

# 10<sup>TH</sup> BLACK SEA



## INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SCIENTIFIC RESEARCH CONFERENCE

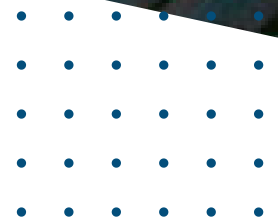
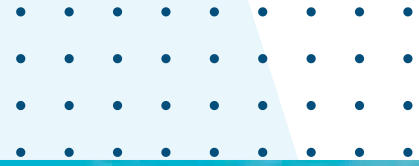
APRIL 7-9, 2024  
SAMSUN, TURKIYE



## ABSTRACTS BOOK

EDITOR  
PROF. DR. RADOSLAV BALTEZAREVIĆ

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10th INTERNATIONAL BLACK SEA  
COASTLINE COUNTRIES SCIENTIFIC  
RESEARCH CONFERENCE

April 7-9, 2024

Samsun, Turkiye

EDITOR

Prof. Dr. Radoslav BALTEZAREVIĆ

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# **CONFERENCE ID**

## **CONFERENCE TITLE**

**10th INTERNATIONAL BLACK SEA COASTLINE COUNTRIES  
SCIENTIFIC RESEARCH CONFERENCE**

## **DATE AND PLACE**

**April 7-9, 2024 / Samsun, Turkiye**

## **ORGANIZATION**

**IKSAD INSTITUTE**

## **EDITOR**

**Prof. Dr. Radoslav BALTEZAREVIĆ**

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NIGERIA, AZERBAIJAN, ALBANIA, MOROCCO, ROMANIA, IRAN, BELARUS,  
MOLDOVA, GEORGIA, BULGARIA, NORTHERN MACEDONIA, BANGLADESH,  
ITALY, BENIN, CHINA, BOSNIA AND HERZEGOVINA, OMAN, SAUDI ARABIA,  
FIJI, INDONESIA**

**Total Accepted Article: 201**

**Total Rejected Papers: 47**

**Accepted Article (Türkiye): 94**

**Accepted Article (Other Countries): 107**

**ISBN: 978-625-367-699-5**



INSTITUTE  
OF ORGANIC CHEMISTRY  
WITH CENTRE OF PHYTOCHEMISTRY  
Bulgarian Academy of Sciences



# 10<sup>th</sup> INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SCIENTIFIC RESEARCH CONFERENCE

April 7-9, 2024, Samsun, Türkiye

25.04.2024

REF: Akademik Teşvik

İlgili makama;

10. Uluslararası Karadeniz'e Kıyısı Olan Ülkeler Bilimsel Araştırmalar Kongresi, 7-9 Nisan 2024 tarihleri arasında Samsun'da 27 farklı ülkenin (Türkiye 94 bildiri- Diğer ülkeler 107 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.

Bilgilerinize arz edilir,

Saygılarımla

**DR. ABBAS KARAĞAÇLI**  
Head of Black Sea Strategic Research and Application Center



T.C.  
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Sağlık Bilimleri Fakültesi Dekanlığı



Sayı : E-64446339-100-197114  
Konu : Görev İzni Talebi (Doç. Dr. Bülent  
BAYRAKTAR)

01.04.2024

### DAĞITIM YERLERİNE

Fakültemiz Fizyoterapi ve Rehabilitasyon Bölümü öğretim elemanlarında Doç. Dr. Bülent BAYRAKTAR'ın 7-9 Nisan 2024 tarihlerinde Samsun'da düzenlenecek olan 10.Uluslararası Karadeniz'e Kıyısı Olan Ülkeler Bilimsel Araştırmalar Kongresinde düzenleme Kurulu ve Bilim Kurulunda görev almak istediğine dair talebi Dekanlığımızca değerlendirilmiş ve uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Prof.Dr. Ali Savaş BÜLBÜL  
Dekan V.

Ek: Dilekçe (1 Sayfa)

Dağıtım:  
Gereği:  
Sayın Doç.Dr. Bülent BAYRAKTAR (Doçent)

Bilgi:  
Fizyoterapi ve Rehabilitasyon Bölümü  
Başkanlığına

**Bu belge, güvenli elektronik imza ile imzalanmıştır.**

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<https://turkiye.gov.tr/ebd?eK=5264&eD=BSD4MZPAVP&eS=197114>

Kep Adresi:bayuni@hs01.kep.tr

Bilgi için: Asude DÖRTKOL

Unvanı: Büro Personeli

Tel No: 1802





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KIZIL)

02.04.2024

### DAĞITIM YERLERİNE

Fakültemiz Sağlık Yönetimi Bölümü öğretim elemanlarında Dr. Öğr. Üyesi Seda KIZIL'ın 7-9 Nisan 2024 tarihlerinde Samsun'da düzenlenecek olan 10. Uluslararası Karadeniz'e Kıyısı Olan Ülkeler Bilimsel Araştırmalar Kongresinde Düzenleme Kurulu ve Bilim Kurulunda görev almak istediğine dair talebi Dekanlığımızca değerlendirilmiş ve uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Prof.Dr. Ali Savaş BÜLBÜL  
Dekan V.

Ek: Dilekçe ( 1 Sayfa)

Dağıtım:

Gereği:

Sayın Dr. Öğr. Üyesi Seda KIZIL (Doktor Öğretim  
Üyesi)

Bilgi:

Sağlık Yönetimi Bölümü Başkanlığına

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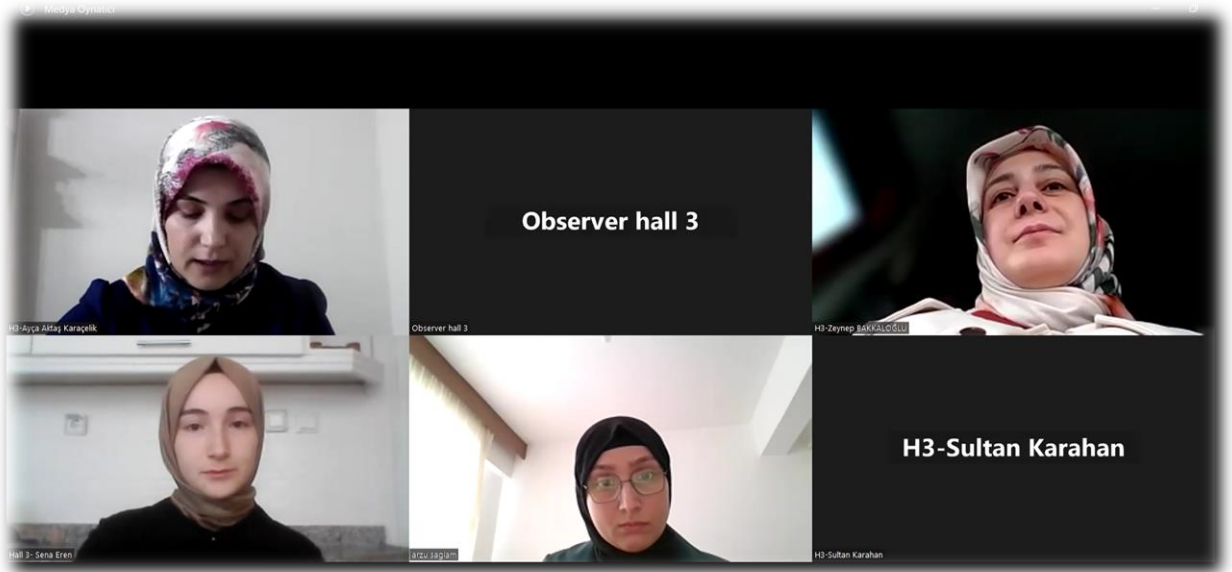
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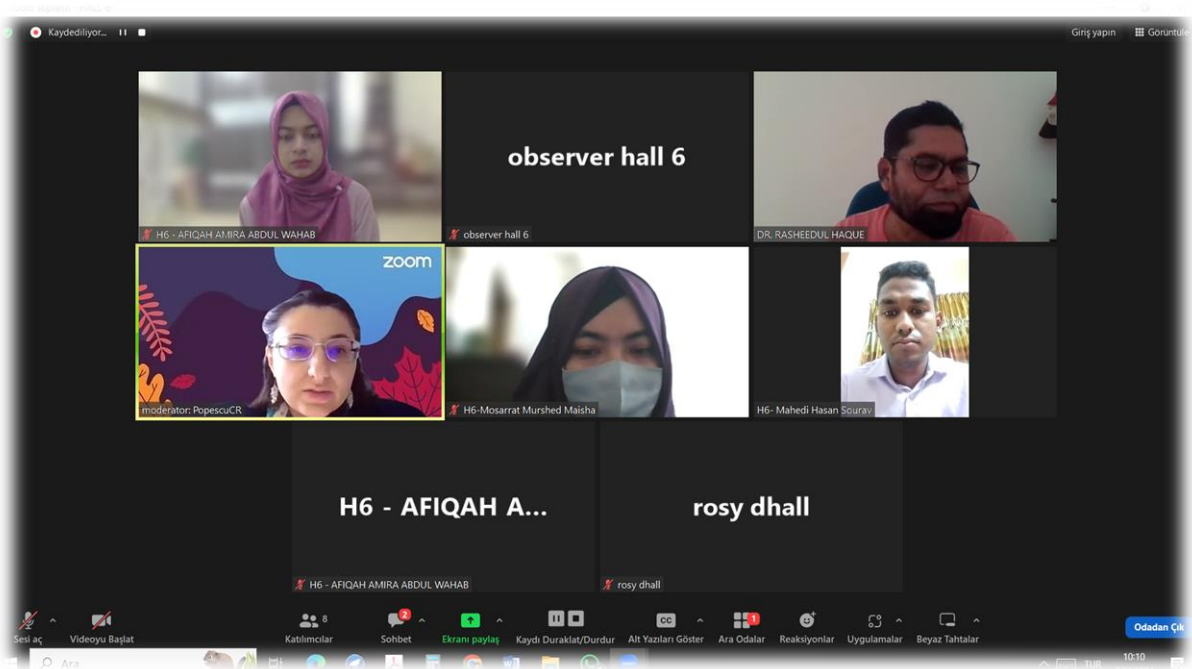
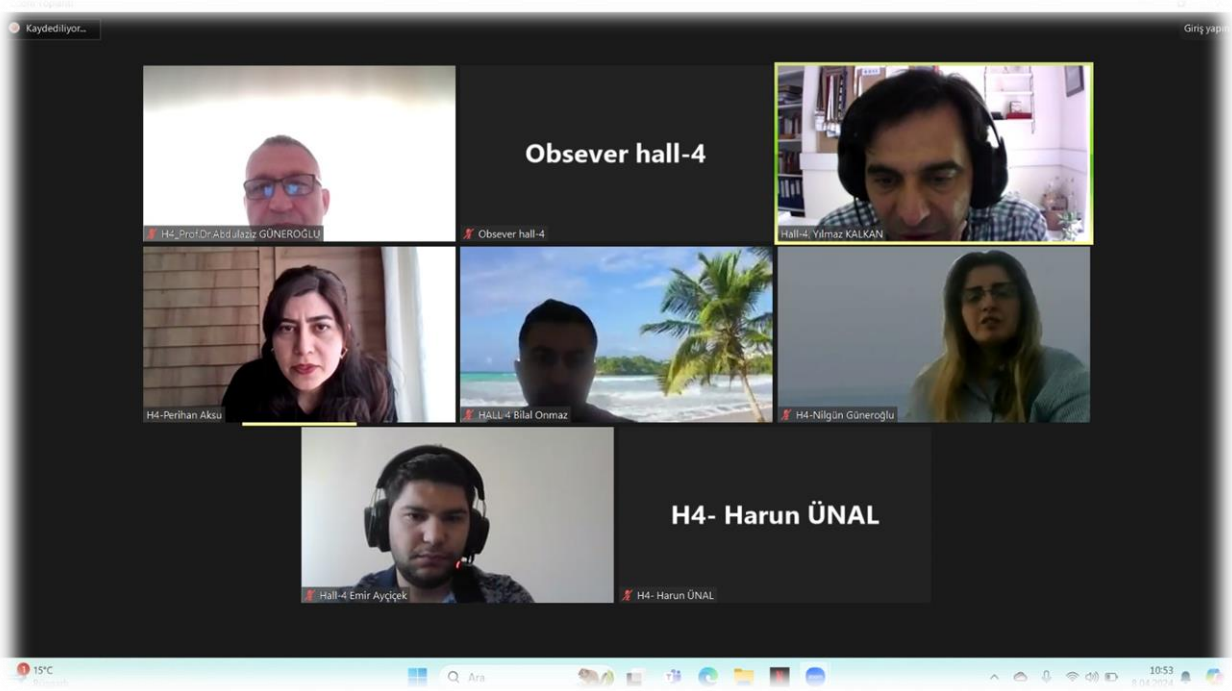
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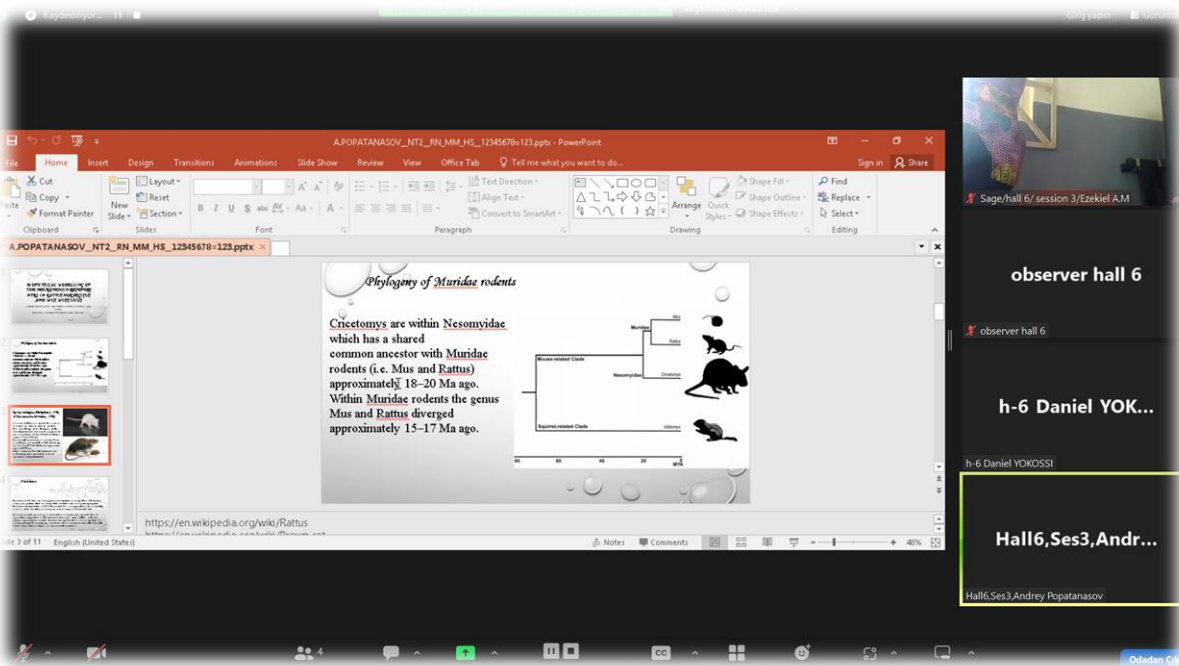
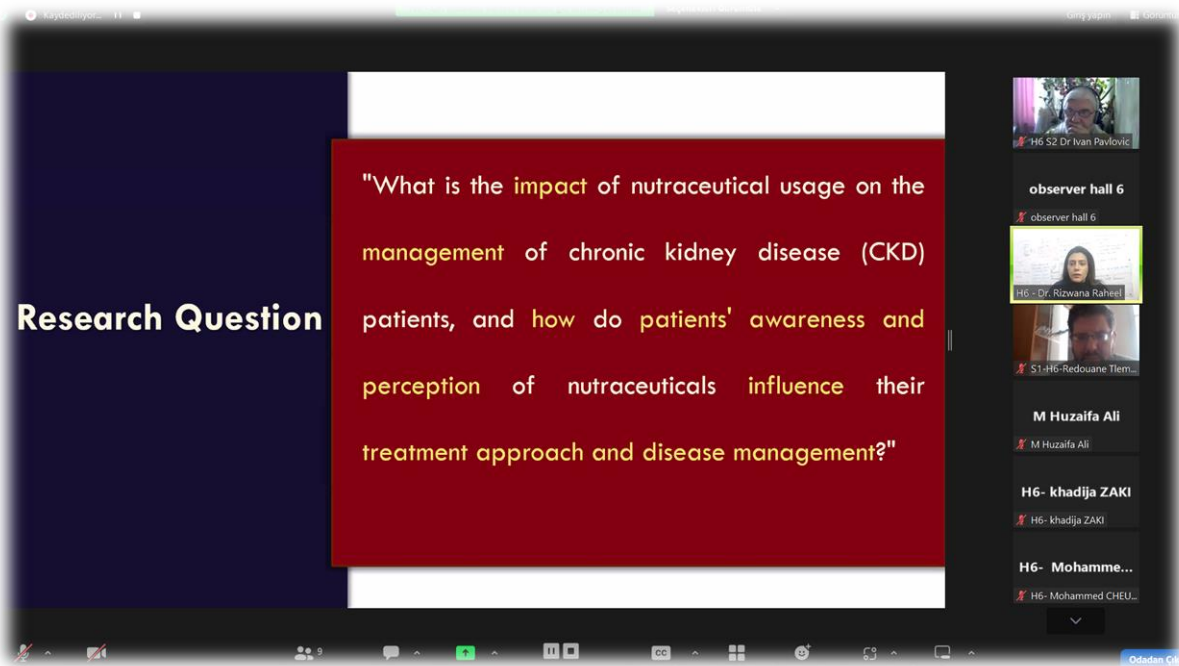
# PHOTO GALLERY



# PHOTO GALLERY



# PHOTO GALLERY



# PHOTO GALLERY

1 Atık Su Arıtma Çamuru

- Arıtma çamuru yönetimi ve bertarafı konusu global düzeyde giderek artmakta olan bir sorundur. Arıtma tesislerindeki başlıca maliyet öğelerinden birisi de **çamur bertaraf işlemidir**. Çünkü bir arıtma tesisinin toplam yatırım maliyetinin %20-%30 luk, işletme maliyetinin ise %50-%70 lik bir kısmı çamur bertaraf yöntemlerine harcanmaktadır.



Şekil 2. Arıtma Çamuru Görüntüleri

Observer H-1

H1 - Semih Latif İpek

H1-Elif Orhan

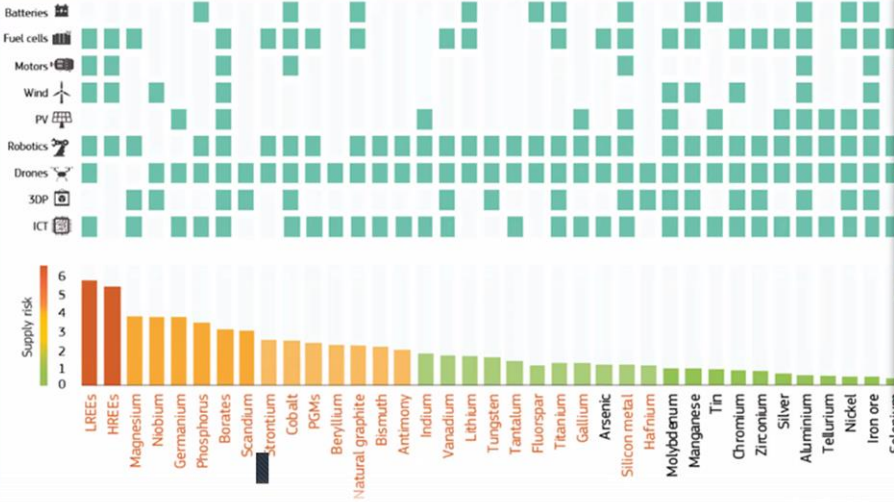
Hall-1, İŞILAY T...

4

Odadan Çık

İSTANBUL ÜNİVERSİTESİ CERRAHPAŞA

## "KRİTİK HAMMADDE" KULLANIM



Batteries

Fuel cells

Motors

Wind

PV

Robotics

Drones

3DP

ICT

Supply risk

LREEs

HREEs

Magnesium

Niobium

Germanium

Phosphorus

Borates

Scandium

Strontium

Cobalt

PGMs

Beryllium

Natural graphite

Bismuth

Antimony

Indium

Vanadium

Lithium

Tungsten

Tantalum

Fluorspar

Titanium

Gallium

Arsenic

Silicon metal

Hafnium

Molybdenum

Manganese

Tin

Chromium

Zirconium

Silver

Aluminium

Tellurium

Nickel

Iron ore

Selenium

Zinc

Cadmium

Copper

Lithium

Observer H-1

H1 - Semih Latif İpek

H1- Ceyhan Akarsu

Hall-1, İŞILAY T...

# PHOTO GALLERY

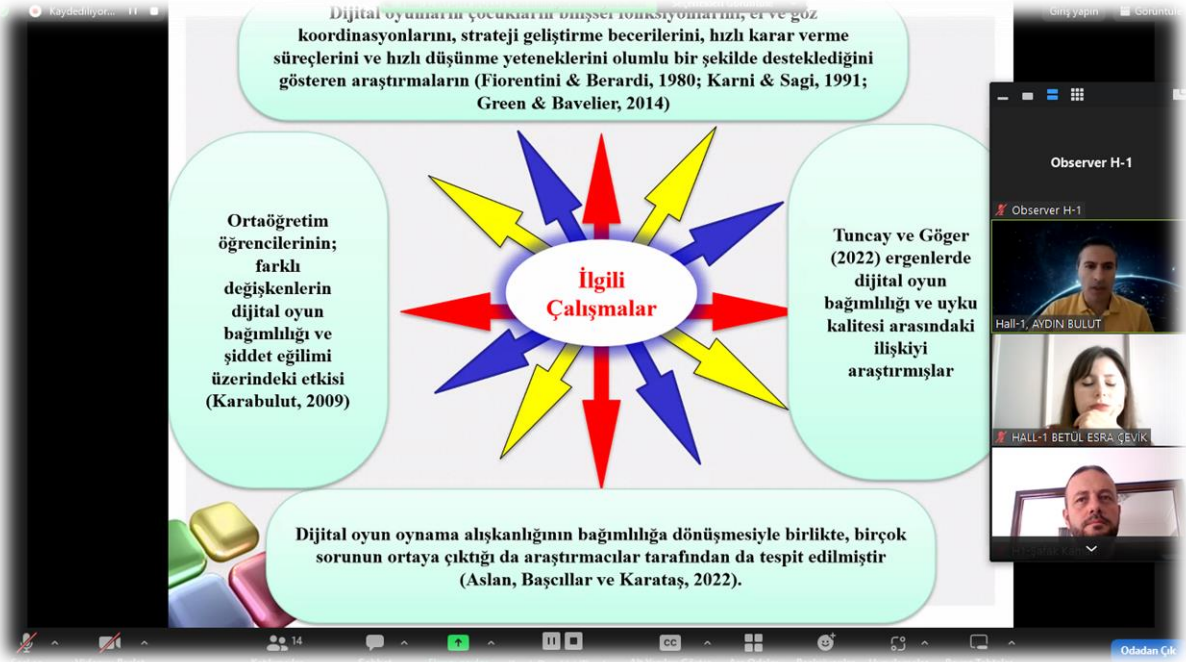
Dijital oyunların çocukların bilişsel fonksiyonlarını, el ve göz koordinasyonlarını, strateji geliştirme becerilerini, hızlı karar verme süreçlerini ve hızlı düşünme yeteneklerini olumlu bir şekilde desteklediğini gösteren araştırmaların (Fiorentini & Berardi, 1980; Karni & Sagi, 1991; Green & Bavelier, 2014)

Ortaöğretim öğrencilerinin; farklı değişkenlerin dijital oyun bağımlılığı ve şiddet eğilimi üzerindeki etkisi (Karabulut, 2009)

Tuncay ve Göger (2022) ergenlerde dijital oyun bağımlılığı ve uyku kalitesi arasındaki ilişkiyi araştırmışlar

**İlgili Çalışmalar**

Dijital oyun oynama alışkanlığının bağımlılığa dönüşmesiyle birlikte, birçok sorunun ortaya çıktığı da araştırmacılar tarafından da tespit edilmiştir (Aslan, Başçılar ve Karataş, 2022).



Observer H-1

Hall-1 Ali Üstüdağ

Observer H-1

Hall-1, AYDIN BULUT

H1-ÖZNEUR AKTÜRK

HALL-1 BETÜL ESRA ÇEVİK

H1-Şafak Kaman

H1-Ayşeğül Bayazit Ergin

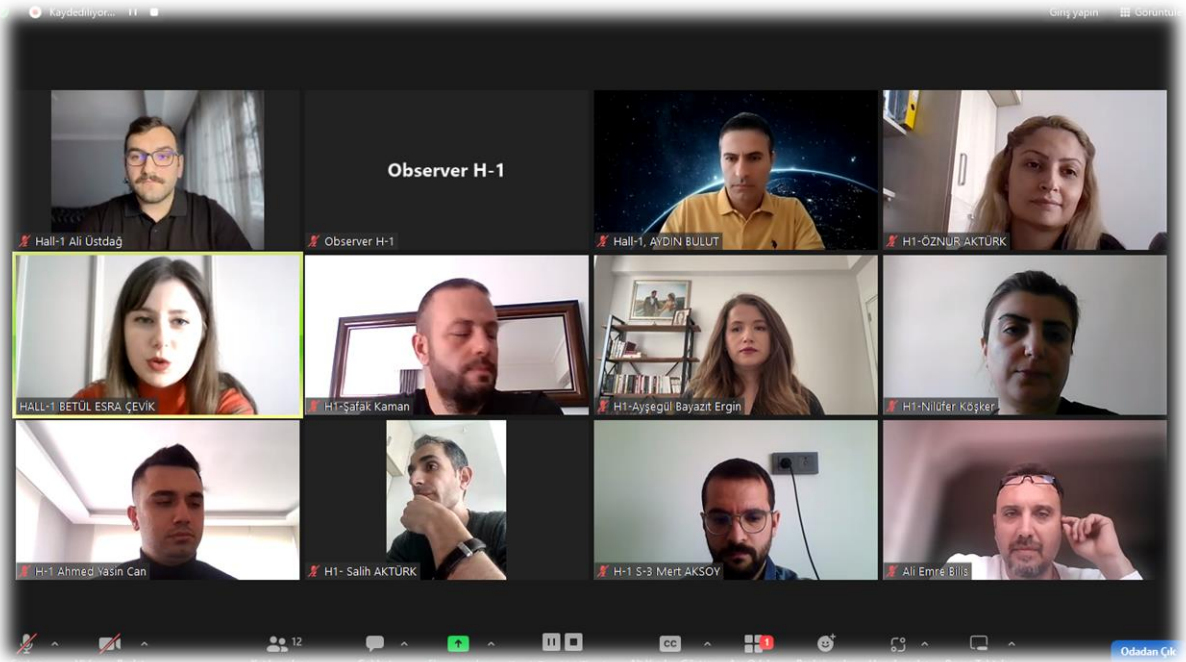
H1-Nilüfer Köşker

H-1 Ahmed Yaşın Can

H1- Salih AKTÜRK

H-1 S-3 Mert AKSOY

Ali Emre Bilsiz



# PHOTO GALLERY



Kayıtlıyorkun...

