TREATMENT OF BARD1-RELATED BREAST CANCER USING A MOLECULAR MODELING APPROACH

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Abstract

Introduction and Purpose: Breast cancer is a serious disease that occurs due to factors such as various gene mutations, including BARD1. Chemical drugs used in addition to various treatment methods such as chemotherapy have many side effects. Therefore, it is very important to discover natural agents with very few side effects as an alternative solution. For these reasons, we suggested that the interaction of the natural agent ginseng, which has anticancer bioactive properties, with the BARD1 gene receptor associated with breast cancer might be a better alternative to chemical drugs. The aim of this study is to evaluate the anticancer potential of the natural agent ginseng, as an alternative to chemical drugs used in breast cancer treatment, using a molecular modeling approach.

Materials and Methods: In this study, the drugs capecitabine, cyclophosphamide, and mitoxantrone, which are used clinically for breast cancer (PDB ID: 3C5R), and the natural agents ginsenoside Re, ginsenoside Rg1, and ginsenoside Rg3 were modeled by molecular docking. ADMET analyses were performed to determine the drug potential of ginsenoside natural agents with the best pharmacokinetic properties.

Results: Data were obtained that the natural agents of the bioactive components of the ginseng plant have stronger binding with 3C5R receptors than the docking-grade chemical systems. While the binding energies of protein-ligand complexes formed with natural agents ranged between -8.0 and -8.3 kcal/mol, those formed with chemical drugs ranged between -4.5 and -6.7 kcal/mol.

Discussion and Conclusion: Within the scope of this study, it has been shown that ginsenoside natural agents have anticancer drug potential as an alternative to chemical drugs in the treatment of breast cancer related to the BARD1 gene. Conducting this study using a molecular modeling perspective saves time and cost, while also offering hope for breast cancer patients for whom every minute is very valuable.

Key Words: Breast cancer, Molecular modeling, Natural agent, Ginsenoside

MULTI-SPEAKER RECOGNITION USING CONVOLUTIONAL NEURAL NETWORKS (ConNNs)

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Abstract

Introduction and Purpose: Multi-speaker recognition, the ability to identify and differentiate between multiple speakers in audio data, plays a crucial role in various fields such as security systems, voice-controlled devices, and automated transcription services. In recent years, advancements in cognitive systems and deep learning have revolutionized the way we approach speaker recognition tasks. This article explores the development of a cognitive system for multi-speaker recognition using Convolutional Neural Networks (ConNNs[1]), delving into the intricacies of data preprocessing, feature extraction, training methodologies, performance evaluation, and future directions in this evolving field.

Materials and Methods: In the study, two distinct datasets, TIMIT and AN4, were analyzed to obtain a comprehensive perspective on the problem. A diverse array of optimization algorithms was

[1] Convolutional Neural Network has been abbreviated as ConNN, not CNN or CoNN, CNN has been used as the abbreviation of Cellular Neural Network and CoNN has been used as the abbreviation of Cooperative neural networks in the literature as a long time.

employed to determine the most effective approach. As part of the preprocessing pipeline, an algorithm was applied to standardize the audio files to a uniform size, ensuring consistency across the dataset. The audio data was subsequently converted into Mel-Frequency Cepstral Coefficients (MFCCs), a commonly used feature extraction technique in speech processing. During the training phase, both the MFCCs and the raw audio time series data were utilized. This dual approach allowed for the exploration of different data representations to enhance model performance.

Results: Usage of MFCCs, the Adamax optimizer, and the AN4 dataset yielded the most favorable results, as reported in the article. All results were evaluated using macro-averaged versions of accuracy, precision, recall, and F1 score. The optimal performance achieved was found to be between 60% and 65% success across all evaluation metrics. This level of performance was determined to be the highest among all the tested combinations, underscoring the effectiveness of the MFCC features combined with the Adamax optimizer when applied to the AN4 dataset.

Key Words: Audio forgery, convolutional neural networks, audio deletion, TIMIT, content-based forgery

DETECTION OF AUDIO DELETION FORGERY USING CONVOLUTIONAL NEURAL NETWORKS (ConNNs)

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Abstract

Introduction and Purpose: The rapid advancement of digital audio processing technology has facilitated the creation of high-quality audio forgeries, posing significant challenges to the authenticity and integrity of audio content. Classical audio forgery detection methods often fall short in capturing the complex patterns characteristic of modern sophisticated forgeries. This paper explores the "deletion" component of content-based voice spoofing detection using convolutional neural networks (ConNNs[2]). "Deletion" refers to the intentional removal of segments from an audio file to conceal information or alter its content. The proposed ConNN-based approach aims to enhance recognition accuracy and automate the process of detecting forged audio. By doing so, it seeks to bolster the reliability of speech data and maintain the integrity of audio content.

Materials and Methods: Modern techniques continue to evolve, offering opportunities for diverse research. This study aims to advance the field by using vector-based audio time series analysis and ConNNs to detect audio forgeries. By leveraging deep learning and the rich data in audio time series, we aim to enhance the accuracy and robustness of forgery detection. The preprocessing steps, including converting audio files into vector-based series, generating forged samples, shuffling, and appending silence to samples, were detailed using the TIMIT dataset. Then, we present various models and their results, providing insights into their performance

Results: The research findings demonstrate that the sequential ConNN model achieved a test accuracy of 0.72, which is a promising starting point for this line of investigation. This indicates the potential of ConNNs in effectively identifying audio forgeries, thereby contributing to the advancement of robust audio authentication methods.

Key Words: Audio forgery, convolutional neural networks, audio deletion, TIMIT, content-based forgery

[2] Convolutional Neural Network has been abbreviated as ConNN, not CNN or CoNN, CNN has been used as the abbreviation of Cellular Neural Network and CoNN has been used as the abbreviation of Cooperative Neural Networks in the literature as a long time.

MONTE CARLO SIMULATION FOR COMPARISON OF PARAMETRIC AND NON-PARAMETRIC ESTIMATION METHODS OF LONG MEMORY PARAMETER: AN ARFIMA MODEL APPROACH

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Abstract

Introduction and Purpose: This research work dealt with some well-known parametric and semiparametric methods of estimating long memory parameter. Among the parametric estimation method used in this research work include: Exact Maximum Likelihood (EML) and Whittle Approximate Maximum Likelihood (WAML).

Materials and Methods: The research implements Geweke and Porter-Hudak (GPH) and Smoothed Periodogram (Sperio) for semiparametric estimation methods. Monte Carlo Simulation was used to assess the performance of the estimation procedures. In the GPH method, was used as bandwidth for the estimator. The truncation points in the parzen lag windows for the Smoothed Periodogram (Sperio) method, was used for the estimator. The performance of each method is measured with respect to four criteria, mean, standard deviation, bias and MSE. Further, the research work generated time series, it also assumed that the errors term (), the simulation is done for different sample sizes. Thus, estimation of parameter is conducted based on 1,000 iterations on each simulated data

Results: The result indicated that Whittle Approximate Maximum Likelihood (WAML) method for estimating parameters is found to be more efficient than the other methods. Nevertheless, the other methods give good results as well.

Discussion and Conclusion: The result gets better when the sample size increases.

Key Words: Long Memory, ARFIMA, Sample size amd Simulation

BLACK PAINT ON EXCAVATED PAINTED GREY WARE (PGW) POTTERY OF KAERUA KHERA MOUND, MANPUR, PALWAL, INDIA – AN ARCHAEOMETRIC STUDY

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Abstract

This paper deals with the examination of painted grey ware (PGW) pottery of Kaserua Khera mound in Manpur village which is situated in Manpur Village Hatin block of Palwal District, of Haryana state in India. The painted grey ware culture (PGW) is an iron-age Indo-Aryan culture of the western gangetic plain and the Ghaggar Hakra Valley. The extensive layer of PGM which confirms the mound dates back to the Pre-Mahajanpada Period around 3000 years ago. The fine grey potteries are painted with different geometrical patterns in black ink. There are very few studies are available on painting decoration of the pottery. The objects of the study are pigment used for painting of ceramic fragments found in archaeological excavation of Kaerua Khera site.

The analytical methods of stereo zoom microscopy, XRF, XRD, Raman Spectroscopy and SEM-EDS were applied to study the pottery samples. From the result, the characteristics of texture and composition of black painted was obtained. The black paint was determined to be prefixing paints. Black paint has carbon based crystalline pigments. Black carbon or graphite are recognised as colorants.

The results are forwarded to be new evidence of pottery paint technologies in Northern India.

Key words: archaeological remains; potsherds; paints; texture, composition, Raman Spectroscopy, SEM-EDS

ADAPTATION AND LEAF BIOCHEMICAL COMPOUNDS IN THREE GRAPEVINE (*VITIS VINIFERA* L.) VARIETIES GROWN IN TWO CONTRASTING ENVIRONMENTS

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Abstract

Climate change and its increasing variability have recently been identified as a major concern around the world due to its very apparent negative effects on fruit trees. Altered climatic parameters affect crop physiology, parameters and quality of crop productivity. The vine is one of the most cultivated fruit species in Morocco with an area of 49,000 hectares and a production of 230,000 tons. The development and promotion of this species in areas affected by climate change requires support in the right choice of varieties. The research aims to investigate how different vine varieties respond to contrasting climates, particularly in Morocco, which is increasingly affected by climate change. By analyzing various biochemical components such as total polyphenol contents (TPC), total anthocyanin contents (TAC), soluble sugar contents (SSC), proline content, and chlorophyll content (a and b). The radical scavenging activity (AAO) was measured using DPPH to evaluate antioxidant potential. Preliminary results have shown that biochemical composition is affected between the two sites with differences between varieties. The cultivar Muscat Italia cultivated at Ain Toujdate showed the higher total polyphenolic content about 206,14 mg/100g DM against 121,3 mg/100g DM of the same cultivar cultivated at Annoceur. Red Globe cultivar reveled high value at Annoceur with 150.6 mg/100g DM against 123,5 mg/100g DM at Ain Toujdate, and the cultivar showed no significant difference between two sites. The study showed differences in the biochemical composition of the three varieties between the two environments. These results

emphasize the importance of selecting appropriate vine varieties for specific climatic conditions to optimize productivity and quality in the face of climate change. By understanding how different varieties respond to varying environmental factors, farmers and researchers can make informed decisions to mitigate the impacts of climate change on fruit tree cultivation.

Key words: Vine, adaptation, contrasting environments, biochemical compounds.

BIOACTIVE COMPOUNDS OF *GALIUM* SPP. SPECIES AND THEIR USES IN BIOTECHNOLOGY

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Abstract

The genus *Galium* is known as one of the largest genera of the Rubiaceae family with 650 species represented worldwide. The genus *Galium* is generally distributed in temperate regions, but it has also been reported to be distributed in alpine and arctic regions, high subtropical and tropical areas. The genus *Galium* contains about 101 species in the flora of Turkey. Medicinal plants are used as an important pharmaceutical raw material in developing countries. For this reason, herbal medicines can be used as the main source of treatment against various diseases affecting people because they are effective and low-cost. In developing countries, about 80% of people are reported to use traditional medicines for therapeutic purposes. Extracts from plants of the genus *Galium* have been found to have bio-activities such as antioxidant, analgesic, antifungal, antimicrobial, and hypoglycemic. Due to the bioactive substances it contains, *Galium* species can be used as herbicides as well as medicinal drugs. This review will give general information about the genus *Galium* and the bioactive substances of the species belonging to the genus and their uses in biotechnology will be examined in detail.

Key Words: Biotechnology, *Galium* sp, Yogurt herb, Secondary metabolite, Medicinal plant

BIOACTIVE SUBSTANCES IN *CENTRAUREA* SPP. SPECIES AND ENHANCEMENT STUDIES

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Abstract

Plant species belonging to the genus *Centaurea* (Asteraceae) are used for medicinal purposes. They are attracting a great deal of attention in the context of the "green wave" movement, where there is an increasing trend towards natural instead of chemical medicines. These plants have long been used in folk medicine and are known to contain important compounds such as sesquiterpene lactones, flavonoids, and lignans. *Centaurea* species are used to treat various ailments such as gynecological problems, and digestive and dermatological complaints. They also exhibit a wide range of biological activities such as anti-inflammatory, analgesic, anti-platelet, wound healing, anti-ulcerogenic, hepatoprotective, anti-plasmodial, cytotoxic, anti-proteasomal, antioxidant, antibacterial, antifungal and allelochemical activities. They are economically important due to the secondary metabolites they contain, which are also economically important, and they contain a large number of endemic plant species. Important species include *C. calcitrapa*, *C. chrysantha*, *C. cyanus*, *C. solstitialis*, *C. urvillei*, *C. iberica*, *C. stoebe* and *C. pullata*. *Centaurea* species offer promising uses for the discovery of new drugs and natural pesticides. In this review, we will give information about the uses of *Centaurea* plants, their biological activities, and the methods used to increase secondary metabolites, and case studies will be examined in detail.

Key Words: Bioactive Substance, *Centaurea* sp, Endemic Species; Plant Tissue Culture, Secondary Metabolite

DETERMINATION OF INDUSTRIAL TYPE AIR CONDITIONING PLANT CAPACITY AND WATER CONSUMPTION AMOUNT IN PROVINCES WITH DIFFERENT ALTITUDE VALUES

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Abstract

Introduction and Purpose: The air conditioning industry is in an important position in meeting domestic market demand and in the international market. Making optimizations by reducing energy consumption and cost contributes to the development of the industry. The aim of this study is to examine the effect of altitude and monthly water consumption in determining the capacity of industrial type air conditioning plants, which are an important part of the air conditioning sector.

Materials and Methods: In this study, 39 meteorological stations of Turkey located at different altitudes were considered. It is assumed that a textile enterprise will be established in these stations, and an industrial type air handling unit will be applied to the Ring facility of the enterprise. It is assumed that there are 16 Rieter brand K48 ring machines in the facility with an area of 5945 m^3. While calculating the air conditioning unit capacity and water consumption amount, 0.4% frequency distribution values of the 2021 series of Ashrae software were used. Dry and wet bulb values were taken into account and psychometric calculations were made for the months of June, July, August and September. Considering the desired comfort conditions, for a relative humidity value of 65%, the capacity of the required air conditioning plant was calculated based on the existing heat loads, the effect of altitude was examined and the monthly water consumption amount was calculated.

Results: It was concluded that as the altitude value decreases for 39 provinces with different altitudes, the required air conditioning plant capacity also decreases, and as the difference between dry bulb and wet bulb values decreases for each month, the amount of water consumption required for evaporative humidification also decreases.

Discussion and Conclusion: This study has shown that altitude will be effective in installing the same air conditioning plant in different provinces, and as altitude increases, equipment with higher air conditioning capacity and correspondingly higher motor power will be needed.

Key Words: Air Conditioning, Heating, Cooling, Humidification.

EFFECTS OF WORMWOOD (*Artemisia Absinthium L.*) PLANT ON SOME MECHANICAL PROPERTIES OF WOOD MATERIALS

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Abstract

Introduction and Purpose: With the increasing interest in herbal medicinal drugs, nutraceuticals and natural products for health all over the world, medicinal plant extract producers and essential oil producers are looking for a much more reasonable extraction that has a certain quality for extract and essential oil production and that each group working will not give different results from each other. They started to use these methods. These approaches have begun to be accepted in developing countries rich in medicinal aromatic plants, which want to meet the increasing demand for quality products and to have a market, especially in developed countries. For this purpose, wormwood (*Artemisia absinthium L.*) extract was prepared at 1%, 3%, and 5% concentration due to its natural/organic structure and medicinal aromatic structure, and then it was impregnated into Scots pine wood and the shearing resistance and pressure resistance values parallel to the fibers were investigated.

Materials and Methods: Scots pine (*Pinus sylyvestris l.*) wood was preferred as the wood type and the processes were carried out in accordance with ASTM D 1413 -76 standards (760mm Hg^{-1} for 30 minutes). Shearing resistance parallel to the fibers was carried out according to the TS 3459 standard, and the pressure resistance test was carried out in accordance with the principles of TS 2595.

Results: In terms of the amount of substance retained (retention), the highest concentration is 3% (0.68%); The highest compressive strength was determined at 1% concentration (46.12 N/mm^2), and the highest shear strength was determined at 12.74 (N/mm^2).

Discussion and Conclusion: The vitality of the ecosystem, obtaining and developing new organic preservatives/surface treatment materials in the wood industry and determining new impregnation methods are of vital importance for the future of humanity. In the current and future centuries, where human/environmental health comes to the fore, all aspects of plants, aromatic plants, medicinal aromatic plants, and waste/residues of plants, such as stems/leaves etc., can be used as wood preservatives. It is of great importance for the future of humanity that the material is organic and that some species are grown indoors in addition to natural conditions.

Key Words: Mugwort plant, Mechanical properties, Extract, Human/environmental health, Medicinal aromatic plants

EFFECT OF LAVENDER PLANT EXTRACT ON WATER REPELLENT/SHRINKAGE EFFICIENCY VALUE IN WOODEN MATERIAL

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Abstract

Introduction and Purpose: The process performed to increase the natural strength of wood, extend its lifespan and ensure its resistance to various biological factors is called impregnation. When we look at today, the environmental sensitivity of the impregnation materials used has gained great importance. After these bans, the impregnation industry and wood protection companies tried to develop environmentally friendly, more natural new generation impregnation materials, aiming to both extend the life of the tree and minimize environmental damage. For this purpose, lavender plant (*Lavandula angustifolia Mill*.), one of the natural/organic medicinal and aromatic plants, was prepared as an extract in various concentrations (3%, 5%) and larch (*Pinus nigra Arnold*) wood was impregnated according to ASTM 1413-76 standard. Thus, water repellant / shrinkage reducing effectiveness rates (WRER / SRER) were determined.

Materials and Methods: The diffusion method was carried out in accordance with the principles of ASTM D 1413 -76, and it was subjected to pre-vacuum equivalent to 760mm Hg^{-1} for 30 minutes and free diffusion for 30 minutes. Total adhesion after impregnation was calculated as (kg/m3). The samples subjected to the washing process were kept at (103±2°C) until their weight/dimensions became unchanged, and according to the formulas below, from the values measured after the washing periods of 6, 24, 48, 72, 96 hours; Water repellent effectiveness (% WREV) and shrinkage reducing effectiveness (% SREV) values were calculated.

Results: Retention value is highest at 3% concentration (0.68%); While the highest water repellant efficiency value (WREV) occurred at 5% concentration (81.43%) for 96 hours; The highest constriction reducing effectiveness value (SREV) was determined at 5% concentration (80.05%) for 72 hours.

Discussion and Conclusion: Lavanta It is obvious that the extract obtained from the lavender plant can be easily used indoors and outdoors as a protective treatment agent. In particular, this type of organic (environmentally-related) material positively affects human and environmental health and creates a harmless structure for centuries. A secondary protector can be applied in outdoor use, and it can also be preferred on children's toys, parks and urban furniture. The ecological paint structure is integrated with wood.