CA CANCER J CLIN 2016;66:7-30

## Cancer Statistics, 2016

Rebecca L. Siegel, MPH<sup>1</sup>; Kimberlv D. Miller, MPH<sup>2</sup>; Ahmedin Jemal, DVM, PhD<sup>3</sup>

### Estimated New Cases

			Males	Females		
Prostate	180,890	21%			Breast	246,000
Lung & bronchus	117,920	14%			Lung & bronchus	106,000
Colon & rectum	70,820	8%			Colon & rectum	63,000
Urinary bladder	58,950	7%			Uterine corpus	60,000
Melanoma of the skin	46,870	6%			Thyroid	49,000
Non-Hodgkin lymphoma	40,170	5%			Non-Hodgkin lymphoma	32,000
Kidney & renal pelvis	39,650	5%			Melanoma of the skin	29,000
Oral cavity & pharynx	34,780	4%			Leukemia	26,000
Leukemia	34,090	4%			Pancreas	25,000
Liver & intrahepatic bile duct	28,410	3%			Kidney & renal pelvis	23,000
<b>All Sites</b>	<b>841,390</b>	<b>100%</b>			<b>All Sites</b>	<b>843,820</b>

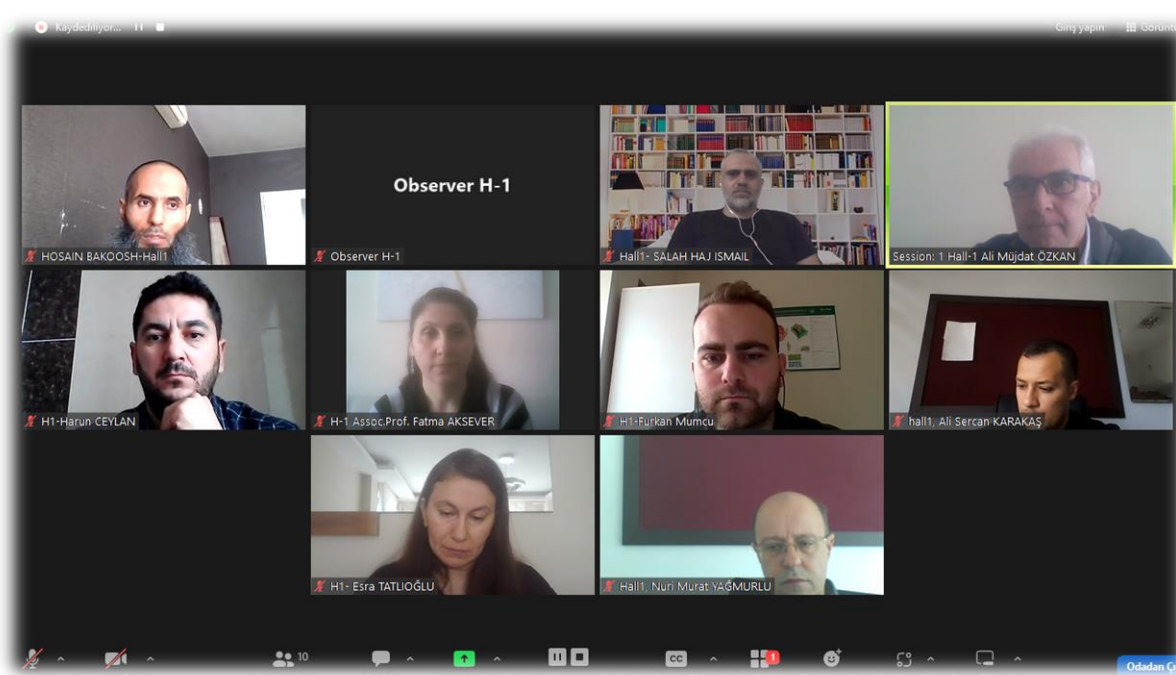
Observer H-1



Kayıtlıyorkun... 11

Görüş yapın

Observer H-1



Observer H-1

HOSAIN BAKOOSH:Hall1

Observer H-1

Hall11- SALAH HAJ ISMAIL

Session: 1 Hall-1 Ali Müjdat ÖZKAN

H1-Harun CEYLAN

H-1 Assoc.Prof. Fatma AKSEVER

H1-Furkan Mumcu

hall1, Ali Sercah KARAKAŞ

H1-Esra TATLIOĞLU

Hall11 Nuri Murat YAĞMURLU

10

Outdan Çık



# PHOTO GALLERY

Kaydediliyor... 11 Giriş yapın Görüntüle

## Deneyel Çalışmalar

### Numune Hazırlanması

- Belirlenen optimum su muhtevasında numune hazırlanarak, 3 tabaka halinde şekilde gör... kullanılarak sıkıştırılıp yerleştirilmiştir.
- Deneyde boy uzunluğu çapının iki katı olacak şekilde silindirik örnekler hazırlanmıştır.



Sesi aç Videoyu Başlat Katılımcılar 8 Sohbet Ekranı paylaş Kaydı Duraklat/Durdur Alt Yazıları Göster Ara Odalar Reaksiyonlar Uygulamalar Beyaz Tahtalar Odadan Çık

Kaydediliyor... 11 Giriş yapın Görüntüle

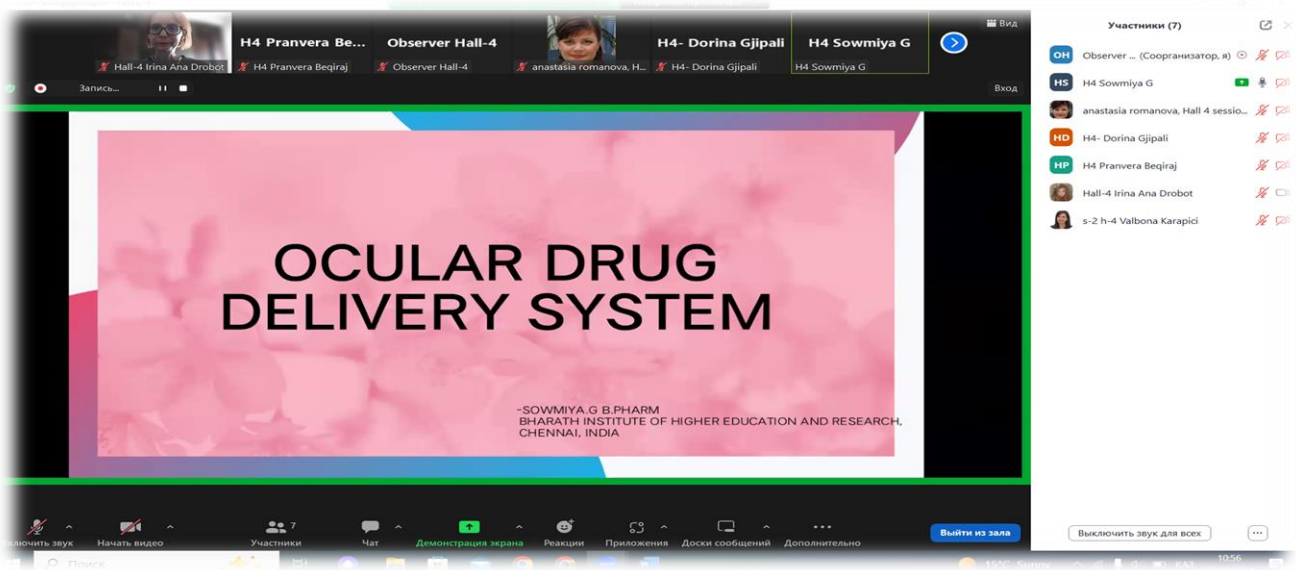
## Observer Hall 2



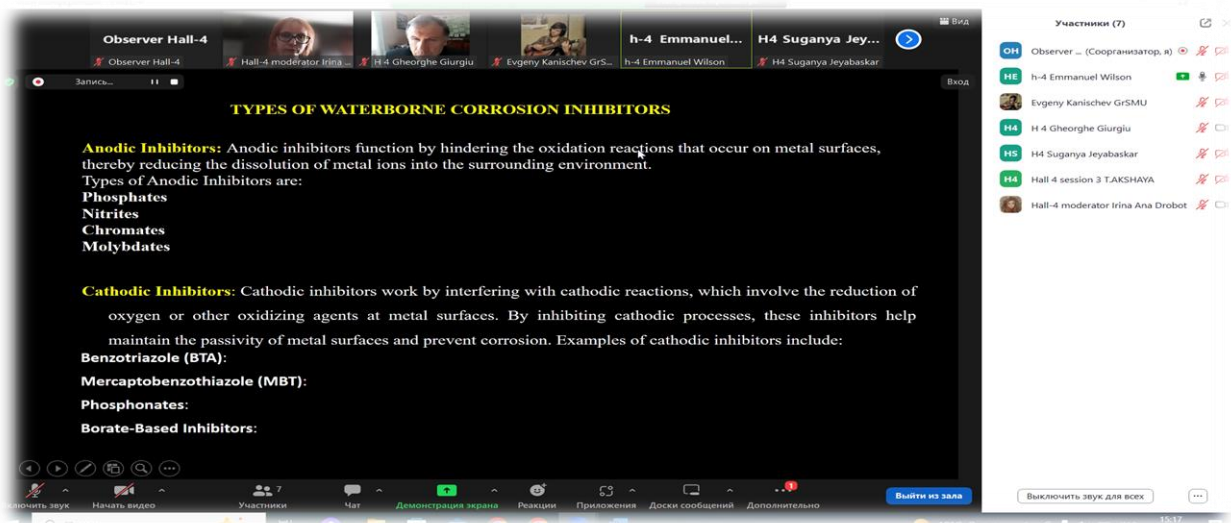
Sesi aç Videoyu Başlat Katılımcılar 8 Sohbet Ekranı paylaş Kaydı Duraklat/Durdur Alt Yazıları Göster Ara Odalar Reaksiyonlar Uygulamalar Beyaz Tahtalar Odadan Çık

15°C Güneşli 10:11

# PHOTO GALLERY



# PHOTO GALLERY



# PHOTO GALLERY





# 10<sup>th</sup> INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SCIENTIFIC RESEARCH CONFERENCE

*April 7-9, 2024  
Samsun, Türkiye*

## CONGRESS PROGRAM

**Zoom Meeting ID: 858 1117 0419**  
**Zoom Passcode: 070809**

<https://us02web.zoom.us/j/85811170419?pwd=OGlyR2M3cXdXeFdwa2hrZC9rOEJxQT09>

### Participant Countries (27):

TÜRKİYE, SERBIA, INDIA, PAKISTAN, ALGERIA, KAZAKHSTAN, UZBEKISTAN, NIGERIA, AZERBAIJAN, ALBANIA, MOROCCO, ROMANIA, IRAN, BELARUS, MOLDOVA, GEORGIA, BULGARIA, NORTHERN MACEDONIA, BANGLADESH, ITALY, BENIN, CHINA, BOSNIA AND HERZEGOVINA, OMAN, SAUDI ARABIA, FIJI, INDONESIA

**ÖNEMLİ, DİKKATLE OKUYUNUZ LÜTFEN / IMPORTANT, PLEASE READ CAREFULLY**

**Önemli, Dikkatle Okuyunuz Lütfen**

- ✓ Kongremizde Yazım Kurallarına uygun gönderilmiş ve bilim kurulundan geçen bildirimler için online (video konferans sistemi üzerinden) sunum imkanı sağlanmıştır.
- ✓ Online sunum yapabilmek için <https://zoom.us/join> sitesi üzerinden giriş yaparak “Meeting ID or Personal Link Name” yerine ID numarasını girerek oturuma katılabilirsiniz.
- ✓ Zoom uygulaması ücretsizdir ve hesap oluşturmaya gerek yoktur.
- ✓ Zoom uygulaması kaydolmadan kullanılabilir.
- ✓ Uygulama tablet, telefon ve PC’lerde çalışıyor.
- ✓ Her oturumdaki sunucular, sunum saatinden 15 dk öncesinde oturuma bağlanmış olmaları gerekmektedir.
- ✓ Tüm kongre katılımcıları canlı bağlanarak tüm oturumları dinleyebilir.
- ✓ Moderatör – oturumdaki sunum ve bilimsel tartışma (soru-cevap) kısmından sorumludur.

**Dikkat Edilmesi Gerekenler- TEKNİK BİLGİLER**

- ✓ Bilgisayarınızda mikrofon olduğuna ve çalıştığına emin olun.
- ✓ Zoom’da ekran paylaşma özelliğine kullanabilmelisiniz.
- ✓ Kabul edilen bildiri sahiplerinin mail adreslerine Zoom uygulamasında oluşturduğumuz oturuma ait ID numarası gönderilecektir.
- ✓ **Katılım belgeleri kongre sonunda tarafınıza pdf olarak gönderilecektir**
- ✓ Kongre programında yer ve saat değişikliği gibi talepler dikkate alınmayacaktır

**IMPORTANT, PLEASE READ CAREFULLY**

- ✓ To be able to attend a meeting online, login via <https://zoom.us/join> site, enter ID “Meeting ID or Personal Link Name” and solidify the session.
- ✓ The Zoom application is free and no need to create an account.
- ✓ The Zoom application can be used without registration.
- ✓ The application works on tablets, phones and PCs.
- ✓ 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.
- ✓ Moderator is responsible for the presentation and scientific discussion (question-answer) section of the session.

**Points to Take into Consideration - TECHNICAL INFORMATION**

- ✓ Make sure your computer has a microphone and is working.
- ✓ 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.**
- ✓ Requests such as change of place and time will not be taken into consideration in the congress program.

**Before you login to Zoom please indicate your name\_surname and HALL number,  
exp. Hall-1, Merve KIDIRYUZ**

07.04.2024 | HALL-1 | SESSION-1



Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Res. Assist. Dr. Semih Latif İPEK

Title	Author(s)	Affiliation
ANALYSIS OF OBESITY USING MACHINE LEARNING TECHNIQUES	Res. Assist. Dr. Semih Latif İPEK	Adana Alparslan Türkeş Science and Technology University TÜRKİYE
CALORIE BURN PREDICTION USING FEEDFORWARD NEURAL NETWORK	Res. Assist. Dr. Semih Latif İPEK	Adana Alparslan Türkeş Science and Technology University TÜRKİYE
GENES RELATED TO MTOR SIGNALING PATHWAY AND BIOINFORMATICS APPROACH TO CANCER ETIOPATHOGENESIS	M.Sc. Stu. Elif ORHAN Assoc. Prof. Dr. Hayriye SENTURK ÇİFTÇİ	Istanbul University TÜRKİYE
INVESTIGATION OF THE EFFICIENCY OF ADDITIVE MATERIALS USED IN SEWAGE SLUDGE COMPOSTING	İşıl TEKTEN Prof. Dr. Nurdan Gamze TURAN	Ondokuz Mayıs University TÜRKİYE
EVALUATION OF BIOSORBENT TYPES AND THEIR EFFICIENCIES USED IN HEAVY METAL REMOVAL FROM CONTAMINATED ENVIRONMENT	İşıl TEKTEN Prof. Dr. Nurdan Gamze TURAN	Ondokuz Mayıs University TÜRKİYE
CRITICAL RAW MATERIALS (CHM), IS THE FAVOURITE OF GLOBAL TRADE, OR CRITICAL FOR THE HEALTH OF ECOSYSTEMS?	Prof. Dr. Nüket SİVRİ Assist. Prof. Dr. Ceyhun AKARSU Dr. V. Zülal SÖNMEZ	İstanbul University-Cerrahpaşa TÜRKİYE İstanbul University-Cerrahpaşa TÜRKİYE Düzce University TÜRKİYE
REMOVAL OF MICROPLASTICS: TECHNOLOGICAL APPROACHES AND SUSTAINABLE STRATEGIES	Prof. Dr. Nüket SİVRİ Assist. Prof. Dr. Ceyhun AKARSU Dr. V. Zülal SÖNMEZ	İstanbul University-Cerrahpaşa TÜRKİYE İstanbul University-Cerrahpaşa TÜRKİYE Düzce University TÜRKİYE
EFFECT OF FORMALDEHYDE ON STUDENTS IN THE ANATOMY LABORATORY IN 2023-2024: SYSTEMATIC REVIEW	Esin ERBEK Assoc. Prof. Dr. Güneş BOLATLI Fatma MUTLU ÇAMLI	Necmettin Erbakan University TÜRKİYE Yalova University TÜRKİYE Tokat Gaziosmanpaşa University TÜRKİYE
RESEARCH CONDUCTED ON ONLINE ANATOMY EDUCATIONIN TURKEY IN 2020: SYSTEMATIC REVIEW	Fatma MUTLU ÇAMLI Esin ERBEK Assoc. Prof. Dr. Güneş BOLATLI	Tokat Gaziosmanpaşa University TÜRKİYE Necmettin Erbakan University TÜRKİYE Yalova University TÜRKİYE

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07.04.2024 | HALL-2 | SESSION-1



Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Prof. Dr. Nilgün GÜNEROĞLU

Title	Author(s)	Affiliation
LANDSCAPE VALUE OF PSEUDOMAQUIS PLANTS IN THE zEASTERN BLACK SEA REGION	Prof. Dr. Nilgün GÜNEROĞLU Arc. Emine Hilal DEMİR SOY	Karadeniz Technical University TÜRKİYE
COASTAL RECREATION; THE CASE OF KARADENİZ TECHNICAL UNIVERSITY SOCIAL FACILITIES	Prof. Dr. Nilgün GÜNEROĞLU Res. Assist. Demet Ülkü GÜLPINAR SEKBAN Arc. Serra GENÇ	Karadeniz Technical University TÜRKİYE
EVALUATING THE COASTAL EFFECT IN USERS' PREFERENCE FOR CITIES	Assist. Prof. Dr. Makbulenur ONUR Res. Assist. Demet Ülkü GÜLPINAR SEKBAN	Karadeniz Technical University TÜRKİYE
THE IMPACT OF DIFFERENT COASTAL DESIGNS AND USES ON THE CITY SCALE	Assist. Prof. Dr. Makbulenur ONUR Res. Assist. Demet Ülkü GÜLPINAR SEKBAN	Karadeniz Technical University TÜRKİYE
PASSIVE COOLING SYSTEMS IN THE ARCHITECTURE OF LIBYAN DESERT	Arch. Yousef ALHAMALİ Prof. Dr. Salah HAJISMAİL	Ankara Yildirim Beyazit University TÜRKİYE
A CASE STUDY OF SOME RIVER CORRIDORS CONNECTING WITH THE BLACK SEA	Prof. Dr. Banu BEKÇİ Dr. Banu GÜVENÇ YAZICILAR Arc. Ayça MAVİ	Recep Tayyip Erdoğan University TÜRKİYE Independent Researcher Rize TÜRKİYE Recep Tayyip Erdoğan University TÜRKİYE
EXAMINATION OF RİZE TEA HOUSE CONCEPT IN THE CONCEPT OF NATIONAL GARDEN	Prof. Dr. Banu BEKÇİ Dr. Banu GÜVENÇ YAZICILAR Arc. Ayça MAVİ	Recep Tayyip Erdoğan University TÜRKİYE Independent Researcher Rize TÜRKİYE Recep Tayyip Erdoğan University TÜRKİYE

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**07.04.2024 | HALL-3 | SESSION-1**



**Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Dr. Ali OĞUL / Dr. Ali Alper SOLMAZ**

Title	Author(s)	Affiliation
ACUTE PANCREATITIS DUE TO DABRAFENIB AND TRAMETINIB TREATMENT: CASE REPORT AND LITERATURE REVIEW IN A PATIENT WITH BRAF MUTATION POSITIVE METASTATIC MELANOMA	Dr. Ali OĞUL Dr. Ali Alper SOLMAZ	Health Sciences University, Adana City Training and Research Hospital, Medical Oncology Clinic, Adana TÜRKİYE
USE OF TRABECTEDIN IN SOFT TISSUE SARCOMAS: SINGLE CENTER EXPERIENCE	Dr. Ali OĞUL Dr. Ali Alper SOLMAZ	Health Sciences University, Adana City Training and Research Hospital, Medical Oncology Clinic, Adana TÜRKİYE
MOLECULAR ELUCIDATION OF THE ROLE OF INFLAMMATORY RESPONSES IN CARCINOGENESIS AND ITS PROGRESSION	Arzu SAĞLAM Dr. Khandakar A.S.M. Saadat	Gaziantep University TÜRKİYE
MINI REVIEW ON HYDROGELS AND THEIR MEDICAL APPLICATIONS	Nurettin TARKAN Assoc. Prof. Dr. Şeyda TAŞAR Assoc. Prof. Dr. Melek YILGIN	Fırat University TÜRKİYE
IMPACT OF ENERGY CONSUMPTION ON ECOLOGICAL FOOTPRINT: AN EMPIRICAL ANALYSIS ON TURKEY	Ahmet Yılmaz ATA Tuğçe DALLI	Kahramanmaraş Sütçü İmam University TÜRKİYE
HOW DOES PSORIASIS AFFECT CAROTID ARTERY INTIMA-MEDIA THICKNESS AND OCULAR VASCULAR FLOW? A COMPARATIVE ULTRASONOGRAPHIC INVESTIGATION	Dr. Özgür ÇAKICI Dr. Ahmad KUNBAZ	Goztepe Prof. Dr. Süleyman Yalçın City Hospital, Istanbul TÜRKİYE Istanbul Medeniyet University TÜRKİYE
EFFECTS OF THE USE OF ANTIAGREGANTS AND ANTICOAGULANTS IN ROBOT-ASSISTED LAPAROSCOPIC RADICAL PROSTATECTOMY ON THE AMOUNT OF PERIOPERATIVE BLEEDING	Exp. Dr. Turgay KAÇAN	Ankara Bilkent City Hospital TÜRKİYE
FORENSIC MEDICAL EVALUATION OF FORENSIC CASES AUTOPSIED AFTER ORGAN AND TISSUE TRANSPLANTATION	Assoc. Prof. Dr. Hüseyin Çetin KETENCİ	Recep Tayyip Erdoğan University TÜRKİYE
THE ROLE OF URIC ACID ALBUMIN RATIO IN PREDICTING CORONARY ARTERY BYPASS GRAFT IN PATIENTS UNDERGOING CORONARY ANGIOGRAPHY	Dr. Murat ÖZMEN	Erzurum City Hospital TÜRKİYE

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**07.04.2024 | HALL-4 | SESSION-1**



**Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Prof. Dr. Radoslav BALTEZAREVIĆ**

<b>Title</b>	<b>Author(s)</b>	<b>Affiliation</b>
CORRUPTION AS A BARRIER TO INTERNATIONAL TRADE	Prof. Dr. Radoslav BALTEZAREVIĆ	Institute of International Politics and Economics, Belgrade, SERBIA
GLOBAL ECONOMIC EFFECTS OF FAKE NEWS	Prof. Dr. Radoslav BALTEZAREVIĆ	Institute of International Politics and Economics, Belgrade, SERBIA
THE INTERPRETATION OF DIVERSE SOURCES IN CONTEMPORARY JURISPRUDENCE: A CONFIDENT APPROACH TO ANALYZING LEGAL COMPLEXITY	Dorina GJIPALI	Aleksandër Moisiu University ALBANIA
EXTENSION OF EU POWERS AFTER THE RATIFICATION OF THE TREATIES: IMPACT OF ARTICLE 352 OF THE TFEU ON NATIONAL PARLIAMENTS	Pranvera BEQIRAJ	Aleksandër Moisiu University ALBANIA
THE CONCEPT OF "PARLIAMENTARY SOVEREIGNTY" AS A CONSTITUTIONAL PRINCIPLE IN THE UNITED KINGDOM	Pranvera BEQIRAJ	Aleksandër Moisiu University ALBANIA
THE RELATIONSHIP BETWEEN VIEWER AND PERSIAN PICTORIAL RUGS	Irina-Ana DROBOT	Technical University of Civil Engineering Bucharest ROMANIA
OLFACTORY LANDSCAPE IN MIRCEA ELIADE'S NOVELS	Assoc. Prof. Anastasia ROMANOVA	The Academy of Economic Studies of Moldova Chisinau MOLDOVA
OCULAR DRUG DELIVERY SYSTEMS - AN OVERVIEW	Sowmiya.G M.K. Vijayalakshmi Dr. R. Srinivasan	Bharath Institute of Higher Education and Research INDIA
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**07.04.2024 | HALL-5 | SESSION-1**



**Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Assoc. Prof. Hristina Runcheva Tasev**

Title	Author(s)	Affiliation
HARMONY OR DISSONANCE: INVESTIGATING PERCEIVED FIT IN BRAND EXTENSIONS FOR CONSUMER PERCEPTION AND BRAND EQUITY	Mohit Nitika	Maharshi Dayanand University INDIA
ENHANCING ARABIC CHARACTER RECOGNITION VIA FEATURE ENGINEERING AND PSO	Sarra Rouabhi Redouane Tlemsani Adda Ali Pacha	Université des Sciences et de la Technologie d'Oran Mohamed Boudiaf ALGERIA
HOME BACKGROUND, CONDUCT DISORDER AND ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS IN FCT ABUJA	Mansur Shehu Diffang, Abel Dayo Mohammed, Hauwa Maijidda	Abuja University NIGERIA Abuja University NIGERIA Isa Kaita College of Education NIGERIA
IPQA AND QUALITY CONTROL - AN OVERVIEW	K.Dhanusha M.K.Vijayalakshmi Dr. R.Srinivasan	Bharath Institute of Higher Education and Research INDIA
HEALTHY LIFESTYLE AND EATING AMONG ADOLESCENTS FROM PLOVDIV, BULGARIA	Gergana Petrova Elena Merdzhanova Valentina Lalova	Plovdiv Medical University BULGARIA
ONLINE MEDIA IN NORTH MACEDONIA: LEGAL FRAMEWORK, CHALLENGES AND PERSPECTIVES	Assoc. Prof. Hristina Runcheva Tasev	Ss Cyril and Methodius University Skopje NORTHERN MACEDONIA
PRIORITIZING EMPLOYEE WELL-BEING: INSIGHTS FROM THE MALAYSIAN WORKPLACE	Shahida Mansor Mohd Hakimi Md Baharudin Mazlina Muhamad Nurul Izzah Ramli Farah Nabila Yacob Dr. Rasheedul Haque	MAHSA University MALAYSIA Malaysia University of Technology MALAYSIA MAHSA University MALAYSIA MAHSA University MALAYSIA MAHSA University MALAYSIA MAHSA University MALAYSIA
RELATIONSHIP BETWEEN ACADEMIC STRESS AND ACADEMIC PERFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS IN KATSINA STATE, NORTH WEST NIGERIA	Mohammed, Hauwa Maijidda Mansur Shehu Diffang, Abel Dayo	Isa Kaita College of Education NIGERIA