Key Words: Lavender plant; Extract; Wooden material; Human/environmental health; physical properties

A STUDY OF SOCIAL WORK STUDENTS' PERCEPTIONS OF POVERTY: THE CASE OF FIRAT UNIVERSITY

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Abstract

Introduction and Purpose: Poverty is a global problem that affects the whole society and has multiple definitions and types. The concept of poverty, which brings along various disadvantages, is one of the main problems that the social work profession addresses and seeks to solve. Social work students receive their professional training in this context. The main purpose of this research is to explore the perceptions of poverty among third and fourth year students in the Social Work Department at Fırat University.

Materials and Methods: The phenomenological design of the qualitative method was chosen as the research aims to explore social work students' perceptions of poverty. Because having education on poverty might change students' perceptions, the participants of the study were selected from third and fourth year students of the Social Work Department at Fırat University. The participants were included in the study using a random sampling method. The research data were collected through in-depth interviews. In the in-depth interviews, to understand students' perceptions and experiences about the poverty were explored using pre-prepared questions from a semi-structured interview form, along with open-ended questions asked during the interviews. Collected data were analyzed using a descriptive method.

Results: Based on the research results, it was found that students conceptualize poverty in terms of two distinct types: absolute and relative poverty. Additionally, they perceive it as a complex societal issue that is difficult to improve in our country. It has been observed that the education received by students in the Social Work Department has altered their perspectives on poverty.

Discussion and Conclusion: It has been understood that students' thoughts on poverty have been reshaped after their social work education, and they define poverty in various ways. It was concluded that students, who made various inferences about the causes and consequences of poverty, address poverty from multiple dimensions.

Key Words: Poverty, Social Work, Perception of Poverty

GENERAL NURSING CONSULTANCY AND CARE PROVIDED TO WOMEN UNDERGOING GENİTAL AESTHETIC SURGERY WITHIN THE FRAMEWORK OF THE EX-PLISSIT MODEL: A CASE REPORT

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Abstract

Esthetic gynecologic surgery is gaining popularity amongst women. Development of technology and the increasing use of social media has changed the attitude of women towards esthetic procedures. Esthetic genital surgery strongly affects body image and the self perception of beauty and physical features and changes the mental and social prosperity in a positive way. Changes of self perception also affects women sexually. Sexuality is the main component of a persons' quality of life. The Ex-PLISSIT model enables people with sexual problems to be sexual, perform sexual activity and to argue about their sexuality. Special suggestions are given to solve problems via obtaining information about sexual subjects. This case report aims to present the sexual problems women encounter due to changes of appearance of outer genital organs resulting from esthetic genital operations without medical indication. The aim is to give a systematic presentation by nurse consultants based on the Ex-PLISSIT model. The case is a 29 year old married woman with one child. Our case presents to the gynecology clinic of a university hospital with sexual dysfunction and urinary incontinence. The patient has a previous history of uterine myoma. Surgical intervention is planned and perineoplasty with myomectomy, anterior and posterior colporraphy is performed. A diagnosis of sexual dysfunction, pain, anxiety, ineffective sexual pattern and changes of the quality of life is investigated in line with the data collected. The patient is examined a total of 3 times pre and post-operatively and consultancy and care developed with the Ex-PLISSIT model is given. Oral and written consent were obtained. This case report is thought to enlight further studies of nurses working in the female health field.

Key Words: Ex-PLISSIT Model, Nursing, Perinoplasty, Sexuality

DEBATES ON CLOTHING AND FASHION IN THE LATE OTTOMAN PERIOD: SOCIAL, CULTURAL AND RELIGIOUS PERSPECTIVES IN THE CONTEXT OF *İNCİ* AND *SEBİLÜRREŞAD* MAGAZINES

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Abstract

Introduction and Purpose: This research aims to examine the increasing debates about women's clothing in the context of their visibility in the public sphere in the Late Ottoman Period. Considering that the discussions reflect different perspectives and ideological approaches of the period, this study aims to provide an analysis through various examples. Discussions around women's clothing preferences are discussed with examples through İnci, one of the important women's magazines of the period. In addition, Sebilürreşad magazine, which offers a critical response to the fashion and hijab articles in İnci magazine, is an example in terms of understanding the reactions of conservative circles to these discussions and the ideological basis of these reactions. In this context, the research aims to analyze the social dynamics of the period and the ideological and cultural context of discussions about women's clothing.

Materials and Methods: Two periodicals, *Sebilürreşad* and *İnci* magazines, which were published in the Late Ottoman Period and constitute important examples of reflecting the conditions of the period, were examined as material. The research was conducted using the qualitative research method. During the data collection process, document analysis method was applied and articles, columns and advertisements published in *Sebilürreşad* and *İnci* magazines were examined.

Results: Debates about women's clothing reflect different ideological and social perspectives. The tensions and conflicts experienced in the Late Ottoman Period are also seen in the clothing issue. While *İnci* magazine emphasizes the innovations in women's fashion sense and their modernization efforts, *Sebilürreşad* magazine criticizes this situation from a conservative Islamist perspective and defends adherence to traditional norms. The opposing approaches of these two magazines reveal the cultural and ideological dynamics of the late Ottoman period.

Discussion and Conclusion: This study has shown that women's clothing dynamics in the Late Ottoman society were shaped around different thought movements such as feminism and conservatism. *İnci* and *Sebilürreşad* magazines have been examined as two important platforms that reflect these ideological differences.

Key Words: Clothing, Late Ottoman Period, Women, Conservatism

EFFECT OF PLANT-BASED SUPPLEMENTS ON INFLAMMATION IN OSTEOARTHRITIS

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Abstract

Introduction and Purpose: Osteoarthritis (OA) is a degenerative joint disorder that causes pain, swelling and stiffness, reducing mobility and quality of life. According to World Health Organisation (WHO) data, approximately 528 million people worldwide were living with osteoarthritis in 2019, an increase of 113% since 1990. Various guidelines suggest that appropriately planned plant-based supplements may be beneficial in the prevention and treatment of osteoarthritis. The intake of polyphenols found in fruits and vegetables exerts an anti-inflammatory effect by inhibiting the formation of inflammatory cytokines and reducing the synthesis of nitric oxide. In addition, polyphenols increase type II collagen production by stimulating matrix synthesis and reduce cartilage degeneration by reducing matrix metalloprotease (MMP) activity. In addition, polyphenols increase superoxide dismutase and glutathione peroxidase activity and help delay aging, which is an important risk factor for osteoarthritis. Studies show that some plants show a protective relationship on OA-related symptoms such as pain, cartilage structural parameters and inflammatory biomarkers. Therefore, this study aimed to investigate the health outcomes of plant-based supplements on osteoarthritis in the light of current literature.

Materials and Methods: Literature searches were conducted on many websites, including MEDLINE, Embase, Cochrane Central, www.ClinicalTrials.gov, PubMed, Science Direct, Google Scholar and the World Health Organisation. For a better search, studies from relevant databases were reviewed using keywords such as ‘osteoarthritis-plant-based nutrition, osteoarthritis-antioxidant, osteoarthritis-anti-inflammatory, osteoarthritis-plant based supplement’. Sub-references of the articles selected using keywords were also searched and analysed.

Results: Plant supplements are thought to be effective in the treatment of osteoarthritis due to their high pulp, antioxidant and anti-inflammatory properties. In various studies, it has been reported that fruit and vegetable supplements such as strawberries, blueberries and okra may have favourable effects in the treatment of the disease. Despite limited studies, it should be aimed to adopt dietary patterns rich in antioxidant vitamins and minerals.

Key Words: Osteoarthritis; Antioxidant; Inflammation; Plant-based Suplements

POTENTIAL HEALTH EFFECTS OF THE MEDITERRANEAN DIET IN OSTEOARTHRITIS

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Abstract

Introduction and Purpose: Osteoarthritis (OA) is a disease of arthritis involving anatomical and physiological changes of joint tissues, such as cartilage degeneration and osteophyte formation, leading to pain, stiffness, swelling and limitations in joint function. It is reported that 240 million people worldwide have symptomatic OA. The Mediterranean Diet is based on a daily intake of whole grains, fresh fruit and vegetables, oilseeds and low-fat dairy products; olive oil as the main source of fat; moderate consumption of fish, chicken and eggs; monthly consumption of red meat and moderate consumption of wine. Since the Mediterranean diet is rich in antioxidant vitamins and minerals and contains pulp and healthy fatty acids, it is thought that it may have an indirect effect on preventing the risk of osteoarthritis and reducing the complications of osteoarthritis. Therefore, in this study, we aimed to examine the effect of the Mediterranean diet on the risk and treatment of osteoarthritis.

Materials and Methods: Literature searches were conducted on many websites, including MEDLINE, Embase, Cochrane Central, www.ClinicalTrials.gov, PubMed, Science Direct, Google Scholar and the World Health Organisation. For a better search, studies from relevant databases were reviewed using keywords such as ‘osteoarthritis-mediterrian diet, osteoarthritis-olive oil, osteoarthritis-fish, osteoarthritis-antioxidant’. Sub-references of the articles selected using keywords were also searched and analysed.

Results: In conclusion, high adherence to the Mediterranean diet was found to be negatively associated with the risk of osteoarthritis, whereas in intervention studies, pain complaints were observed to be reduced in patients following the Mediterranean diet. Furthermore, moderate consumption of olive oil, one of the main components of the Mediterranean diet, was found to reduce pain scores. Although our research provides further evidence on the important role of Mediterranean diet on knee OA outcomes, future researchs are needed.

Key Words: Osteoarthritis; Mediterranean Diet; Antioxidant; Olive oil

BLACK SEA FROM THE POINT OF VIEW OF ENERGY POLITICS

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Abstract

The Black Sea, which looks like an inland sea between continents, is located in the "Ancient Land" of the world. Today, there are 6 countries around the Black Sea, and it is of vital importance for these countries. However, it can be said that the Black Sea concerns not only these countries but also a much wider basin. As a matter of fact, it attracts the attention of countries that are not related to the region and even outside the continents between which it is located. One of the reasons for this is that the Black Sea connections are in all directions and different basins can be reached from here. However, it can be said that the most important issue of the Black Sea is its political character in terms of energy.

When the closed surroundings of the Black Sea are examined; It is seen that the Eurasian and Caspian regions in the east are rich in energy reserves. On the other hand, it is known that there are countries in significant need of energy resources in the western regions. This situation gives the Black Sea the character of an energy transition zone in terms of geopolitics.

In the 20th century, when oil was widely used and maritime transportation with tankers for oil transportation developed as much as commercial transportation. In the last 50 years, with the importance of the use of natural gas as well as oil, the necessity of transporting natural gas from this region has emerged. For this purpose, the laying of energy pipelines in the Black Sea has been in question and in this context, pipelines that are used effectively have been implemented. In other words, it is still possible to transport oil by tankers and natural gas by pipelines passing under the Black Sea. The issue of energy security caused by this situation has become of great importance not only for the surrounding countries but also for European countries especially.

In this study, first of all, energy resources reserves in the Black Sea are mentioned. In addition, the issue of oil transportation is emphasized. Transport routes related to the subject are specified. In addition, the place and importance of the Turkish Straits, which are one of the energy transition risk zones, in the world geopolitics is emphasized.

As natural gas pipelines, Blue Stream, Turkish Stream I and Turkish Stream-II are introduced. In addition, Turkey's natural gas reserves in the Black Sea and its importance are described. Furthermore, the Black Sea gas hydrate reserves, which are important for the future, are also introduced. Apart from these, the energy political aspect of the Ukraine War, which is still taking place in the north of the Black Sea, is emphasized and the impact of the events on the Black Sea energy policy is also explained.

Keywords: Black Sea, Energy Pipelines, Energy Politics, Energy Transport

WASTEWATER TREATMENT AND DEVELOPMENT, MILA PROVINCE, EASTERN ALGERIA

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Abstract

Water is an increasingly scarce commodity in Algeria. Currently, it is the subject of a competitive exploitation between domestic, agricultural and industrial needs, which compete for a very limited availability. Knowing that water is a limiting factor of development, scarcity is supported in terms of water stress by the spatio-temporal irregularity of rainfall and the pollution of mobilized resources, two factors likely to increase with climate change. The pollution of surface water is due to the discharge of domestic and industrial wastewater. Pollution is likely to constitute, in the short term, a risk of water shortage accentuated imposing the need to protect this resource against any alteration and irrational use.

Faced with the challenge of ensuring the coverage of water needs for agriculture in Algeria, an active policy of mobilization of non-conventional water resources has been implemented, through the reuse of purified wastewater in agriculture. Wastewater treatment has thus become a necessity to preserve the quality of natural environments and especially surface waters as an adequate solution to alleviate the scarcity of water in our country.

The wastewater from the centers of Mila, Sidi Merouane and Grarem Gouga are essentially of domestic origin and previously discharged directly into the lake of the dam of Beni Haroun. The water treatment plant (WTP) of Sidi Merouane was built to mitigate the pollution of the lake of the largest hydraulic complex in the country, the first of a series of three scheduled in the watershed of the dam Beni Haroun. The National Sanitation Office received the station in 2009.

According to the results of the analyses carried out at the WTP of Sidi Merouane, we have reached a very important and promising conclusion. The purified waters of the station are globally suitable for reuse in the agricultural field, this suitability is confirmed by the purifying efficiency of the WTP signified by important abatements superior to 95% for the BOD_5, the COD and the suspended matter (SM).

The calculation of the sodium absorption ratio (S.A.R) and the percentage of sodium (% Na) and their projection on the Wilcox and Richards diagrams confirm the above mentioned results. In addition, the risk by bicarbonates and chlorides is low to moderate. According to the microbiological results, purified water is recommended for specific crops and with a localized irrigation technique.

Overall and according to the results we obtained, the purified water of the Sidi Merouane WTP is suitable for irrigation but with restrictions; it can be used for the cultivation of fruit and forest trees, fodder crops, cereals and flowering plants.

Keywords: Beni-Haroun, water treatment plant, wastewater, SAR, agriculture.

BREAST CANCER DIAGNOSIS USING DEEP LEARNING

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Abstract

Breast cancer remains a significant health concern for women globally, emphasizing the critical importance of early detection for better patient outcomes. In recent years, deep learning has emerged as a promising approach to automate breast cancer detection in mammography. Deep learning offers the potential to enhance the accuracy and efficiency of breast cancer diagnosis through transfer learning, which involves adapting a pre-trained model to a new task. This study explores the effectiveness of transfer learning techniques in breast cancer detection by leveraging pre-trained deep learning models. Various transfer learning algorithms are investigated, and their impact on key detection performance metrics such as ROC AUC, accuracy, precision, and recall is evaluated using comprehensive mammography datasets. The findings from this research contribute to the progression of automated breast cancer diagnosis and shed light on the efficacy of transfer learning methods in enhancing detection precision and reliability.

Keywords: Medical imaging, deep learning, breast cancer and transfer learning.

PREPARATION OF POLY(PHENYLENE OXIDE)/POLY(BUTYLENE ADIPATE TEREPHTHALATE) MIXTURES AND EXAMINATION OF THERMAL, MECHANICAL AND MORPHOLOGICAL PROPERTIES BY REINFORCEMENT WITH GLASS FIBER

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Abstract

Introduction and Purpose: PBAT is a synthetic polymer based on fossil resources, 100% biodegradable and flexible with higher rupture resistance. Polyphenylene oxide (PPO), known also as polyphenylene ether (PPE), is one of the most important amorphous polymers. It's significance as engineering plastics emerges due to its high strength, high thermal decomposition temperature and high chemical resistance. The aim of this study is to harmonize two polymers with different structures, poly (butylenedipat-co terephthalate) (PBAT) and poly (2,6-dimethyl-1,4 phenylene ether) (PPO), and to examine their mechanical, thermal and morphological properties with and without reinforcement of glass fiber. It is planned to be used in the electrical industry, automotive industry and liquid transportation.

Materials and Methods: PBAT is a synthetic polymer based on fossil resources. Full biodegradability, high elongation at break and high amount of flexibility are the characteristics of PBAT. PBAT not only shows good biodegradability due to the aliphatic unit in the molecular chain, but also excellent mechanical properties due to the aromatic unit in the molecular chain. Compared to most biodegradable polyesters such as poly(lactic acid) (PLA) and poly(butylene-co-succinate) (PBS), the mechanical properties of PBAT are similar to those of low density PE (LDPE). These mechanical properties make PBAT a very promising biodegradable material for a wide range of potential applications. The mechanical properties of PBAT were affected by the monomer composition and molecular weight. The Young modulus increased with the content of terephthalate units, while the elongation at break decreased. On the other hand, with the increase in molecular weight, the tensile strength increased while the elongation at break decreased. PPO, on the other hand, consists of phenylene rings connected by ether bonds in the 1, 4 or para-positions, with methyl groups attached to carbon atoms in positions 2 and 6. Poly(phenylene oxide)(PPO) resins composed of phenolic monomers have a very high glass transition temperature (Tg). Pure PPO is very difficult to process with a Tg above 200°C; melting does not begin below 255°C. At extrusion or injection molding temperatures of 300–350°C, the melt flow is very stiff.

To make the PPO processable we intend to make blends of PPO and PBAT with different weight ratios to find the optimum composisiton considering the mechanical, thermal and morphological properties.

Results: In this study, PPO/PBAT percentage ratios by weight will be blended as: 1) 90% + 10%, 2) 80% + 20%, 3) 70% + 30%.

Discussion and Conclusion: As a result of the trials, the best technical results were obtained in the formulation with 10% PBAT content by weight. This result was determined by analyzing the mechanical, thermal and morphological results. Results were discussed in detail.

Key Words: PBAT, PPO, PPE, BLEND, BIOPOLYMER

INVESTIGATION OF THE EFFECT OF SUSTAINABLE FOOD LITERACY ON NUTRITION BEHAVIORS AND FOOD PREFERENCES IN ADULTS

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ABSTRACT

Introduction and Purpose: Food literacy is a skill that helps individuals understand food and engage with the food system by developing lifelong sustainable food skills and practices. It can influence food preferences and eating behaviors. This study aims to assess the impact of sustainable food literacy on individuals' eating behaviors and food preferences.

Materials and Methods: The study involved 400 volunteer adults (172 males and 228 females) aged 18-65 years, living in Istanbul. Participants completed a questionnaire covering sociodemographic data, anthropometric measurements, dietary habits, food preferences, physical activity status, and the Sustainable Food Literacy Scale (SFLS).

Results: There was a statistically significant difference ($p<0.001$) in the "Sustainable Food Knowledge-2 (SFK-2)," "Sustainable Food Knowledge Total (SFKT)," "Food and Culinary Skills (FCS)," "Attitudes (AT)," "Intention to Take Action and Strategies to Take Action (ITAS)" sub-factor, and "SFL Total" scores according to gender. Women had higher median scores than men in these components. Significant differences ($p<0.05$; $p<0.01$) were also observed in the "SFK-2," "AT," "ITAS" sub-factor, and "SFLS Total" scores according to diet application status, with dieters scoring higher. A significant difference ($p<0.05$) was found between the "SFK-2" sub-factor and "SFLS Total" scores for regular meal consumption status, with higher scores for those consuming regular meals. Additionally, significant differences ($p<0.05$; $p<0.01$; $p<0.001$) were found in the "SFK-1," "SFK-2," "SFKT," and "SFLS Total" scores based on nutrition education, with higher scores for those who received education.

Discussion and Conclusion: Food literacy programs have been shown to support the development of food literacy behaviors and maintain dietary behavior changes in adults. This study found variations in food literacy scores based on gender, dietary practice status, regular meal consumption, and nutrition education. Enhancing food literacy is crucial for promoting ecological nutrition behaviors and developing a sustainable society.

Key Words: Food Literacy; Sustainability; Nutrition Behaviour; Food Preference

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REAL LIFE APPLICATIONS OF BAYES' THEOREM

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Abstract

In 18th century, Thomas Bayes' gave a theorem that determines the probability of occurrence based on prior knowledge of conditions that might be related to the event which is popularly known as Bayes' theorem. Bayes' theorem plays a significant role in calculating the degree of uncertainty, conditional and marginal probability and inference statistics. The theorem gives a simple approach to reasoning and computing and has been widely studied by researchers over the last two centuries with numerous applications in different fields of real life such as health and medicine, interpretation of animal behavior, weather forecasting, business and finance, advanced machine learning models etc. In this survey paper, a brief history of Bayes' theorem and its applications in real life viz. predicting environmental damage, assessing interest rates and analysis of nursing diagnosis have been presented. Bayesian inference which is a logical approach to updating the potential of hypothesis in the light of new knowledge of circumstances that may be relevant to the event has been discussed. Further applications of Bayes' theorem in predicting water quality conditions, evaluating interest rates with net income and analysis of cardiovascular nursing have been discussed. Despite the fact that the Bayes' theorem was developed in 18th century, the numerous applications of Bayes' theorem have been benefitting the mankind in different fields in 21st century as well.

Keywords: Bayes' theorem, Conditional probability, Bayesian inference

References:

1.) Andrew Gronewold & Daniel Vallero, Applications of Bayes' theorem for predicting environmental damage, 2010
[https://www.accessscience.com/content/article/aYB100249]
2.) Brian O'Connell, What is Bayes' theorem and why is it important for business and finance, 2018.
[https://www.thestreet.com/personal-finance/what-is-Bayes'-theorem-14797035]
3.) Marcos Venicios Oliveira Lopes, Viviane Martins Sliva & Thelma Araujo, Nursing Diagnoses analysis under the Bayesian perspective, 2012
[https://www.researchgate.net/publication/231224669_Nursing_diagnoses_analysis_under_the_Bayes'ian_perspective]
4.) Nicholas Stylianides & Eleni Kontou, Bayes' theorem and its recent applications, 2020
[https://journals.le.ac.uk/ojs1/index.php/lumj/article/viewFile/3488/3130]

SURVEY ON OLIVE POMACE PRODUCTION FROM OLIVE OIL INDUSTRY MILLS AND PHYSICOCHEMICAL CHARACTERIZATION

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Abstract

In terms of the global production of olive oil by-products, the amount of olive pomace produced every year achieve several millions of tons. Disposal of these waste products could create a serious environmental problem due to the phytotoxic nature and low biodegradation of the lignocellulosic biomass.

In this context, we conducted a survey to estimate the average quantity of olive pomace residues produced by olive oil industry. Another objective of this study was to perform a physicochemical characterization of olive pomace samples collected from different prefectures in the Fez-Meknes region. A comparative study was carried out, comparing several olive pomace samples from three different olive oil extraction processes.

The results indicated a significant variation in the amount of olive pomace produced by each mill. Additionally, physicochemical analyses revealed that all samples of olive pomace have a very complex and heterogeneous physicochemical composition.

Keywords: Olive oil industry mills, survey, olive pomace, quantity of olive pomace, physicochemical characterization.

A POTENTIAL SOURCE OF VEGETABLE TANNIN FROM BANANA BUNCH AND STEM SYRUP FOR LEATHER PROCESSING

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Abstract

A feasible approach to prevent environmental pollution is to utilize vegetable tannins in the leather processing. Herein, an eco-friendly tanning agent is obtained from banana bunch and stem syrup. The yield of tannin extraction is 69.80%. The presence of condensed type tannin with various polyphenolic groups was validated by FT-IR analysis. Stem syrup has 2.6% tannin content, while bunch extract has 3.13%. After applying the bunch extract and syrup for re-tanning the leather, it is compared with the leather re-tanned by Quebracho, a traditional vegetable tanning agent. For bunch extract and syrup tanned leather, the corresponding values for tensile strength, tear strength, and elongation are 23.84 N/mm^2, 68.26 N/mm, 47.07%, and 22.97 N/mm^2, 68.38 N/mm, 40.70%. For bunch extract, the softness is measured at 1.41 mm, while for syrup, it is 2.01 mm. The grain crack load, distension at grain crack, strength at ball burst, and distension at ball burst for syrup are 246.86N, 13.24mm, 530.77N, and 24.54mm, respectively, whereas for bunch extract they are 338.77N, 13.42mm, 460.65N, and 29.08mm. The bunch extract, syrup, and Quebracho-tanned leather samples showed shrinkage temperatures of 76.5°C, 75°C, and 84°C, subsequently. For the bunch extract and syrup, the flexing endurance is in acceptable values which are less than 4. The thermal stability of bunch extract tanned leather is higher, while for syrup, it is comparable to Quebracho. In Bangladesh, there are currently no commercial vegetable tannin resources, yet banana is readily available. Consequently, exploring this tannin has the potential to lessen the reliance of Bangladesh on imported vegetable tannin and provide environment-friendly tanning material for the leather sector.

Keywords: Leather processing; Tanning material; Banana bunch; Vegetable tanning; Banana stem

UTILIZATION OF GROUNDNUT SHELL WASTE FOR PRODUCTION OF WATER RESISTANT PARTICLE BOARD

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Abstract

Wastes, as they are called are treated just as their name implies, they are usually discarded because they are thought to be useless, there are varieties of wastes in the universe from numerous sources which are as a result of man's daily activities. A prominent source of waste is agricultural waste which comprises of groundnut shells which are discarded after the edible part has been used. Groundnut shells account for approximately 20% of the dried groundnut pod by weight, meaning there is a significant amount of shell residual left after groundnut processing. Increased groundnut production leads to the accumulation of these groundnut shells which is not utilized, thus either burnt or buried. As Groundnut shells are rich in many functional compounds and composed of cellulose and lignin, it can be utilized in multiple ways one of which is in the making of particle boards.

The sample used for this project work was collected at a local farm in Ilorin, it was then treated to ensure suitability for the work, starch was utilized as the binder to ensure compatibility, the mixture was then transferred to a mould and allowed to dry.

Two essential characteristics for commercial use are water absorption and thickness swelling, both of which were tested on the boards and comparable to boards constructed from other tested materials. The testing done on the boards also revealed that the groundnut peel (shell) board has some of the better qualities compared to the others and meets the requirements to be utilized commercially.

Keywords: Wastes, groundnut shell, binder, particle board

CORPORATE CARBON FOOTPRINT: AN EXAMPLE CALCULATION FOR A FOUNDRY COMPANY

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Abstract

Introduction and Purpose: Increasing greenhouse gas emissions due to industrial developments, urbanization and relaxation cause climate change. Although increasing energy consumption day by day with the consumption of fossil fuels such as coal, oil and natural gas is among the important reasons, this situation has negative contributions to humanity, albeit directly and/or indirectly. Preventing and reducing this will be of great importance today. Therefore, people's carbon footprints should be analyzed. The concept expressed by carbon footprint is defined as the expression in terms of CO_2 of greenhouse gases such as carbohydrates (CO_2), methane (CH_4) and nitrogen monoxide (N_2O) released as a result of the formation and consumption of a person, institution or country.

Materials and Methods: In this study, the amount of greenhouse gases resulting from the use of natural gas in 2023 of a small and medium-sized enterprise that carries out double centrifugal casting activities, the conversion factors of the UK Department for Environment, Food and Rural Affairs (DEFRA). It was tried to be calculated using the greenhouse gas sources and in the following processes, it was aimed to detect and calculate the greenhouse gas sources in other scopes.

Results: The company's greenhouse gas emission value resulting from natural gas consumption for heating and process purposes was found to be 127.16 t/CO_2e.

Discussion and Conclusion: The current study is a start in calculating the corporate carbon footprint for the relevant company and explains how the carbon footprint value of the company obtained as a result of the preliminary calculations can be evaluated with sector-specific reduction strategies.

Key Words: Climate change, Carbon footprint, Corporate, Double centrifugal casting, Greenhouse gases.

AWARENESS LEVELS OF INTERIOR ARCHITECTURE STUDENTS REGARDING OCCUPATIONAL HEALTH AND SAFETY

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Abstract

Introduction and Purpose: Work environments should be designed and constructed in accordance with occupational health and safety criteria. This involves critical considerations such as aesthetic features, ergonomics, physical comfort conditions, and the suitability of materials used. Meticulous implementation of all details will minimize risks associated with the environment and increase overall work efficiency. Therefore, it is essential for architects and interior designers responsible for designing workspaces to have sufficient knowledge on this subject. This study aims to determine the awareness and knowledge levels of interior architecture students regarding occupational health and safety during their education process.

Materials and Methods: In March 2024, a "Space and Occupational Safety" seminar was conducted for a group of 45 students in the Interior Architecture Department of Karadeniz Technical University. Pre-tests and post-tests were administered to the students before and after the seminar. The importance of occupational health and safety and their views on the inclusion of this course in interior architecture departments were surveyed. Additionally, the tests included questions on knowledge about waiting areas, operating rooms, and patient rooms in hospitals. Descriptive analysis techniques were used to identify changes in the students' knowledge and awareness levels.

Results: In the pre-test, students indicated that lighting, number of users, material properties, functional requirements, number of people, limited free space, and environmental conditions were important factors related to risks in work environments. However, some students were indifferent or unsure about these factors. In the post-test, it was observed that most of these students changed their responses to "important" and "very important." Opinions on the inclusion of the course in interior architecture departments also shifted positively after the seminar. Including a specialized course on this subject in the professional education of interior architecture and reinforcing it in other courses will have positive effects on knowledge and awareness.

Key Words: Interior Architecture Education; Occupational Health and Safety Course; Safe Space; Work Environments; Awareness

VALORIZATION OF PURIFIED WASTEWATER IN IRRIGATION, CASE: SIDI MEROUANE-MILA STATION

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Abstract

Water is an increasingly scarce commodity in Algeria. Currently, it is the subject of a competitive exploitation between domestic, agricultural and industrial needs, which compete for a very limited availability. Knowing that water is a limiting factor of development, scarcity is supported in terms of water stress by the spatio-temporal irregularity of rainfall and the pollution of mobilized resources, two factors likely to increase with climate change. The pollution of surface water is due to the discharge of domestic and industrial wastewater. Pollution is likely to constitute, in the short term, a risk of water shortage accentuated imposing the need to protect this resource against any alteration and irrational use.

Faced with the challenge of ensuring the coverage of water needs for agriculture in Algeria, an active policy of mobilization of non-conventional water resources has been implemented, through the reuse of purified wastewater in agriculture. Wastewater treatment has thus become a necessity to preserve the quality of natural environments and especially surface waters as an adequate solution to alleviate the scarcity of water in our country.

The wastewater from the centers of Mila, Sidi Merouane and Grarem Gouga are essentially of domestic origin and previously discharged directly into the lake of the dam of Beni Haroun. The water treatment plant (WTP) of Sidi Merouane was built to mitigate the pollution of the lake of the largest hydraulic complex in the country, the first of a series of three scheduled in the watershed of the dam Beni Haroun. The National Sanitation Office received the station in 2009.

According to the results of the analyses carried out at the WTP of Sidi Merouane, we have reached a very important and promising conclusion. The purified waters of the station are globally suitable

for reuse in the agricultural field, this suitability is confirmed by the purifying efficiency of the WTP signified by important abatements superior to 95% for the BOD_5, the COD and the suspended matter (SM).

The calculation of the sodium absorption ratio (S.A.R) and the percentage of sodium (% Na) and their projection on the Wilcox and Richards diagrams confirm the above mentioned results. In addition, the risk by bicarbonates and chlorides is low to moderate. According to the microbiological results, purified water is recommended for specific crops and with a localized irrigation technique.

Overall and according to the results we obtained, the purified water of the Sidi Merouane WTP is suitable for irrigation but with restrictions; it can be used for the cultivation of fruit and forest trees, fodder crops, cereals and flowering plants.

Keywords: Beni-Haroun, water treatment plant, wastewater, SAR, agriculture.

CHALLENGES IN IMPLEMENTING MOTHER TONGUE AS A LANGUAGE OF INSTRUCTION IN PRE-PRIMARY SCHOOL COMPETENCY-BASED CURRICULUM IN KENYA

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Abstract

The importance of using mother tongue as a language of instruction in early years education is profound. Empirical studies have shown that teaching children in their mother tongue boosts their confidence, comprehension, and overall academic performance. Instruction in mother tongue promotes better understanding and engagement, which directly enhances learning outcomes. In Kenya, the National Language Policy encourages the use of mother tongue as a language of instruction in pre-primary school competency-based curriculum, particularly in rural areas. However, evidence suggests that mother tongue is the least preferred language for instruction in many preschools, creating a gap between policy and practice. Further, research indicates that many pre-primary teachers in Kenya favour English or Kiswahili over the mother tongue, raising concerns about the effective implementation of language policies and their impact on children's learning outcomes. To address this issue, it was necessary to investigate the challenges that teachers and schools face in implementing mother tongue as a language of instruction. This study was guided by Lev Vygotsky's Social Constructivist theory of language development. The study was conducted in pre-primary schools in one county in Kenya. Questionnaires and interview schedules were used to collect data, which was analyzed using both qualitative and quantitative methods. The findings revealed that most pre-primary school teachers rarely used mother tongue in instruction, preferring English and Kiswahili instead. The study also identified several teacher- and school-related factors that hindered the use of mother tongue in instruction. Based on these findings, the study proposed several strategies to be adopted to enhance the use of mother tongue as a language of instruction in pre-primary schools.

Keywords: Challenges; Implementation; Mother Tongue; Language Of Instruction; Pre-Primary School; Competency-Based Curriculum; Kenya

ASSISTIVE TECHNOLOGY DEVICES: THE WAY FORWARD FOR INNOVATIVE TEACHING AMONG STUDENTS WITH LEARNING DISABILITIES IN NIGERIA

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Abstract

It is crystal clear that teaching-learning process in twenty-first century is evolving. Novel methodologies and strategies are introduced and used for the sake of making the students to achieve significant learning outcomes. In doing this, learning uniqueness of every student especially students with learning disabilities are paramount. Unlike students without learning disabilities, students with learning disabilities do experience difficulties in classroom activities. To provide intervention, assistive technology devices as apt innovative teaching become sine qua noon. This paper therefore focused on assistive technology devices: the way forward for innovative teaching among students with learning disabilities in Nigeria. In this paper, various types of assistive technology devices designed and used to enhance mathematics, memory, writing, reading and listening skills among students with learning disabilities were discussed.

This paper is anchored on Constructivism Theory which advocates that learners construct knowledge and meaning based on their interpreted experiences of the world. In a Constructivist classroom, the teacher is a facilitator and learners actively construct knowledge by participating and interpreting ideas from social and individual experiences and prior knowledge, which is deemed to have positive effects on learning and academic attitude

The paper concluded that assistive technology devices have the potency to aid students with learning disabilities to outgrow learning disabilities.

ASSESSMENT OF THE MICROBIOLOGICAL HYGIENIC QUALITY OF TRADITIONAL STREET FOOD STUFFED MUSSELS FROM A PUBLIC HEALTH PERSPECTIVE

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ABSTRACT

Introduction and Purpose: Stuffed mussels, one of the most popular street foods in Turkiye, are prepared using Mediterranean mussels (*Mytilus galloprovincialis*), rice, and various spices according to traditional methods. Since mussels filter water from their environment for nutrition, they may contain various pathogenic microorganisms. Additionally, the lack of hygiene and sanitation measures from the preparation to the consumption of stuffed mussels reduces microbial quality and increases the risk of foodborne infections/intoxications. Furthermore, the usage of mussel shells as spoon during consumption may be dangerous for consumers. This study aimed to determine the hygienic status of stuffed mussels sold in Aydın province by investigating the levels of coliform bacteria and the presence of *E. coli* as indicator microorganisms. In addition, the antibiotic susceptibility of *E. coli* isolates was determined to evaluate stuffed mussels from the perspective of antibiotic resistance, one of the most significant public health issues nowadays.

Materials and Methods: A total of 250 stuffed mussel samples were collected from 50 different sales points, with 5 samples taken from each point. Conventional methods were used to determine the levels of coliform bacteria and the presence of *E. coli* in the samples. The antibiotic resistance profiles of the *E. coli* isolates were evaluated using the Kirby-Bauer disk diffusion method.

Results: Coliform bacteria were detected in the inner part of the mussels in 21 of the 50 establishments, on the shell surface in 18 of them, and on both the inner and shell surfaces in samples from 12 establishments. The average contamination levels for positive samples were found to be 2.42±0.95 log CFU/g in the inner part of the stuffed mussels and 1.72±0.72 log CFU/g on the shell surfaces. No *E. coli* was detected on the shell surface, but one of the samples obtained from the inner parts of the stuffed mussles was positive for *E. coli*. The isolated strain was observed to be resistant to ampicillin, cefoxitin, and gentamicin.

Discussion and Conclusion: The contamination levels of coliform bacteria, which are hygiene indicators, and the antibiotic resistance profile of *E. coli* on both the shell surface and the inner part of stuffed mussels indicate that stuffed mussels may be a significant risk to public health. Preparing and monitoring stuffed mussels in accordance with hygiene standards is of great importance for food safety.