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**07.04.2024 | HALL-6 | SESSION-1**



**Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Prof. PhD. Habil. Cristina Raluca Gh. Popescu**

Title	Author(s)	Affiliation
CLIMATE JUSTICE: PERCEPTION OF FACULTIES IN PUBLIC UNIVERSITIES OF BANGLADESH	Mahedi Hasan Sourav Mosarrat Murshed Maisha	Shahjalal University BANGLADESH
RENEWABLE ENERGY INDUSTRY: BENEFITS FOR ECONOMIC GROWTH	Prof. PhD. Habil. Cristina Raluca Gh. Popescu Emeritus Prof. PhD. Gheorghe N. Popescu	Bucharest University ROMANIA
LEVERAGING STEMMING TECHNIQUES FOR SENTIMENT ANALYSIS IN ARABIC TEXT	Khadidja BELBACHIR Redouane TLEMSANI	Oran Mohamed University of Science and Technology ALGERIA
THE SIGNIFICANCE OF INCORPORATING BLENDED LEARNING MODEL INTO EARLY CHILDHOOD EDUCATION TRADITIONAL APPROACH FOR BETTER COGNITIVE DEVELOPMENT AMONG THE CHILDREN IN NORTH WEST NIGERIA	Diffang, Abel Dayo Mansur Shehu Mohammed, Hauwa Maijidda	Abuja University NIGERIA Abuja University NIGERIA Isa Kaita College of Education NIGERIA
ONLINE PLATFORM UTILIZATION ON LEARNING CONDUCT OF PRESCHOOL STUDENT-TEACHERS IN KADUNA STATE COLLEGE OF EDUCATION, NIGERIA	TANKO, LINUS ABDULLAHI MOHAMMED MICAH MUSA	Abuja University NIGERIA Isa Kaita College of Education NIGERIA Kaduna State College Of Education NIGERIA Kaduna State College Of Education NIGERIA
EXPLORING EMPLOYEE TURNOVER INTENTION IN PRIVATE ORGANISATION IN MALASIA	Okeke Lordwilliams Ikenna Dr. Rasheedul Haque DR. ABDUL RAHMAN BIN S SENATHIRAJA FAKIR MOHAMED BIN OMAR DIN	MAHSA University MALAYSIA
MAPPING THE LANDSCAPE OF WORKPLACE BULLYING	Assist. Prof. Dr. Rosy Dhall Res. Assist. Mikul	Gandhinagar University INDIA Maharshi Dayanand University INDIA
MENTORSHIP'S EFFECT TOWARDS EMPLOYEE PERFORMANCE ON EDUCATION SECTOR AT MALAYSIA	Afiqah Amira Abdul Wahab Mazlina Muhamad Dr. Rasheedul Haque	MAHSA University MALAYSIA

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07.04.2024 | HALL-1 | SESSION-2



Ankara Local Time: 12<sup>30</sup>-14<sup>30</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Res. Assist. Dr. Betül Esra ÇEVİK

Title	Author(s)	Affiliation
INVESTIGATION OF THE EFFECT OF MATERIAL USE IN PRIMARY SCHOOL 4TH GRADE TURKISH COURSE ON STUDENTS' COURSE MOTIVATION ACCORDING TO VARIOUS VARIABLES	Öznur AKTÜRK Assoc. Prof. Dr. Hatice VATANSEVER BAYRAKTAR	Istanbul Sabahattin Zaim University TÜRKİYE
INVESTIGATION OF PROSPECTIVE TEACHERS' ATTITUDES TOWARDS DIGITAL AND PAPER READING	Şafak KAMAN Aydın BULUT	Kastamonu University TÜRKİYE
THE RELATIONSHIP BETWEEN DIGITAL GAME ADDICTION, READING MOTIVATION AND COMPREHENSION LEVELS OF 4TH GRADE STUDENTS	Aydın BULUT Şafak KAMAN	Kastamonu University TÜRKİYE
COMPARISON OF 2013 PRESCHOOL EDUCATION PROGRAM AND 2024 PRESCHOOL EDUCATION PROGRAM	Ayşegül BAYAZIT ERGİN Assoc. Prof. Dr. Abdullah ÇETİN	Ministry of Education, Kahramanmaraş TÜRKİYE Kahramanmaraş Sütçü İmam University TÜRKİYE
INVESTIGATION OF TEACHERS' PERCEPTIONS OF PARTICIPATORY DECISION MAKING ACCORDING TO VARIOUS VARIABLES	Salih AKTÜRK	Istanbul Sabahattin Zaim University TÜRKİYE
REALITY IN CINEMA FROM THE PERSPECTIVE OF PSYCHOANALYTICAL THEORY: THE EXAMPLE OF HANEKE'S FILM BENNY'S VIDEO	Ali ÜSTAĞ Assoc. Prof. Dr. Ali Emre BİLİS	Çanakkale Onsekiz Mart University TÜRKİYE
REVIEW OF GRADUATE THESES THAT EVALUATES THE PROBLEMS EXPERIENCED BY CAREGIVERS DURING HOME VISITS TO THE CAREGIVERS OF ELDERLY INDIVIDUALS IN TURKEY	Res. Assist. Dr. Betül Esra ÇEVİK	Sivas Cumhuriyet University TÜRKİYE
SOCIAL CRITICISM FROM THE PERSPECTIVE OF THE HERO IN TURKISH COMEDY CINEMA	Pınar Özgökbel BİLİS Assoc. Prof. Dr. Ali Emre BİLİS	Çanakkale Onsekiz Mart University TÜRKİYE
ANALYSIS OF SECONDARY SCHOOL STUDENTS' LEVELS OF POSSESSING BASIC DEMOCRATIC VALUES	Ahmed Yasin CAN Assoc. Prof. Dr. Nilüfer KÖŞKER	Kırıkkale University TÜRKİYE Kırıkkale University TÜRKİYE

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07.04.2024 | HALL-2 | SESSION-2



Ankara Local Time: 12<sup>30</sup>-14<sup>30</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Assoc. Prof. Dr. Tijen ÖVER ÖZÇELİK

Title	Author(s)	Affiliation
CONJUGATE NATURAL HEAT TRANSFER IN THICK WALLED VERTICAL PIPES	Ali CEVİZ Olivier Mukongo MPUKUTA Ali ATEŞ Şefik BİLİR	Konya Technical University TÜRKİYE Konya Technical University TÜRKİYE Sinop University Konya Technical University TÜRKİYE
INVESTIGATION OF TRANSIENT CONJUGATE NANOFUID HEAT TRANSFER IN PIPES WITH TWO-PHASE APPROACH	Olivier Mukongo MPUKUTA Ali CEVİZ Ali ATEŞ Şefik BİLİR	Konya Technical University TÜRKİYE Konya Technical University TÜRKİYE Sinop University Konya Technical University TÜRKİYE
MODELLING PERFORMANCE AND COST ANALYSES OF A HEAT PUMP	Hakan ÜÇOK Assoc. Prof. Dr. Candeniz SEÇKİN	Institute of Pure and Applied Sciences TÜRKİYE Marmara University TÜRKİYE
RECENT DEVELOPMENTS ON A FILAMENT EXTRUDER MACHINES FOR 3D PRINTING: A REVIEW	Res. Assist. Abdulkadir ÇEBİ Assist. Prof. Dr. Hasan DEMİRTAŞ Assist. Prof. Dr. Çağın BOLAT	Samsun University TÜRKİYE
INTRODUCTION AND INVESTIGATION OF THE APPLICATION POTENTIAL OF GREYWATER TREATMENT UNIT WITH INNOVATIVE NATURAL VACUUM TECHNIQUE USING PELTIER MODULES	Betül SARAÇ Teoman AYHAN Cevdet DEMİRTAŞ	Karadeniz Technical University TÜRKİYE Independent Researcher TÜRKİYE Karadeniz Technical University TÜRKİYE
LANDING SYSTEM DESIGN AND ITS STATIC INVESTIGATION BY FINITE ELEMENT METHOD FOR ROTARY WING UNMANNED AERIAL VEHICLE IN HEXACOPTER STRUCTURE	Muhammet Aydın METİN Assist. Prof. Dr. Kenan ŞENTÜRK	Istanbul Gelişim University TÜRKİYE
CLUSTERING OF ERRORS DETECTED IN QUALITY CONTROL USING TEXT MINING	Assoc. Prof. Dr. Tijen ÖVER ÖZÇELİK Stu. Tahsin Emir KAZDAL	Sakarya University TÜRKİYE
PROCESS IMPROVEMENT WITH LEAN MANUFACTURING APPROACH IN AN AUTOMOTIVE SUBSIDIARY BUSINESS	Assoc. Prof. Dr. Tijen ÖVER ÖZÇELİK Stu. Nisan ÖZEL	Sakarya University TÜRKİYE

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07.04.2024 | HALL-3 | SESSION-2



Ankara Local Time: 12<sup>30</sup>-14<sup>30</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Prof. Dr. Ahmet Niyazi ÖZKER

Title	Author(s)	Affiliation
COMPETENCY ASSESSMENT IN DIGITAL RELATIONS: A CONTENT ANALYSIS DIRECTED ON TR42 REGION MUNICIPALITIES	Prof. Dr. Hasan TUTAR İlayda UZUN	Bolu Abant İzzet Baysal University TÜRKİYE
A REVIEW ON PROBLEM AREAS OF DIGITAL TRANSFORMATION AND ENVIRONMENTAL SUSTAINABILITY	Prof. Dr. Hasan TUTAR İlayda UZUN	Bolu Abant İzzet Baysal University TÜRKİYE
THE CONCEPT OF NEW MODEL ENTREPRENEURSHIP: START-UP	Alp Eren EROL Assist. Prof. Dr. Filiz SİVASLIOĞLU	Istanbul Gelişim University TÜRKİYE
THE SHARE OF THE SERVICE SECTOR IN THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND EMPLOYMENT IN KAZAKHSTAN	Dr. Hilal PAKSOY	Ministry of National Education, Konya TÜRKİYE
STRUCTURAL ANALYSIS OF EMPLOYMENT IN THE SERVICE SECTOR: KAZAKHSTAN EXAMPLE	Dr. Hilal PAKSOY	Ministry of National Education, Konya TÜRKİYE
THE RELATIONSHIP BETWEEN HUMAN DEVELOPMENT INDEX AND INNOVATION IN TURKEY: 1990-2020	Res. Assist. Önder BALCI	Kafkas University TÜRKİYE
INTERNATIONAL NATURE OF THE FISCAL DISCIPLINE PROBLEM AND CURRENT PROBLEMS IN TURKEY'S FISCAL INTEGRATION	Prof. Dr. Ahmet Niyazi ÖZKER	Bandırma Onyediy Eylül University TÜRKİYE

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**07.04.2024 | HALL-4 | SESSION-2**



**Ankara Local Time: 12<sup>30</sup>-14<sup>30</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Dr. Ditjona KULE**

Title	Author(s)	Affiliation
POLITICAL MISCONCEPTIONS ASSOCIATED WITH INVESTIGATIVE JOURNALISM IN NIGERIA	Musa Alhassan Aliyu Dalha Kankia	Ahmadu Bello University NIGERIA
STRENGTHENING BILATERAL TIES: EXPLORING THE POLITICAL DIMENSIONS OF INDIA-UAE RELATIONS	Ms. Anima Puri Assist. Prof. Dr. Dr. Vishal Sagar	Manav Rachna International Institute of Research and Studies INDIA
MARGINAL PRICING IN THE ERA OF ENERGY TRANSITION	Valbona KARAPICI Olsi KARAPICI	Tirana University ALBANIA Politechnic University ALBANIA
STUDENTS' ADJUSTMENT AND THEIR ACADEMIC PERFORMANCE IN SENIOR SECONDARY SCHOOLS IN KWARA STATE, NIGERIA	ZUBAIR, Taiye Hassan TANKO, Linus ARAOTI, Oladele Abubakar	Abuja University NIGERIA
THE DIGITAL TWIN REVOLUTION IN HEALTHCARE	J NADHIYA K SNEGA MK VIJAYALAKSHMI	Bharath Institute of Higher Education and Research INDIA
EVALUATING THE INFLUENCE OF GREEN PUBLIC PROCUREMENT POLICIES ON SUSTAINABLE DEVELOPMENT IN THE WESTERN BALKANS : A COMPARATIVE ASSESSMENT	Dr. Ditjona KULE Irisi BELERAJ	Tirana University ALBANIA
INFORMATION AND COMMUNICATION TECHNOLOGIES AS A TOOL FOR AWARENESS: THE BLACK SEA AND THE AFRICAN CONTINENT	Dr. Ahmed Abubakar Dr. Musa Alhassan Bishir Bala	Ahmadu Bello University NIGERIA
PROFESSIONAL TRAINING AND EMPLOYMENT OF PERSONS WITH DISABILITIES AS A FORM OF THE SOCIAL MODEL IN APPROACHING DISABILITY	Gordana DUKIĆ Ana-Marija ILIĆ Nikola DUKIĆ	Independent University of Banja Luka BOSNIA AND HERZEGOVINA University of Business Studies BOSNIA AND HERZEGOVINA Public Institution Home for Persons with Disabilities Prijeedor BOSNIA AND HERZEGOVINA
THERMAL STABILITY IN THE DIELECTRIC PROPERTIES OF 0.5BaTiO <sub>3</sub> -0.5Bi <sub>1-x</sub> Nax (Mg <sup>2/3</sup> Nb <sup>1/3</sup> ) <sub>1-x</sub> NbxO <sub>3</sub> SOLID SOLUTION	Asif Ali Dr. Raz Muhammad	Abdul Wali Khan University Mardan PAKISTAN
DIELECTRIC, FERROELECTRIC AND OPTICAL PROPERTIES OF NA AND NB CO-DOPED (Bi <sub>0.5</sub> Na <sub>0.5</sub> ) <sub>0.94</sub> Ba <sub>0.06</sub> TiO <sub>3</sub>	Asif Ali Hina Zahid	Abdul Wali Khan University Mardan PAKISTAN

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**07.04.2024 | HALL-5 | SESSION-2**



**Ankara Local Time: 12<sup>30</sup>-14<sup>30</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Prof. Afaq Ahmad / Dr. Samir Al Busaidi**

Title	Author(s)	Affiliation
CYBERSECURITY AND LINEAR FEEDBACK SHIFT REGISTER	Prof. Afaq Ahmad Dr. Samir Al Busaidi	Sultan Qaboos University OMAN
PSYCHO-SOCIAL FACTORS AS DETERMINANTS OF TRUANCY AMONG STUDENTS WITH HEARING IMPAIRMENT IN THE IBADAN METROPOLIS, OYO STATE, NIGERIA	ISAIAH, O.O, Ph.D	Ibadan University NIGERIA
MAKING THE VALUE OF VOLUNTEER INVOLVEMENT A REALITY. CASE STUDY	Denisa Abrudan Ph.D. Alexandru Meca Cristina Pop Roxana Precup Aurelia Elena Denisa Angheloni	West University of Timisoara ROMANIA
A PHILOSOPHICAL DISCOURSE ON ARCHITECTURE AS A MIRROR OF CULTURE	Olubanjo-Olufowobi, Olufunso	Mountain Top University NIGERIA
EMPOWERING MSME AS A DRIVER OF ECONOMIC GROWTH AND IMPROVING ECONOMIC'S WELFARE ( Case Study of MSME in Kajen Subdistrict)	Marshell Bahreiza Dana Putra	UIN K.H. Abdurrahman Wahid Pekalongan University INDONESIA
EASTERN PHILOSOPHY OF TAOISM AS A NEW PATH FOR WORLD EDUCATION	Balsamus Pieter Dwiwasa Noldianto Marianus Lasterman Bernadetha Nadeak	Christian University INDONESIA
THE IMPACT OF SCARCITY OF SUBSIDIZED FERTILIZER ON FARMERS' INCOME AND PRODUCTION IN THE RICE FIELDS OF ROWOLAKU KAJEN VILLAGE, PEKALONGAN REGENCY	Zahrotun Nafisah	UIN K.H. Abdurrahman Wahid Pekalongan University INDONESIA
SUSTAINABLE DEVELOPMENT OF TOURISM DESTINATIONS (CASE STUDY: DEWA DEWI BEACH, BATANG REGENCY)	Shoraya Jauhariyah	UIN K.H. Abdurrahman Wahid Pekalongan University INDONESIA

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**07.04.2024 | HALL-6 | SESSION-2**



**Ankara Local Time: 12<sup>30</sup>-14<sup>30</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Dr. Ivan PAVLOVIC**

Title	Author(s)	Affiliation
PERFORMANCE ANALYSIS OF SOLAR AIR HEATER WITH PROTRUSIONS AS ARTIFICIAL ROUGHNESS	Himanshu GUPTA Er. Pahulpreet SINGH Dr. Harminder SINGH Dr. Harjeet SINGH Dr. Surendra Singh YADAV	Guru Nanak Dev University INDIA
EFFECTS OF NUTRACEUTICALS AS SUPPLEMENTARY TREATMENT FOR CHRONIC KIDNEY DISEASE: AN OBSERVATIONAL STUDY IN LAHORE, PAKISTAN	Dr. Rizwana Raheel Prof. Dr. Humaira Majeed Khan Dr. Ali Sharif Dr. Lubna Shakir	Hajvery University PAKISTAN
IDENTIFICATION OF ACETYLCHOLINESTERASE INHIBITORS AS NEW CANDIDATES FOR ALZHEIMER DISEASE VIA VIRTUAL SCREENING AND MOLECULAR DYNAMICS SIMULATION	Hind Yassmine Chennai Salah Belaidi Lotfi Bourouga Mebarka Ouassaf	Biskra University ALGERIA
DYNAMICS OF AMMONIA SYNTHESIS FROM INDUSTRIAL REACTORS: A GAZE TOWARDS PRODUCTION DIVERSITY	Aniekan Essienubong Ikpe Emmanuel Okon Wilson Enefiok Okon Usungurua	Akwa Ibom State Polytechnic NIGERIA
INTERMEDIATE HOSTS OF PROTOSTRONGYLUS Sp. OF SHEEP IN SPREAD BELGRADE AREA	Dr. Ivan PAVLOVIC Prof. Dr. Jovan BOJKOVSKI Dr. Aleksandra TASIĆ Dr. Marija PAVLOVIC Dr. Violeta CARO PETROVIC Dr. Nemanja ZDRAVKOVIĆ	Scientific Institute of Veterinary Medicine of Serbia, SERBIA Belgrade University SERBIA Scientific Institute of Veterinary Medicine of Serbia, SERBIA Scientific Institute of Veterinary Medicine of Serbia, SERBIA Institute for Animal Husbandry, Belgrade-Zemun SERBIA Scientific Institute of Veterinary Medicine of Serbia, SERBIA
EXPLORING THE INTERPLAY OF SEDENTARY LIFESTYLE, DIETARY CHOICES, OBESITY, AND TYPE 2 DIABETES	Ayesha Ghias Aisha Ghulam Mustafa M. Huzaiifa Ali Mishal Shoaib Dar Fareeha Nawab	Hajvery University PAKISTAN
A REVIEW ON KIDNEY STONE FORMATION AND ITS MANAGEMENT IN INDIA	Suneel Kumar Dr. Dashrath Singh	Mangalayatan University INDIA Krishna Pharmacy College INDIA
EVALUATION OF ANTIARTHRITIC ACTIVITY OF CORIANDRUM SATIVUM L. SEEDS IN VITRO	Mohammed CHEURFA Abdallah NOUI Hadjer CHEKKAL Assala BOUZIANE	University of Djillali Bounaama-Khemis Miliana ALGERIA University Center of Tipaza ALGERIA

		University of Djillali Bounaama-Khemis Miliana ALGERIA University of Djillali Bounaama-Khemis Miliana ALGERIA
INHIBITION ACTIVITY OF TRIAZOLES AS A NEW FAMILY FOR THE INHIBITION OF THE INDOLEAMINE 2,3-DIOXYGENASE 1 IDO1 PROTEIN USING 2D-QSAR APPROACH	Khadija ZAKI Abdelouahid SBAI Hamid MAGHAT Mohammed BOUACHRINE Tahar LAKHLIFI	Moulay Ismail University MOROCCO

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07.04.2024 | HALL-1 | SESSION-3



Ankara Local Time: 15<sup>00</sup>-17<sup>00</sup>

Meeting ID: **858 1117 0419** / Passcode: **070809**

Moderator: **Assoc. Prof. Dr. Hulusi ALP**

Title	Author(s)	Affiliation
BIBLIOMETRIC ANALYSIS OF THESESES THEMED 'TEMPORAMANDIBULAR JOINT (TMJ)' IN THE FIELD OF PHYSIOTHERAPY AND REHABILITATION	Mert AKSOY Assist. Prof. Dr. Zekiye İpek KATIRCI KIRMACI	Gaziantep Islam Science and Technology University TÜRKİYE
CAN HANDGRIP STRENGTH ASSESSED IN DIFFERENT POSITIONS BE USED TO PREDICT STRENGTH DYSFUNCTION OF PATIENTS WHO UNDERWENT BREAST CANCER SURGERY?	Lect. Dr. Alper TUĞRAL Prof. Dr. Yeşim BAKAR	İzmir Bakırçay University TÜRKİYE
INTER-RATER AND TEST-REPLAY RELIABILITY OF THE CLOSED KINETIC CHAIN MODE MEASUREMENT OF JOINT POSITION SENSE OF ELBOW FLEXION	Gülfem Ezgi ÖZALTIN Dilan DEMİRTAŞ KARAOBA Havva ADLI	İnönü University TÜRKİYE
ANALYSIS OF GRADUATE THESIS RELATED TO VESTIBULAR REHABILITATION IN THE FIELD OF PHYSIOTHERAPY AND REHABILITATION	Gülfem Ezgi ÖZALTIN Havva ADLI Dilan DEMİRTAŞ KARAOBA	İnönü University TÜRKİYE
EXAMINING THE INTEREST AREAS OF STUDENTS STUDYING AT THE FACULTY OF SPORTS SCIENCES ACCORDING TO MULTIPLE INTELLIGENCE THEORY	Burak NEMLİ Assoc. Prof. Dr. Hulusi ALP	Süleyman Demirel University TÜRKİYE
INVESTIGATION OF THE SELF-EFFICACY OF FOOTBALL COACHES	Hasan TAŞKIRAN Assoc. Prof. Dr. Hulusi ALP	Süleyman Demirel University TÜRKİYE

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**07.04.2024 | HALL-2 | SESSION-3**



**Ankara Local Time: 15<sup>00</sup>-17<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Assoc. Prof. Dr. Erdem SARIKAYA**

Title	Author(s)	Affiliation
TAX COLLECTION METHODS IN THE TIMAR SYSTEM APPLIED IN THE OTTOMAN PROVINCIAL ORGANIZATION	Assoc. Prof. Demet KARASU	Izmir Bakırçay University TÜRKİYE
THE USE OF PROMPT ENGINEERING TECHNIQUES IN THE GENERATION OF EXAM QUESTIONS RELATED TO THE TABAL REGION	Res. Assist. Efecan ANAZ	Ankara University TÜRKİYE
CAUSES OF DISEASE IN ANCIENT MESOPOTAMIA	Robab AALIZADEH Bülent DİRİ	Tehran University of Medical Sciences IRAN Ondokuz Mayıs University TÜRKİYE
VERB CONSTRUCTION AFFIXES IN SUHEYL U NEV-BAHÂR	Hami AKMAN	Van Yüzüncü Yıl University TÜRKİYE
LOVE POEM OR SUMMARY OF A GARÎB-NÂME	Assoc. Prof. Dr. Erdem SARIKAYA	Yozgat Bozok University TÜRKİYE
USE OF HADITH IN POLITICAL CONFLICTS AND ITS IMPACT VALUE	Assoc. Prof. Dr. Veli ABA İdris ARIKAN	Kahramanmaraş Sütçü İmam University TÜRKİYE
THE NEW BLACK SEA GEOPOLITICS	Assoc. Prof. Dr. Ali Bilgin VARLIK	İstanbul Arel University TÜRKİYE

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07.04.2024 | HALL-3 | SESSION-3



Ankara Local Time: 15<sup>00</sup>-17<sup>00</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Prof. Dr. Aytekin DEMİRCİOĞLU / Prof. Dr. Beyhan ZABUN

Title	Author(s)	Affiliation
MANDALA ART THERAPY AND ITS USE IN HEALTH	Assist. Prof. Dr. Hatice DEMİRAĞ Lect. Dilan AKTEPE COŞAR Prof. Dr. Sevilay HİNTİSTAN	Gümüşhane University TÜRKİYE Gümüşhane University TÜRKİYE Karadeniz Technical University TÜRKİYE
INNOVATIVE APPROACHES IN NURSING CARE	Lect. Dilan AKTEPE COŞAR Assist. Prof. Dr. Hatice DEMİRAĞ Nuray BİNGÖL	Gümüşhane University TÜRKİYE Gümüşhane University TÜRKİYE Atatürk University TÜRKİYE
THE PROBLEM OF PHILOSOPHY'S CATCHING UP WITH THE AGE IN RUSSELL	Sibel ATMACA Assoc. Prof. Dr. Ali Suat GÖZCÜ	Ondokuz Mayıs University TÜRKİYE
ANALYSIS OF SOCIOLOGY QUESTIONS IN THE BOOK OF PHILOSOPHY QUESTIONS FOR HIGH SCHOOL CLASSES DATED 1935	Prof. Dr. Aytekin DEMİRCİOĞLU Prof. Dr. Beyhan ZABUN	Kastamonu University TÜRKİYE Gazi University TÜRKİYE
ANALYSIS OF MORAL QUESTIONS IN THE BOOK OF PHILOSOPHY QUESTIONS FOR HIGH SCHOOL CLASSES DATED 1935	Prof. Dr. Aytekin DEMİRCİOĞLU Prof. Dr. Beyhan ZABUN	Kastamonu University TÜRKİYE Gazi University TÜRKİYE
THE ROLE OF PSYCHOLOGICAL AND SOCIAL FACTORS IN HEALTH DECISIONS: BEHAVIORAL ECONOMICS PERSPECTIVE	Şerife ZOBU Assoc. Prof. Dr. Nadide Sevil TÜLÜCE	Kayseri University TÜRKİYE
POSSIBLE EFFECTS OF DIGITAL TRANSFORMATION ON HEALTH COSTS IN HEALTH INSTITUTIONS	Şerife ZOBU Assoc. Prof. Dr. Ahmet TERZİ	Kayseri University TÜRKİYE