Key words: Antibiotic resistance; Coliform Bacteria; *E. coli*; Stuffed mussels

OVERCOMING CHALLENGES OF ACTIVE AND PASSIVE LEARNING AND TEACHING

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Abstract

This study investigates the dynamic relationships that exist between instructional strategies and passive and active learning in educational settings. The goal of this article is to find practical ways to support critical thinking, student engagement, and meaningful learning outcomes by examining the difficulties posed by both approaches. The paper investigates teaching strategies that bridge the gap between active and passive learning. Teachers can take a balanced approach that makes use of the advantages of both active and passive learning strategies to address the issues raised by each. Technology integration to create interactive learning opportunities, collaborative projects that foster student engagement, offering personalized feedback to improve student learning outcomes, and giving students choice in learning activities are some of the strategies. Overcoming obstacles in educational settings also requires professional development opportunities for teachers to improve their pedagogical skills in active learning methodologies.

To tackle the shortcomings of both active and passive learning, teachers can use a blended learning strategy that integrates the best features of both approaches. Teachers can encourage student participation, creativity, and problem-solving abilities by implementing interactive activities, group projects, and technology-enhanced resources. The move toward more active learning gives students the ability to take charge of their education and encourages a deeper comprehension of challenging ideas.

To overcome the drawbacks of both active and passive learning, educators must adopt a personalized learning approach that caters to the needs of each individual student. Teachers can establish a welcoming learning environment that accommodates a range of learning preferences and styles by implementing formative assessments, differentiated instruction, and feedback mechanisms. Learning can be more flexible, engaging, and conducive to academic success when a student-centered approach is adopted.

Instructors can create a dynamic, inclusive learning environment that fosters critical thinking, teamwork, and lifelong learning skills by finding a balance between active and passive learning strategies. Teachers can overcome the difficulties of both active and passive learning by utilizing creative teaching strategies, ongoing professional development, and a dedication to student-centered learning. This will open the door for an educational experience that will change the lives of all stakeholders.

Key words: passive learning, active learning, learning outcomes, student-centered learning, teaching strategies.

ETHNOMEDICINAL KNOWLEDGE OF TRADITIONAL WOMEN HEALERS IN TREATING DYSMENORRHEA: A STUDY IN THE SOUSS MASSA REGION, SOUTHERN MOROCCO

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Abstract

In the southern regions of Morocco, the population often relies on traditional women healers, considered as traditional gynecologists, to treat various genital disorders. However, limited studies have been conducted to document and properly promote the ethnomedicinal knowledge of these women healers. Objective: This study, conducted in 2023 in the Souss Massa region of Southern Morocco, aimed to establish a catalog of medicinal plants and identify the medicinal and aromatic plants used by these healers to treat dysmenorrhea. Materials and Methods: A questionnaire (290 participants) was used to determine the position of traditional medicine in the region. Ethnomedicinal information was collected from 23 women healers and 31 herbalists using semi-structured interviews, free lists, and focus group discussions. Data were statistically analyzed using SPSS. Results: A total of 43 plant species belonging to 24 botanical families were identified, with Lamaceae being the most prevalent (20.7%). Generally, leaves (28.6%) and seeds were the most commonly used plant parts. The majority of traditional remedies was prepared in powdered form (47%) and decoctions (36%), primarily administered orally (87.11%), and followed by suppositories (10.64%) and vaginal douches (4.26%). Conclusion: These results highlight the significant role of women healers in regional healthcare, particularly their valuable knowledge in treating genital disorders, especially dysmenorrhea. The plants identified in this study could serve as a database for further research in phytochemistry and pharmacology

Keywords: traditional medicine, dysmenorrhea, medicinal plants, women healers

APPROACHES TO OCCUPATIONAL HEALTH AND SAFETY IN ARCHITECTURAL THESIS STUDIES IN TURKEY

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Abstract

Introduction and Purpose: The field of occupational health and safety involves ensuring the protection of worker health, the prevention of workplace accidents and occupational diseases, minimizing risks and hazards, and maintaining a safe and healthy working environment. Achieving these goals requires close collaboration with various professions. One such profession is architecture, which is related to occupational health and safety in multiple ways. Architects are not only the designers of work environments but also potential users or managers of these spaces. Consequently, this study aims to examine how different aspects of occupational health and safety are addressed in scientific research within the field of architecture and to identify any missing topics that need further attention.

Materials and Methods: In the study, theses related to occupational health and safety in the field of architecture in Turkey were analyzed. Twenty theses obtained from the higher education institution thesis center database were examined using content analysis. The theses were analyzed based on their topics, scope, year, and keyword selections, revealing the perspective of the architectural field on occupational health and safety.

Results: The analysis revealed that the topic is predominantly addressed in relation to conditions on construction sites. Additionally, the issue of ergonomics in work environments also emerged prominently. Considering that the majority of working life is spent in indoor environments, it has been identified that researching topics related to the design of indoor working spaces is crucial for the protection of employees' physical and mental health and for minimizing risks. It is important for the field of architecture to prioritize studies on the design of work environments, specifically focusing on aspects such as lighting, ergonomics, thermal comfort, ventilation, fire safety, noise, and materials, as these studies will provide significant data sources for the field.

Key Words: Occupational Health and Safety, Architecture, Space, Design, Thesis Studies

AVOCADO IN THE MEDITERRANEAN: FUNGAL CHALLENGES AND GLOBAL MANAGEMENT STRATEGIES

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Abstract

Avocado, an essential fruit cultivated in many countries, including parts of the Mediterranean region, is increasingly threatened by various fungal diseases. Economically significant and playing a crucial role in many agricultural systems, this crop faces growing challenges. This review

examines the major fungal pathogens affecting avocado trees and proposes strategies for their management. Research shows that in Egypt, *Lasiodiplodia theobromae* is the most significant pathogen affecting avocado fruit, followed by Colletotrichum gloeosporioides. In Sicily, Italy, *Cylindrocladiella peruviana* and *Pleiocarpon algeriense* are responsible for stem and crown rot. In Spain, five species of *Botryosphaeriaceae* cause dieback and crown rot, including newly documented *Lasiodiplodia brasiliensis* and *Neofusicoccum cryptoaustrale/stellenboschiana.* As for Turkey, *Colletotrichum karstii* leads to anthracnose on fruit and leaves, while *Phytophthora cinnamomi*, *P. cryptogea*, and *P. palmivora* cause root rot and orchard decline.Were as Israel, *Alternaria alternata* and *Botrytis cinerea* are major foliar pathogens, with various Fusarium species affecting stems and soil. Additionally, *Diaporthe foeniculina* has been newly reported in Greece as causing branch canker. Also in Morocco, *verticillium dahliae klebahn* has been identified for the first time as a pathogenic agent that attacks avocado crops.These findings are crucial for developing effective disease management strategies and enhancing the health of this important crop.

Keywords: Avocado tree, fungal diseases, strategy, Mediterranean region.

REVIEW OF PREDATORY THRIPS (AEOLOTHRIPIDAE: AEOLOTHRIPS, FRANKLINOTHRIPS) ASSOCIATED WITH CITRUS CROPS IN MEDITERRANEAN REGION

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Abstract

Citrus crops are of vital importance to the economies of Mediterranean countries, providing substantial agricultural revenue and contributing significantly to food security and trade. However,

these crops are frequently attacked by various pests, including thrips, which impact both production and fruit quality. Although thrips are commonly recognized as pests, some species also play a beneficial role as natural predators, helping to regulate other harmful insects This review explores the diversity, ecology, and impacts of predatory thrips associated with citrus crops in these regions. Generally, we have 255 thrips species reported in Italy, including some predatory genera represented by Aeolothrips (70%), Scolothrips (11%), Haplothrips (11%), and Karnyothrips (5%). Thus, in Spain's Valencia region Aeolothrips spp. represent 2.4% of the thrips population. In Tunisia, Algeria, and Morocco, 50% of predatory species from the Aeolothripidae family, such as Franklinothrips and Aeolothrips, have been identified in citrus groves. These studies highlight the diversity of thrips species in the Mediterranean region and their potential for international movement through plant trade, emphasizing the importance of accurate identification for pest management and biosecurity purposes.

Keywords: Mediterranean, Citrus, Predatory, Aeolothripidae, Aeolothrips, Franklinothrips, IPM

RELIGIOSITY AND POSTTRAUMATIC GROWTH IN YOUNG ADULTS WITH PARENTAL LOSS: THE MEDIATING ROLE OF PSYCHOLOGICAL FLEXIBILITY

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Abstract

Introduction and Purpose: Religiosity and post-traumatic growth have gained significant attention in psychotherapy research due to their ability to facilitate adaptive responses to trauma. Psychological flexibility, on the other hand, encompasses adaptability, and post-traumatic growth, and influences many human capacities, such as the ability to transform mindsets and behavioral reactions. It is increasingly recognized as a vital characteristic to cultivate for therapeutic progress. The present study sought to examine the mediating role of psychological flexibility in relationship to religiosity and post-traumatic growth.

Material and Method: A sample of 300 parentally bereaved university students (Men =150, Women = 150), ages ranging from 20 to 30 years, (M = 24.07, SD = 3.17), from several universities in Lahore, Pakistan, was engaged in the present study investigation. The researchers used the Religious Ritual Behaviors Scale (Krauss et al., 2007), Pakistan Religious Coping Practices Scale (Khan et al., 2006), Psychological Flexibility Scale (Rehan & Zahra, 2024), and Posttraumatic Growth Inventory (Kausar & Saghir, 2010) in their study. In addition to descriptive statistics, the data was analyzed using the bootstrapping method proposed by Preacher and Hayes (2018).

Results: Findings revealed that subscales of psychological flexibility, social adaptability and spirituality, and optimism and resilience, mediated the relationship between religiosity and posttraumatic growth. The results concluded that psychological flexibility is a substantial protective factor for the mental health of the bereaved. Implications suggest that grief counseling programs might include an integrated strategy that combines Acceptance Commitment Therapy and Religious Cognitive Emotive Therapy.

Keywords*:* Religiosity, Psychological Flexibility, Posttraumatic Growth, Social Adaptability and Spirituality, Optimism and Resilience Mediation, Bereaved University Students.

UNDERSTANDING API DEVELOPMENT AND HOW DJANGO DOES IT

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Abstract

This paper explores the concept of Application Programming Interfaces (APIs), their development, and their use cases in the software industries. It provides an introduction to API development with Django a popular Python framework, demonstrating both pure Django and Django REST Framework (DRF) implementations. The paper highlights the advantages of using DRF for API development also giving recommendations for best practices. Though this aper covers their creation using Django, its knowledge can be useful and applicable to any other programming language.

COMBATING ANTIMICROBIAL RESİSTANCE USING FLUOROQUINOLONES AND IT'S CONTRIBUTIONS TO THE FIELD OF BIOTECHNOLOGY

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Abstract

Antimicrobial resistance (AMR) is a significant global health threat characterized by microorganisms' ability to withstand treatments with antimicrobial drugs, such as antibiotics, antivirals, and antifungals. This resistance arises due to the overuse and misuse of these medications in humans, animals, and agriculture, leading to the selection of resistant strains. Combating AMR is a critical global health challenge and tackling it requires a multifaceted approach, involving robust surveillance, improved infection control. Combating antimicrobial resistance (AMR) requires a diverse array of molecules and strategies such as new antibiotics, using combination therapies and implementing stringent antimicrobial stewardship programme to optimize antibiotic use. The present study focuses on how new antibiotics such as fluoroquinolones can be used to combat antimicrobial resistance. Fluoroquinolones are potent, broad-spectrum antibiotics that target bacterial DNA replication enzymes, making them effective against resistant infections. Their strategic use can combat antimicrobial resistance (AMR) by serving as critical alternatives when first-line antibiotics fail. To maximize their efficacy and mitigate resistance development, fluoroquinolones should be used judiciously, guided by precise diagnostic tools and antimicrobial stewardship programs. Monitoring resistance patterns and promoting appropriate use are essential to preserve their therapeutic value. By integrating fluoroquinolones into a comprehensive AMR strategy, we can enhance treatment outcomes and sustain the effectiveness of existing antimicrobial therapies. Through these multifaceted approaches, Fluoroquinolones remain a vital component in the global effort to combat AMR, ensuring the continued effectiveness of antibiotics in clinical settings.

SPILLOVER EFFECTS OF US M0NETARY POLICY ON INDIA'S MACROECONOMIC VARIABLES: AN SVAR ANALYSİS

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Abstract

This study examines the spillover effects of US monetary policy 0n India's macroeconomic variables from January 1997 to January 2O2O using a Structural Vector Autoregression (SVAR) model. We focus on the exchange rate channel, asset price channel, and interest rate channel to understand how changes in the US Federal Funds Rate impact India's exchange rate, Sensex, RBI's policy rate, money demand, CPI, and IIP. The results reveal that US monetary policy shocks significantly influence India's exchange rate and stock market, which subsequently affect d0mestic interest rates, inflation, and industrial production. This underscores the interconnectedness of global financial markets and highlights the need for emerging economies like India to consider global economic variables in their monetary policy to mitigate adverse impacts and enhance economic stability.

Keywords: US monetary policy, India, SVAR, exchange rate channel, asset price channel, interest rate channel, macroeconomic variables, spillover effects.

ANIL BASILI'S BOOK "LİNÇ ÇIKMAZI" IS SUITABLE FOR CHILDREN EXAMINATION ACCORDING TO THE PRINCIPLE

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Abstract

Today, developing technology causes an increase in the time children spend in front of the screen. Intensive use of technology creates addiction in children. This situation decreases their interest in books and negatively affects their reading habits. In order to increase children's interest in books and give them a reading awareness; children need to meet books that are suitable for them, appeal to their emotional world and increase their desire to read. This is possible with the compliance of books with the principle of appropriateness to children. In order to determine compliance with this principle, children's literature works are considered under two main headings in terms of their external and internal structural features. The works are examined under the headings of dimensions, cover and binding, paper, letters, page layout, picture in terms of their external features; and subject, message, hero, language and narration, and environment in terms of their internal structural features. The findings obtained as a result of the examination can determine the compliance of the work with the principle of appropriateness to children. The reasons for examining Anıl Basılı's works include the fact that the works are on the bestseller list, one of them has won an award and the fact that the books have not been examined according to the principles of children's literature before. When the book "Linç Çıkmazı" by Anıl Basılı, one of the young writers who has written many works recently, is examined in terms of its external and internal structural features, the results obtained can be listed as follows: In terms of external structure features; the size of the book is such that the child can carry it, the paper used is easy on the eyes, a hard cover is used and there is a connection between the cover pictures and the content, the size of the letters, the writing style and the page layout are suitable for the child, there is no drawing that is not suitable for the child in the six pictures used. In terms of internal structure features; the subject and message are chosen to suit the child's world, the heroes and the environment support the subject. No element that is not suitable for the child was detected in the language and narration, but spelling errors were encountered. As a result, it was determined that the work was written in accordance with the principle of suitability for the child and that it would arouse the desire to read in children. In this context, the work can be added to the recommended reading book lists and kept in classroom libraries.

Key Words: Children's Literature, Suitable for children, Anıl Basılı, Linç Çıkmazı

TRACES OF THE EARLY REPUBLICAN ERA IN *AİLE DOSTU* MAGAZINE

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Abstract

Introduction and Purpose: This paper analyzes the magazine *Aile Dostu*, which was published by Kemal Salih (Sel) for twelve issues every two months between 1931 and 1932. The magazine covered a wide range of topics, from fashion to stories, family entertainment, cinema, health and a "Questions-Answers" column. This paper will attempt to analyze the Early Republican Period more closely by focusing on topics such as the change in family life due to how the Great Depression of 1929, the extent of nationalization of the language, the emphasis on nationalism by Keriman Halis's being elected as the beauty queen, the effects of the General Hygiene Law enacted in 1930, the criticism of the modern lifestyle, and the reasons for the population decline.

Materials and Methods: This paper uses a qualitative research method, drawing on the twelve issues of the magazine *Aile Dostu* as well as the relevant laws and regulations of the early Republican period and secondary sources.

Results: The economic, social and societal reflections of the Republic can be seen in the columns of the magazine. In particular, the effects of the Great Depression of 1929 were reflected in the changing priorities of the public, and advertisements were placed to promote consumption and finance the magazine. With its coverage of topics such as the language revolution, nationalization, the General Hygiene Law and the reasons for the population decline, the magazine Aile Dostu played an important role in the process of nation-building and acted as a bridge between its audience and the state.

Conclusion: This paper found that the magazine Aile Dostu appealed to families from all walks of life by addressing important issues of the time, such as the difficulties caused by the Great Depression of 1929, the positive and negative effects of modern life, the reasons for population decline, health problems and nationalism. The magazine provided an opportunity to capture the reality of the time by reflecting the process of nation-building in the Early Republican period on a micro level.

Keywords: *Aile Dostu* magazine, Early Republican Period, Family in 1930s Turkey

REVIEW OF NUPTIAL VOLATILITY IN AFRICAN FICTIONS: A STUDY OF OGUNDIMU SULEYMAN ADETUNJI'S *BEHIND THE MASK*

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Abstract

In post-colonial Africa, marriage volatility is common. The couple life between men and women that is expected to last for lifetime is broken down for various reasons. The objective of this study is to explore the why of frequent marriage dissolution in independent Africa and the impacts the phenomenon has on the family so as to suggest some ways out. This study has used a qualitative data collection approach. For a relevant processing of the collected data, it has adopted feminism and Cros Edmond's and Iwuchukwu's sociocritism. In most cases, the failure of the wedlock is due to lack of fair and collaborative communication, in-laws' interference, men's irresponsibility, barrenness, globalisation and women empowerment. This state of affairs causes significant trauma to anyone that is involved in the couples' life; mainly the couples themselves and their offspring. As a matter of fact, it is strongly advisable that marriage receive the assent of the partners, that conflicts between couples be managed between them or with the parents or families involved in absolute impartiality, and that couples communicate about important matters in a spirit of mutual respect. Finally, each part of the couple should fill its own responsibility above all.

Key words: Marriage volatility, barrenness, trauma, communication, women empowerment.

AGRITOURISM: POTENTIALS AND DEVELOPMENT SOLUTIONS IN CAN THO CITY, VIETNAM

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Abstract

Promoting agritourism stands as a pivotal strategy to broaden the rural economy, boost earnings, and enhance community well-being. This study seeks to assess the potential and current status of agritourism in Can Tho city through document analysis, field surveys and in-depth interviews. The findings reveal that Can Tho has great potential for developing agritourism such as vast rice fields, diverse orchards, and abundant aquaculture output; humanized tourism resources associated with agricultural production, friendly and approachable people along with a fresh environment and peaceful landscape. Nonetheless, challenges persist in fostering agritourism, including inadequate manpower, limited tourism infrastructure, meager local earnings from agritourism, and promotional shortcomings. To foster agritourism effectively, local authorities must implement holistic policies to address these constraints.

Key words: Agritourism, potentials, solutions, Can Tho city

STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS

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Short Introduction

Drug repurposing is an alternative avenue for identifying new drugs to treat tuberculosis (TB). Although TB can be cured with anti-tubercular drugs, the emergence of multidrug-resistant and extensively drug-resistant strains of *Mycobacterium tuberculosis* H37Rv (Mtb), as well as the significant death toll globally, necessitate the development of effective drugs to treat TB.

Experiments and Key result findings:

In this study, drug repurposing approach was employed to address this drug resistance problem by screening drugbank database to identify novel inhibitors of the Mtb target enzyme, DNA gyrase. The compounds were screened against the ATPase domain of gyrase B subunit (MtbGyrB47), and the docking results showed Echinacoside, Doxorubicin, Epirubicin, and Idarubicin possess high binding affinities against MtbGyrB47. Comprehensive assessment using fluorescence spectroscopy, SPR, and CD titration studies revealed that Echinacoside as a potent binder against MtbGyrB47. Further, ATPase, and DNA supercoiling assays exhibited IC_{50} values of 2.1-4.7 µM for Echinacoside, Doxorubicin, Epirubicin, and Idarubicin. Among these compounds, the least

MIC_{90} of 6.3 µM and 12 µM were observed for Epirubicin and Echinacoside, respectively. Hence, our findings indicate that Echinacoside and Epirubicin target mycobacterial DNA gyrase, inhibit its catalytic cycle, and retard mycobacterium growth. Further these compounds exhibits potential scaffolds for optimizing novel anti-mycobacterial agents that can act on drug-resistant strains.

References:

Agrawal A, Roué M, Spitzfaden C, Petrella S, Aubry A, Hann M, Bax B, Mayer C. *Biochem J.* 2013 Dec 1;456(2):263-73.

1. Stanger F V, Dehio C, Schirmer T. *PLoS One.* 2014 Sep 9; 9 (9):e107289. doi: 10.1371/journal.pone.0107289.

A GENERAL OVERVIEW OF COLORED ANKARA GOATS AND THE MOHAIR FIBERS OBTAINED FROM THEM

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Abstract

Recently, a lot of research has been done on the production of naturally colored cotton. Dyeing is one of the most costly steps among the finishing processes due to high levels of water and energy usage and waste generation. Since there will be no need for dyeing thanks to the use of naturally colored cotton, textile businesses can reduce their processing costs by using less water and energy. Although there are a wide variety of studies in the literature on naturally colored cotton, the number of publications on pigmentation in mohair fibers is quite limited. In this study, general information is given about colored Angora goats, the source of color in Angora goats, and previous studies on colored Angora goats. Although mohair fibers are generally white or off-white, mohair obtained from some animals can be in different colors such as brown, black or red. There is no comprehensive systematic study in the literature on how pigmentation affects various properties of mohair fibers. In fact, the effect of the presence of pigments in the cortical cells of protein fibers on fiber properties has not been investigated much, not only in the case of mohair but also for other luxury fibers. If the usage potential of colored mohair can be evaluated, dark colors such as black and brown, which can be obtained with high dye consumption, can be obtained without the use of dye, and in addition to cost savings, an advantage will be provided in terms of environmental ecology due to less waste load.

Key Words: Angora Goat, Mohair, Color, Pigmentation, Fiber, Textile

FREE AND FORCED RABI OSCILLATIONS IN THE COUPLED SYSTEM OF SPIN TRANSITION AND CAVITY

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Abstract

Electromagnetic field-matter interaction in cavities gives rise to Rabi oscillations, which are used for numerous technologies such as atomic clocks, sensors, qubits, and computing. Our report is devoted to the almost completely classical consideration of free and forced Rabi oscillations in the coupled system "fictitious spins 1/2 + cavity" from the point of view of the general oscillation theory. Here, we limit ourselves to the case when the resonator and two-level system are tuned to each other. As a result of such consideration, the following results are obtained: i) normal frequencies and normal decays of free and forced Rabi oscillations are calculated; ii) at certain conditions level anticrossing can disappear, iii) the evolution of transfer function signals with changing spin-photon coupling is studied, and this evolution includes single-peak signals, the vicinity of the critical point, and double-peak signals. Our analytical results, presented also in the form of plots, agree with the experimental results of a number of studies where free Rabi oscillations were observed in both the frequency (polaritonic peaks) and time domains (damped output oscillation with the Rabi frequency). Since resonant oscillating external fields are used for manipulations of qubits, our "forced" results can be useful for it.

Keywords: Free and forced Rabi oscillations, classical consideration, both the frequency and time domains, polaritonic peaks

UNCERTAINTY QUANTIFICATION IN THE FREE VIBRATION OF LOW-CURVATURE CYLINDRİCAL SHELLS REINFORCED WITH SHORT NATURAL FIBERS

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Abstract

In this article, a probabilistic study is carried out on the free vibration of low-curvature cylindrical shells, taking into account the effect of curvature as well as that of natural short Alfa fibers. To achieve this, a first step was used to manufacture cylindrical shells with several curvatures (k = 1.2, 1.6, 2.3, 2.7, 3.2), reinforced with different mass fractions of natural Alfa fibers (W_f = 5%, 10% and 15%). In a second step, a modal analysis was carried out using an experimental process to determine the modal properties of the different manufactured shells. A numerical modelling of the free vibration of the shells was then performed using Ansys APDL software. The numerical model was validated by experimental tests with relatively negligible errors. A Monte Carlo simulation (MCS) was developed to study the probability of free vibration of low-curvature cylindrical shells using the finite element method. Mechanical and physical properties are considered as uncertain parameters and are represented by different coefficients of variation. The results of the probabilistic analysis showed that reinforcing the epoxy matrix with natural short Alfa fibers makes the low-curvature cylindrical shells more flexible and deformable due to the high strain values and low stiffness. In conclusion, the safe design of low-curvature cylindrical shells can only be ensured by intensive control of the coefficient of variation of the Young's modulus of the composite.

Key words: Probabilistic study, Low-curvature shell, Natural short fibers, Alfa fibers, Free vibration.

MOS-C IMPLEMENTATION OF SECOND ORDER QUADRATURE SINUSOIDAL OSCILLATOR EMPLOYING INVERTING SECOND GENERATION CURRENT CONVEYOR (ICCII)

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Abstract

Introduction and Purpose: Sinusoidal oscillators have a wide range of applications such as electronic communication systems, measurement, instrumentation and industrial control. Since the number of active and passive elements used in oscillator design is an important issue that directly affects the simplicity, cost, power consumption and the area it occupies on the chip in integrated circuit techniques, in this study a circuit topology with low number of active and passive elements has been realized to be suitable for low voltage applications. Since the circuit is implemented as MOS-C, the oscillation frequency can be adjusted electronically with MOSFET gate voltages. In addition, the proposed circuit has quadrature outputs that can be used in applications where sinusoidal signals with a phase difference of 90^0 are required.

Materials and Methods: The proposed second order electronically tunable quadrature sinusoidal oscillator circuit is realized by connecting an inverting integrator to the output of an inverting second generation current conveyor (ICCII) based first order all-pass (AP) filter circuit. The circuit employs two active elements named ICCII, three resistors and two capacitors. In the simulation performed using PSPICE software to verify the operability of the circuit, passive element values were taken as R= 250 Ω for all resistors and C=300 pF for all capacitors and IBM 0.13 µm CMOS process parameters were used. The dimensions of all MOSFETs used to realize passive resistors in the MOS-C implementation of the oscillator circuit were taken as W=9.6 µm, L=0.35 µm and gate voltages were taken as 0.6 V to obtain a resistance value of 250 Ω. The supply voltage of the circuit was taken as ±0.6 V.

Results: The oscillation frequency was calculated as 2.12 MHz and the value measured in the simulation was 1.96 MHz. Total harmonic distortion (THD) values of the output signals are measured as 5.68 % for V_{o1} and 3.64 % for V_{o2} and quadrature phase error is 2.4 %. Power consumption of the circuit is 3.59 mW. Simple circuitry, low power consumption and suitability for low voltage applications, low quadrature phase error and compatibility with integrated circuit technology are the remarkable features of the proposed circuit.

Key Words: MOS-C; Quadrature sinusoidal oscillator; All-pass filter; Inverting Second Generation Current Conveyor

BIOACCUMULATION OF HEAVY METALS IN MACROALGAE ALONG THE MERSIN COAST, NORTHEASTERN MEDITERRANEAN SEA

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Abstract

Introduction and Purpose: Macroalgae, brown algae, green algae and red algae, are used to produce several bioactive compounds such as human foods, biofertilizers and animal feed. Additionally, macroalgae are used for the assessment of pollution for marine ecosystems due to high capacity for several heavy metals bioaccumulation, making them good bio-indicators. In this study, the concentrations of heavy metals in recently obtained sediment and macroalgae (*Enteromorpha* sp.) samples along the Mersin coast were determined.

Materials and Methods: Bioaccumulation of heavy metals were determined by the calculation bioaccumulation factor (BAF) from the obtained sediment and macroalgae samples in February-March 2023 period along the Mersin coast.

Results: The study results indicated that BAF values varied between 0.04 and 2.10. The high BAF values (BAF>1.00) calculated for the aluminum (Al), cadmium (Cd), cupper (Cu) and zinc (Zn) indicated high bioaccumulation of these heavy metals. For the attainment of Good Environmental Status of Mersin Bay, located at Northeastern Mediterranean Sea, bio-monitoring studies of heavy metals and other contaminants should be carried out.

Key Words: Heavy metals; *Enteromorpha* sp.; Macroalgae; Northeastern Mediterranean Sea; Türkiye

VARIATIONS OF HEAVY METAL CONCENTRATIONS IN SURFACE SEDIMENTS OF THE AKYATAN LAGOON, NORTHEASTERN MEDITERRANEAN SEA

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Abstract

Introduction and Purpose: Coastal lagoons are subject to changes with anthropogenic pressures which adversely affect sediment biochemistry. The main objective of this study is to determine heavy metal contamination in the Akyatan Lagoon, Northeastern Mediterranean Sea.

Materials and Methods: In this study, sediment heavy metal concentrations were determined in the Akyatan Lagoon from the seasonally obtained surface sediment samples between January and October 2022. For metal analysis, surface sediment samples were freeze-dried and homogenized. Then, concentrations metals were determined for the obtained surface sediments. Metal analysis of sediment samples were performed according to the method described in EPA 3051 A.

Results: Study results indicated that the heavy metal concentrations in surface sediments of the Akyatan Lagoon varied spatio-temporally between 25.73-70.87 g/kg for aluminum (Al), 10.28-31.03 mg/kg for cobalt (Co), 0.11-1.42 mg/kg for cadmium (Cd), 56.22-181.64 mg/kg for chromium (Cr), 10.06-34.16 mg/kg for cupper (Cu), 13.94-43.39 g/kg for iron (Fe), 361.45-1118.82 mg/kg for manganese (Mn), 61.53-209.42 mg/kg for nickel (Ni), 9.46-34.43 mg/kg for lead (Pb), and 19.57-117.42 mg/kg for zinc (Zn), respectively. Ecological risk indices calculated in this study showed an apparent contamination for the heavy metals Co, Cd, Cr, Ni and Pb in the Akyatan Lagoon due to natural and anthropogenic pressures. This study showed that terrestrial heavy metal fluxes in the ecologically and economically important Akyatan Lagoon, environmentally protected Ramsar site of the Northeastern Mediterranean Basin, should be reduced.

Key Words: Sediment; Heavy Metals; Ramsar Site; Akyatan Lagoon; Northeastern Mediterranean Sea

ON SUM FORMULAS OF NON-NEWTONIAN JACOBSTHAL NUMBERS

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Abstract

Michael Grossman and Robert Katz are the authors of the book "Non-Newtonian Calculus", which was published in 1972 [1]. In this book, they introduce a new mathematical calculus that generalizes traditional calculus. Non-Newtonian Calculus extends the classical calculus of Newton and Leibniz to include a broader class of functions and operations.

The main idea behind Non-Newtonian Calculus is to develop mathematical tools that can handle situations where traditional calculus fails or is inadequate, such as problems involving discontinuous functions, fractals, and non-linear dynamics. This calculus has found applications in various fields, including physics [2], economics [3], biology [4] and quantum theory [5].

Grossman and Katz's work has contributed to the broader understanding of mathematical systems beyond the classical framework, offering alternative approaches to modeling and analyzing complex phenomena.

The Jacobsthal numbers are a sequence of integers named after the German mathematician Ernst Jacobsthal. They are similar to the Fibonacci numbers but defined by a different recurrence relation. Jacobsthal sequence begins with 0 and 1, each subsequent number is found by adding twice the previous number and so it grows rapidly. These numbers have applications in various areas of mathematics, including combinatorics [6], astronomy [7] and graph theory [8].

Yeşilyurt and Değirmen [9] introduced non-Newtonian Jacobsthal and non-Newtonian Jacobsthal-Lucas numbers and they discussed non-Newtonian correspondings of some identities and formulas given for classical Jacobsthal and Jacobsthal-Lucas numbers.

Motivated by recent works and the wide range of applications of Jacobsthal numbers, in this work, we obtain some sum formulas involving non-Newtonian Jacobsthal and non-Newtonian Jacobsthal-Lucas numbers. By specifically choosing the generator α as the identity function I in the construction of non-Newtonian Jacobsthal numbers, then non-Newtonian Jacobsthal numbers turn into the classical Jacobsthal numbers. Hence findings in this study generalize the known corresponding results in the literature.

Keywords: Non-Newtonian Jacobsthal Number, Non-Newtonian Jacobsthal-Lucas Number, Non-Newtonian Calculus, Sum Formulas

SPEECH-TO-TEXT MOBILE APP SYSTEM

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Abstract

Effective communication in multilingual situations can be seriously hampered by linguistic variation, particularly when articulating complex concepts like feelings, thoughts, and beliefs. Natural language processing (NLP) is a crucial area of computer science and engineering that leverages natural language to facilitate seamless human-computer interaction. Modern computer theories and methods in natural language processing (NLP) allow machines to comprehend, interpret, and generate human-like language. Speech recognition technology, which attempts to convert spoken language into textual information, is one significant field of NLP. This procedure comprises precise detection of phonetic elements, correct transcription of these elements into text, and meticulous analysis of audio inputs using state-of-the-art algorithms and machine learning techniques. Our proposed Speech Recognition model aims to enhance the usability and accessibility of spoken language in computer applications by efficiently transforming audio and speech data into textual format.

Keywords: Natural Language Processing (NLP), Speech, Speech Recognition

KNOWLEDGE, PRACTICE AND FACTORS AFFECTING FAMILY PLANNING METHODS AMONG MALES IN A RURAL COMMUNITY IN EDO STATE, NIGERIA

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Abstract

This study aims to assess knowledge, practice and factors affecting family planning methods among males in a rural community in Edo State, Nigeria. Methodologically, a cross-sectional descriptive study design with multistage sampling method are employed in sample selection of 323 male participants in Iyamho community, Edo State. Data collected was analysed and presented using descriptive statistics.

Results are, majority 126(39%) of the respondents are within 34-41years. Majority (96.3%) of the men know about family planning methods for men. Majority 258(80%) knows barrier method (male condoms), 67(20.6%) . Majority 181(56%) of the respondents have used family planning methods before. The factors that affect accessing family planning services for males is mostly stigmatization (57.6%). In conclusion, this study provides information on the types of family planning information men are lacking and avenues for getting this information to them. Its therefore recommended reproductive health program designers need to incorporate these findings into reproductive health programs to help address barriers to improve health outcomes among males.

Keywords: Knowledge, Practice, Factors Affecting, Family Planning Methods Among Males, Rural Community In Edo State, Nigeria

RAPID ASSESSMENT OF PHYTOTOXIC EFFECTS OF BIOFUNGICIDES BASED ON CAMPHOR

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Abstract

Biofungicides, with their sustainable and environmentally friendly characteristics, are gaining popularity in agriculture. Unlike synthetic fungicides, biofungicides are derived from natural sources such as beneficial microorganisms or plant extracts. They effectively target harmful pathogens, thereby reducing the risk of resistance and minimizing negative impacts on non-target organisms, including humans and beneficial insects. The ongoing and promising innovation in biofungicides is continuously addressing new plant diseases and enhancing their effectiveness. Biofungicides are appreciated for their low toxicity, biodegradability, and minimal environmental impact. This research evaluated the phytotoxicity of natural deep eutectic solvents (NADES) based on camphor. Camphor, extracted from the wood of the camphor tree (*Cinnamomum camphora*), is recognized for its antimicrobial and antifungal properties, making it a promising candidate for biofungicide applications. Four NADES (Cam:Pin, Cam:Lim, Cam:Euc and Cam:CapA) were tested, including Each mixture was tested in eight serially diluted concentrations (0.7%, 1.5%, 3.1%, 6.25%, 12.5%, 25%, 50%, 100%). The phytotoxicity test involved applying 10 µL of each mixture to the center of potato tuber slices. Results were visually observed and rated on a scale from 0 to 5. The phytotoxicity varied with concentration, with ratings ranging from 1 to 5. Among the tested mixtures, Cam Pin demonstrated the least phytotoxicity with 1 on a scale at the 50%. NADES formulated with camphor have demonstrated potential as biofungicides in agriculture due to their low levels of phytotoxicity. Further research is needed to assess the phytotoxicity of camphor-based NADES on a broader range of plant species and various plant organs. This will help ensure their safety and effectiveness across different agricultural contexts. These formulations could serve as eco-friendly and efficient substitutes for conventional chemical fungicides.

Keywords: NADES, potato, agriculture

DISCOURSE AND ARCHITECTURAL DESIGN

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Abstract

Introduction and Purpose: In this article, while examining the relations between language and architecture, we tried to reveal the formational and structural similarities and differences between the two fields. Our starting point is Gaston Bachelard's *corner* abstraction, which contrasts with the unlimited space in the universe. However, architectural space is a limitation that occurs between corners. The corner does not necessarily have to be a place where rigid elements intersect.

Materials and Methods: Sometimes a line may be enough to create a corner where two different materials kiss each other or a corner that does not exist on the forehead, combining two elements by visualizing them in the mind. After making the *archème* abstraction by keeping the vertices consisting of different materials and usage attitudes and the privileged characters they create equivalent to alphabetically represented *phonème*s, we abstracted *usage units* corresponding to *morphème*s and *space units* corresponding to *words*.

Following the abstractions mentioned above, we got into the issue that the word is not just about the meanings given in the dictionary. We stated that the concept the word refers to is a text. We went for an abstraction as follows: *Building is a text with intertextual properties consisting of many subtexts.* Based on the results of our analyses, we chose three topics that we think are important among the architectural texts consisting of syntax of space-units with their architectural examples and the points of these texts, and two of them are the Deyrulzafaran Monastery and the house type with external hall (example, the Mutafzade House with external hall in Kütahya) and the standard apartment plan that we investigated how one of the apartment plan types (floor plan in Sarıkaya Tower) was transformed in later periods, and how one of them (Yıldırım Mosque with inverted T-type plan scheme) was the result of a transformation.