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**07.04.2024 | HALL-4 | SESSION-3**



**Ankara Local Time: 15<sup>00</sup>-17<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Irina-Ana DROBOT**

Title	Author(s)	Affiliation
SIMILARITIES BETWEEN NEVER LET ME GO BY KAZUO ISHIGURO AND FIVE FEET APART BY RACHAEL LIPPINCOTT	Irina-Ana DROBOT	Technical University of Civil Engineering Bucharest ROMANIA
OPINIONS OF MEDICAL UNIVERSITY STUDENTS ABOUT ALTERNATIVE METHODS OF TREATING ONCOLOGICAL DISEASES	Assoc. Prof. Vladimir Vdovichenko Assoc. Prof. Aliaksandr Karavai Artiom Kopytich Evgeny Kanishchev Boris Tarasyuk Galina Bronskaya	Grodno State Medical University BELARUS
WATERBORNE CORROSION PREVENTIVE COATINGS AS SUSTAINABLE CORROSION INHIBITOR ALTERNATIVES IN THE OIL AND GAS INDUSTRY	Wilson, Emmanuel Okon Olaleye, Olukayode Olusegun Ogunsola Taiwo M. Oladoyin Abiodun Emmanuel	Akwa Ibom State Polytechnic NIGERIA Maritime Academy of NIGERIA Maritime Academy of NIGERIA Maritime Academy of NIGERIA
A A REVIEW ON GENE EDITING TECHNIQUES AND ITS ETHICAL IMPLICATIONS	Rajesh Kumar.G Suganya J Ashwanth	Govt. Kilpauk Medical College INDIA
ROLE OF NANOROBOTICS IN HEALTHCARE	Priyanshi Goyal	Mangalayatan University INDIA
NEUROPLASTICITY AND MENTAL HEALTH	T.AKSHAYA Prof. M.K. VIJAYALAKSHMI	Bharath Institute of Higher Education and Research INDIA
GUT DYSBIOSIS IN DOGS WITH SPINAL CORD INJURY: IMPACT OF POLENOPLASMIN	Major Gheorghe GIURGIU Prof. Dr. Med. Manole COJOCARU	Deniplant-Aide Sante Medical Center ROMANIA Titu Maiorescu University ROMANIA
FOOD SECURITY AND THE POLITICS OF E-WALLET AGRICULTURAL INPUT DISTRIBUTION IN NIGERIA	Aliyu Dalha Kankia Musa Alhassan	Ahmadu Bello University NIGERIA
IN-SILICO STUDY OF 4-AMINOQUINOLINE DERIVATIVES AS ANTIMALARIAL AGENTS	Mohamed OUABANE Khadija ZAKI Chakib SEKKATE Abdelouahid SBAl Tahar LAKHLIFI Mohammed BOUACHRINE	Moulay Ismail University MOROCCO
IMPACT OF MAGNETIC FIELD ON NATURAL CONVECTION IN A SQUARE CAVITY FILLED WITH Fe <sub>3</sub> O <sub>4</sub> NANOPARTICLES USING THE LATTICE BOLTZMANN METHOD	Ighris Youness Qaffou Mohsine Baliti Jamal Elguennouni Youssef Hssikou Mohamed	University Sultan Moulay Slimane MOROCCO Moulay Ismail University MOROCCO

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**07.04.2024 | HALL-5 | SESSION-3**



**Ankara Local Time: 15<sup>00</sup>-17<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Favour C. Uroko**

Title	Author(s)	Affiliation
MONTE-CARLO MODELLING APPROACH FOR PREDICTING THE AQUATIC TOXICITY OF VARIOUS ORGANIC CHEMICALS FOR REGULATORY TOXICOLOGY	Mohamed OUABANE Khadija ZAKI Chakib SEKKATE Abdelouahid SBAI Tahar LAKHLIFI Mohammed BOUACHRINE	Moulay Ismail University MOROCCO
DENSITY FUNCTIONAL THEORY INVESTIGATION OF REGIOSELECTIVITY IN 1,3- IPOLAR CYCLOADDITION: 2-AZIDO-N-(4-DIAZENYLPHENYL) ACETAMIDE WITH TERMINAL ALKYNE	Khadija Zaki Abdelouahid Sbai Hamid Maghat Mohammed Bouachrine Tahar LAKHLIFI	Moulay Ismail University MOROCCO
SLEEP DEPRIVATION AND METABOLIC CROSSROADS: NAVIGATING THE BIDIRECTIONAL LINKS BETWEEN INSUFFICIENT REST, CIRCADIAN RHYTHMS, AND DIABETES MELLITUS	Otari Chankseliani Teimuraz Tchikhorria	Tbilisi State Medical University GEORGIA
CHEMICAL ANALYSIS OF NEEEM GUM FROM SELECTED NEEEM TREE BARKS (AZADIRACHTA INDICA) IN KAZAURE, NIGERIA	Fowotade, Sulayman. A. Haruna Abubakar D. Ahmad Fadhila Sunusi Saleh K. Suleiman Zainab J. Murtala Yau. D. Hussain Umar A.	Hussaini Adamu Federal Polytechnic NIGERIA
NAVIGATING THE COMPLEXITIES OF STAPHYLOCOCCUS AUREUS PATHOGENESIS: FROM VIRULENCE FACTORS TO ANTIBIOTIC RESISTANCE	ROSSI Manal OUMOKHTAR Bouchra	Sidi Mohamed Ben Abdellah University MOROCCO
AN ALGORITHM FOR SOLVING INTEGRAL EQUATIONS USING POWER SERIES AND SHIFTED CHEBYSHEV POLYNOMIALS BASED ON NUMERICAL COLLOCATIONS	Ayinde A. M. Azeez Q. A. Adeniji A. O. Umar M. O. Aliyu H. B. Lamidi B. B.	Abuja University NIGERIA Abuja University NIGERIA Abuja University NIGERIA Abuja University NIGERIA Modibbo Adama University NIGERIA Abuja University NIGERIA
MATHEMATICAL APPLICATIONS IN MEDICAL SCIENCE: MATHEMATICAL APPLICATIONS IN EPIDEMIOLOGICAL ANALYSIS AND DISEASE CONTROL	R.J.Vishal Suganthi P, Meena M	R.M.K. Engineering College INDIA
REVIEW PAPER-EFFECT OF DIFFERENT TYPES OF COARSE AGGREGATE ON CONCRETE	Nadagouda Kalyani	G. Pulla Reddy Engineering College INDIA
SCIENCE, CHRISTIANITY AND EXPECTANT MOTHERS IN NIGERIA	Favour C. Uroko	Nigeria Nsukka University NIGERIA

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**07.04.2024 | HALL-6 | SESSION-3**



**Ankara Local Time: 15<sup>00</sup>-17<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Assoc. Prof. Dr. Daniel T. Yokossi**

Title	Author(s)	Affiliation
BIOPHYSICAL MODELLING OF THE NEUROTENSIN RECEPTORS NTS2 IN RATTUS NORVEGICUS AND MUS MUSCULUS	Andrey Popatanasov Ilza Pujeva Luybka Tancheva Reni Kalfin	Bulgarian Academy of Sciences BULGARIA
PHARMACOLOGICAL IMPORTANCE OF CLITORIA TERNATEA-A REVIEW	T.Aswini S.Ravi Kumar M.K.Vijayalakshmi	Bharath Institute of Higher Education and Research INDIA
ASSESSMENT OF POTENTIAL DRUG-DRUG INTERACTION AMONG HOSPITALIZED CORONARY ARTERY DISEASE PATIENTS IN DHQ TEACHING HOSPITAL KOHAT	Yousaf Zaman Imran Rabbani Fawad Ali Majeed Ullah	Kohat University PAKISTAN
SOLID-STATE FABRICATION OF 3D Bi <sub>24</sub> O <sub>31</sub> Br <sub>10</sub> SHEET-LIKE WITH ENHANCED VISIBLE-LIGHT PHOTOCATALYTIC ACTIVITY	L. Mllaoy S. Bikerchalen B. Akhsassi B. Bakiz S. Villain F. Guinneton A. Benlhachemi	Ibn Zohr University MOROCCO
APPROXIMATE METHODS OF SOLVING INTEGRAL EQUATIONS WITH POWER SERIES AND TOUCHARD POLYNOMIALS	Ayinde A. M. Ezekiel A. M. Ahmed O. L. Abdulrahman H. Umar M. O. Belgore K. A.	Abuja University NIGERIA Abuja University NIGERIA Baze University NIGERIA Federal School of Surveying, Oyo NIGERIA Abuja University NIGERIA Abuja University NIGERIA
ASSESSMENT OF HAZARDS RELATED TO GLINT/GLARE REFLECTION AND ELECTROMAGNETIC INTERFERENCE FROM SOLAR PANEL INSTALLATIONS AT AIRPORTS: A CASE STUDY FROM A BLACK SEA COUNTRY	Assoc. Prof. Dr. Kreshnik VUKATANA MSc. Marius BACI	Tirana University ALBANIA
A SYSTEMIC APPRAISAL OF THEMATIC PROGRESSIONS IN ADICHIE'S THE THING AROUND YOUR NECK	Assoc. Prof. Dr. Daniel T. Yokossi Ekoutano Lucien Sossou	Abomey-Calavi University BENIN
THE RISE OF ANTIBIOTIC RESISTANCE AND THE SEARCH FOR NEW TREATMENT	K SNEGA J NADHIYA MK VIJAYALAKSHMI	Bharath Institute of Higher Education and Research INDIA
AN EXPONENTIATED EXTENSION OF THE JCA-TYPE EXPONENTIAL PROBABILITY DISTRIBUTION WITH PROPERTIES AND APPLICATIONS	Tehmina Naz Prof. Dr. Abdus Saboor	Kohat University PAKISTAN
MEDICINAL VALUES OF SENNA AURICULATA – A REVIEW	S.Ravi Kumar T.Aswini M.K.Vijayalakshmi	Bharath Institute of Higher Education and Research INDIA

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08.04.2024 | HALL-1 | SESSION-1



Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Assoc. Prof. Dr. Ali Müjdat ÖZKAN

Title	Author(s)	Affiliation
PETROGRAPHIC CHARACTERISTICS OF THE DEDEBELENI FORMATION CARBONATES IN THE HADİM (KONYA, TÜRKİYE) AREA	Assoc. Prof. Dr. Ali Müjdat ÖZKAN	Konya Technical University TÜRKİYE
DEPOSITIONAL CONDITIONS AND REDOX-SENSITIVE ELEMENT GEOCHEMISTRY OF THE CİHANDERE CARBONATES IN THE HADİM (KONYA, TÜRKİYE) AREA	Assoc. Prof. Dr. Ali Müjdat ÖZKAN	Konya Technical University TÜRKİYE
HYDROGEOLOGICAL CHARACTERISTICS OF TOKAT PLAIN ALLUVIAL AQUIFER	Ayşen DAVRAZ Fatma AKSEVER	Süleyman Demirel University TÜRKİYE
EFFECT OF INDUSTRIAL WASTES AND TITANIUM DIOXIDE ON THE STRENGTH OF CL SOIL	Assist. Prof. Dr. Esra TATLIOĞLU	Niğde Ömer Halisdemir University TÜRKİYE
DEVELOPMENT OF A DRIFT-BASED METHOD FOR DETERMINING THE TYPES OF DAMAGE IN EXISTING REINFORCED CONCRETE STRUCTURAL ELEMENTS	Lect. Dr. Harun CEYLAN Assoc. Prof. Dr. Barış ERDİL Prof. Dr. Abdulhalim KARAŞIN	Van Yüzüncü Yıl University TÜRKİYE
INVESTIGATE CONSTRUCTION TECHNIQUES AND BUILDING MATERIALS OF TRADITIONAL DWELLINGS AS A STRATEGY FOR ATTAINING SUSTAINABLE BUILDING IN GHARYAN AND GHADAMES, LIBYA	Hosain BAKOOSH Prof. Dr. Salah HajIsmail	Ankara Yıldırım Beyazıt University TÜRKİYE
EXPERIMENTAL INVESTIGATION OF THE EFFECT OF DISCHARGE RATES ON CELL TEMPERATURES IN LI-ION BATTERIES WITH DIFFERENT CAPACITIES	Murathan ÖLMEZ Res. Assist. Furkan MUMCU Assoc. Prof. Dr. Bilal SUNGUR Assoc. Prof. Dr. Alırza KALELİ	Samsun University TÜRKİYE
AN APPLICATION OF CUBIC HERMITE COLLOCATION FINITE ELEMENT METHOD ON A MODEL PROBLEM	Prof. Dr. Selçuk KUTLUAY Prof. Dr. Nuri Murat YAĞMURLU Ali Sercan KARAKAŞ	İnönü University TÜRKİYE

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**08.04.2024 | HALL-2 | SESSION-1**



**Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Dr. Maria Pia Ester CRISTALDI**

Title	Author(s)	Affiliation
BECOMING TURKISH: THE FIGURE OF MEVLANA JALALUDDIN RUMI BETWEEN NATIONALISATION AND POPULAR CULTURE	Dr. Maria Pia Ester CRISTALDI Dr. Angelo Francesco CARLUCCI	Üsküdar University TÜRKİYE Independent Researcher Cosenza, ITALY
OBLIGATION TO CONDUCT AN EFFECTIVE INVESTIGATION AND PROSECUTOR'S AUTHORITY TO EVALUATE EVIDENCE	Res. Assist. Elif ILDIRAR	KTO Karatay University TÜRKİYE
HARMONY OF FORM AND CONTENT IIN GRAPHIC DESIGN	Assist. Prof. Muhammed Emin ALBAYRAK	Istanbul Ticaret University TÜRKİYE
TÜRKİYE-EGYPT RELATIONS IN THE MORSI PERIOD AFTER THE ARAB SPRING	Yusuf SAYAR	Kapadokya University TÜRKİYE
ANALYSIS AND EVALUATION OF THE IMPACT OF SUSTAINABLE DEVELOPMENT OF GREEN FINANCE APPLICATIONS IN THE REPUBLIC OF AZERBAIJAN	Nihad Gurbanzada Ruslan Memmedov Aysan Farajova	Azerbaijan Technical University AZERBAIJAN
THE PHILOSOPHICAL HERITAGE OF ABULKASIM QUSHAYRI	Davronbek KODIROV	Bukhara State University UZBEKISTAN

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08.04.2024 | HALL-3 | SESSION-1



Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Assoc. Prof. Dr. Ayça AKTAŞ KARAÇELİK

Title	Author(s)	Affiliation
EVALUATION OF PHENOLIC COMPOUNDS AND BIOLOGICAL ACTIVITIES OF FRESH FRUIT MORUS NIGRA L. EXTRACTS	Assoc. Prof. Dr. Ayça AKTAŞ KARAÇELİK	Giresun University TÜRKİYE
MOLECULAR DYNAMICS STUDY ON GRAPHENE-BASED NANOMATERIALS AS SMART NANOCARRIERS FOR RAPAMYCIN ANTICANCER DRUG	Nour MOUSTIRI Prof. Dr. Mehdi Partovi MERAN	Üsküdar University TÜRKİYE
DETERMINATION OF ADSORPTION CAPACITY OF ÇANAKKALE ÇAN THERMAL POWER PLANT FLUE GAS TREATMENT WASTE AND CHARACTERIZATION OF THE WASTE: COMPARISON WITH MAGNETIC ACTIVATED CARBON	Sena EREN Semanur SAĞLAM Dr. Feride N. TÜRK Assoc. Prof. Dr. Hasan ARSLANOĞLU	Canakkale Onsekiz Mart University TÜRKİYE
ETHICS AND TRANSPARENCY IN MEAT PRODUCTS	Sultan KARAHAN Assist. Prof. Dr. Azize ATİK	Çiftçiler Oil Industry and Trade Co. Ltd. Afyonkarahisar TÜRKİYE Afyon Kocatepe University TÜRKİYE
PHYSIOLOGICAL EFFECTS OF ROYAL JELLY AS A FUNCTIONAL FOOD	İbrahim YAVUZ Hatice Gözde HOSTA YAVUZ	Akdeniz University TÜRKİYE
EVALUATION OF THE GEOGRAPHICAL INDICATION GASTRONOMIC PRODUCTS OF THE PROVINCES OF THE BLACK SEA COAST OF TURKEY	Dr. Zeynep BAKKALOĞLU Assoc. Prof. Dr. Mehmet Akif ŞEN	Erzincan Binali Yıldırım University TÜRKİYE Sakarya Applied Sciences University TÜRKİYE

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08.04.2024 | HALL-4 | SESSION-1



Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>

Meeting ID: 858 1117 0419 / Passcode: 070809

Moderator: Prof. Dr. Yılmaz KALKAN / Prof. Dr. Naci GENÇ

Title	Author(s)	Affiliation
DETERMINATION OF GRAIN SIZE DISTRIBUTION AND TOXIC METAL CONTENTS IN CURRENT COASTAL SEDIMENTS OF SOUTHEASTERN BLACK SEA; CASE STUDY OF YOMRA-ARSIN	Assoc. Prof. Dr. Koray ÖZSEKER Prof. Dr. Coşkun ERÜZ Dr. Tolga COŞKUN Bilal ONMAZ	Karadeniz Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE Middle East Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE
DETERMINING USER SATISFACTION ON THE BEACHES OF THE SOUTHERN BLACK SEA	Prof. Dr. Nilgün GÜNEROĞLU Prof. Dr. Abdulaziz GÜNEROĞLU Assoc. Prof. Dr. Mustafa DİHKAN Assoc. Prof. Dr. Derya SARI Harun ÜNAL	Karadeniz Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE Artvin Çoruh University TÜRKİYE Karadeniz Technical University TÜRKİYE
LONG TERM CHANGES IN LANDSCAPE PATTERN OF THE SOUTHERN BLACK SEA BLUE FLAG BEACHES	Prof. Dr. Abdulaziz GÜNEROĞLU Prof. Dr. Nilgün GÜNEROĞLU Assoc. Prof. Dr. Mustafa DİHKAN Assoc. Prof. Dr. Derya SARI Emine Hilal DEMİRSOY	Karadeniz Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE Artvin Çoruh University TÜRKİYE Karadeniz Technical University TÜRKİYE
THE STRONG CORRELATION BETWEEN MAGNETIC AND STRUCTURAL PROPERTIES OF MAGNETIC THIN FILMS	Perihan AKSU	Gebze Technical University TÜRKİYE
OVERVIEW OF WEB CONTROL SYSTEMS AS DATA LINK TO LOW-ALTITUDE UAV SYSTEMS WITH LOAD BALANCING AND FAILOVER	Shahriyar GULIYEV	Nakhchivan State University AZERBAIJAN
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08.04.2024 | HALL-5 | SESSION-1



Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>

Meeting ID: **858 1117 0419** / Passcode: **070809**

Moderator: **Assist. Prof. Dr. Manolya SAĞLAM**

Title	Author(s)	Affiliation
IS METALINGUISTIC NEGATION A SUBTYPE OF POLEMIC NEGATION?	Dr. Gülden PAMUKCU	Burdur Mehmet Akif Ersoy University TÜRKİYE
A QUALITATIVE INVESTIGATION ON ATTITUDES OF PRE-SERVICE ELT TEACHERS' TOWARDS USING DRAMA METHOD IN TEFL CLASSES	Assist. Prof. Dr. Manolya SAĞLAM	Biruni University TÜRKİYE
PRE-SERVICE ENGLISH AS A FOREIGN LANGUAGE (EFL) TEACHERS' THOUGHTS AND FEELINGS ON USING DRAMA GAMES IN LANGUAGE CLASSES	Assist. Prof. Dr. Manolya SAĞLAM	Biruni University TÜRKİYE
THE PRINCIPLES OF REDUNDANCY AND ECONOMY OF WORDS IN THE AZERBAIJANI, TURKISH AND ENGLISH LANGUAGES	Gulshan MAHARRAMOVA	Azerbaijan University of Languages AZERBAIJAN
HOMOGRAPHS FORMED ACCORDING TO THE GRAPHICS IN THE PERSIAN DIVAN OF MUHAMMAD FUZULI	Assoc. Prof. Dr. Əsmət xanım MƏMMƏDOVA	Baku State University AZERBAIJAN
PEDAGOGICAL TECHNOLOGIES AND SUBCOMPONENTS IN MODERN EDUCATION	Allahverdi QULİYEV Gunay KAZİMOVA	Ganja State University AZERBAIJAN
M.A. RASULZADE AND HIS LOVE FOR AZERBAIJAN	Svetlana MƏMMƏDOVA	Azerbaijan State Pedagogical University AZERBAIJAN

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**08.04.2024 | HALL-6 | SESSION-1**



**Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Bogdan-Catalin SERBAN**

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ROOM-TEMPERATURE DETECTION OF SF 6 DECOMPOSITION BYPRODUCTS USING A G-C3N4@SNO2-ZNO COMPOSITE SENSOR	Luqman Ali Liping Zhu	Zhejiang University CHINA
A SAGA OF EMOTIONAL INTELLIGENCE IN HR: A LITERATURE REVIEW	Priya Rani Dr. Sherry Manjeet Malik	Maharshi Dayanand University INDIA
HIGH-FREQUENCY EMC STUDY OF ELECTRICAL MACHINES	Mohammed Hamza Bermaki Houcine Miloudi Mohamed Miloudi Abdelkader Gourbi	Djilali Liabes University ALGERIA Djilali Liabes University ALGERIA Ahmed Zabana University ALGERIA Ahmed Zabana University ALGERIA
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RESVERATROL- HEALTH EFFECTS: PROS AND CONS	Bogdan-Catalin SERBAN Octavian BUIU Marius BUMBAC Cristina-Mihaela NICOLESCU Vlad DIACONESCU	National Institute for Research and Development in Microtechnologies-IMT ROMANIA National Institute for Research and Development in Microtechnologies-IMT ROMANIA Valahia University ROMANIA Valahia University ROMANIA University of Medicine and Pharmacy 'Carol Davila' ROMANIA
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**08.04.2024 | HALL-7 | SESSION-1**



**Ankara Local Time: 10<sup>00</sup>-12<sup>00</sup>**

**Meeting ID: 858 1117 0419 / Passcode: 070809**

**Moderator: Dr. Malihe JAHANI**

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**SIMILARITIES BETWEEN NEVER LET ME GO BY KAZUO ISHIGURO AND  
FIVE FEET APART BY RACHAEL LIPPINCOTT**

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**ABSTRACT**

**Introduction and Purpose:** The novels *Never Let Me Go* by Kazuo Ishiguro and *Five Feet Apart* by Rachael Lippincott draw the readers's attention to similar issues, since the characters in both novels are isolated from what we understand by the real, common world. They do not live a normal life for different reasons, yet we return to the same issues. In Ishiguro's novel, we deal with a group of young persons who are clones, raised to donate healthy organs until they die. In Lippincott's novel, we meet a group of young people who are spending most of their lives in hospital, in treatment for cystic fibrosis.

**Materials and Methods:** By looking at these two novels, we notice a similar state of mind and message: that these young people live their lives intensely, since they know their time in this life is very much limited. We notice in Lippincott's novel, just like in Ishiguro's novel, the way we readers are impressed by the young people's vitality, jokes, honesty and naturalness with which we are introduced to their world. Reader response criticism can make us readers knowledgeable in the history of literature to have flashbacks reading Lippincott's novel from Ishiguro's novel.

**Results:** Falling in love, tight friendships, losing someone dear, emotional support, and willing to go on further are similar elements in the two novels.

**Discussion and Conclusion:** The ephemerality of life and the present moment are stressed in both novels. A striking awareness of these issues is created in both novels.

**Key Words:** Reader Response Criticism; Confessional Mode; Emotional Support; Ephemerality; Youth Culture

## THE RELATIONSHIP BETWEEN VIEWER AND PERSIAN PICTORIAL RUGS

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### ABSTRACT

**Introduction and Purpose:** Persian rugs offer a visible difference between the way we relate to carpets in Persian, Iranian, or Turkish cultures, where carpets are notable cultural products and symbols of heritage, as well as objects of art and beauty, and the way we focus on their utility in Western cultures.

**Materials and Methods:** We may notice various symbols in Persian rugs, such as floral and geometrical patterns, birds, scenes from history, religious stories, myths. The Persian rug can be considered an equivalent for Western culture paintings. Persian pictorial rugs are used like objects of art, being a piece of furniture in themselves, and having a special place kept in the design of a room. Children have their first contact with visual art by sitting on a rug and looking at it. How can we understand the way we interpret scenes on a rug? Do we just look at them, enjoy their aesthetic, or do we try to decode them and read the story? The Persian rugs show how we need beauty for our well-being in this world, as Scruton claims in *Why Beauty Matters*.

**Results:** Beauty can be the source of cultural products. Some cultures turn objects which are seen in their utilitarian aspect in others into art accompanying us in everyday life.

**Discussion and Conclusion:** Art can find its place in our everyday life, due to the fact that it includes an aesthetic experience. It is part of human nature to be creative and enjoy beauty.

**Key Words:** Beauty; Symbols; Emotional Well-Being; Visual Literacy; Stories



## **BIOPHYSICAL MODELLING OF THE NEUROTENSIN RECEPTORS NTS2 IN RATTUS NORVEGICUS AND MUS MUSCULUS**

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### **ABSTRACT**

Year 2023 marks half century since neurotensin was discovered and from the very beginning it became evident its powerful action over the brain and the nervous system to the extent that some researchers thought it may serve as possible panacea for some of the neurologic diseases. Half century later it is clear that the picture of neurotensin neural networks and functions is much more complex than previously thought. In the recent years neurotensin receptor NTS2 (or neurotensin receptor type 2) started to draw researchers' attention as possible target for pain management in yet challenging conditions as chronic pain. However it is known that among the key predispositions for the receptor control and the related drug development is the knowledge of its structure and this is still lacking for the neurotensin receptor NTS2. Therefore as aim for the present study was placed to model and compare the structure of the neurotensin receptor in two common lab animals - *Rattus norvegicus* and *Mus musculus* - with the tools of the computational molecular physics, chemistry and biology.

We analyzed the available protein variants of the receptor and its close relatives which have available structural data and selected the most appropriate ones for the further computations. The resulted receptor models were compared and analyzed and some of the biophysical parameters computed. Comparing the receptors of the both species besides 11 point mutations differ by insert of 31aa present in the mice neurotensin receptor NTS2 which are outside the active binding area of the receptor and both receptors have high level of structural similarity, however further in vivo studies are needed to evaluate more precisely the possible resulting differences in the biological effects between the species.

**Key words:** neurotensin, neurotensin receptor NTS2, molecular modelling, central analgesic, central pain modulator, chronic pain management

## **MAKING THE VALUE OF VOLUNTEER INVOLVEMENT A REALITY. CASE STUDY**

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### **Abstract**

Timisoara, as one of the three European Capitals of Culture (ECoC) in 2023, has been actively fostering volunteer involvement to enrich its cultural landscape.

The city aimed to celebrate cultural excellence, embrace its multicultural environment, and create a lasting impact on the community.

A key role in the success of the Timișoara 2023 European Cultural Capital project was the volunteer program. Friendship, respect, tolerance, and responsibility are the core values incorporated into the mission of being a TM2023 volunteer.

Being a TM2023 volunteer means being, on the one hand, an Explorer who enjoys discovering what's happening behind the scenes and on stage. On the other hand, being an Ambassador of a project through your active participation in events.

This paper presents how Timișoara 2023 Volunteer Department, had set out to create an ecosystem of volunteers that facilitates involvement in the community, offering and developing capacities that involve not only volunteering services for projects or organizations/institutions but also the formation of an urban impact capacity that contributes to the development of the city and the community in a broad sense.

**Key words:** volunteer, cultural project, impact, community

## **EXPLORING EMPLOYEE TURNOVER INTENTION IN PRIVATE ORGANISATION IN MALASIA**

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### **ABSTRACT**

Today, organizations run with various work groups of employees for their results, inventiveness, and outcomes. Even though this is a demonstrated technique, it is understandable that when individuals are united from different climate and encounters struggle will emerge there whenever (Haque & Srivastava, 2014). Struggle happens when individuals' principles, discernment, objectives concerning the result crash into one another (Allesandra & Hunsaker, 1993; DeChurch & Marks, 2001; Haque & Joshi, 2011). Struggle as an intrinsic wonder in people's life emerges as a day-by-day challenge in various organizations (Rajendran & Haque, 2022). Due to the struggle, employees might leave their current work for another organization (Kaur et al., 2022).

Job satisfaction is the satisfaction emerging from the fulfillment that people acquire from their positions (Khalil et al., 2023). This satisfaction prompts people's more prominent job commitment and readiness to play out their undertakings. It brings about employee's work headway just as hierarchical responsibility (Francis et al., 2023). As indicated by the two-factor hypothesis created by Herzberg et al. (1959), there are two components related with employee satisfaction: motivation and hygiene factors. Motivation factors are work related elements, like acknowledgment, accomplishment, a chance of development, progression, obligation, and the actual work (Ahmed et al., 2022). Hygiene factors are known as extra-work factors. For example, pay, relationship with boss, relationship with subordinates, relationship with peers, management, organization strategy and organization, working conditions, status, employer stability, and components in close to home life (Azhari et al., 2022). These components can well clarify a singular's conduct busy working and they are likewise connected with the work inspiration of people (Fei et al., 2024). The higher job satisfaction people have, the more

probable they play out their errand eagerly. A few investigations discovered that job satisfaction hurts turnover expectation (Khalil et al., 2022).

This paper analyzed the relationship between Turnover Intention and Job Satisfaction, Job Stress, Work Engagement, Organizational Commitment (Osman et al., 2022). The review utilized the social trade hypothesis as its hypothetical supporting. Information was gathered through non-likelihood (advantageous inspecting) procedures of 350 clients of worker turnover expectation from private sector (Wangyanwen et al., 2023). Measurable Bundle Sociology (SPSS) programming variant 2.0 was utilized to examine the information. The outcomes recognized Turnover Aim, Job Stress, Work Engagement, Organizational Commitment as significant driver and affected representative turnover intention (Lee et al., 2023). The outcomes have suggestions for relationship directors who use administration assessment and intuitive responsibility as a multidimensional development in anticipating employee turnover goal (Malnaad et al., 2022). The sampling method is a census, with the private sector employees serving as the unit of analysis (Pathmanathan et al., 2022). Using a five-point Likert scale, data were collected via questionnaires issued to employees of private sectors and evaluated (Osman et al., 2024). In the end, the study demonstrates that job satisfaction, job stress and work engagement are directly related to turnover intention, and that organizational commitment acts as a mediator between these factors (Senathirajah et al., 2024). In addition to reporting the study's main findings, this paper elaborates on their significance and proposes avenues for similar research in the future. Excessive work engagement and underpay have been on the high especially for ladies (Wai et al., 2024). This has resulted to putting employees' jobs on the bleeding edge which made some resort to gambling and other side recreations to balance with the low salary from their respective jobs (Yi et al., 2018; Ying et al., 2023).

**Keywords:** Job Satisfaction, Job Stress, Work Engagement, Organizational Commitment, Turnover Intention, Private Sector.

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## **A REVIEW ON KIDNEY STONE FORMATION AND ITS MANAGEMENT IN INDIA**

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### **Abstract**

The two bean-shaped kidneys have a length of about four inches. The kidneys filter waste materials from blood and send extra fluid and waste materials into the ureter. Urine is then used to dispose of the unwanted materials and extra fluid. Kidney stones come in four varieties: kidney stone, urate stone, struvite stone, cystine stone, and calcium stone. It is possible for a little stone to pass without any symptoms. Additionally, vomiting, painful urination, or blood in the urine can all be symptoms of a stone. Three phases make to the full pathophysiology: Hyper saturation of urine, hypocitraturia, and stone formation inhibitors. Kidney stone symptoms are mentioned in these articles: severe back and side discomfort, behind the ribs, discomfort with urinating, Red, brown, or pink pee. Methods for passing kidney stones include drinking more water, avoiding alcohol, using lemon juice, olive oil, and herbal extracts. renal stone diagnosis based on physical examination, radiographic investigations, urine, and history. Drinking plenty of water, thiazide diuretics, citrate, and allopurinol are all beneficial for those with calcium stones who have elevated blood or urine uric acid levels.

Over the India, medicinal plants have been prized for their ability to produce therapeutic substances that can be used to prevent a variety of maladies. Two such plants are *Hibiscus rosa-sinensis* and *Solanum nigrum*. These days, a large portion of the population suffers from urinary calculi and kidney stones. Renal oxalate stones are the most often reported type of stone in India. We include variations in the frequency and incidence of stones, the types and locations of stones, and the methods used for stone removal. The use of medicinal herbs dates back thousands of years; the benefits over produced pharmaceuticals are greater, safer, more societally acceptable, and less harmful. Diets low in fat and high in fibre from plants and herbal remedies are recommended for patients.

**Key words:** Kidney stone, *Hibiscus rosa-sinensis*, *Solanum nigrum*, India

## **MAPPING THE LANDSCAPE OF WORKPLACE BULLYING**

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### **ABSTRACT**

The primary objective of this research was to conduct a comprehensive bibliometric analysis of studies focusing on workplace bullying. We employed a Boolean search strategy on Scopus for the period from 1994 to 2021, identifying a total of 149 relevant documents. Visual patterns within this research domain were depicted using the VosViewer tool. Our analysis indicates that workplace bullying has garnered significant attention in both media reports and academic publications over the past decade. Moreover, our findings suggest that workplace bullying is a widespread issue observed in both developed and developing countries. Leading the way in research publications on this subject are the United States, Australia, and Canada, with this publishing trend expected to persist. It is noteworthy that esteemed journals such as "Journal of Nursing Management," "Work and Stress," "Employee Relations," "Journal of Interpersonal Violence," and "International Journal of Environmental Research and Public Health" consistently feature high-caliber studies on workplace bullying. The most commonly recurring keywords in the abstracts were "workplace bullying," "intention to leave," "harassment," and "bullying." The participants in these studies predominantly include medical students, interns, or residents. Given the statistics, addressing and curbing this form of workplace violence, as well as facilitating the dissemination of relevant information, emerge as crucial imperatives.



**AN EXPONENTIATED EXTENSION OF THE JCA-TYPE EXPONENTIAL  
PROBABILITY DISTRIBUTION WITH PROPERTIES AND APPLICATIONS**

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**ABSTRACT**

The goal of this research is a new two-parameter survival distribution that offers unique features for statistical modeling. First, we point out its probability density and hazard rate functions are highly flexible. In particular, the probability density function may be unimodal with an upside-downform and possibly light left tail, or it might decrease with a heavy right tail. The hazard rate function, on the other hand, can take on any of three monotonic forms: increasing, constant, or decreasing. Several statistical methods, such as the logarithm of likelihood value, Kolmogorov-Smirnov distance, Akaike information criterion, and Bayesian information criteria, have been used to assess the model's adequacy. Additionally, there are some similarities between the proposed distribution and the Weibull, exponential, and linear failure rate distributions. Next, a theoretical and numerical discussion of the moments is performed. The relevant order statistics are discussed in part, emphasizing the two extreme statistics. Using the maximum likelihood method, a parameter estimate is offered for the statistical analysis. Further, two data sets have been used to compare the proposed distribution with related models. Monte Carlo simulation study has been done to check the performance of the maximum likelihood techniques.

**Key Words:** Exponential distribution, hazard rate function, simulation, Method of estimation

## HIGH-FREQUENCY EMC STUDY OF ELECTRICAL MACHINES

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### **Abstract**

Electrical devices used on the mass market must meet strict standards for electromagnetic compatibility (EMC) and electromagnetic interference (EMI) distortion. This paper consists of developing an improved high-frequency motor model based on the transfer function to represent the high-frequency common-mode behavior of the universal motor for frequency-domain analyses. The measurements were performed under the standard, in the frequency band of 100 kHz to 1 MHz. The results confirm that the tested motor meets the requirements defined in this paper. The proposed models can be used to accurately represent the characteristics of the universal motor over a wide frequency range and correctly simulate the common-mode (CM) model.

**Keywords:** EMC, High frequency, electrical machines, universal motor, commun mode.

## **SOLUTE SEGMENTATION PATTERN OF HOMOGENEOUS SEMI-INFINITE GROUNDWATER RESERVOIR**

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### **Abstract**

Solute transport modeling is a common approach to understand the movement of solute into the groundwater reservoir. This study presents an exact solution for one-dimensional transport modeling for semi-infinite homogeneous groundwater reservoir. The governing mathematical model equation is solved analytically by the help of Laplace transform technique method. Initially the groundwater reservoir is not solute free, some uniform concentration is taken into consideration initially at the groundwater reservoir. The transient dependent source concentration taken into account at one end of the groundwater reservoir and concentration gradient to be zero at other end of the groundwater reservoir. The impact of different velocity patterns is significantly observed to predicts the solute segmentation pattern. Also, the solute segmentation is predicted for the impact of various decay parameters in respect of space and time. The obtained results may be used for the quality management of groundwater reservoir.

**Keywords:** Homogeneous, Solute, Laplace transform, Groundwater Reservoir, Source Concentration.

**PREPARATION AND CHARACTERIZATION OF A HYDROLYSATE BASED ON SARDINE WASTES: PHYTOTOXICITY EVALUATION AND APPLICATION IN AGRICULTURE**

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**Abstract**

Protein hydrolysates have emerged as versatile solutions in the field of agriculture, providing a rich and balanced nutritional source for plants. This abstract examines the various applications of protein hydrolysates in agriculture, highlighting their advantages as organic fertilizers, growth bio-stimulants, and agents for combating diseases and abiotic stresses. Protein hydrolysates are produced through enzymatic breakdown of proteins, rendering them rich in free amino acids, peptides, and other bioactive compounds essential for plant growth. Their utilization promotes soil health, plant resistance to environmental stresses, and overall agricultural productivity. This paper also explores the production methods of protein hydrolysates, their effects on plant physiology, and their potential to address future challenges in sustainable agriculture.

**Key Words:** Protein hydrolysates, Agriculture, Organic fertilizers, Growth bio-stimulants, Plant diseases

**ASSESSMENT OF POTENTIAL DRUG-DRUG INTERACTION AMONG  
HOSPITALIZED CORONARY ARTERY DISEASE PATIENTS IN DHQ TEACHING  
HOSPITAL KOHAT**

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**Abstract**

Drug-drug interactions (DDIs), which can result in severe and incapacitating drug-induced adverse effects, are more likely to occur in patients who take many medications. Drug-drug interactions (DDIs) have become a significant concern in the field of healthcare, particularly among hospitalized patients. The study main goal was to identify pDDIs in divisional headquarter hospital, a tertiary care hospital's cardiology ward in Khyber Pakhtunkhwa. Out of 250 patients profiles 162 fulfilled the inclusion criteria were evaluated for pDDIs in this study from September 2022 to May 2023. Patient profiles were screen by using Micromedex Drug-Reax programming (Thomson Reuters Healthcare Inc., Greenwood Village, Colorado, United States). In 162 patient profiles, 251 interactions were found. The interactions ranged from large to moderate in severity. A total of 48.6% of pharmaceutical interactions were somewhat significant, 33.5% were substantial, and 15.3 percent were minor; additionally, 2.6% of medication interactions were contraindicated. Similarly, interactions had different onset levels, such as delayed, quick, and unknown. In our analysis, we discovered that 38.1 percent of pharmaceutical interactions were Not Specified, 34.9 percent were Delayed, and 27 percent were Rapid. The current investigation revealed a significant prevalence of pDDIs in a tertiary care healthclinic's medical ward. In the future, a multi-focused study with a large sample size will be required to confirm our findings and add more data to such investigations were directed in various areas of Pakistan.

## **ENHANCING UNDERWATER IMAGE QUALITY THROUGH GENERATIVE ADVERSARIAL NETWORK: A NOVEL APPROACH**

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### **Abstract\_**

Underwater imaging poses unique challenges due to light attenuation, turbidity, and color distortion, leading to degraded image quality. Traditional image enhancement techniques often fail to address these issues effectively. In this paper, we propose a novel approach utilizing Generative Adversarial Networks (GANs) to enhance the quality of underwater images. By training a GAN on a dataset of paired underwater and high-quality reference images, our model learns to generate realistic and visually pleasing underwater images with improved clarity, color fidelity, and reduced noise. Experimental results demonstrate the efficacy of our approach in significantly enhancing underwater image quality, making it suitable for various underwater imaging applications such as marine research, underwater robotics, and environmental monitoring.

**Keywords:** Underwater imaging, Noise reduction, Image quality enhancement, Generative Adversarial Networks (GANs).

## **EFFECT OF SIX-WEEKS PLYOMETRIC JUMP TRAINING ON BIOCHEMICAL PROFILE OF RUGBY AND SOCCER PLAYERS**

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### **Abstract**

**Background:** Plyometric training is commonly used to enhance performance in sports like rugby and soccer that require explosive power. However, its effects on biochemical parameters have not been well characterized. This study aimed to evaluate the impact of a 6-week plyometric jump training program on markers of muscle damage, inflammation and oxidative stress in rugby and soccer players.

**Methods:** Thirty male athletes aged 18-25 years actively involved in rugby or soccer training were randomly assigned to an experimental (n=15) or control group (n=15). The experimental group underwent a 6-week plyometric jump training program consisting of 2 sessions/week in addition to regular training, while the control group maintained only regular training. Blood samples were collected pre- and post-intervention to analyze creatine kinase (CK), lactate dehydrogenase (LDH), C-reactive protein (CRP), interleukin-6 (IL-6) and malondialdehyde (MDA) levels. Between-group differences were analyzed using independent t-tests. Within-group changes were assessed using paired t-tests.

**Results:** Post-intervention, the experimental group demonstrated significant increases in CK ( $p=0.001$ ), LDH ( $p=0.003$ ), CRP ( $p=0.002$ ), IL-6 ( $p=0.001$ ) and MDA ( $p=0.005$ ) compared to pre-values, indicating greater muscle damage, inflammation and oxidative stress with plyometric training. The control group showed no significant changes ( $p>0.05$ ). Between-group analysis also revealed higher post-values of all biomarkers in the experimental group ( $p<0.05$ ).

**Conclusion:** A 6-week plyometric jump training program elevated markers of muscle damage, inflammation and oxidative stress in rugby and soccer players compared to regular training alone. Monitoring of biochemical responses may provide insights into training adaptations and injury risk with intensive plyometric regimens.

**Keywords:** Plyometric, Rugby, Soccer, Athletes, Biochemical, Jump Training.

## **FOOD SECURITY AND THE POLITICS OF E-WALLET AGRICULTURAL INPUT DISTRIBUTION IN NIGERIA**

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### **ABSTRACT**

This paper is an empirical research on the operations of the 2012-2017 e-wallet fertiliser distribution programme in Nigeria. It examines the effects of political elites' actions of commission and omission that subordinate the national interests and force the termination of the auspicious agricultural re-engineering programme that has the potential to contribute to the national and global food security drive. Food security issues are now on the table of most countries and global and regional supranational organisations in recognition of the position of food as a life sustainer. In their pursuit of power and privileges, the political elites have become blithely remiss to the implications of their actions. This paper examines the actions of the elites and discovers ways of mitigating their impacts on such a sensitive matter as food security. The paper employs a mixed method of data collection, i.e. quantitative and qualitative techniques, and thus discovers that political elites in Nigeria do not respect national interests in their scramble for power and influence. The elites' cursoriness towards national interest drew the curtain on the programme, despite its propitiousness. The paper concluded that there is no counter-check to the unbridled powers of the political elites in their grab for more powers and privileges. The paper finally recommends that civil society groups must gear up efforts to conscientise the farmers for policy-based politics and the need to electorally sanction political elites that do not support agricultural policies and programmes.

**Key Words:** Fertilizers, E-Wallet, Elites, Programme, Politics.



## **POLITICAL MISCONCEPTIONS ASSOCIATED WITH INVESTIGATIVE JOURNALISM IN NIGERIA**

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### **Abstract**

Investigative Journalism is understood by most politicians and public affairs commentators as a process of using both secret and open sources to unravel wrong doings. This makes Investigative Journalism a minefield and led to tremendous threats and litigations by the powerful in the society. This conceptual paper tries to discourage the general assumption that investigative journalism is all about unravelling negativities and fault finding of potential targets. Findings from literature review show that politicians and public office holders still believe that investigative journalism is all about fault finding with a view to tarnishing the 'good' image of those holding positions of authority and thus, a big threat to their political career. This feeling of threats leads to physical harassment; legal litigations and denial of access to information required of investigative journalism. For instance at least 14 journalists were detained, attacked or harassed while covering 2023 general elections. It was also found that contrary to the belief of politicians, investigative reports could be positive and development focused. This type of reports pays more attention to patriotic endeavours by citizens with a view to promoting national development. The study concludes that this assumption has made investigative journalists a potential danger and the process risky. The study recommends that Investigative journalists can conduct positive investigative reports about important issues that promote national development without necessarily uncovering wrong doing. The positive reports are generally less risky, less time consuming and affordable to most media outfits.

**Keywords:** Misconceptions, Investigative journalism, News, Reporting, Reveal

## ROLE OF NANOROBOTICS IN HEALTHCARE

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### **Abstract**

The term "nano-robot" refers to any kind of controllable machine that is built from nano-components and operates on the nano ( $10^{-9}$ ) metre or molecular size. Specifically, nano robotics is the field of nanotechnology engineering that focuses on the design and construction of these still-largely-speculative machines. Nanorobotics and macrorobotics are quite different fields owing to scale and material variations, yet there are many shared design and control techniques that could be applied in the future. Thanks to today's scientific know-how, we can try to build nanorobotic devices and link them to the macro world for control. There is a chance to construct more of these devices by emulating nature, and there are innumerable examples in nature. Nowadays these nano robots play a vital role in the field of Bio Medicine. This paper guides to the recent research on nano robots in the Bio medical applications with their composition.

**Keywords:** Nanorobots; healthcare; biomedicine; cancer; diabetes

**EXTENSION OF EU POWERS AFTER THE RATIFICATION OF THE TREATIES:  
IMPACT OF ARTICLE 352 OF THE TFEU ON NATIONAL PARLIAMENTS**

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**Abstract**

**Objective:** By ratifying the Treaties of the European Union (EU), Member States delegate specific competences to the EU. The scope of delegated powers is incomplete without examining their extension after the accession of Member States through the use of the “flexibility clause” by the EU institutions. The aim of this article is to analyze the impact of the “flexibility clause” on the expansion of EU powers and such effect on national parliaments.

**Methods:** To achieve this objective, relevant articles of previous EU treaties are examined as well as the amendments introduced by Article 352 Treaty on the Functioning of the EU (TFEU). This legal basis of the treaties is analyzed through descriptive and comparative methods. The case study was used to present the conclusions of the decisions of the constitutional courts in Germany and France on the impact of Article 352 on national parliaments.

**Discussion and Results:** The impact of Article 352 is examined in two directions. First, the institutional structure of the EU concerning the increased role of the European Parliament following the “flexibility clause” after Lisbon. Secondly, the position of national parliaments of Member States and their inclusion in the EU legislative process.

**Conclusion:** Article 352 TFEU does not provide new procedural guarantees for national parliaments, but it enhances the position of the European Parliament as its consent is now required. Regarding the national parliaments, the Treaty of Lisbon has strengthened their position in controlling the use of the “flexibility” clause.

**Key Words:** Competences, National Parliaments, European Parliament, Flexibility Clause, Treaty.

## **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.

**EVALUATING THE INFLUENCE OF GREEN PUBLIC PROCUREMENT  
POLICIES ON SUSTAINABLE DEVELOPMENT IN THE WESTERN BALKANS: A  
COMPARATIVE ASSESSMENT**

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**Abstract:**

In recent decades, there has been a heightened sensitivity toward environmental preservation and the pursuit of ethical and sustainable economic growth. Green public procurement (GPP) has emerged as a strategic procedure wherein public entities, including governments and municipalities, prioritize the procurement of goods and services with lower environmental footprints compared to conventional alternatives. This approach is increasingly gaining traction in the Western Balkan region as a means of advancing sustainable development objectives and addressing environmental concerns.

The rising demand for recyclable products, energy-efficient systems, clean technology, and fuels is propelling the adoption of ecologically responsible business practices. Furthermore, private consumers are being encouraged to prioritize environmentally friendly purchases. Given that European public institutions collectively consume 1.8 trillion euros annually (equivalent to 14% of European GDP), their commitment to consistently procuring goods and services with minimal environmental impact can significantly influence sustainable development across Europe and catalyze eco-innovation.

This article aims to explore the adaptations necessary for Western Balkan enterprises to capitalize on the opportunities presented by Green Public Procurement and assess their readiness to do so. A key focus will be on the innovative transformation of procurement processes, drawing upon international best practices that can be tailored to the specific characteristics of Western Balkan countries, as well as the indigenous innovative processes that these nations can develop and promote.

**Keywords:** Green Public Procurement, Western Balkan region, government, innovation, impact, benefits.

**SUSTAINABLE DEVELOPMENT OF TOURISM DESTINATIONS (CASE STUDY:  
DEWA DEWI BEACH, BATANG REGENCY)**

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**Abstract**

Culture and natural beauty have become valuable assets that attract domestic and international tourists to visit Indonesia, both to enjoy its natural beauty and to understand its cultural diversity. Tourism has now become a universal need and must be handled seriously and involve all relevant parties. Promotion needs to be done so that the potential and attractiveness of tourism is better known, encouraging potential tourists to visit and enjoy tourist attractions. One example is the Dewa Dewi Beach Tourism Object in Batang Regency, which is a favorite destination for the Batang community because of its strategic location and easy access. Therefore, there is a need for sustainable development that must be carried out to improve Dewa Dewi Beach in Batang Regency.

**Keywords:** Development, sustainable, tourism

## **SLEEP DEPRIVATION AND METABOLIC CROSSROADS: NAVIGATING THE BIDIRECTIONAL LINKS BETWEEN INSUFFICIENT REST, CIRCADIAN RHYTHMS, AND DIABETES MELLITUS**

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### **Abstract**

**Background and Purpose:** This review delves into the intricate interplay between insufficient sleep, circadian disruption, and diabetes mellitus—a critical facet of public health with a focus on Diabetes Awareness. The study emphasizes the bidirectional impact of sleep patterns on metabolic health, shedding light on the heightened risk of obesity and insulin resistance associated with disrupted sleep.

**Methodology:** Our comprehensive literature review involved an exhaustive search for studies related to "insufficient sleep" and its impacts, including meta-analyses, systematic reviews, and both longitudinal and cross-sectional studies. Data were collected from major databases, illuminating the multifaceted dimensions of the relationship between insufficient sleep, circadian disruption, and diabetes mellitus.

**Results:** Epidemiological studies consistently show a positive association between insufficient sleep and various markers of metabolic dysfunction, particularly in the context of obesity and type 2 diabetes. Habitual short sleepers, both in adults and children, exhibit higher body mass index (BMI), increased fat percentage, and larger abdominal circumference compared to those with average-duration sleep.

Furthermore, inadequate or disturbed sleep is linked to predictors of type 2 diabetes, such as glucose intolerance, insulin resistance, reduced insulin response to glucose, and a decrease in the disposition index.

Experimental evidence supports the idea that sleep restriction may contribute to increased food intake without a corresponding decrease in energy expenditure. This is attributed to alterations in hormones such as ghrelin and leptin, which regulate hunger and satiety. Sleep restriction disrupts the delicate balance of these hormones, potentially contributing to overeating and weight gain.

Studies also reveal that sleep restriction leads to elevated evening cortisol levels, potentially reducing insulin sensitivity the following morning. This finding is substantiated by observations of decreased effectiveness in insulin-mediated glucose uptake in the morning after sleep restriction. Notably, short sleepers exhibit glucose responses similar to average-duration sleepers but with an increase in insulin release, possibly indicative of reduced insulin sensitivity over time. Recent investigations also indicate that sleep restriction enhances susceptibility to food stimuli, particularly for energy-dense, high-carbohydrate foods.

**Conclusion:** In summary, both the quality and quantity of sleep play crucial roles in the development of obesity and type 2 diabetes. Epidemiological evidence consistently supports the notion that short sleep duration and disturbed sleep quality are plausible risk factors for these metabolic conditions. Adults and children with insufficient sleep show higher risks of developing type 2 diabetes, as indicated by increased fasting plasma glucose, insulin concentrations, and insulin resistance.