At this point, we encountered the problem of the relationship between a material or abstract entity and its name. To solve this problem, we used *the sign-challenge-displacement-exile* method developed for architecture by Stanley Tigerman in his work The Architecture of Exile, assuming that it is also valid for language.

Result: At the end of our analyses summarized above, we suggested that architectural history research should be considered by taking into account dominant discourses of the period and certainly by abstracting an *etymology of space*.

OPTIMIZATION OF ANAEROBIC DIGESTION OF OLIVE POMACE WITHOUT PRETREATMENT USING A BOX-BEHNKEN DESIGN

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Abstract

The management of olive waste, particularly olive pomace, poses a significant environmental challenge. Anaerobic digestion offers a sustainable solution by converting this waste into biogas. This study aims to optimize the anaerobic digestion of olive pomace without any pretreatment using a Box-Behnken design. The factors studied are dilution, pH, and inoculum/substrate ratio, with performance evaluated in terms of biogas production per gVS. Additionally, reductions in total solids (TS), total volatile solids (TVS), and chemical oxygen demand (COD) were analyzed to assess overall process efficiency. The results show that the optimal conditions for maximum biogas production per gVS are a dilution of 1/9, a pH of 8, and an inoculum/substrate ratio of 1/3. Significant reductions in TS, TVS, and COD were also observed under these conditions. This study demonstrates the effectiveness of using a Box-Behnken design for optimization and suggests promising applications for industrial-scale olive waste management. Future improvements will focus on enhancing this optimization through various pretreatment methods to further increase the efficiency of the digestion process.

Keywords: Anaerobic digestion, olive pomace, Box-Behnken design, biogas, TS, TVS, COD, optimization.

CORPORATE INTRANET SYSTEMS: SUCCESSFUL EXAMPLES FROM THE WORLD AND TURKIYE

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Abstract

Introduction and Purpose: Developments in information and communication technologies also improve the business world and change the processes of businesses. In order for businesses operating in today's intensely competitive environment to be successful, it is critical that they can use information and communication technologies to gain a competitive advantage. One of the most important factors necessary for this to be achieved is the need for healthy internal communication and organizational cooperation.

Regardless of the sector, today's corporate enterprises use new generation intranet systems to ensure a high level of internal communication and organizational cooperation. Intranet is a central digital platform where employees in an organization can access resources over the corporate network according to their level of authority, and where basic transactions such as information and document sharing can be carried out, in other words, it is a digital workspace open only to the employees of the organization. Intranet systems, which have an important place in the healthy realization of corporate communication, are indispensable for all businesses and institutions with corporate identity in the modern world and have a significant impact on corporate performance.

Materials and Methods: The research aims to present the importance of corporate intranet systems and the benefits they provide to organizations and businesses with examples of successful intranet projects carried out in the world and Turkiye in addition to the information obtained from the literature. Apart from the literature review as a method, it is revealed by examining what has been done and what kind of gains have been achieved in the enterprises through sample projects based on the information obtained by examining the corporate websites of intranet solution providers and enterprises that have carried out successful projects.

Results: In addition, the current approaches reflected in the literature in the sample intranet projects carried out worldwide and in Turkiye are presented. The study reveals with all clarity how indispensable the new generation corporate intranet systems, which are also an important element of digital transformation, are for organizations and businesses.

Key Words: Intranet, Corporate Intranet Systems, Digital Transformation, Digitalization

BIOACTIVITIES OF DIETARY FLAVONOID AGLYCONES

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Abstract

Flavonoids are compounds with a 15-carbon C6-C3-C6 skeletal structure consisting of two phenyl and one heterocyclic ring. It is the most abundant group of secondary metabolites in plant-based diets. Although secondary metabolites are not essential for plant life, they are synthesized as an important part of the defense mechanism in protecting plants against pests and disease-causing microbial pathogens. Current reports indicate that secondary metabolites of phenolic nature, including flavonoids, are responsible for various pharmacological activities. Several epidemiological studies have shown that many flavonoids are bioactive. They exhibit antioxidative, cardioprotective, hepatoprotective, antiviral, anti-inflammatory, and anticancer activities. Therefore, there is increasing interest in investigating the potential health effects of these compounds. Current research focuses on the health effects of metabolites produced by the metabolism of dietary flavonoids.

Flavonoids found in plants are in the form of aglycones (non-sugar part) or glycosides (carbohydrate part). These two units are linked by glycosidic bonds. While flavonoid glycosides are separated from the sugar moiety before entering the intestine, aglycones can pass freely through cell membranes. Both units have wide use in medicine due to their important biological activities. Some studies have revealed that these structures are responsible for the positive effects of flavonoids on health. However, the aglycone structure often determines the biological functions of glycosides. Aglycones can be transported to target tissues by their conjugates such as sulfate and glucuronide. Then biologically activated in these tissues. In humans, some flavonoid aglycones are absorbed more quickly and in higher amounts than their glycosides.

In this review, the chemical structures of flavonoids and the bioactive properties of flavonoid glycosides and aglycones are presented and discussed. The focus is to reveal the biological activities and health benefits of these compounds.

Key Words: Flavonoids; Aglycone; Glycoside; Bioactivity; Health Effects

INVESTIGATION OF ANTI-HIV ACTIVITY OF THIOPHENYTOIN DERIVATIVES AS REVERSE TRANSCRIPTASE INHIBITORS BY MOLECULAR DOCKING STUDY

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Abstract

Introduction and Purpose: HIV is one of the world's most contagious pandemics, affecting around 40 million people worldwide. There is no officially approved definitive treatment for HIV. Anti-HIV drug design therefore continues to be a focus for researchers. Viral coupling, fusion and reverse transcription are key factors in the survival and replication of the HIV virus. Therefore, these factors are considered as targets for designing anti-HIV agents. The aim of the study was to determine the activity of the thiophenitoin derivative ethyl-2-[2-(methylsulfanyl)-5-oxo-4,4-diphenyl-4,5-dihydro-1H-imidazol-1-yl]acetate molecule synthesised by Alsubari et al. on the HIV reverse transcriptase factor.

Materials and Methods: Since drug design by classical methods is very costly in terms of time and money, in silico studies have recently become very prominent in order to reduce these costs. Molecular docking studies are one of the most preferred *in silico* methods in new drug design. In the molecular docking study, 3MEC PDB coded HIV reverse transcription receptor was used as a target for the newly synthesized thio-phenytoin derivative molecule. Doravirine, an FDA approved HIV reverse transcriptase inhibitor, was used to evaluate the effect of the newly synthesized molecule on the reverse transcription receptor. Finally, the interaction mechanisms and binding affinities of both molecules were compared.

Results: The molecular docking study showed that the binding affinity of the thiophenytoin derivative molecule (-8.1 kcal/mol) was slightly lower than the control compound Doravirin (-8.5 kcal/mol). In addition, the title compound and doravirinene bound to the same region of the 3MEC receptor and interacted with almost identical residues.

Discussion and Conclusion: The results of this study show that although the binding affinity of the newly synthesized thiophenytoin-derived compound is slightly lower than Doravirin, both the docking site and the interactions it performs have the potential to inhibit the reverse transcription of the HIV virus.

Key Words: Anti-HIV; reverse transcription; Molecular docking

CLOUD COMPUTING USAGE IN EUROPEAN COUNTRIES AND TURKIYE IN THE LIGHT OF EUROSTAT AND TUIK DATA

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Abstract

Introduction and Purpose: Developments in information and communication technologies have significantly changed the world and the way of doing business. In recent years, the rapid expansion of the internet and developments in mobile technologies have paved the way for the emergence of the concept of cloud computing and cloud computing has become one of the new generation ways of doing business, especially for corporate businesses.

Cloud computing can be defined as a new generation technology that enables online access to software, data or certain hardware features such as storage space or high processing power on a remote server via an internet connection. All operations performed by accessing servers on local area networks with personal computers can also be performed by connecting to remote servers thanks to the high bandwidth internet connections provided by today's telecommunication technologies. This makes the business world more and more interested in cloud computing. Enterprises are increasingly switching to cloud computing and are able to significantly reduce their hardware, software and IT support costs by receiving online services from relevant service providers instead of traditional services.

Materials and Methods: The study presents the importance of the concept of cloud computing and the benefits it provides to businesses through a literature review, and in addition, according to the data obtained from the European Statistics Agency EUROSTAT database for the years 2014-2021.

Results: The research aims to reveal the utilization of cloud computing in Europe in general and in 36 European countries in particular through cloud computing usage rates in enterprises with at least 10 employees operating in European countries, including the European Union and Turkiye, and to make predictions for the future in the light of this data by numerically examining how digital transformation has developed over the years. The research also shares TUIK (TurkStat) 2023 statistics in order to understand the current state of cloud computing in Turkiye in the light of more up-to-date data.

Key Words: Cloud Computing, Internet, Digital Transformation, Digitalization

BIOLOGICAL ACTIVITIES OF SOME PLANTS BELONGING TO ZINGIBERACEAE FAMILY

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Abstract

Zingiberaceae is a family of monocotyledonous flowering plants with creeping horizontal or tuberous rhizomes. It is distributed in Africa, Asia and America. Many species of this family are important ornamental plants, have economic importance as spices or are used in folk medicine. Some of these species are ginger (*Zingiber officinale* Roscoe), turmeric (*Curcuma longa* L.), cardamom (*Elettaria cardamomum* L. Maton) and galangal (*Alpinia officinarum* Hance).

Ginger has been used for both spice and medicinal purposes since ancient times. It is use widespread all over the world, especially in India and China. It is especially used in the treatment of cold diseases, asthma, heart palpitations, digestive and rheumatic diseases. Ginger contains bioactive compounds such as shogaol and gingerol. According to the literature, thanks to these compounds, it has antioxidant, antidiabetic, anti-inflammatory, cardioprotective, hepatoprotective and neuroprotective effects.

Turmeric, also known as Indian saffron, is a plant used as a spice and used in traditional medicine as a treatment of jaundice and other liver diseases, ulcers, parasitic infections, various skin diseases, arthritis, cold and flu symptoms. Additionally, it is used to preserve foods due to its antimicrobial effects. According to the literature, it exhibits anticancer, anti-inflammatory, anti-HIV, anti-Alzheimer, antibacterial, antioxidant and a wide range of biological activities. Curcumin is the main component responsible for the biological effects of turmeric.

Cardamom fruits are widely used as a spice in foods. It is beneficial for digestive system health, keeping blood sugar under control, strengthening the immune system and skin health. Cardamom helps to remove toxins from the body. It also has various biological roles including antioxidant, antidiabetic, antibacterial, anticancer, gastroprotective and insecticidal activities.

The galangal plant originates from China and its rhizomes are used as a spice in Asia, Turkey, Morocco, and Iran. Besides, it is used in traditional medicine to treat general health problems such as colds, inflammation, digestive disorders, etc. It has been reported that the compounds isolated from galangal have various strong bioactivities such as antioxidant, anti-inflammatory, antibacterial, anticancer, antiviral, gastroprotective, etc.

This review aims to summarize the information on the chemical components, pharmacological effects and bioactive properties of the above-mentioned plant species belonging to the Zingiberaceae family.

Key Words: Zingiberaceae Family; *Zingiber officinale*, *Curcuma longa*, *Elettaria cardamomum*; *Alpinia officinarum*; Bioactivity

DETERMINING APPROPRIATE BLENDING RATIOS FOR DIFFERENT TEMPERING APPLICATIONS IN THE PRODUCTION OF BREAD FLOUR

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Abstract

Introduction and Purpose: The desired quality flour production for bread production can be produced by blending flours of different wheat flours for the target end-product. For this purpose, to achieve the required dough qualities, less expensive other-class wheat flours are blended in various proportions with first-class wheat flours in the National Bread Wheat Acquisition Range. On the other hand, an essential step in ensuring flour quality and quantity is tempering, which is accomplished through adding water to the wheat grains before milling. This study aimed to identify the best blend ratios and combinations of other-class wheat for the most widely grown first-class wheats, Esperia and Rumeli, to produce bread flour with the appropriate quality using both classical and ultrasound short-term tempering.

Materials and Methods: In the study, KateA*x*Nacibey rainfed conditions combination and Ahmetağa*x*Ekiz irrigated conditions combination flours were blended at 20, 30, 40% to first-class Esperia and Rumeli wheat flours subjected to classical and ultrasound-assisted tempering. Physico-chemical, gluten aggregation and dough rheological properties were determined in 12 combination flours. Bread-making experiments were conducted on 8 prominent blends and control bread flour.

Results: Thirty minutes at 70 amplitude were the ideal parameters for ultrasound treatment, based on the CRS method. In comparison to classical tempering, farinograph stability was higher with ultrasound tempering (13.32 and 11.86 min). The alveograph resistance for ultrasound tempering was also higher than those for classical tempering (60.75 and 55.94 mm). The volume of the breads ranged from 430.0 to 460.0 ml. The results of the ultrasound short-term tempering of Paçal-22 were closest to the control bread volume (435.0 ml) at 437.50 ml. **Discussion and Conclusion:** The bread volume of Paçal-22 (%40 Esperia) was reached with ultrasound application of Paçal-16 (%20

Esperia) and Paçal-4 (%20 Rumeli). Ultrasonic short-time tempering was found to be a recommended application for millers.

Key Words: Wheat Blending; Tempering Process; Ultrasound Application; Flour Quality; Bread-making Quality

This study is the thesis of Filiz Şahin, a Master's student at Eskişehir Osmangazi University, Department of Food Engineering. The study was supported by the Eskişehir Osmangazi University Scientific Research Projects Coordination Unit with Project Code FYL-2023-2834

EVALUATION OF URBAN SMARTNESS AND SUSTAINABILITY: AN INTEGRATED METHODOLOGY FOR CASABLANCA SMART CITY IN MOROCCO

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Abstract

Urbanization in Africa brings about unique challenges that smart cities are increasingly expected to tackle. However, there is a clear gap in comprehensive and systematic frameworks to evaluate the performance of these smart cities in terms of both sustainability and smartness. In response, this paper introduces “Smartainity”, an innovative methodology for assessing urban performance. This approach utilizes Key Performance Indicators (KPIs) across five essential dimensions: technology and innovation, economy, energy, society, and environment. “Smartainity” is designed to be flexible, scalable, and adaptable to various contexts and scenarios, providing a valuable tool for city planners and policymakers.

The core of this research is the implementation of “Smartainity” through a detailed case study of the Casablanca Smart City Initiative in Morocco. This initiative aims to transform Casablanca into a sustainable and intelligent urban center. The study explores the strengths and limitations of the framework, showcasing its practical application and suggesting ways for future improvement and broader use. By offering a fresh perspective on urban performance assessment, this research enriches the existing literature on smart cities, seamlessly integrating criteria for sustainability and smartness.

Key Words: Smart City; Urban Performance; Technology; innovation; Sustainability · urbanization; Casablanca; Evaluation; Key Performance Indicators

A QUALITATIVE SURVEY ON THE IMPACT OF IOT-BASED TECHNOLOGIES IN THE CONTROL AND CURE OF CHOLERA IN THE SOUTH-WEST REGION OF NIGERIA

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Abstract

The implementation of Internet of Things (IoT) technologies can help to revolutionize the management of cholera in the south-west region of Nigeria. IoT Technology is a system of interconnected objects embedded with sensors in order to exchange data over the internet. The study of Borgia (2024) suggest that the application of IoT in environmental monitoring including waste management and tracking of water quality can help in the control and cure of diseases such as cholera. The integration of IoT technology will help to provide promising solutions for real-time management of cholera outbreak. This paper therefore explores the concept of IoT, the applications of IoT in combating cholera in the south-west region of Nigeria. The paper also discussed the key advantages of integrating IoT-based applications in healthcare. In order to gather relevant information for this paper discussion, drafted questions were administered to respondents using online Google form questionnaire instrument. The information collect were subjected to reliability analysis. Conclusively, the paper affirmed that leveraging IoT technologies can help to track, manage and ultimately reduce the spread of cholera and safeguard public health. Finally, recommendations were made.

Keywords: IoT-Based Technologies, Control and Cure, Cholera, Nigeria.

A STUDY ON YARN PRODUCTION WITH ANGORA /RECYCLED POLYESTER/ COTTON FIBERS IN COMPACT SPINNING SYSTEM

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Abstract

Introduction and Purpose: Angora rabbit wool (Angora fiber) can provide high insulation thanks to the natural gaps in its cross-section. It has a light and soft structure, leaves a pleasant feeling when touched, and is an interesting fiber that does not cause allergies. There are limited studies in the literature on the yarn production by blending angora fibers with cotton and other fibers. In this study, there is a different approach than previous studies for the use of angora fiber in short-fiber spinning mills. In this approach, it was considered to use recycled polyester fibers in addition to angora fiber to increase strength and elongation and to contribute to cost and sustainability. In addition, a compact spinning system was used as a spinning system to participate the fibers more in the yarn structure.

Materials and Methods: Three different fibers were used in the study. For yarn production, angora fibers were blended with recycled polyester fibers at a rate of 50% using SDL Atlas' MDTA 3 Sliver Preparation Device. In this way, the production of sliver from angora fibers was easily achieved. Then, these slivers were produced together with cotton slivers of the same sliver number in a 1/3 ratio on a autoleveller draw frame and turned into a single tape. Thus, the fiber ratios in the produced sliver were 75% cotton, 12.5% angora and 12.5% recycled polyester. Using this sliver, Ne 20 yarn was produced in the compact spinning machine. This yarn was compared with 100% cotton yarn produced under the same conditions.

Results: Similar tenacity and elongation results were obtained in the yarn containing Angora compared to the 100% cotton compact yarn. However, high unevenness, thin places, thick places, neps and hairiness were measured according to the 100% cotton compact yarn.

Discussion and Conclusion: In the study, higher values were obtained compared to the angora yarn tenacity-elongation results recorded in the literature. There was no significant difference in tenacity and elongation compared to the 100% cotton compact yarn compared in the study. In unevenness, thin places, thick places and neps, similar values were obtained to the angora yarn quality results measured in previous studies. In terms of these values, significant negative values were measured compared to the 100% cotton compact yarn. Similarly, negative values were obtained in hairiness and standard deviation of hairiness compared to the 100% cotton compact yarn. However, lower hairiness values were observed when compared to hairiness quality results of the produced angora yarns in the literature.

Key Words: Angora Rabbit; Angora Fiber; Recycling; Recycled PET Fiber; Compact Yarn

COMPARISON OF POLYPROPYLENE SPUNBOND AND MELTBLOWN NONWOVEN FABRICS TREATED WITH POLYANILINE POLYMERIZATION

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Abstract

Introduction and Purpose: The increasing importance of environmental awareness and human health has increased the importance of filtration. With the developments in recent years, filtering elements have become one of the keys to sustainable production and quality life. It is very important to install modern filtration systems during production processes. Fibers such as polypropylene, acrylic, polyester, meta-aramid, polyamide, etc. are generally used in filter fabrics. However, due to the insulating properties of filter fabrics, many dusts tend to generate static electricity. This static electricity accumulates heavily in filter systems and creates flammable and sometimes explosive risks.In this study; it was aimed to improve the anti-static properties of filter fabrics by using polyaniline polymer, which is known to have low cost and high conductivity properties.