**Keywords:** diabetes mellitus; insufficient sleep; circadian disruption; metabolic syndrome; obstructive sleep apnea; ghrelin;



## **MENTORSHIP'S EFFECT TOWARDS EMPLOYEE PERFORMANCE ON EDUCATION SECTOR AT MALAYSIA**

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### **ABSTRACT**

In this study, mentorships' impact towards employee performance on education sector at Malaysia had been analyzed. Mentoring has become a vital strategy for improving employee performance. The objective of the present study is to analyze the effect of mentoring system on employee performance in education sector at Malaysia. (Umesh et al., 2023) Literature review related to variables mentoring in practicum, and factors affecting mentoring, which included but were not limited to time, roles and responsibilities of mentors and authority, important of education sector as well as mentor modelling (Chisala et al., 2018). Several firms understand the value of mentoring and have initiatives in place to help people find and improve their abilities, as well as interact and improve their performance (Josephine et al., 2021). Initiate a theoretical foundation to facilitate the development of a model that might investigate the mentor-mentee relationship using a digital mentoring technique to provide a new, expert perspective on educational mentoring (Haque et al., 2022). It should be the socializing aspect, which is the mentoring regarding employee performance that would be the core of this study (Osman et al., 2024). The study was a quantitative study that measured the mentorship's impact towards employee performance in education sector at Malaysia (Rajendran & Haque, 2022). The next chapter will provide the data analysis and results from the participants' responses to the questionnaire (Khalil & Haque, 2022). This study was done with 214 employees who are working throughout education sector in Malaysia with various demographics. Literature review was well explained and hypotheses testing been conducted for the findings and analysis (Osman et al., 2022). This study has been conducted by using a quantitative correlational research design with an online questionnaire distributed to the targeted respondents (Francis et al., 2023). The data collected was analyzed by using IBM SPSS 25.0 (Bin et al., 2022). This research has found out that there is a significant relationship between e-mentoring, personal attribute, mentor modeling and employee performance. Mentoring is critical for new lecturer because mentors may model the course for their mentee, assisting them in gaining information about how to deliver their lesson in class (Haque & Joshi, 2011). Annathurai et al., (2023) agree that newly appointed lecturer would provide more effective guides if given the time and chance to watch experienced educators model their delivery. This necessitates the implementation of mentorship and educational progress with the use of teaching methods, which combine face- to-face and distant mentorship, online as well as offline guidance, as well as high-tech, minimal, and thus

no alternatives, based on regional and national circumstances as well as the evolving expertise requires of industry sectors. Aside from that, both educators and mentees could benefit from the opportunity to educate on each other's experiences, share best practices for mentorship, as well as provide a spirit of cooperation (Senathirajah et al., 2024).

**Keywords:** Mentorship, E-Mentoring, Personal Attribute, Educational Mentoring, Employee Performance

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## **THE INTERPRETATION OF DIVERSE SOURCES IN CONTEMPORARY JURISPRUDENCE: A CONFIDENT APPROACH TO ANALYZING LEGAL COMPLEXITY**

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### **ABSTRACT**

In the contemporary realm of jurisprudence, the legal landscape grapples with a crisis characterized by the introduction of a complex and intricate legal source system. This complexity is not merely a matter of happenstance, but rather, it is intricately intertwined with the multifaceted nature of today's legal framework. At the core of this issue lies the proliferation of diverse sources, which often obscure any discernible hierarchical order. The process of crafting and shaping the law is further complicated by the active involvement of both public and private entities, creating a continuum that stretches from the national to the global sphere. This intricate interplay occurs on multiple levels, including national, supranational, and international arenas, making the legal landscape increasingly intricate.

The production of law, in this multifarious environment, emerges from an amalgamation of diverse and uncoordinated materials. These materials come from various sources, each with its unique origins and authorities, contributing to the legal framework in a manner that can best be described as deconstructed, fragmented, and fluid. The challenge that arises from this intricate web of sources lies in the ability to identify and interpret these sources effectively, creating an ever-evolving dynamic of legal positivism.

Key to this multifaceted legal landscape is the notion of legal positivism, which underpins the identification and interpretation of legal sources. Legal positivism, in this context, becomes the guiding philosophy, shedding light on how legal sources are understood, recognized, and applied in the real world of concrete cases. This abstract study delves into the complexity of contemporary legal systems, dissecting the intricate tapestry of legal sources and their interpretation.

This research explores the interplay between the multifarious origins of legal sources and the dynamics of legal positivism in the context of an evolving legal landscape. It seeks to shed light on the challenges faced by legal interpreters as they navigate through this labyrinth of legal sources and propose innovative approaches to address the complexities inherent in today's legal systems.

**Keywords:** legal sources, legal complexity, legal positivism, interpretation of legal sources, evolving jurisprudence

**SOLID-STATE FABRICATION OF 3D Bi<sub>24</sub>O<sub>31</sub>Br<sub>10</sub> SHEET-LIKE WITH ENHANCED VISIBLE-LIGHT PHOTOCATALYTIC ACTIVITY**

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**Abstract**

The utilization of oxide catalysts has emerged as a prominent trend in the field of effective photocatalysts for the degradation of environmental pollution (Xing, 2019). Within this framework, bismuth-rich oxyhalides (Bi<sub>x</sub>O<sub>y</sub>X<sub>z</sub>) (where X represents Cl, Br, etc.) are widely regarded as promising photocatalysts due to their potent oxidizing ability, lack of toxicity, affordability, and wide band gap (Sharma, 2023). Recent studies have explored their augmented potential in pollutant degradation (Li, 2020), clean energy conversion, and other applications. In this study, the Bi<sub>24</sub>O<sub>31</sub>Br<sub>10</sub> photocatalyst was successfully synthesized using a solid-state reaction method. The crystalline phases, optical absorption properties, and morphologies were characterized through X-ray Diffraction (XRD), UV-visible Diffused Reflectance Spectra (DRS), Fourier Transform Infrared Spectroscopy (FT-IR), and Scanning Electron Microscope

(SEM). Based on the optical characterizations,  $\text{Bi}_2\text{O}_3/\text{BiBr}_2$  possesses a band gap energy ( $E_g$ ) of 2.50 eV. Furthermore, the photocatalytic activities of the synthesized catalysts were evaluated for the degradation of rhodamin B (RhB) dye under visible light using a 250 W Xenon lamp. The results demonstrated that, within 90 minutes of irradiation, the degradation rate of RhB exceeded 98.9%. This research presents an experimental method for the preparation of  $\text{Bi}_2\text{O}_3/\text{BiBr}_2$  and highlights the significance of this bismuth-based semiconductor in the field of photocatalysis applications.

**Keywords:** Photocatalysis;  $\text{Bi}_2\text{O}_3/\text{BiBr}_2$ ; Solid-state reaction; RhB degradation

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## IN-SILICO STUDY OF 4-AMINOQUINOLINE DERIVATIVES AS ANTIMALARIAL AGENTS

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### **Abstract**

Malaria, a severe disease transmitted by mosquitoes through bites, leads to parasite multiplication in the liver and subsequent infection of red blood cells. Given its lethal consequences, our study aimed to explore the correlation between the physicochemical and geometric properties of 24 derivatives of 4-aminoquinoline and their anti-malarial efficacy using the QSAR approach. Various statistical techniques, such as principal component analysis (PCA), multiple linear regression (MLR), and multiple nonlinear regression (MNL), were utilized to construct the 2D QSAR model. Results showed that the MNL-generated model exhibited a high coefficient of determination ( $R^2=0.779$ ;  $R^2_{\text{test}}=0.786$ ;  $\text{MSE}=0.124$ ), effectively linking molecular descriptors with the anti-malarial potency of the compounds under investigation. Model validation was performed by comparing calculated values with observed values, while the applicability domain was assessed through the Williams plot, identifying influential and aberrant compounds within the calibration and validation datasets.

**Keywords:** CXCR4, 2D QSAR, Principal component analysis (PCA), Multiple Linear Regressions (MLR), Multiple Non Linear Regression (MNL), Partial least squares (PLS), applicability domain (AD), Internal, external validation.

## **RENEWABLE ENERGY INDUSTRY: BENEFITS FOR ECONOMIC GROWTH**

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### **Abstract**

These days, the renewable energy industry implicates acknowledging the importance and the role of the Sustainable Development Goals (SDGs) in investing in a green future for all. In the same time, the Renewable Energy Directive – as a legal framework that comes to support the development of renewable resources across all the sectors embodied by the European Union (EU), has the power to bring a great contribution nowadays, especially when the accent is put more and more on self-preservation, inner wealth, people's health, communities well-being, and the Planet's conservation of resources, ecosystems, and biodiversity. What is more, the new business landscape makes crucial reference to exploring those sustainable solutions that have the vital purpose of taking companies to new heights. Furthermore, investing in energy innovation as well as research and development programs is regarded as paramount when targeting long term growth for the energy business. In the first part of this research paper, which is the background section or the literature review section, the key aspects that are being emphasized are represented by the following elements: the aspects surrounding the emergence of a new energy economy; the utmost important role played by the renewable energy economics; and the benefits of the renewable energy as well as the ways of measuring the economics. In the second part of this scientific work, which is represented by the material and method section, the focus is on understanding the clean energy incentives, the implications of abundant energy resources, and what does being committed to develop a greener future mean for businesses worldwide. In the third part of this paper, which is represented by results and discussion, the center of the attention is placed on the seeking to promote and disseminate knowledge on multiple topics and technologies of renewable energy components, systems, and industries alike. It ought to be mentioned that this current scientific work provides valuable insights regarding countries transition to a sustainable energy by providing data that refers to the latest progress done according to the United Nations (UN), United Nations (UN) Environment Program, International Energy Agency (IEA), International Renewable Energy Agency (IRENA), European Environment Agency (EEA), and Organisation for Economic Co-operation and Development.

**Keywords:** Renewable Energy Technology, Green Energy, Environmental Quality, Economic Development, Biodiversity, United Nations (UN).



**DENSITY FUNCTIONAL THEORY INVESTIGATION OF REGIOSELECTIVITY  
IN 1,3-DIPOLAR CYCLOADDITION: 2-AZIDO-N-(4  
DIAZENYLPHENYL)ACETAMIDE WITH TERMINAL ALKYNE**

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**Abstract**

The gas-phase and DMSO-mediated 1,3-dipolar reaction between 2-azido-N-(4-diazenylphenyl) acetamide and an alkyne was scrutinized employing the B3LYP-GD3 functional alongside the 6-31G(d,p) basis set. The cycloaddition reaction exhibited a singular, one-step mechanism characterized by asynchronous transition states. Evaluation of the calculated global reactivity indices delineated the nucleophilic nature of 2-azido-N-(4-diazenylphenyl)acetamide (1,3-dipole) and the electrophilic propensity of the alkyne (dipolarophile), underscored by an electron transfer from the 1,3-dipole to the dipolarophile. Local reactivity indices analysis predicted the preferential formation of 1,4-triazole, with the nitrogen exhibiting the highest nucleophilicity and the carbon displaying the greatest electrophilicity, yet energetics considerations favored the formation of 1,5-triazole under the specified conditions. Examination of activation energies and thermochemistry parameters corroborated the energetic advantage and stability of the 1,5-triazole product. Furthermore, a comprehensive exploration integrating bond order analysis, bond formation evolution, and solvent effects was undertaken to elucidate the asynchronicity in bond formation and to accentuate the regioselectivity of the reaction.

**Keywords:** 1,3-dipolar cycloadditions, 1,2,3-triazole, regioselectivity, DFT calculations.

**MONTE-CARLO MODELLING APPROACH FOR PREDICTING THE AQUATIC TOXICITY OF VARIOUS ORGANIC CHEMICALS FOR REGULATORY TOXICOLOGY**

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**Abstract:**

The study intends to create multi-species Quantitative Structure-Activity Relationship (QSAR) modelling tools capable of predicting the acute toxicity of various chemicals in different test species at different trophic levels, as recommended by the Organization for Economic Cooperation and Development (OECD) for regulatory toxicology purposes. Consequently, the three developed QSAR models using Monte-Carlo Split-1 with Index of Ideality of Correlation (IIC), Split-2 with Correlation Intensity Index (CII), and Split-3 with both (IIC and CII) were successfully employed to predict the toxicity of broad classes of chemicals in different test species and bacteria. Split-3 was determined to be the best model by comparing the predictive and generalization capabilities of the built QSAR models using statistical parameters, with correlation coefficients  $R^2_{\text{Training set}} = 0.831$ ,  $R^2_{\text{Invisible set}} = 0.872$ ,  $R^2_{\text{Calibration}} = 0.905$  and  $R^2_{\text{Validation}} = 0.787$ .

## **DYNAMICS OF AMMONIA SYNTHESIS FROM INDUSTRIAL REACTORS: A GAZE TOWARDS PRODUCTION DIVERSITY**

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### **Abstract**

Ammonia synthesis is a crucial process in the chemical industry, with a wide range of applications in agriculture, pharmaceuticals, and manufacturing. The efficiency and diversity of production methods for ammonia synthesis have a significant impact on the overall productivity and sustainability of the industry. This study explored the dynamics of ammonia synthesis from industrial reactors, focusing on the production diversity and its implications. A comprehensive review of existing literature on various methods and technologies used in industrial ammonia synthesis was adopted. The research included analysis of the different types of reactors, catalysts, and operating conditions commonly employed in the production of ammonia. Moreover, data from recent reports and case studies were used to examine the trends and challenges in the field of ammonia synthesis. Findings from the study revealed a wide range of production methods and technologies used in industrial ammonia synthesis. Traditional Haber-Bosch process remains the dominant method for ammonia production, but alternative methods such as electrochemical synthesis and plasma-assisted synthesis are gaining traction due to their potential for higher efficiency and lower environmental impact. The choice of reactor type, catalyst, and operating conditions significantly influence the performance and sustainability of ammonia synthesis processes. Furthermore, the study highlighted the need for production diversity in ensuring the resilience and adaptability of the industry. The findings also underscored the need for continued research and innovation in the field of ammonia synthesis to address the challenges of sustainability and resource efficiency. Hence, the dynamics of ammonia synthesis from industrial reactors are shaped by a diverse range of production methods and technologies.

**Keywords:** Ammonia synthesis, Industrial reactors, Production diversity, Sustainability.

## **EASTERN PHILOSOPHY OF TAOISM AS A NEW PATH FOR WORLD EDUCATION**

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### **Abstract**

This study aims to explore the potential role of Taoism in education for environmental conservation to ensure the sustainability of the Earth for future generations. The article explores Taoism's core values such as simplicity, harmony and self-reliance, and how these values can form the foundation for education that focuses on students' personal, spiritual and social development. With its emphasis on harmony with nature, simplicity, and balance, Taoism offers valuable insights into fostering a deep connection with the environment. In the Taoist view, education is not simply the transfer of knowledge, but a process of discovery and understanding guided by the universe. This article details how the Taoist approach to education emphasizes the importance of developing self-awareness, creativity and reflection in the learning process. By combining Taoist principles with contemporary educational innovations, this article proposes ideas on how education can become more inclusive, empowering and relevant to the challenges of our times. As such, it offers a valuable contribution to the development of the global education paradigm towards a more holistic and sustainable approach. In this qualitative method, the study will involve interviews with six different respondents, consisting of two philosophers, two educators, and two experts who utilize nature in the context of education.

**Keywords:** Eastern Philosophy, Taoism, Education, Personal Development.

**THE IMPACT OF SCARCITY OF SUBSIDIZED FERTILIZER ON FARMERS'  
INCOME AND PRODUCTION IN THE RICE FIELDS OF ROWOLAKU KAJEN  
VILLAGE, PEKALONGAN REGENCY**

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**Abstract**

This research was conducted to identify the effect of discussing subsidized fertilizer on farmers' income and production in rice fields. The method used is the interview method, the data collected in this research includes primary data and secondary data. The Rowolaku Village Government has taken the initiative to partner with parties who can provide loan capital for rice farming businesses and promote organic farming using natural fertilizer as an alternative. This aims to overcome the constraints of limiting subsidized fertilizers so that farmers can use non-subsidized fertilizers temporarily.

**Keywords:** Fertilizer Restrictions, Impact and Income of Rice Farmers

**ASSESSMENT OF HAZARDS RELATED TO GLINT/GLARE REFLECTION AND  
ELECTROMAGNETIC INTERFERENCE FROM SOLAR PANEL  
INSTALLATIONS AT AIRPORTS: A CASE STUDY FROM A BLACK SEA  
COUNTRY**

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**Abstract**

**Introduction and Purpose:** Aviation safety is crucial for protecting lives and ensuring trust, and is guided by global standards like those from International Civil Aviation Organization (ICAO). The airports, as the overall industry, are moving towards green transition. Green initiatives like the installation of solar panels are increasingly adopted, but safety concerns related to their implementation emerged and need to be addressed. Throughout a case study of an airport located in one of the black sea countries, the safety risks associated with the location of solar panels are analyzed, with a particular focus on the hazards of glint/glare they pose and their potential interference with airport electromagnetic equipment.

**Materials and Methods:** Combining a hazard analysis simulation software (ForgeSolar), which calculates among others the risk of retinal reflection, with the ICAO's risk model for assessing hazard severities, is evaluated the impact of solar panels on airport safety, specifically regarding the risk of glint and glare to pilots and airport personnel, such as air traffic controllers (ATC). Additionally, an assessment of the interference with electromagnetic equipment of the considered airport is made and the hazards are mapped and visualized through wireframes.

**Results:** The results simulated on the solar panels locations show irradiance values under  $10^{-4}$  W/cm<sup>2</sup>. The data regarding potential interference between airport equipment and the planned solar panel sites shows no overlapping.

**Discussion and Conclusion:** In conclusion, the analysis on hazards related to the placement of solar panels have an extremely improbable risk and do not intersect with the designated protection zones for airport equipment.

**Keywords:** glint/glare, frequencies, ICAO risk model, safety, hazard analysis

## OVERVIEW OF WEB CONTROL SYSTEMS AS DATA LINK TO LOW-ALTITUDE UAV SYSTEMS WITH LOAD BALANCING AND FAILOVER

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### Abstract

**Introduction and Purpose:** Web Systems are integral part of any UAV System. But Web Control System is quite challenging, because of its responsiveness and reliability. But using smart algorithms and modern communication technology, we can serve it as an option for Autopilot Controlled Systems. By which can also send telemetry, high-bandwidth camera, and payload data. Where NodeMCU with onboard ESP-8266 Wi-Fi chip makes the requests. It is connected to Internet via 4G/LTE mobile data tethering/hotspot shared by other handheld.

**Materials and Methods:** There are mainly two options, serverless functions as in Netlify or AWS Lambda serverless solution and AWS EC2 full-stack Web Server solution or your on-premise Web Server Hosting. The EC2 instance is being best served in the AMI (Amazon Linux distro) for relatively efficient performance as a server OS. While EC2 instance becomes unresponsive and is not accessible, using other vendor IaaS as Azure VMs or an on-premise Fall-back System for minimal command-transmit-control must be available. AWS comes with relatively huge infrastructure on Cloud Computing. It has Database solutions available. Regarding the speed of the connection, we need RDBMS eliminating the ORDBMS/OODBMS solutions. And AWS has RDS product for that, and we can choose MySQL in it available in the free tier. Apart from RDS, can use Oracle's Autonomous Database in free tier. The Web building is free of choice but, speed is crucial for web processing choosing the Web Scripting Language where Python may not suit well, it is best to go with PHP and JS combo. Apache is tested performing well, but for faster experience, NGINX can be used.

**Results:** After running and deploying the system, encountered several outages due to both excessive AJAX GET/POST calls (optimized it) and also by GIT/VCS, TLS/SSH over TCP causing the free-tier EC2 instance to gradually crash which would work after Stop/Start action. But adding Application Load Balancer and also Network Load Balancer from AWS Services (in the free tier), it made huge impact having minimal outages. But in the production system, connection will be more natural other than during the building phase. The most interesting side is being able to connect to the Control Terminal (flap/aileron/tail, thrust, light, Autopilot controls) and Telemetry Dashboard (e.g. RunCam feed, ArcGIS for GPS-based route-tracking) from any internet connected appliance, being a TV or a handheld smartphone with no any extra config. The biggest downside is cell-tower connectivity issue above ~300-1,000 feet, yet, varying by the topography of the area, can reach ~8,000-10,000 feet above ground level (AGL) where signal strength may weaken, increasing dropout risk. The good side is, if flies below the altitude limit, the flight range across country is unlimited.

**Discussion and Conclusion:** Building these Web Systems is more enjoyable, easier and also platform-independent. One drawback is the latency which is ~100-200 ms in the receiver-end, and nearly seamless latency (<50ms) in the transceiver-end which makes it viable <400-500ms in overall connectivity to be serving as a fully featured Low-Altitude Autopilot UAV Control Data Link. Additional "Synch All System" button in the UI makes it more stable. Alternatives

are Zigbee XBee, LoRa modulation, RF/RC controllers, high-powered commercial/military-grade transceivers, etc.

**Key Words:** UAV Control System; Low-Altitude UAV; Web Control System; Autopilot; Telemetry; AWS EC2; Azure VM; RDBMS; AWS RDS; Oracle Autonomous Database; PHP; Apache; Load Balancer; Cell Tower Connectivity; Latency; Data Link



## INTERNATIONAL NATURE OF THE FISCAL DISCIPLINE PROBLEM AND CURRENT PROBLEMS IN TURKEY'S FISCAL INTEGRATION

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### **Abstract**

**Introduction and Purpose:** This study aims to investigate the characteristics and dynamics that shape the global nature of the financial discipline problem and examine the underlying issues of the financial discipline problem, which has become a financial integration problem for developing countries at the global level. Especially in recent periods when the financial discipline problem in Turkey has frequently come to the fore as an important phenomenon in terms of global integrations, a structurally stable situation in which countries can overcome the financial crisis processes and eliminate financial vulnerabilities, where the global financial crisis structure is expressed with different values, is also a critical international criterion in ensuring global integrations. For Turkey, this situation necessitates questioning whether economic shocks and fiscal crises have created a balanced policy under the name of both global economic, budgetary crises and national crises. Especially in positions where increasing public debts or fiscal discipline is forced through spending, which impacts Turkey's worldwide process, which means questioning whether it has a negative outcome effect. Besides, it is also understood that the inability of institutional capacity to be subject to effective financial implementation and an inadequate institutional financial infrastructure is a financial discipline problem that affects foreign trade policies in Turkey, especially under the name of its impact on global trade and financial markets. From Turkey's perspective, it appears that this problem causes significant tensions in international financial relations, financial instability and deviations in different economic growth and welfare categories.

**Key Words:** Developing Countries, Fiscal Discipline, Fiscal Integration, Foreign Trade, Global Fiscal Relations.

**JEL Codes:** F13, F15, F36, F68.

## CAUSES OF DISEASE IN ANCIENT MESOPOTAMIA

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### **Abstract**

**Introduction and Purpose:** In ancient Mesopotamia, people were worried about the diseases they could not overcome. In order to reduce the negative effects of diseases on them, they tried to explain them with concepts such as demons, devils and evil spirits. However, the beliefs of evil spirits and gods are pronounced together in the explanation of the causes of disease, making it difficult to understand this issue. The aim of this study is to reveal the roles of the concepts of evil spirit and god in the evaluation of the causes of disease in Mesopotamia.

**Method:** The current literature on Mesopotamian medicine was utilised. Cuneiform documents were obtained from classical and digital archives.

**Results:** In ancient Mesopotamia, issues such as trauma and scorpion-snake stings with known causes were explained rationally. However, one of the causes of diseases with unknown causes was contact with things related to magic. Another reason is that evil spirits and demons cause illness. The spirits of the dead who have no grave, the spirits of people who did not achieve their goals in life; "restless spirits" who could not go to the underworld are accepted. In order to protect against them, there is an endeavour to help them go to the other realm with a number of amulets and spells. Another reason is the lack of rituals and prayers to the personal gods, which resulted in these gods not fulfilling their protective role and becoming indifferent. It is also possible that they do not intercede for the great gods such as Shamash, Ishtar and Marduk. Sometimes the gods themselves may cause epidemics such as plagues as punishment.

**Conclusion:** In conclusion, in this study, people in Mesopotamia tried to explain diseases with unknown causes with metaphysical concepts. However, in general, evil spirits and demons were seen as negative concepts that cause diseases. On the other hand, it is seen that if people do not have deficiencies in their rituals against personal gods, they believe that they are disease preventive.

**Key Words:** Ancient Mesopotamia, causes of disease, evil spirit, gods

## POSSIBLE EFFECTS OF DIGITAL TRANSFORMATION ON HEALTH COSTS IN HEALTH INSTITUTIONS

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### Abstract

**Introduction and purpose:** With digital transformation in healthcare institutions, it is aimed to provide convenience to healthcare professionals, as the primary performance measurement criterion of hospitals is service delivery and to make extensive use of human resources, as well as to provide a faster and more satisfied service delivery to people. Since the provision of health services is a field in which the health status of each individual is evaluated individually, it leads to high costs, large number of employees, time pressure in service access and a complex management structure. Innovations in fields such as drugs, medical devices, treatment methods and hospital management improve the quality of life of patients by increasing the quality of healthcare services and respond quickly to changing demands.

**Materials and Methods:** In this study, the possible positive or negative effects of digital transformation in healthcare institutions on healthcare costs were compiled in line with literature findings.

**Results:** In the light of the literature findings, it is stated that digital transformations in the healthcare sector are beneficial in terms of reducing healthcare costs, as well as increasing service efficiency, improving service quality, increasing energy efficiency and optimizing resource use. However, some sources suggest that digital transformation may increase healthcare costs. It can be stated that the reasons for this increase include factors such as initial costs, investment costs, infrastructure costs, maintenance and improvement costs, security costs and high data processing costs.

**Discussion and Conclusion:** As a result, the impact of digital transformation on healthcare costs may vary by sector or field. It can be said that with the right strategies and appropriate investments for healthcare institutions and businesses, digital technologies can reduce healthcare costs and improve the quality of healthcare services.

**Keywords:** Digital Transformation, Digital Transformation in Health, Health Costs

## THE ROLE OF PSYCHOLOGICAL AND SOCIAL FACTORS IN HEALTH DECISIONS: BEHAVIORAL ECONOMICS PERSPECTIVE

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### Abstract

**Introduction and Purpose:** Behavioral economics is a branch of science that studies psychological and social influences to understand people's economic decisions. The behavioral economics approach, which argues that people are affected by emotional, cognitive and social factors when making economic decisions, goes beyond the rational individual assumption predicted by traditional economic theories. Behavioral economics opposes treating rationality as an absolute rule and states that people can sometimes make decisions contrary to rationality. Therefore, individuals' economic preferences and behaviors can be affected by their emotional states, environmental factors and social norms. Behavioral economics theories, which examine the factors affecting people's preferences, emphasize the importance of examining the behavioral basis of individuals' preferences regarding their health behaviors. Those who demand and supply health services In order to understand the decisions made in the field of health, the factors that determine this need to be revealed. As stated in the work of Kahneman, the doyen of behavioral economics, where he also emphasizes the framing effect; Individuals' decisions are related to how the information is presented rather than the information itself. This study aims to reveal how behavioral economics tools affect health behaviors.

**Materials and Methods:** In the study, common areas of study of behavioral economics and health economics were compiled through a literature review. Framing effect Their practical use in the field of health is presented with the help of examples.

**Results:** According to the results of the literature review, it is stated that behavioral economics has an important role in the field of health. Designing more effective and cost-effective health policies and programs with the help of behavioral economics applications and It has been concluded that the effectiveness of health practices can be increased.

**Result and Discussion:** As a result of the study, the importance of the effectiveness of behavioral economics tools in the field of health is emphasized and it is stated that profit-oriented effects on health behaviors give more positive results. Attention has been drawn to the importance of designing behavioral economic policies in creating health policies and improving health services.

**Keywords:** Behavioral Economics, Rationality, Health Behaviors, Framing Effect

## ANALYSIS OF OBESITY USING MACHINE LEARNING TECHNIQUES

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### Abstract

**Introduction and Purpose:** Environmental factors, as well as hereditary factors, can contribute to obesity. Obesity is primarily caused by excessive eating and a lack of physical activity. Obesity has been associated with thousands of diseases. Early disease detection will enable patients to take preventative measures. Since obesity poses a threat to the future, it has become a global health concern.

**Materials and Methods:** At this point, a promising method is machine learning. One of the most important factors in choosing the best machine learning method is understanding the type of data that is available. In this study, obesity status is classified using various machine learning methods. The following three research questions are described in this study: (i) which method can be chosen for obesity classification; (ii) does the accuracy of the classification change based on the method; and (iii) what is the best suggested method?

**Results:** The results of the study showed that machine learning methods are effective techniques that can be utilized to classify obesity. Based on the accuracy value of all proposed methods, the optimizable ensemble method is the best when compared to other methods.

**Discussion and Conclusion:** This study has demonstrated the use of machine learning techniques in obesity research and the advantages of these techniques. In conclusion, the development of prediction models is greatly supported by machine learning methods.

**Key Words:** Obesity; Classification; Machine Learning Method

## CALORIE BURN PREDICTION USING FEEDFORWARD NEURAL NETWORK

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### Abstract

**Introduction and Purpose:** In today's world, obesity is becoming a serious and common problem. Obesity results from people not paying attention to their eating habits. The reasons for obesity are numerous and complex. Hence, it is necessary to have a system that can influence people's eating preferences and give them guidance on how to maintain their bodies effectively.

**Materials and Methods:** While there are several strategies utilized for prediction, there is no one approach that can be applied to overcome obesity. More calorie consumption can lead to obesity. Therefore, a feedforward neural network (FNN) is used to predict calories burned in this paper. FNNs provide a number of advantages in a variety of applications. Their ability to identify complex input-output relationships makes them more accurate than traditional machine learning techniques. Gender, age, height, weight, duration, heart rate, and body temperature are used as input variables to predict calories.

**Results:** The results of the study suggest that FNN has shown promising results in calorie prediction. The value of the mean absolute percentage error was determined to be 2.09 using the proposed method.

**Discussion and Conclusion:** As the environment changes, it becomes more difficult to predict calories burned. This study emphasizes how machine learning techniques, in particular FNN, have the potential to enhance prediction accuracy.

**Key Words:** Neural Network; Calorie; Prediction

## **THE IMPACT OF DIFFERENT COASTAL DESIGNS AND USES ON THE CITY SCALE**

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### **Abstract**

Coastlines are the most important boundary areas of cities. This boundary has many ecological, economic, and aesthetic contributions. The changing nature of cityscapes has also changed coastal uses and regulations. This regulation shows us better every day how coastlines can cater to different functions. With its ecological and aesthetic features, coastlines all over the world attract many local and foreign tourists. Coastlines can sometimes provide facilities for a variety of activities such as swimming, dining, shopping, children's playgrounds, photo shoots, and more. This means that coastlines are multifunctional and offer many possibilities. The importance of coastlines, which have become a center of attraction and focus for every city, is quite high. This study will discuss examples of coastlines that have become a center of attraction for cities. Different coastal examples from the world will be given and the design features, concepts, and design stories of these examples will be discussed. The aim of the study is to reveal the common features and differences of these examples. Thanks to these differences or common points, examples will be given for future designs or planning decisions.

**Keywords:** Coastal design, coastal management, land-use changes

## EVALUATING THE COASTAL EFFECT IN USERS' PREFERENCE FOR CITIES

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### **Abstract**

Each city has its own unique cultural, social, ecological, and various other characteristics. While some cities are preferred for the visitation of their historical inventories, others are chosen for different features. However, there is an important fact that coastal cities have more alternatives compared to other cities. The ecological importance of coastlines is being researched by many branches of science. In this study, cities with coastlines have been primarily selected. These selected cities will be surveyed with a participant group of 150 individuals. The main purpose of this survey is to inquire about the reasons for choosing cities and to determine the place of coastal areas in this preference. The survey was conducted on the participants based on landscape parameters. Each parameter represented questions. The result of the study will emphasize the importance of coastlines among the reasons for choosing a city. With the data obtained from this study, it will be highlighted how crucial it is for coastal cities to be preferred and the necessity of giving more importance to these coasts in landscape design or planning decisions. Recommendations will be made for future studies based on the results obtained from the participants.

**Keywords:** Coastal design, coastal cities, coastal tourism



## **WATERBORNE CORROSION PREVENTIVE COATINGS AS SUSTAINABLE CORROSION INHIBITOR ALTERNATIVES IN THE OIL AND GAS INDUSTRY**

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### **Abstract**

The oil and gas industry faces significant challenges related to corrosion, which can lead to costly equipment damage, production downtime, and environmental hazards. Traditional corrosion inhibitors often contain toxic chemicals and pose risks to human health and the environment. Waterborne corrosion inhibitors offer a sustainable and safer alternative by utilizing environmentally benign compounds that are effective in preventing corrosion in various operating conditions. This research delves into the mechanisms of action of waterborne corrosion inhibitors, highlighting their ability to form protective films on metal surfaces, inhibit corrosion reactions, and mitigate localized corrosion phenomena. The use of environmentally friendly additives, such as organic compounds, phosphates, and green inhibitors derived from natural sources, is discussed as a key aspect of sustainable corrosion inhibition strategies. The environmental benefits of waterborne corrosion inhibitors are emphasized, including reduced toxicity, biodegradability, and lower environmental footprint compared to conventional inhibitors. Furthermore, the economic advantages, such as reduced maintenance costs, extended equipment lifespan, reducing harmful emissions and compliance with environmental regulations, are highlighted as compelling reasons for adopting waterborne corrosion inhibitors in the oil and gas industry. Case studies and research findings demonstrating the effectiveness of waterborne corrosion inhibitors in real-world applications are presented to illustrate their practical utility and potential for widespread adoption. The research concludes by advocating for the continued development, optimization, and implementation of waterborne corrosion inhibitors as part of sustainable corrosion management practices in the oil and gas sector.

**Key words:** biodegradability, inhibitors, corrosion, optimization

## EXAMINATION OF RİZE TEA HOUSE CONCEPT IN THE CONCEPT OF NATIONAL GARDEN

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### Abstract

**Introduction and Purpose:** In the 21st century, the concept of a national garden has come to the fore at the national level in order to meet the changing demands of people and to facilitate the accessibility of these wishes to a sustainable life. In the study, it is aimed to increase the contribution of biotic and abiotic components to the holistic urban ecosystem by increasing the amount of green areas that cities lack, with the concept of national garden. In this study, where a different conceptual approach is proposed to the concept of nation's garden, which is similar at the national level, the phenomenon of tea, which is a characteristic feature of the city of Rize, is highlighted.

**Materials and Methods:** In the study, an ecological design approach was developed using landscape planning and design principles. For this purpose, a model proposal was developed with two- and three-dimensional representations for a designated city part.

**Results:** The phenomenon of tea was considered as a "Tea House" design suitable for hybrid use, and the natural landscape was highlighted with both cultural landscape and green area designs. With this study, which aims to be applied to the Lankaran province of the Astara region of Azerbaijan, which has similar characteristics to Rize, tea house design will be moved from the national level to the international level.

**Discussion and Conclusion:** The most important result of the study is that a bridge will be established between Azerbaijan and Turkey by emulating the tea plant with its cultural landscape values.

**Key Words:** National Garden, Tea House, Cultural Values.

**DETERMINATION OF ADSORPTION CAPACITY OF ÇANAKKALE ÇAN  
THERMAL POWER PLANT FLUE GAS TREATMENT WASTE AND  
CHARACTERIZATION OF THE WASTE: COMPARISON WITH MAGNETIC  
ACTIVATED CARBON**

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**Abstract**

**Introduction and Purpose:** As a result of the combustion of lignite coal used in electricity generation in thermal power plants, a hazardous gas containing SO<sub>2</sub> and SO<sub>3</sub> is formed. The release of this gas into the environment poses a threat to the living ecosystem. For this reason, in FGD flue gas systems, sulfur oxides are absorbed by feeding milk of lime on the gas and as a result of this process, a waste containing high levels of calcium sulfate is formed. Within the scope of sustainability and environmentalism, disposal or reuse of flue gas waste is of great importance.

**Materials and Methods:** Thermal power plant waste, which has been evaluated as a cement additive in previous studies, was evaluated for the first time in this study for the reduction and adsorption of Cr(VI) in wastewater. Different techniques such as adsorption, membrane separation, ion exchange, electrochemical coagulation are used for chromium removal from wastewater. However, adsorption technology is the most widely used method with the advantage of providing high-capacity removal. With the use of solid wastes as adsorbents, it

can be ensured that wastes can be transformed into value-added products by eliminating their harmful effects such as environmental and cost, while at the same time, health risks can be eliminated by removing toxic substances such as heavy metals.

**Results:** In this context, a study was carried out on the removal of Cr(VI) ions using thermal power plant waste. In the study, factors affecting adsorption such as pH, time, temperature, dosage were tested and optimum conditions were determined.

**Discussion and Conclusion:** To investigate the adsorption mechanism and to evaluate its performance as an adsorbent, Cr(VI) removal study was carried out under the same conditions with magnetic activated carbon synthesized by co-pyrolysis technique in the previous study and performance comparison was made. SEM-EDX (Scanning electron microscopy/Energy dispersive spectroscopy), FTIR (Fourier transform infrared spectroscopy), XRD (X-Ray diffraction), XRF (X-Ray fluorescence), TGA analyses were performed to determine the surface morphology, particle size, functional groups and elemental composition of thermal power plant waste.

This study was supported by Çanakkale Onsekiz Mart University Scientific Research Coordination Unit with the project number FBA-2023-4480.

**Keywords:** Thermal power plant waste, magnetic activated carbon; Cr(VI) removal; wastewater treatment

## SCIENCE, CHRISTIANITY AND EXPECTANT MOTHERS IN NIGERIA

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### **Abstract**

Nigeria, a country marked by diverse cultural and religious practices, offers a unique context for examining the dynamic interaction between traditional beliefs, Christianity, and modern medical science, particularly concerning pregnancy and childbirth. Drawing upon ethnographic research and literature review, this study investigates the beliefs, practices, and decision-making processes of expectant mothers, juxtaposing traditional religious perspectives with biomedical knowledge and interventions. It explores how Christian beliefs and practices intersect with, influence, or sometimes conflict with medical advice and scientific understandings during pregnancy and childbirth. The identified themes highlighted various religious beliefs and practices observed during pregnancy, encompassing activities like prayer, communal singing, expressions of gratitude during church gatherings, fellowship, and emotional support. Spiritual leaders, particularly pastors, were noted for their involvement in providing spiritual care, including praying for expectant mothers, interpreting dreams, offering blessings, and administering anointing rituals. Additionally, traditional customs such as dietary restrictions, tribal rituals, and the use of specific religious items like anointing oil, blessed water, stickers, handkerchiefs, sand, Bibles, and Rosaries were observed during pregnancy and labor. Family dynamics and a culture of secrecy were found to influence the utilization of these religious artifacts. This study contribute to a deeper understanding of the intersection between religion, science, and maternal healthcare in Nigeria, offering insights that may inform culturally sensitive approaches to maternal care and health promotion strategies in similar contexts globally.

**Keywords:** pregnant women, hospitals, doctors, bioethics, science

## **CYBERSECURITY AND LINEAR FEEDBACK SHIFT REGISTER**

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### **Abstract**

Cybersecurity is an essential and important practice and procedures to protect all categories of data from theft and damage. Cybersecurity consists of all the technologies and practices that keep computer systems and electronic data safe. Information security, which encompasses the strategies and technologies implemented and utilized to safeguard confidential information data from being altered, interrupted, destroyed or examined. Thus, information security is a crucial part of cybersecurity, but is used exclusively to ensure data security.

Linear Feedback Shift Registers (LFSRs) are the prime element, which play a vital role to provide cybersecurity for the data communication system through implementing the mechanisms of cryptography, error-correction and many other applications. Through this paper we will discuss that how to make LFSR a strong, effective, efficient and with low power dissipation for the applications in the area of cybersecurity.

**Keywords:** Cybersecurity, Cryptography, Encryption, Decryption, LFSR, Pseudorandom sequences

## THE PROBLEM OF PHILOSOPHY'S CATCHING UP WITH THE AGE IN RUSSELL

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### Abstract

**Introduction and Purpose:** In the 20th century we are confronted with philosophies that either see the world as a logical world or against existing in a logical world. Russell looks at the world from a logical framework. In this presentation, it will be discussed how Russell, one of the pioneers in shaping contemporary understandings in philosophy, evaluates the position of philosophy in his time. In the 20th century, the effectiveness of philosophy in determining its own problems in the field of knowledge will be discussed.

**Method:** In this direction, the main sources on Russell in the literature are analysed. The views of the philosopher in his intellectual periods are compared and a synthesis is provided.

**Results:** It is seen that Russell recognises that philosophy has gradually lost its importance in the field of knowledge in the 20th century. Since its emergence, philosophy has claimed to attain certain knowledge in many different fields. However, philosophy has been able to attain certain kinds of knowledge in very few fields. This is because, according to him, philosophy does not use the results of science. Moreover, philosophy is detached from social life. Russell sees the main reason for this result in philosophy's distance from political life. In addition, philosophising has been limited to the academic environment. The disregard of philosophical tendencies outside the academy reduces philosophy to a position that fails to catch up with its age.

**Conclusion:** Russell is of the opinion that the problems of philosophy in the 20th century cannot be solved with the traditional understanding. He suggests that philosophy should be based on the results of science in order to maintain its claim to develop knowledge or method. In this study, Russell's neo-realist conception is analysed.

**Key Words:** Russell, classical tradition, contemporary conceptions, knowledge, logic, mysticism, scientism.

## A QUALITATIVE INVESTIGATION ON ATTITUDES OF PRE-SERVICE ELT TEACHERS' TOWARDS USING DRAMA METHOD IN TEFL CLASSES

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### **Abstract**

**Introduction and Purpose:** This study aims to explore Pre-service English Language Teaching (ELT) teachers' attitudes towards using drama method in teaching English as a Foreign Language (EFL).

**Materials and Methods:** Participants were fifty 2nd grade Pre-service English Language Teaching (ELT) teachers of a foundation university in Istanbul/Turkey. The participants were registered for the 2023 fall semester of Teaching English to Young Learners course. In our qualitative study, the data were obtained through pre-service ELT teachers' semi-structured interview questions and reflection papers and practicing teacher's observations. These instruments provided a full, rich and clear explanation to one another. They therefore result in the triangulation of data to better understand human behavior because triangulation is an excellent way to demonstrate concurrent validity and give several perspectives in interpretative research (Cohen, et al., 2007). Triangulation can involve multiple theoretical perspectives, observers, measures, or methods (Mackey & Gass, 2005). The interviews were conducted to get insight into the pre-service teachers' attitudes, thoughts, and experiences regarding the use of drama within Teaching English as a Foreign Language (TEFL). The contents of interview were reviewed if they were compatible with reflections or not. Moreover, the observer teacher's opinions on pre-service teachers' performances, improvements and experiences during the process were investigated. Observations provide "live data" extracted from their natural atmospheres (Cohen, et al., 2007).

**Results:** The results from this study showed that all of the pre-service ELT teachers found drama beneficial for themselves in order to improve themselves as language teachers and useful for teaching English to students.

**Discussion and Conclusion:** Content analysis of the study showed that drama contributes to learning through life-like scenarios, and that it can contribute to improvement of pre-service teachers' personality in a positive way and to their motivation for teaching English by applying drama in process.

**Key Words:** Pre-service ELT teachers; Attitudes; Drama method



## PRE-SERVICE ENGLISH AS A FOREIGN LANGUAGE (EFL) TEACHERS' THOUGHTS AND FEELINGS ON USING DRAMA GAMES IN LANGUAGE CLASSES

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### **Abstract**

**Introduction and Purpose:** Drama games are great for fostering collaboration, boosting self-esteem, teaching acceptable behavior and self-control, encouraging creativity, increasing drive, and having fun. It engages students and teachers affectively and intellectually and has been frequently utilized to enhance language abilities in foreign language instruction. By allowing children to interact with many modalities at once, drama gives them the chance to utilize their creativity to communicate both vocally and via body language. Drama games provide a lot of benefits, so it makes sense to incorporate them into foreign language education programs and find out what pre-service EFL instructors think and feel about utilizing them. Thus, the purpose of this qualitative study is to learn how pre-service EFL instructors feel about implementing and performing drama games in their English language instruction classrooms.

**Materials and Methods:** In this study, sixty pre-service EFL instructors enrolled at a Turkish foundation university are examined. The participants were registered for the 2023 fall semester of Teaching English to Young Learners course. In our study, we used a Grounded Theory study design (Creswell et al. (2007)). In order to find out the participants thoughts and feelings about drama games and applying them in ELT classrooms, data were gathered via an open-ended questionnaire, a semi-structured interview, and reflection papers. We carried out a content analysis.

**Results:** The findings indicate that pre-service EFL teachers believe that including drama games into their lessons will help students learn more effectively and will help them develop as teachers.

**Discussion and Conclusion:** Pre-service EFL teachers reported that they were inspired to participate in activities and that they had fun. They also thought that drama games would encourage kids to be active, learn in a pleasant way, and be driven to learn while having fun.

**Key Words:** Drama games; Pre-service EFL teachers; English language teaching; language classes; qualitative study

## CONJUGATE NATURAL HEAT TRANSFER IN THICK WALLED VERTICAL PIPES

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### Abstract

Conjugate natural heat transfer in a thick walled vertical pipe is investigated numerically. In a pipe of finite length for which the outer wall temperature is kept constant and higher than the temperature of the environment, the continuity, momentum and energy equations are solved simultaneously for laminar flow conditions and flow development and heat transfer with free convection are analyzed. The axial conduction for both wall and fluid sides are taken into account and the energy equations for the two sides are solved simultaneously with the conditions of continuity in temperatures and in heat fluxes at the interface. All physical properties of the fluid are assumed to be constant, except the density in the buoyancy term (Boussinesq approach). With additional assumptions of axially symmetric and irrotational flow, negligible viscous dissipation and that the body forces are only effective in vertical direction, a new code is written to solve the problem numerically by using the finite volume method. Patankar's SIMPLE algorithm is used for velocity solutions and axial and radial velocity distributions, pressure distribution, inner wall and fluid bulk temperature distributions in the pipe and local Nusselt numbers are obtained. Solutions are done for different values of the defining parameters of the problem namely; Grashof number, Prandtl number, wall-to-fluid thermal conductivity ratio, wall thickness ratio and pipe length to radius ratio. The results showed that heat transfer characteristics are considerably affected by the parameter values.

**Key Words:** Conjugate heat transfer, Fluid axial conduction, Natural convection in vertical pipes.

## USE OF TRABECTEDIN IN SOFT TISSUE SARCOMAS: SINGLE CENTER EXPERIENCE

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### Abstract

**Introduction and Purpose:** Sarcomas constitute 1% of all adult cancers. While traditional chemotherapeutic agents are used in the first step of metastatic soft tissue sarcomas, trabectedin is also among the treatment options in the second and later stages. This study aimed to evaluate the survival data regarding the use of trabectedin for metastatic soft tissue sarcoma in our center.

**Materials and Methods:** All patients who were followed and treated in our hospital, who were older than 18 years of age, did not have a second malignancy, were diagnosed with soft tissue sarcoma, and were using trabectedin were included in this study. The patients' diagnosis dates, treatment start and death dates if deceased, and other demographic data were obtained using the hospital automation system. IBM SPSS package program was used to analyze the data.

**Results:** A total of 22 patients were included in the study. 54.5% (n:12) of the patients were male. The average age of the patients was 55.2 years. The majority of the patients, 63% (n:14), were diagnosed with soft tissue sarcoma originating from the extremities. 31% (n:7) of the patients had metastatic disease at the time of diagnosis. The average ki67 score was 65%, the ki67 score of 68% (n:15) of the patients was above 60%, and 63% (n:14) of the patients had grade 3 tumors. The average progression-free survival time after the use of Trabectedin was 5.1 months. The overall survival time was found to be 12.5 months.

**Discussion and Conclusion:** The main purpose of treatment in metastatic soft tissue sarcomas is to prolong survival by improving the quality of life. As a result of our study, survival results compatible with the existing literature data were obtained, and trabectedin is still the second-line treatment option in metastatic soft tissue sarcomas in our country. shows that it is an effective treatment.

**Key Words:** Sarcoma; Soft tissue sarcoma; Trabectedin

**ACUTE PANCREATITIS DUE TO DABRAFENIB AND TRAMETINIB  
TREATMENT: CASE REPORT AND LITERATURE REVIEW IN A PATIENT  
WITH BRAF MUTATION POSITIVE METASTATIC MELANOMA**

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**Abstract**

**Introduction and Purpose:** Malignant melanoma is the most deadly of skin cancers. In recent years, survival times have increased thanks to advances in immunotherapy and targeted treatments. These targeted therapies include dabrafenib and trametinib, BRAF/MEK pathway inhibitors that target the BRAF V600E mutation. Although side effects such as fever, chills and rash are frequently encountered with this treatment, pancreatitis is a rare condition. This case report is intended to draw attention to a rare side effect such as acute pancreatitis. **Case:** A 67-year-old male patient with no known systemic disease had a change in shape and darkening of the previously existing nevus behind the right ear, so the lesion was excised. The pathology report is reported as malignant melanoma, clark level IV. Sentinel lymph node study of the patient, whose pathological stage was reported as pT3aNxMx, revealed involvement in the lymph node, but it was evaluated as unresectable. BRAF V600E mutation was detected in the patient and the patient was started on dabrafenib 2x150 mg and trametinib 1x2 mg. The patient was admitted to the emergency department with acute pancreatitis in the first week of treatment. The patient's medication was interrupted and 2 weeks later, the dose of dabrafenib 1x150 mg and trametinib 1x2 mg was started. The treatment dose of the patient, who did not develop acute pancreatitis again during the follow-up, was continued at the standard dose. **Discussion:** In the current literature review, there is no large-scale study on drug-related pancreatitis in the use of dabrafenib and trametinib. Acute pancreatitis is a life-threatening gastroenterological emergency if complicated. Although there is feedback in the form of a few case reports, acute pancreatitis may develop in the combined use of dabrafenib and trametinib, and in order to avoid disruption of the patient's treatment, the drug dose should be reduced and treatment should be continued, as in our case.

**Key Words:** Malignant melanoma, Acute pancreatitis, Dabrafenib, Trametinib

**AN ALGORITHM FOR SOLVING INTEGRAL EQUATIONS USING POWER SERIES AND SHIFTED CHEBYSHEV POLYNOMIALS BASED ON NUMERICAL COLLOCATIONS**

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**Abstract**

In this study, we utilized a numerical collocation approach to solve linear second-kind integral equations of Volterra and Fredholm types. We considered the use of Shifted Chebyshev polynomials and Power Series as basis functions, with additional application of Chebyshev-Gauss-Lobatto to collocate the approximate solution. Through comparisons based on the errors obtained, we evaluated the efficacy of these basis functions. Numerical examples were employed to illustrate the method's performance across various orders. The results indicated that Shifted Chebyshev polynomials demonstrated superior accuracy over Power Series, as evidenced by the error tables presented. This study provides valuable insights into the application of different basis functions in numerical collocation methods for solving linear integral equations, highlighting the advantages of using Shifted Chebyshev polynomials in such computations.

**Keywords:** Chebyshev-Gauss-Lobatto, Shifted Chebyshev Polynomials, Collocation point, Volterra-Fredholm Integral Equations.

**AN ALGORITHM BASED ON NUMERICAL COLLOCATIONS FOR SOLVING  
INTEGRAL EQUATIONS USING POWER SERIES AND SHIFTED CHEBYSHEV  
POLYNOMIALS**

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**Abstract**

In this study, we utilized a numerical collocation approach to solve linear second-kind integral equations of Volterra and Fredholm types. We considered the use of Shifted Chebyshev polynomials and Power Series as basis functions, with additional application of Chebyshev-Gauss-Lobatto to collocate the approximate solution. Through comparisons based on the errors obtained, we evaluated the efficacy of these basis functions. Numerical examples were employed to illustrate the method's performance across various orders. The results indicated that Shifted Chebyshev polynomials demonstrated superior accuracy over Power Series, as evidenced by the error tables presented. This study provides valuable insights into the application of different basis functions in numerical collocation methods for solving linear integral equations, highlighting the advantages of using Shifted Chebyshev polynomials in such computations.

**Keywords:** Chebyshev-Gauss-Lobatto, Shifted Chebyshev Polynomials, Collocation point, Volterra-Fredholm Integral Equations.

**ANALYSIS AND EVALUATION OF THE IMPACT OF SUSTAINABLE  
DEVELOPMENT OF GREEN FINANCE APPLICATIONS IN THE REPUBLIC OF  
AZERBAIJAN**

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**Abstract**

This thesis aims to investigate the effects of green finance on sustainable development in Azerbaijan. The motive behind adopting green finance is to provide financial support to projects that reflect the principles of environmental sustainability. This study will look at various indicators to assess the economic, environmental and social impacts of Azerbaijan's adoption of green financial practices.