Materials and Methods: In this study, aniline was used as a monomer to achieve anti-static properties and polyaniline synthesis was carried out by in situ polymerization on nonwoven fabrics with chemical oxidative polymerization method. Ammonium peroxodisulfate was preferred as the initiator in polyaniline synthesis and Hydrochloric acid fuming 37% was preferred as the pH regulator. In the study, polyaniline polymerization was applied to two different nonwoven fabrics, polypropylene spunbond and polypropylene meltblown. Surface resistivity measurements were carried out in the coated fabrics. ELME Multimeg Megohmeter was used for the measurements. In addition, surface resistance measurements were made with Fluke 117 True RMS Multimeter. The difference in air permeability between coated and uncoated samples was investigated with Prowhite EP08M Air Permeability Tester.

Results: The mean surface resistivity values (ohms / square) of the measurements taken from five different areas of the polypropylene spunbond fabric after coating were found to be less than 10^3. The mean surface resistivity value for polypropylene meltblown fabric was found to be 4.52 X 10^3. Surface resistance (ohms) was found to be 1.87 x10^3 in spunbond fabric and 41.3 x10^3 in meltblown fabric. Air permeability before coating in spunbond fabric was found as 715.71 mm/sec and after

coating as 232.42 mm/sec. Air permeability before coating in meltblown fabric was found as 593.29 mm/sec and after coating as 512.39 mm/sec.

Discussion and Conclusion: The aniline nanocoating process developed in this study provided higher conductivity than previous studies. It was determined that polyaniline coatings increased the electrical conductivity of both fabrics to a level that could provide anti-static protection. Higher conductivity values were obtained in spunbond fabric compared to meltblown. However, the air permeability of this fabric decreased significantly.

Key Words: Aniline; Polyaniline; Polypropylene; Spunbond; Meltblown

EMOTIONAL INTELLIGENCE AND THE PERCEIVED INFLUENCE ON JOB SATISFACTION: AN EXPLORATORY STUDY WITH NURSES

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Abstract

Introduction

The concept of intelligence gained a new expression. Composed of a multiplicity of capabilities inherently linked to the emotions of individuals, Emotional Intelligence has been drawing the attention of the academic and scientific community, as well as different organizations regarding its importance- and role in the current job market.

In this sense, the present study intended to understand how Emotional Intelligence is perceived and valued by nurses from the Portuguese National Health Service, how these professionals define the concept of Job Satisfaction and what they consider to be its causes. In other words, it was proposed to explore the importance that nurses attribute to Emotional Intelligence components as potential facilitators of the exercise of their functions and, in particular, the influence that they perceive this intelligence has on their Job Satisfaction.

To fulfill the proposed objectives, a qualitative approach was followed, according to the interpretative paradigm and the exploratory research. As for the data collection method, twenty-five semi-structured interviews were carried out with nurses who exercise or have already exercised their profession in the National Health Service. In turn, to analyze the opinions and perspectives of professionals on the subject in question, the content analysis method was used.

Next are described the theoretical background of the study, followed by the aims and objective. There follows the research method adopted, including the collection of data. The study concludes buy highlighting that the participants attribute importance to Emotional Intelligence for their well-being, improvement of their practice and interaction with users. Moreover, different ways were explored through which the components of Emotional Intelligence, in the perception of these nursing professionals, can positively influence the satisfaction they feel in their jobs.

Keywords: Emotional Intelligence; Job Satisfaction; Nurses

INVESTIGATION OF THE EFFECT OF TEACHING SUPPORTED BY SCIENTIFIC COMMUNICATION SKILLS ACTIVITIES ON ACADEMIC ACHIEVEMENT AND HIGH- LEVEL THINKING OF 8TH GRADE STUDENTS

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Abstract

Introduction and Purpose: Scientific communication skills include the skills of finding, processing, and transmitting information. Higher order thinking skills, on the other hand, require creative, innovative, analytical thinking. Metacognitive processes play a role at every stage of the scientific communication process, because researchers analyze their findings, interpret them, evaluate their results, and then develop communication strategies to effectively communicate this information. Having these skills is necessary not only to adapt to the rapidly developing world in this century but also to be successful in academic, personal and business life. This research aims to examine the effect of teaching supported by scientific communication skill activities on students' academic achievement and higher-order thinking.

Materials and Methods: The study group of this research, consisted of 60 8th-grade students. While teaching supported by scientific communication skills prepared by the researcher was used in the experimental group, the current teaching approach was applied in the control group. In the research, quantitative data were collected with the Academic Achievement Test prepared by the researcher, including GMO and Climate Change issues, and the pre-taken Metacognition Scale. The correct answer given in the Academic Achievement Test is coded as ‘1’, the wrong or blank answers are coded as ‘0’. The Metacognition Scale is in a 4-point Likert format. The SPSS program was used to analyze the quantitative data obtained in the study, and a t-test was performed for dependent and independent groups.

Findings: According to the results obtained from the research, it was shown that after the instruction, there was a significant difference between the scores of the control and experimental group students in the academic achievement and higher-order thinking skills tests, in favor of the experimental group ($p<0.05$). It was observed that the students in the control group, who were applied the current curriculum, showed less increase in scores compared to the experimental group.

Results: This shows that the science communication education provided is effective in increasing students' academic success and higher-order thinking levels.

Keywords: Scientific Communication Skills, Higher Order Thinking Skills, Metacognitive Skills, Socioscientific issues

MAPPING OF LANDSLIDE SUSCEPTIBILITY USING THE ANALYTIC HIERARCHY PROCESS AND THE FUZZY LOGIC APPROACH ALONG A SECTION OF THE EAST-WEST HIGHWAY (PK21-PK29)

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Abstract

Detection of landslides and the creation of landslide susceptibility maps are essential steps that facilitate disaster planning for planners, local administrations, and decision-makers. Accurate landslide susceptibility maps are crucial to minimize the loss of human lives and property. To assess landslide susceptibility, models require a combination of various elements that describe the characteristics of the terrain and weather conditions. The literature has developed and implemented numerous algorithms to enhance the accuracy of landslide susceptibility maps.

In recent years, the AHP (Analytic Hierarchy Process) and FUZZY methods based on geographic information systems have been successfully applied in the production of landslide susceptibility maps.

In this study, the AHP and FUZZY methods were used to assess landslide susceptibility along the 4th ring road, specifically at the border of Ain Defla and Medea, on the road that connects the East-West highway (Khemis Miliana-Bourouagiya). Factors such as lithology, slope, aspect, elevation, curvature, precipitation, and distance to watercourses were collected and analyzed.

The study produced two susceptibility maps: one using the FUZZY method and the other using the AHP method. These maps indicate the distribution of landslides in the study area, showing low susceptibility between PK21 and PK25 and high susceptibility between PK25 and PK29.

For the susceptibility map produced by the FUZZY method, it was found that:

13.57% of the area represents very high susceptibility,

25.02% medium susceptibility,

26.75% medium susceptibility,

20.98% low susceptibility,

13.67% very low susceptibility.

For the susceptibility map produced by the AHP method, it was observed that:

9.93% of the area represents very high susceptibility,

20.25% high susceptibility,

27.67% medium susceptibility,

22.46% low susceptibility,

19.67% very low susceptibility.

For validation, the AUC (Area Under the Curve) calculated from the ROC (Receiver Operating Characteristic) curve showed a value of 53% for AHP and 51% for FUZZY, which justifies their applicability.

Keywords: Analytic Hierarchy Process (AHP), Landslides, Susceptibility, Slopes.

A WAY TO PREVENT SHAKEN BABY SYNDROME: INFANT CALMING INTERVENTIONS

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Abstract

Crying is a normal behavior necessary for babies to meet their needs and plays an important role in the interaction between parent and baby. But the vast majority of babies cry excessively. Excessive crying babies can not only create a serious burden for their parents, but also lead to negative consequences such as fatigue, insomnia, depression and shaken baby syndrome. Shaken Baby Syndrome, which is especially common in babies under one year old, is a condition that can result in serious health problems and even death. A quarter of these cases die within a few days after the injury, while survivors experience learning disabilities, behavioral problems, and developmental delays.

Shaken Baby Syndrome is a preventable health problem and interventions should be implemented to prevent this syndrome. Parents and caregivers should be informed that crying is a normal physiological process and about the interventions implemented to calm these babies. "Baby Calming Interventions", which adopt to provide the environment in the womb to calm crying babies in the postnatal period, consist of five steps applied when the baby starts to cry. These interventions, each of which has a calming effect on babies when applied correctly, are: “ (1) swaddling, (2) side/stomach position in the arms of the parent, (3) shushing, (4) swinging and (5) sucking”. With these initiatives, parents whose babies calm down have more rest opportunities. Well-rested parents provide better care for their babies, enabling positive parent-baby interactions to develop.

Primary protection methods adopted to prevent shaken baby syndrome include preventing abuse before it occurs and informing the parents about it. However, in our country, information provided to parents on this issue is insufficient. Infant calming interventions are evidence-based practices, and pediatric nurses have great responsibilities in teaching these practices to parents. By preventing Shaken Baby Syndrome through education programs implemented starting from the prenatal period, it will contribute to reducing the risk of disability and death for many babies.

Key Words: Infants; Calming Interventions; Shaken Baby Syndrome; Pediatric Nursing.

DESIGN AND CONSTRUCTION OF AN INTELLIGENT TRAFFIC LIGHT CONTROL

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Abstract

In this project, an intelligent (density based) traffic light control system was designed where the sequence is changed by sensing the traffic density at any of the lane(s). Traffic congestion is a major problem in most cities across the globe. It's caused by delay in signal, improper timing of traffic controlling. Hence, it is time to advance to an automated system with decision making capabilities. In present traffic light designs, the traffic controlling system is fixed time base, which may become inefficient if one road or lane is more operational than others. Therefore, we have made a prototype model for an intelligent traffic control system using HC-SRO4 ultrasonic sensors and Arduino MEGA to optimize traffic control. Sometimes traffic at one side of the road requires GREEN or GO time but is given RED or the STOP signal. Since the system controlling is fixed and not dynamic or highly intelligent, road users will then be forced to wait for their turn even when the other lane(s) are traffic free. This design eliminates this challenge by skipping other lanes, that is, the traffic free lane(s) to the lane(s) with traffic and runs normally when traffic exists on all the lanes.

To achieve this, the HC-SRO4 ultrasonic sensors are placed on all four sides of the road at a particular distance. It detects the presence of the vehicles on the lanes and send the information to the microcontroller, which then decide the flank that will be opened for a stipulated amount of time and the next, depending on what the sensor on each lane senses.

POLYPYRROLE COATING OF POLYMETHYL METHACRYLATE (PMMA): A TAGUCHI OPTIMIZATION APPROACH

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Abstract

This study focuses on enhancing Polymethyl methacrylate (PMMA) properties through surface modification and optimization of synthesis parameters for Polypyrrole (PPy) coatings on PMMA substrates. Surface modification techniques, including sanding and chemical etching using piranha solution (H_2O_2/H_2SO_4), resulted in a decrease in carbon content and an increase in oxygen content, as confirmed by X-ray photoelectron spectroscopy (XPS) analysis. Chemical etching led to enhanced surface wettability and adhesion of subsequent coatings. The optimization of PPy synthesis parameters using Taguchi design revealed that a higher (pyrrole concentration, oxidant to monomer molar ratio, temperature, and synthesis time) yielded maximum PPy content, with pyrrole concentration being the most significant factor affecting PPy yield. Additionally, different methods to improve the electric conductivity of PPy/PMMA coatings were investigated. The electrochemical

doping with dodecyl sulfate anions (DS/PPy/PMMA) using cyclic voltammetry and deposition of silver particles into the PPy backbone (Ag/PPy/PMMA) were found to enhance conductivity and Raman scattering of PPy coatings.

Keywords: Polymethyl methacrylate, sanding, adhesion, polypyrrole, Taguchi.

Acknowledgment

We would like to thank the Moroccan Ministry of Higher Education, Scientific Research and Innovation and the OCP Foundation who funded this work through the APRD research program.

INVESTIGATION OF MICROSTRUCTURE AND MECHANICAL PROPERTIES OF AL 5083 HYBRID/COMPOSITES REINFORCED WİTH B_4C AND AL_2O_3

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Abstract

Introduction and Purpose: Among the Al alloys, there has been increasing interest in the 5083 alloy in recent years due to its mechanical properties. However, there is still a need to develop of such alloys. Therefore, the production of Al matrix metal matrix composites is of critical importance. By dispersing ceramic particles such as boron carbide (B_4C) and aluminum oxide (Al_2O_3) into the matrix, or together, it is possible to develop much more advanced mechanical properties in materials.

Materials and Methods: The 5083 Al alloy was reinforced with 5% by weight B_4C and Al_2O_3 ceramic powders separately and together as hybrids. A high energy 3D ball mixer was used to distribute the ceramic particles homogeneously in the matrix phase. The powders to produce composite materials were mixed for 1 hour. Then, all samples were produced at 550°C under 500 MPa pressure. X-ray diffraction (XRD), scanning electron microscope (SEM) and energy dispersive X-ray spectroscopy (EDS) devices were used for the characterization of the produced test samples. Density, tensile and microhardness tests were applied to all samples to determine the mechanical properties.

Results: In the microstructure examination of the Al5083/B_4C, Al5083/Al_2O_3 and Al5083/B_4C+ Al_2O_3 hybrid composite samples produced with 5% reinforcement, it was determined that the reinforced ceramic particles were distributed homogeneously within the structure. In addition, when the mechanical properties were examined, it was determined that the Al5083/B_4C+ Al_2O_3 hybrid composite sample had the highest hardness and tensile strength.

Discussion and Conclusion: In the study, the effect of using different ceramic reinforcements separately and together as a hybrid on characterization and mechanical properties was investigated. Homogeneous distribution of reinforcements and porosity, which is an important issue in the powder metallurgy process, has gained a controllable status thanks to the determined parameters.

Key Words: 5083 Al Alloy, Hybrid Composites, Mechanical Properties

THE SIGNIFICANCE OF USING MOBILE APPLICATION RESULT CHECKER FOR THE RETRIEVAL OF STUDENTS' PERFORMANCE (RESULT): IMPLICATION ON EDUCATIONAL DEVELOPMENT

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Abstract

The design and application of Mobile technology has aided faster means of communication amongst people. With the introduction of telecommunication system, the growing use of mobile applications have made communication more effective through multimedia messaging service (MMS), short messaging service (SMS) and many others. In particular, using Mobile Application Result Checker (MARC) have made the sending and retrieval of information (including students' result) easier. This application has helped to enhance the delivery of students' result via SMS using secrete codes (password). The study of Schofield and Kubin (2002) reveals that mobile application systems can potentially provide better interface for the retrieval of information than other means. This paper is a mixed survey on the design and implementation of Mobile Application Result Checker (MARC). The paper evaluates the function of MARC. The paper also outlines some of the benefits and issues associated with the use of MARC for checking students' results. In conclusion, the paper affirms that MARC can receive SMS from all kind of phones from various networks. The application is relatively easy to customize and can potentially notify users when they make invalid requests.

Keywords: Mobile Application, Result Checker, Students' Performance.

PROMOTING INCLUSIVE GROWTH: ADDRESSING SOCIO-ECONOMIC DISPARITIES ON THE JOURNEY TO A SUSTAINABLE ECONOMY

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Abstract

In the present global scenario, the goal of sustainable economic development must align with the imperative of encouraging inclusive growth and tackling socio-economic inequities. This difficulty is particularly evident in developing nations, where the pursuit for economic success sometimes overlooks the equitable distribution of its advantages across diverse parts of society. Inclusive growth exceeds standard economic statistics, such as Gross Domestic Product ("**GDP**"), by stressing broader measures of well-being, including access to education, healthcare, employment opportunities, and social security mechanisms. The purpose of inclusive growth is to decrease inequality and encourage a more equitable allocation of resources and income.

Considering the importance they have; socioeconomic imbalances remain a barrier to the achievement of inclusive growth in many places. These disparities are evident in unequal access to economic opportunities, which are influenced by factors such as income level, gender, ethnicity, and geographic location. For example, rural residents frequently face significant disadvantages compared to their urban counterparts, particularly in terms of access to high-quality education, healthcare services, and infrastructure. Additionally, underprivileged groups, such as women and ethnic minorities, face societal restrictions that limit their economic participation and opportunities for advancement. Notably, data from the Asian Development Bank shows that the number of people living on less than $1.90 per day in Asia decreased from 1.5 billion in 1990 to 263 million in 2015, highlighting the potential for economic growth to reduce poverty when inclusive policies are effectively implemented.

To effectively promote inclusive growth, a multi-faceted approach is necessary, incorporating strong policies, innovative initiatives, and robust institutional structures. Key measures include investing in human capital through universal access to quality education and vocational training, developing extensive social safety nets to protect disadvantaged communities, and stimulating private sector employment development in neglected regions. Furthermore, boosting physical linkages between urban and rural areas and revising legal and regulatory frameworks are crucial for levelling the economic playing field.

Eventually, supporting inclusive growth is both a moral duty and an economic need for developing robust and sustainable economies. By tackling socio-economic inequities and promoting equitable possibilities, governments may pave the road for a more just and prosperous future for all residents. This paper will address the problems and opportunities associated with achieving inclusive growth within the context of developing nations, drawing on case studies and evidence-based policy recommendations. It aspires to contribute to the continuing discourse on making economic development more equitable and sustainable, consequently boosting the overall quality of life for various people.

Keywords: Inclusive growth, socio-economic disparities, sustainable development, human capital, economic equity.

PRODUCTION AND PROPERTIES OF B319/TIC COMPOSITE MATERIALS BY POWDER METALLURGY METHOD

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Abstract

Introduction and Purpose: In recent decades, the automobile industry has favored using aluminum (Al) and its alloys. This preference is primarily driven by the need to decrease vehicle weight, conserve energy, and mitigate the environmental damage caused by CO_2 emissions. Aluminum-copper (Al-Cu) alloys are extensively utilized in automobile and aviation industries because of their low density and ability to harden during precipitation. The B319 Al alloy, based on aluminum, silicon, and copper, is the preferred choice for manufacturing pistons, engine blocks, and cylinder materials. This preference is due to its excellent castability and high-strength features. Although B319 alloys have appealing characteristics, they are still required to enhance their mechanical qualities, particularly in terms of tensile strenght and wear resistance. The objective is to enhance the mechanical properties of B319 alloy using particle reinforcement.

Materials and Methods: The B319 Al alloy was reinforced with TiC ceramic particles using the powder metallurgy process at weight ratios of 5%, 10%, and 15%. The ceramic particles reinforced into the matrix alloy were uniformly distributed and achieved excellent wettability, a significant success of the experiment, using a 3D ball mixing mechanism. To prevent problems during the pressing stage of the mixing process, a ratio of 1 part powder to 5 parts balls was employed for 240 minutes. This allowed for the even distribution of reinforcement particles without altering the structure of the spherical matrix powders. Subsequently, the blended powders were generated by hot pressing, subjecting them to a temperature of 550°C and applying a pressure of 350 MPa for 60 minutes. The test samples were analyzed for their microstructure, density, and hardness.

Results: Upon examination of the experimental data, SEM analysis found that the composite powders, which were mixed using a 3D high-energy ball mixer, exhibited the predicted homogenous distribution. The sample incorporating 15% TiC reinforcement exhibited the highest density and microhardness values compared to other samples.

Discussion and Conclusion: The study found that using the 3D ball mixer significantly reduced unfavorable outcomes, such as agglomeration and excessive porosity, commonly encountered in the fabrication of composite materials. Due to the low porosity and even dispersion of ceramic particles, the material acquired high density and microhardness values.

Key Words: Powder Metallurgy; Metal Matrix Composites; B319 Alloy; TiC; Microhardness

MICROBIOLOGICAL QUALITY ASSESSMENT OF DRIED BEEF STORED IN DIFFERENT PACKAGING MATERIALS

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Abstract

Dried meats are a popular food throughout the world due to shelf stability and nutrient content of the food product. The drying of meats allows for reduction of moisture, creating a product with a low water activity (Aw) and therefore a microbially safe and shelf-stable product. The primary purpose of meat packaging is to provide a physical barrier that will protect the meat product from its surrounding environment, while also limiting microbial growth and oxidation. This study aims to assess the safety and quality of dried beef stored in different packaging materials. Samples were analyzed over a period of six months at one-month interval for microbial analysis. Microbial counts (bacteria and fungi) were determined using procedure described by American Public Health Association (APHA, 2001). An analysis of variance (ANOVA) and Tukey's test at 95% confidence level ($p < 0.05$) was used. The result showed that a total of seven bacterial species as well as seven fungal strains were identified from the dried beef sample during the storage period. The highest in the frequency of occurrence among all the samples was *E. coli* (16 of 53; 30.1%) with high total bacterial recoveries from samples stored in glass jars (21 of 53; 39.62%). This study also revealed that high density polyethylene (HDPE) had the least bacterial and fungal species isolated and thus was better than paper envelope and glass jars. It is therefore, recommended that dried beef should be better packaged in HDPE for reliable nutritional quality retention and longer storage time.

THE RELATIONSHIP BETWEEN BODY COMPOSITION AND PHYSICAL ACTIVITY LEVEL WITH TYPE 2 DIABETES RISK IN EMERGING ADULTS: A PILOT STUDY

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Abstract

Introduction and Purpose: This pilot study was planned to determine the risk of type 2 diabetes in emerging adults and to determine the relationship between body composition and physical activity level.

Materials and Methods: Demographic information of the participants was recorded. Type 2 diabetes risk was assessed with the Finnish Type 2 Diabetes (T2D) Risk Questionnaire and physical activity level was assessed with the International Physical Activity Questionnaire-Short Form. Body mass index (BMI) was calculated and waist circumference was measured in the body composition assessment of emerging adults. Mann-Whitney U test and Spearman correlation analysis were used for statistical analysis of the data. Significance $p<0.05$ was accepted.

Results: A total of 91 emerging adults, 72 of whom were female, with a mean age of 20.52±1.46 years participated in our study. It was found that 12.1% of the adults were in the moderate and high diabetes risk group and 46.2% had moderate physical activity. In addition, in the classification according to BMI, it was seen that young people were in the overweight class. Comparisons according to gender showed that males had significantly higher physical activity levels, and comparisons according to BMI showed that waist circumference and T2D risk were statistically higher in overweight individuals ($p<0,05$).

Discussion and Conclusion: It may be possible to control T2D risk factors in the preclinical process by identifying changes related to body composition in emerging adults in the early period, and to minimize the risk and reduce the burden of disease by minimizing the risk with the right approaches to these changes.

Key Words: Emerging Adult; Type 2 Diabetes; Physical Activity; Body Mass Index; Waist Circumference

THE COMPARISON OF BODY MASS INDEX, WAIST CIRCUMFERENCE AND METABOLIC VARIABLES ACCORDING TO ACANTHOSIS NIGRICANS IN UNIVERSITY STUDENTS: A PILOT STUDY

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Abstract

Introduction and Purpose: This study was planned to determine the prevalence of acanthosis nigricans (AN) in university students and to compare body mass index (BMI), waist circumference and metabolic variables of the participants according to AN.

Materials and Methods: Participants' demographic information and AN was recorded as 'yes' or 'no' on the evaluation form according to the observation of the skin condition in the nape of the neck. BMI was assessed by dividing weight by the square of height in meters and waist circumference was assessed by using an inflexible tape measure in the standing position. Metabolic variables were recorded by interpreting the blood values given within the last 3 months at most. Mann-Whitney U test were used for statistical analysis of the data. Significance $p<0.05$ was accepted.

Results: A total of 61 university students, 47 of whom were female, with a mean age of 20.52±1.46 years participated in our study. It was reported that 58.7% of the young people did not engage in any form of physical activity and 66.7% did not think that they had a healthy diet. 36.5% had abdominal obesity and 9.5% had AN in the neck. In our study, triglyceride, cholesterol and HDL values were found to be different in the groups according to AN ($p<0.05$).

Discussion and Conclusion: A simple skin finding in university students can be used for future T2D and metabolic syndrome risk assessment.

Key Words: Acanthosis Nigricans; Body Mass İndex; Waist Circumference; Metabolic Variables

ACCORDING TO THE OTTOMAN HARVI'S RECORDS, THE ATTRACTIONS COMMITTED BY ARMENIANS AGAINST MUSLIMS IN KARS, BAYEZIT AND ERZURUM REGIONS IN JULY 1335 (1919)

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Abstract

Introduction and Purpose: Armenians living as non-Muslims within the borders of the Ottoman Empire were able to hold many high-level positions in government offices. The Armenians, who were not affected by the early Serbian and Greek rebellions that broke out in the early 19th century, rebelled against the Ottoman Empire in the following years as a result of promises of independence and provocations from Russia and England. During World War I and the Armistice years, the United States also did more than its share in provoking the Armenians. Drawing strength and courage from the aforementioned states, the Armenians began to commit murders, kidnappings and raid villages in provinces such as Kars, Erzurum and Bayezit, where the Muslim population lived.

This study examines the atrocities committed by Armenians in the aforementioned provinces in July 1919.

Materials and Methods: This study, which is in the form of research and examination, deals with the atrocities committed by Armenians in the Kars, Bayezit and Erzurum regions in July 1919. While examining the subject, the Ottoman General Staff records and reports were taken as basis.

Results: It has been understood that the victims and oppressed parties in the Armenian Question are not the Armenians, as claimed, but the Muslims. It has been seen that the Muslim population has been subjected to all kinds of murder, rape and injustice.

Discussion and Conclusion: Today, the “Armenian Question” is brought up by the United States and European states for more political purposes. This issue, which has been discussed for many years and seems likely to continue to be discussed, needs to be addressed by historians in the light of archive documents. This study, which was conducted by examining Ottoman military records, has somewhat filled the gap in the Armenian Question regarding which side was the victim and the oppressed. When we consider that these events, which were recorded in just one month, continued during the First World War and the Armistice years, it is possible to see the true extent of the disaster. Finally, we can say this: In order for the Armenian Question to be revealed and understood in all its reality, the Armenian side should open its archives to researchers, just as Turkey has opened its archives. Even the archives of other neutral states should be used.

Keywords: Armenian Issue, Armenian Atrocities, Armenians, Ottoman Empire.

ADAPTATION OF THE IMMUNE SYSTEM IN ATHLETES DURING ANAEROBIC EXERCISE

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Abstract

BACKGROUND: Anaerobic exercise, particularly powerlifting, has always been trendy, especially among young people. However, these exercises, involving large and super-large muscle strains, place high demands on all body functional systems. One of the most sensitive systems is the immune system. The work aimed to study the changes in immunological parameters in athletes specializing in anaerobic exercise depending on the length of their training.

METHODS: We examined 64 male athletes specializing in anaerobic physical exercises (powerlifting), averaging 26.3 ± 4.8 years. The experience of sports activities ranged from 1 to 8 years. The studies used a standard set of immunological methods proposed for assessing the immune status used in athletes: measuring the level of T-lymphocytes, B-lymphocytes, T-helpers, T-suppressors, immunoglobulins IgA JgM, JgG.

RESULTS: In the first year of powerlifting, athletes show an insignificant increase in the number of leukocytes, which gradually decreases to the control level by the third year and then increases again ($p > 0.05$). The relative number of lymphocytes decreases in the first year of training and then begins to rise. It reaches a maximum in the third year, decreasing slightly but remaining significantly higher than the control level ($p<0.001$). Neutrophilic leukocytes slightly increase in the first year of training and then decrease to a minimum in the third year. Subsequently, their number stabilizes but remains significantly lower than the control ($p<0.001$). The absolute number of lymphocytes gradually increases and peaks by the third year of training, after which it stabilizes at this level ($p<0.05$). The number of B-lymphocytes does not change significantly in either absolute or relative

values over the entire period of training ($p>0.05$). The relative number of T-lymphocytes substantially decreases in the first year of training and remains at this level until the fourth year, when a new decrease occurs ($p<0.001$).

CONCLUSION: Long-term immune system adaptation during anaerobic physical exercise occurs in two stages. Immediately after the start of exercise, a sharp change in most indicators is observed: lymphocytes, T-lymphocytes, Th, and Ts, which indicates an imbalance in the immune system. The second stage is characterized by relative stabilization of parameters and a tendency to return to normal, but the state of overstrain of the immune system remains.

Key words: powerlifting, immunology, lymphocytes, immunoglobulins.

CHEMICAL COMPOSITION AND THERAPEUTIC POTENTIAL OF RHODODENDRON LUTEUM

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Abstract

Introduction and Purpose: Rhododendron species are medicinal plants with highly effective biological properties due to a large number of secondary metabolites such as flavonoids, saponins, tannins, steroids, and alkaloids. The present study aimed to determine the phytochemical contents of ethanolic extracts of *R. luteum* flowers with HPLC-DAD. In addition, the possible inhibition of enzymes such as urease and α-glucosidase by *R. luteum* extracts was determined by in vitro experiments.

Materials and Methods*: R. luteum* flowers were collected and freshly extracted with ethanol. HPLC-DAD gradient elution was used to elucidate the phenolic content of the flower extracts. Urease enzyme inhibition, which is important in the treatment of gastrointestinal disorders, and glucosidase inhibition, which plays a role in the treatment of diabetes mellitus, were investigated in the extracts obtained.

Results: The flower of *R. luteum* was analyzed by HPLC-DAD and found to be very rich in phenolic compounds such as gallic acid, caffeic acid, protocatechuic acid, ferulic acid, vanillic acid, chlorogenic acid, and quercetin. In addition, IC_{50} values indicating urease and glucosidase inhibition activities of the flower extract were found to be 30.5 and 180.9 $\mu g.ml^{-1}$, respectively. **Discussion and Conclusion:** The results of this study showed that *R. luteum* flower, with its rich phenolic content and enzyme inhibition ability, can be used as a food additive and as an active ingredient candidate in pharmacology. The present results may be supported by additional biological activities and in vivo experiments, such as anticancer and antibacterial effects.

Key Words: *Rhododendron Luteum*; HPLC; Urease; α-Glucosidase

THE ROLE OF ARTS IN HEALTH POLICY-MAKING: A QUALITATIVE STUDY ON STAKEHOLDER PERSPECTIVES AND POLICY IMPLICATIONS

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Abstract

The arts have been increasingly recognized for their potential to improve health outcomes and enhance healthcare experiences. However, the role of arts in health policy-making remains understudied. This qualitative study aims to explore stakeholder perspectives on the role of arts in health policy-making and its policy implications. Despite the growing evidence on the health benefits of arts, there is a lack of understanding of how arts can be integrated into health policy, resulting in limited policy support and funding for arts in healthcare. This study is grounded in the theoretical framework of policy analysis, which examines the process of -making and the factors that influence it. Semi-structured interviews were conducted with 30 stakeholders from various fields, including healthcare, arts, and policy-making. Data were analyzed using thematic analysis. The study found that stakeholders perceive arts as a valuable tool for improving health outcomes, enhancing patient experience, and promoting health equity. However, they also identified barriers to integrating arts into health policy, including lack of evidence, funding, and infrastructure. This study highlights the need for a multidisciplinary approach to health policy-making, incorporating arts and culture to improve health outcomes and promote health equity. The findings have policy implications for integrating arts into healthcare policy and practice. Policy-makers should consider the potential benefits of arts in healthcare, and future research should investigate the impact of arts on health outcomes and healthcare experiences. Arts and healthcare professionals should collaborate to develop evidence-based arts programs that can be integrated into healthcare policy and practice.

Keywords: Arts in healthcare, Environmental psychology, Healthcare environments, Patient outcomes, Patient satisfaction, Visual arts.

Relevance of the Study to the United Nations SDGs

The study aligns with UN SDGs by integrating waste recycling into curriculum, promoting responsible consumption (SDG 12), reducing environmental footprint in artistic practices (SDG 13), indirectly aiding marine conservation (SDG 14), and preserving terrestrial ecosystems (SDG 15).

Emphasizing collaboration (SDG 17), it advocates for sustainable palette design using locally sourced materials and repurposed plastics, fostering environmental awareness and innovative teaching methods while advancing towards a more sustainable future.

ANALYSIS OF THE EFFECT OF WORK ACCIDENTS ON SOCIAL SECURITY SYSTEM

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Abstract

As a result of the rapid development of technology after the Industrial Revolution, the focus of production on machines, the acceleration of social transformation, the decrease and/or disappearance of the importance of existing formations and values; occupational diseases and work accidents that occur due to people working for long periods in factories where health and safety measures are not taken have become a major problem among the public over time. Work accidents are a phenomenon that accompanies all human activities and are one of the basic health and economic problems of modern societies.

Their results affect not only the injured workers but also their families, work organization and society as a whole. In order to minimize the results of work accidents that occur, first of all, the data must be recorded in a healthy way. For this reason, analyzing the recorded work accidents causes possible work accidents to be prevented with a proactive approach. In this context, it is of great importance to examine and interpret the work accidents experienced in our country. Reducing work accidents and the costs resulting from the incident and creating healthy and safe working conditions in workplaces is possible with work safety management. In the management of occupational safety activities, the examination and analysis of occupational accident statistical data guides the occupational safety study to be carried out.

The relationship between occupational safety and social insurance plays a critical role in protecting employees against risks they may be exposed to at work. While occupational safety is defined as the set of measures taken to ensure that employees work in a safe and healthy environment, social insurance aims to compensate for the financial losses that employees may encounter as a result of

such risks. The social insurance system provides compensation and health services to employees in the event of occupational accidents and occupational diseases, thus ensuring their economic protection. This encourages employers to take occupational safety measures seriously, as reducing occupational accidents contributes to lower insurance premiums and lowering the costs of the enterprise. In addition, occupational safety and social insurance complement each other in order to increase the well-being of employees and promote safe working conditions at the workplace. The effective implementation of occupational safety measures contributes to the prevention of occupational accidents and occupational diseases, which reduces the financial burden on the social insurance system. In addition, compensation and health services provided within the scope of social insurance support the rehabilitation of employees exposed to occupational accidents or occupational diseases and their return to the workforce. Thus, the strong relationship between occupational safety and social insurance creates a mechanism that protects the long-term interests of both employees and employers.

Within the scope of the study, the statistical data of the Social Security Institution (SSI) regarding occupational accidents were individually researched and grouped on an annual basis. All legal parameters such as gender, age range, education status, work experience, province of residence of individuals who had an occupational accident; number of occupational accidents, how many people they affected, sector, what kind of injury occurred to the individual, number of deaths, periods of disability, etc. were individually grouped and analyzed. Using annual data, occupational accident severity rates and occupational accident frequency rates were calculated for each year without any sector distinction. Thus, the annual status of occupational accidents in Turkey was revealed and their impact on the social insurance system was examined.

The study was prepared within the scope of the project titled "*Investigating the 20-Year Profile of Work Accidents and Occupational Diseases and Their Effects on Work and Insurance Life: Comparison of Turkey and Europe-27 Region*" numbered 1919B012335533, which is carried out within the scope of TUBITAK 2209-A University Students Research Projects Support Program.

Key Words: Occupational Health and Safety, Work Accident, Social Security, Social Policy.

ANALYZING ENERGY EFFICIENCY AND ECOLOGICAL ASPECTS OF CNG BUSESIN URBAN PUBLIC TRANSPORTATION – A CASE STUDY IN MERSIN

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Abstract

Introduction and Purpose: The environmental and economic benefits of public transport are driving increased demand, especially in urban areas where it helps alleviate congestion and traffic issues. This demand leads to a greater need for public transport vehicles, whichresults in higher fuel consumption. Since the transportation sector accounts for approximately 64.6% of global carbon emissions, public transport managers and operators—such as municipalities and cooperatives—are seeking environmentally friendly fuel alternatives. Using low-emission fuels like compressed natural gas (CNG) can significantly reduce the carbon footprint and improve environmental sustainability. The number of CNG-powered vehicles in public transport is rising, as CNG reduces environmental impact and lowers fuel costs. Scientific studies confirm that CNG produces lower carbon emissions than diesel, positively affecting air quality.

Materials and Methods: This study conducts a comprehensive examination specific to Mersin, using data obtained from the Public Transport Main Coordination Center of the Mersin Metropolitan Municipality's Transportation Department. Mersin is noteworthy as a region where the need for public transport has increased due to rapid population growth and urbanization. In this study, CNG-powered vehicles are compared with diesel vehicles based on various criteria such as ecological impacts, energy efficiency, safety standards, and fuel costs.

Results: The research findings provide crucial insights into the sustainability of public transport systems in Mersin and support the decisions local authorities make regarding the use of eco-friendly fuels. This study seeks to highlight not only the ecological aspects of public transport but also the economic benefits it offers, thereby illuminating future transportation policies.

Discussion and Conclusion: This lays a solid foundation for strategic recommendations on the future development of public transport and aims to reduce the environmental impacts of public transport systems.

Key Words: CNG; Carbon Footprint; Emission; Feasibility; Optimization