**Keywords:** green finance, sustainable development, environmental policy, economic development.

**PROFESSIONAL TRAINING AND EMPLOYMENT OF PERSONS WITH  
DISABILITIES AS A FORM OF THE SOCIAL MODEL IN APPROACHING  
DISABILITY**

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**Abstract**

Strengthening the capacities of individuals with disabilities through professional training and employment is a positive example of inclusion in practice arising from the social model in approaching disability. Within the social model, individuals with disabilities are not viewed through the lens of their disability; the focus is not on what a person "cannot do" but rather on what they "can do." Individuals with disabilities are regarded in terms of their potentials, interests, rights, and possibilities. Our work aims to critically examine specific aspects of the social model and identify inclusive challenges in professional training and employment based on empirical experience.

Within the social model, inclusion is conceptually defined, emphasizing not the equalization of all individuals, but the appreciation of each person's diversity. Its value lies in the development of tolerance towards individual differences and needs, expanding awareness and enriching experiences. For the successful integration of individuals with disabilities into the work process and success in the workplace, professional training and skill development play a crucial role as tools for improving knowledge, skills, and abilities. In this way, individuals with disabilities gain self-confidence, self-esteem, and increased opportunities for employment. Employing individuals with disabilities can contribute to the quality of an inclusive work environment and bring numerous advantages, including increased diversity and innovation. However, the employment rate of individuals with disabilities remains a challenge in many countries. Physical and communication barriers, inaccessibility, negative attitudes, and stereotypes are just some of the factors contributing to the low employment rate of individuals with disabilities.

In addition to identifying challenges and creating conditions for an inclusive work environment that supports individuals with disabilities, it is essential to promote greater inclusion and diversity in the labor market. In this way, we provide an opportunity for a more just society where everyone has the chance to realize their full potential.

**Keywords:** employment, disability, social model, inclusion



**APPROXIMATE METHODS OF SOLVING INTEGRAL EQUATIONS WITH  
POWER SERIES AND TOUCHARD POLYNOMIALS**

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**Abstract**

This study explores approximate methods of solving second-kind integral equations, employing Power series and Touchard polynomials as basic functions. Standard collocation points are added to collocate the approximate solution, enhancing the method's accuracy. The study evaluates the efficacy of these basis functions by comparing the errors obtained. Numerical examples are used to demonstrate the method's performance across different orders. The results show that Touchard polynomials outperform Power Series in terms of accuracy, as indicated by the error tables. Additionally, Maple 18 software is used to compute all the problems, ensuring efficient and reliable calculations.

Keyword: Power series, Touchard polynomials, Integral Equations and Standard collocation point

## **A PHILOSOPHICAL DISCOURSE ON ARCHITECTURE AS A MIRROR OF CULTURE**

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### **Abstract**

Architecture as the art and technique of organising, creating, and erecting structures or constructed environments is a physical expression of culture and cultural identity. This is because a society's planning and building of its structures are vessels for human activities and symbols of civilization reflecting its values, beliefs, and ambitions. Structural designs, building methods, and arrangements of space all demonstrate the relationship between architecture and culture. Architectural process invariably involves asking questions like: what is a good building? What is the cultural, aesthetics, and ethical significance of such building? What influences such building? Etc. Questions like these lead architecture into philosophy, as they are all are philosophical questions. In similar vein, philosophy is the foundation of our thoughts and actions, and by extension, everything we create, observe, imagine, use, and live in. As far as it is possible to construct it, every fundamentally new idea that emerges in philosophy is reflected in the architecture. This paper aims at examining the pragmatic, aesthetic, sense of fostering and maintaining identity (especially in this age of globalization) roles of architecture as a mirror of culture. It also aim at discussing the roles of philosophy in architecture as an element of culture. By and large, this research work will rely on critical expository method to emphasise that philosophy is the source of every intellectual endeavour of which architecture is included.

**Keywords:** Architecture, culture, mirror, role, philosophy, intellectual endeavour

## **INVESTIGATION OF THE EFFICIENCY OF ADDITIVE MATERIALS USED IN SEWAGE SLUDGE COMPOSTING**

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### **Abstract**

The gradual decrease in water resources due to global warming has once again emphasized the importance of protecting surface and groundwater. In order to protect water resources, it is mandatory to discharge wastewater after treatment. In recent years, the number of wastewater treatment plants has increased greatly. Sewage sludge is one of the most important wastes resulting from wastewater treatment plants. Sewage sludge is generally disposed of by storing or burning. However, according to the waste management hierarchy, recycling of waste rather than disposal is essential. Composting is a recycling method that allows sewage sludge to be used as fertilizer or soil conditioner after stabilization.

Composting is a biological process that enables organic waste to be broken down biochemically as a result of microorganism activities under aerobic conditions and converted into a stable end product called compost. The main benefit of compost is that it improves soil structure and properties. Composting is an environmentally friendly and sustainable process.

Sewage sludge cannot be directly composted due to its high moisture content. For effective composting of sewage sludge, additive materials that improve the physical structure and properties of the sludge are used. Agricultural wastes such as rice husks, wheat stalks, corn stalks, tea wastes, natural minerals such as zeolite, vermiculite, pumice and sawdust are commonly used additive materials. In this study, the additive materials used in the composting of sewage sludge are examined and their efficiency is discussed in detail.

**Key Words:** Sewage sludge, Composting, Compost, Amendment materials.

**THERMAL STABILITY IN THE DIELECTRIC PROPERTIES OF  $0.5\text{BaTiO}_3\text{--}0.5\text{Bi}_{1-x}\text{Na}_x(\text{Mg}_{2/3}\text{Nb}_{1/3})_{1-x}\text{Nb}_x\text{O}_3$  SOLID SOLUTION**

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**Abstract**

Ferroelectric materials with perovskite ( $\text{ABO}_3$ ) structure have a long history and play a key role in electronic devices. In ceramics materials, barium titanate (BTO), is the first discovered lead free ferroelectric perovskite materials had highest room temperature, RT,  $\epsilon_r \sim 2000 - 3000$  with a modest curie temperature,  $T_c \sim 130^\circ\text{C}$  in its perovskite structure. BTO had a high potential for the energy storage because of its moderate value of polarization and breakdown strength ( $E_b$ ). However there are some limitation to use pure BTO, such as its sharp Curie temperature  $T_c$ , which need to be enhanced. The crucial way to enhance the properties of the perovskite materials is either by doping/substitution.

In the present study,  $0.5\text{BaTiO}_3\text{--}0.5\text{Bi}_{1-x}\text{Na}_x(\text{Mg}_{2/3}\text{Nb}_{1/3})_{1-x}\text{Nb}_x\text{O}_3$  ( $x = 0.10, 0.20, \text{ and } 0.30$ ) ceramics were prepared via solid state sintering route. The obtained samples were characterized using X-ray diffraction, Scanning Electron Microscopy, LCR meter and Ferroelectric tester. Phase identification of the samples showed the formation of a single phase cubic perovskite-structure (space group Pm-3m) which was further confirmed using Raman spectroscopy. Microstructural analysis of the samples revealed some voids in the samples while grain size was observed to decrease with increasing Na and Nb concentration. The addition of Na and Nb shifted  $T_m$  to below RT, and the stability range of previously reported binary,  $0.5\text{BaTiO}_3\text{--}0.5\text{Bi}(\text{Mg}_{2/3}\text{Nb}_{1/3})\text{O}_3$  ceramics sample was enhanced. Sample with  $x=0.20$  exhibited  $\epsilon_r(\text{mid}) = 402 \pm 15\%$  stable over a wide temperature range from which satisfy the criteria of X9R criteria proposed by the Electrical Industries Alliance (EIA).

**Keywords:** BTO , Capacitors , Ceramics , Harsh Environment, X9R

**DIELECTRIC, FERROELECTRIC AND OPTICAL PROPERTIES OF NA AND NB  
CO-DOPED  $(\text{Bi}_{0.5}\text{Na}_{0.5})_{0.94}\text{Ba}_{0.06}\text{TiO}_3$**

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**Abstract**

$[(\text{Bi}_{0.5}\text{Na}_{0.5})_{0.94}\text{Ba}_{0.06}]_{1-x}\text{NaTi}_{1-x}\text{NbO}_3$  ( $x = 0.5$  and  $0.10$ ) ceramics were prepared via conventional solid-state sintering route. X-ray diffraction analysis of the samples exhibited the formation of the cubic structure. Similar structure was observed from the Raman spectra of the samples. The optical band gap of the samples slightly decreased from 3.08 to 3.06 eV with increasing level of  $\text{Na}^+$  and  $\text{Nb}^{5+}$ . The addition of  $\text{Na}^+$  and  $\text{Nb}^{5+}$  shifted  $T_m$  towards room temperature (RT). The sample  $x = 0.05$  had a stable relative permittivity  $\epsilon_{r(\text{mid})} = 3914$  across the temperature range 79-350 °C and  $\tan \delta < 0.025$  (104-279 °C). The energy density of sample with  $x = 0.05$  was  $0.4 \text{ J/cm}^3$  which decreased to  $0.32 \text{ J/cm}^3$  at an applied electric field of 50 kV/cm with further substitution of  $\text{Na}^+$  and  $\text{Nb}^{5+}$  (i.e.  $x = 0.10$ ).

**Keywords:**  $\text{BaTiO}_3$ ;  $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3$ ; Dielectric properties; Ferroelectric properties; Energy density

## HOMOGRAPHS FORMED ACCORDING TO THE GRAPHICS IN THE PERSIAN DIVAN OF MUHAMMAD FUZULI

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### **Abstract**

Muhammad Fuzuli (1494-1556) is an artist who occupies a special place in the development of literary and artistic thought of Azerbaijan. He created his works in 3 languages. Like the works written by the poet in Azerbaijani language, his “Divan” in Persian language has a beautiful, fluent and fascinating melody.

**Main research:** The main goal is to investigate one of the lexical units in Fuzuli’s Persian divan – homographs and to determine how they are formed. Since the Persian written language is based on non-phonetic Arabic graphics, there are many homographs and homophones in this language. One of the main features of the Persian language, which uses the Arabic alphabet, is that it makes it difficult to read graphically based homographs. Research shows that in languages with an alphabet formed on basis of phonetic principles, homographs appear only because of emphasis. In Persian, in addition to emphasis, the vast majority of homographs are based on graphics and writing. This article discusses the importance of paying attention to this aspect of the Persian language in order to read and understand Mohammad Fozuli`s works correctly.

**Conclusion:** From the research, we came to the conclusion that the homographs formed according to the graphics in Divan can be mainly grouped as follows:

1. Homographs obtained from not writing actions
2. Homographs resulting from one letter expressing several sounds
3. Homographs obtained from the omission of the threat in writing

**Keywords:** Muhammad Fuzuli, Persian language, Arabic alphabet, homographs, short vowels

## COMPARISON OF 2013 PRESCHOOL EDUCATION PROGRAM AND 2024 PRESCHOOL EDUCATION PROGRAM

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### Abstract

**Introduction and Purpose:** The aim of this research is to comparatively examine the Preschool Education Program implemented in 2024 and the 2013 Preschool Education Program in terms of objectives, fundamental principles, basic characteristics, and achievements. **Materials and Methods:** The study was conducted with a document analysis approach, which is among qualitative research designs. The documents used in the research are the 2013 Preschool Education Program (PEP) and the 2024 PEP implemented in 2024. The data analysis was performed using descriptive analysis technique. **Findings and Conclusion:** The objectives of the 2024 PEP have been expanded to support the adaptation of preschool students to social life, which is different from the 2013 PEP. When the programs are compared in terms of the basic principles of preschool education, it is seen that the number of articles in the 2024 PEP has been increased from 18 to 25 compared to the 2023 PEP. The added articles relate to the implementation of inclusive education, enhancing children's awareness and interest towards the environment through outdoor activities, establishing certain routines, teachers being open to development, and the need to establish a secure bond between teachers and students. When the two programs are compared in terms of the basic features of preschool education, it is observed that these features have been increased from 18 to 24 articles in the 2024 PEP. The basic features added to the 2024 PEP include inclusiveness, instilling a positive outlook in children, holistic development, developing a positive attitude towards learning, and advancing children's development to the next stage. When the programs are analyzed in terms of achievements, it is concluded that the characteristics of child development for children aged 36-72 months have been reorganized, and consequently, changes have been made to the desired achievements, increasing the cognitive development achievements from 21 to 28. When the achievements in the area of language development are examined, it is seen that they have been increased from 12 to 13. It has been concluded that the motor development achievements and self-care skills achievements in the 2013 PEP have been combined and updated as physical development and health-related achievements, with motor development achievements consisting of 5 articles and self-care skills achievements consisting of 8 articles, and the updated physical development and health-related achievements have been expanded to 23 articles. The achievements related to social and emotional development have been increased from 17 to 22 articles.

**Key Words:** Preschool Education Program; Development Areas; Achievement

## THE PHILOSOPHICAL HERITAGE OF ABULKASIM QUSHAYRI

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### Abstract

**Introduction and Purpose:** Since ancient times, the East has been distinguished by its thinking and philosophical views, making an incomparable contribution to the scientific, spiritual and cultural development of mankind. One of the scientists who became famous for their Sufi and mystical-philosophical scientific heritage during the Eastern Renaissance is the Sufi, scholar of Islamic sciences and thinker Abulkasym Abdulkarim Qushayri, who lived in the 10th-11th centuries in the Khorasan city of Nishapur. Qushayri was a supporter of moderate Sufism, and he believed that Sufism should be within the framework of Sunni teachings and Sharia. Thus, the purpose of the article is to study the heritage of Qushayri and its place in the development of Eastern philosophy.

**Materials and Methods:** Abulqasim Qushayri is considered among Islamic scholars to be a Sufi with excellent knowledge in all fields of Islamic science, as well as a prolific author who has written works in many fields. He is famous for his works on aqidah, tafsir, hadith and fiqh, as well as his mystical works. Most of the thinker's works, whose names are mentioned in the sources, have survived to this day.

**Results:** Although some of Qushayri's works have already been researched, many manuscripts are still awaiting research and publication, which are in libraries in different countries. Some of his works are among the biographical works that have not survived to this day or have not yet been discovered by researchers. Information about the number of the scientist's works varies due to the lack of consensus among researchers and orientalists.

**Discussion and Conclusion:** In general, there are different views and disagreements among researchers regarding the number of works of Qushayri related to Sufism. The reason for this is that most of the thinker's works have not been studied and are stored in different libraries around the world. At the same time, the lack of interaction between scientists conducting research on the life and heritage of Qushayri affects the effectiveness of these works. In conclusion, we can say that in order to study the mystical and philosophical views of the thinker and Sufi Abulkasym Qushayri, it is necessary to find works stored in world libraries and conduct research on the legacy of the great scientist of the Eastern Renaissance.

**Keywords:** Sufism; philosophy; treatise; sight; thinker.



## **BIBLIOMETRIC ANALYSIS OF THESES THEMED 'TEMPORAMANDIBULAR JOINT (TMJ)' IN THE FIELD OF PHYSIOTHERAPY AND REHABILITATION**

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### **Abstract**

**Introduction and Purpose:** Bibliometric analyzes are scientific methods used to evaluate scientific literature by 'seeing the big picture' or 'bird's eye view'. Temporomandibular Disorders (TMD) is a clinical picture characterized by pain in the jaw joint, noise (crepitation or clicking) and irregular jaw movements. It is one of the most difficult conditions to treat among the causes of maxillofacial pain. The aim of this study is to examine the theses on Temporomandibular Joint (TMJ) in the field of Physiotherapy and Rehabilitation at the Institutes of Health Sciences between 2014 and 2024, according to various variables. **Materials and Methods:** Theses, which were completed between 2014-2024 and can be accessed with open access, were obtained as a result of the scanning made in the archives of the National Thesis Center of the Council of Higher Education. During the scanning, theses under the subject of 'Physiotherapy and Rehabilitation'; They were examined according to their universities, years and types. **Result:** As a result of this digital archive research conducted between 2014-2024, 29 theses were reached. Theses were classified according to university, year and type. According to the research, It was determined that it was held in 17 different universities; Okan, Sivas, Pamukkale, Haliç, Hasan Kalyoncu, İstanbul Aydın, Gazi, İstinye, Marmara, Dokuz Eylül, Hacettepe, Abant İzzet Baysal, Yıldırım Beyazıt, Kırıkkale, Zirve, Bahçeşehir and Kütahya Health Sciences University. When the distribution by years was examined, it was seen that 1 thesis was published 1 in 2024, 5 in 2023, 3 in 2022, 5 in 2021, 3 in 2020, 3 in 2019, 4 in 2018, 4 in 2017 and 1 in 2015. 22 of the theses were master's theses and the remaining 7 were doctoral theses. **Discussion and Conclusion:** In this analysis, the current status of theses in the field of Physiotherapy and Rehabilitation of the temporomandibular joint in Turkey was revealed. It is thought that it will guide future studies.

**Key Words:** Bibliometric Analysis, Postgraduate Education, Rehabilitation, Temporomandibular Joint

## EVALUATION OF THE PRODUCT DISTRIBUTION OF PLASTIC WASTE PRODUCED BY THE CATALYTIC PYROLYSIS PROCESS

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### **Abstract**

The disposal of plastic materials in the environment takes place sustainably, without the awareness of their serious consequences for the environment. In recent studies, it has been reported that over 700 species of marine life have been affected by plastic waste in the ocean. There are several techniques available for treating plastic waste. Initially, the plastic waste was incinerated and disposed of in landfills. It is estimated that 20% of plastic waste was burned in 2015, only 20% was recycled, and the remainder was simply scraped. The incineration of plastics increased to 79% at the end of 2016, and the remaining plastic was disposed of in landfills and used as a source of energy. In this study, the catalytic pyrolysis process was evaluated and determined to be the most desirable technique for recycling plastic waste. In this process, catalysts were used to improve fuel quality and reduce the amount of heat energy necessary. There were several factors discussed that influence product formation. It was demonstrated that different characterization methods can be used to describe the link between the catalyst and the product. Analysis of the catalytic pyrolysis products indicates their enormous potential. Hence, this process was chosen as an appropriate method for treating plastic waste.

**Keywords:** Plastic, Catalytic pyrolysis process, Products.

## LANDING SYSTEM DESIGN AND ITS STATIC INVESTIGATION BY FINITE ELEMENT METHOD FOR ROTARY WING UNMANNED AERIAL VEHICLE IN HEXACOPTER STRUCTURE

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### Abstract

**Introduction and Purpose:** In rotary wing unmanned aerial vehicles (drones), the landing system is the component that touches the ground, and the load carried and the weight of the aircraft affect this system. Appropriate materials should be preferred to prevent the parts forming the system from deforming as a result of the forces acting on the system. The landing system may be deformed and damaged in an adverse situation or a hard landing, and this damage may be reflected in other systems. The important parameters for this system are high strength and an optimized design. Taking these parameters into consideration, the landing system is designed and integrated into the drone.

**Materials and Methods:** Two different designs were made in Solidworks for the landing system of the drone. In addition to carbon fiber (240 GPa) material, parts printed from a 3D printer using PLA filament were used in the landing system. Carbon fiber material was preferred due to its strength, corrosion resistance, and lightness. After calculating the total force that will affect the aircraft, total deformation, stress, and strain analyses were performed on both designs in the ANSYS analysis program to examine the effects of the force that will act on the landing system.

**Results:** As a result of the analysis, the maximum value of the total deformation for the landing system in the 1<sup>st</sup> design is 4.2746 mm, and in the 2<sup>nd</sup> design, it is 2.1259 mm. As a result of the strain analysis, the maximum value in the 1<sup>st</sup> design is 0.0035035 mm/mm and in the 2<sup>nd</sup> design, it is 0.0032729 mm/mm. As a result of the stress analysis, the maximum value in the 1<sup>st</sup> design is 60.433 MPa and in the 2<sup>nd</sup> design, it is 31.568 MPa.

**Discussion and Conclusion:** This study was carried out considering the design parameters of the landing system, which are important for the drone. Accordingly, as a result of the analyses made for the designs, it was seen that the second design was more suitable for the landing system of the drone.

**Key Words:** Rotary wing unmanned aerial vehicle, Landing system, High strength, Carbon fiber, PLA, Original design, Static analysis.

## **EXPERIMENTAL INVESTIGATION OF THE EFFECT OF DISCHARGE RATES ON CELL TEMPERATURES IN LI-ION BATTERIES WITH DIFFERENT CAPACITIES**

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### **Abstract**

**Introduction and Purpose:** Due to their high energy density and long lifespans, the use of Li-ion batteries as power sources in electric vehicles has become widespread. However, the performance of Li-ion batteries is significantly affected by the thermal condition of the battery and the temperature values on the battery surface. One of the main reasons for these thermal problems encountered in Li-ion batteries is the applications performed at different discharge current rates. In constant current discharge applications, the discharge rate affects the thermal and electrical characteristics of the battery cell. Explaining the relationship between the characteristics of Li-ion batteries and the discharge rate is crucial in real-world applications for objectives such as battery life, safety, and state-of-charge estimation. Therefore, this study aims to investigate the temperature values of cylindrical battery cells with different capacities at different discharge rates.

**Materials and Methods:** Two cylindrical Li-ion battery cells with different capacities were used in this study. Discharge tests were conducted for each battery cell under the same environmental conditions and discharge current values. In the experimental setup, the discharge of the battery cell was performed using a direct current (DC) electronic load device. The

charging of the battery cell was also carried out using another DC power supply. Throughout the test, temperature data were recorded using data loggers with thermocouples placed at different points on each battery surface. Additionally, thermal images of the battery surface were captured using a thermal camera during the experiment.

**Results:** Using thermocouples, temperature data obtained from different areas on the battery surface were used to observe that as the discharge current value increased in the Li-ion battery cell within the 0.5C to 3C discharge rate range, both the temperature of the cell and the rate of temperature increase also increased. In other words, in tests conducted at a 3C discharge rate, higher temperature values on the cell surface were reached much more quickly compared to other discharge rates. Additionally, when comparing temperature data taken from the center point and other points on the battery cell surface, it was observed that the temperature value taken closer to the cell center was higher than the values from other points.

**Discussion and Conclusion:** This study has demonstrated that in Li-ion battery cells with different capacities, the temperature rise occurs more rapidly at high discharge rates during the discharge test, and this temperature increase is more pronounced at the center of the battery cell compared to other regions. Consequently, it was observed that the discharge rate affects the temperature of the Li-ion battery cells.

**Keywords:** Li-ion Battery; Cylindrical Battery Cell; Battery Cell Temperature; Discharge Rate

**EXAMINING THE INTEREST AREAS OF STUDENTS STUDYING AT THE  
FACULTY OF SPORTS SCIENCES ACCORDING TO MULTIPLE INTELLIGENCE  
THEORY**

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**Abstract**

The aim of this research is to determine the interests of students studying in sports sciences according to multiple intelligence theory. The research was conducted using the survey model from quantitative research methods. The population of the study consisted of students studying at Süleyman Demirel University, Faculty of Sport Sciences. The sample group consisted of 84 volunteer students randomly selected. In order to analyse the data obtained, frequency, arithmetic mean, standard deviation, kurtosis and skewness values were calculated. Since the data showed normal distribution, parametric analyses were used and Independent Samples (T test) test was used in pairwise comparisons to determine the differentiation between variables. Pearson correlation analysis was applied to reveal the relationships between the scales. As a result, no significant difference was found in the variables of the participants' multiple intelligence areas according to gender.

**Keywords:** Sport, Multiple Intelligences Theory, Interest

## INVESTIGATION OF THE SELF-EFFICACY OF FOOTBALL COACHES

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### **Abstract**

The aim of this study is to examine the coaching self-efficacy of football coaches in terms of some variables. The population of the study consisted of 128 football coaches who are members of the Association of Active Football Coaches of Turkey in Isparta province. The sample group consisted of 85 football coaches who voluntarily accepted to participate in the research from this population. The volunteers who participated in the study were asked to fill in the personal information form and the coach self-efficacy scale. The data were analysed by means of statistical software in computer environment. In the normality tests, it was determined that the data did not show normal distribution. Number, percentage, mean and standard deviation were used as descriptive statistical methods in the evaluation of the data. Independent Sample T-Test was used for pairwise comparisons and One-Way Analysis of Variance was used for multiple comparisons; LSD test was applied to determine the difference.

As a result, it was determined that the coaching self-efficacy of football coaches working in Isparta province was affected by the variables of age, coaching age, educational status and document level.

**Keywords:** Football, Coach, Self-efficacy

## REMOVAL OF MICROPLASTICS: TECHNOLOGICAL APPROACHES AND SUSTAINABLE STRATEGIES

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### **Abstract**

The management of water pollution and its control is becoming increasingly challenging as different types of pollutants gain attention. Currently, microplastics, plastic particles smaller than 5 mm, have become a growing threat to ecosystems. Due to their properties, such as large surface area and fine particle size, microplastics are spreading worldwide in the aquatic environment and show strong adsorption and significant transfer capability for various pollutants. In response, intensive research is being carried out to remove microplastics before they reach the receiving environment. The aim is to minimize the impact of microplastics on ecosystems and maintain the ecological balance. Numerous studies have investigated the applicability of both conventional and advanced treatment technologies to remove plastic particles from water and wastewater. This review study provides an overview of developments in basic treatment technologies for the removal of microplastics from water. Existing technologies were analysed comparatively, in particular with regard to their cost-effectiveness, efficiency and environmental impact. Current challenges and new integrated approaches for the removal of microplastics are also discussed. Finally, sustainable management strategies are proposed that can complement conventional methods. It is expected that the results of this study will contribute to the implementation of more effective and comprehensive solutions by promoting the integration of innovative technologies. It is also expected that these findings will help in the development of more effective policies and regulations in the ongoing battle against microplastic pollution.

**Key Words:** Microplastic; Ecosystem; Pollution; Removal Technologies; Water Treatment



**CRITICAL RAW MATERIALS (CHM), IS THE FAVOURITE OF GLOBAL TRADE,  
OR CRITICAL FOR THE HEALTH OF ECOSYSTEMS?**

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**Abstract**

The latest trends in the European Union have seen the integration of Industry 4.0 goals and Internet of Things technologies. This integration emphasises the importance of critical raw materials (CRMs) in the manufacture of high-tech products and engineering systems. CRMs are of economic and strategic importance to the European Union, yet their procurement is challenging due to their categorisation as high-risk resources. The categorization of raw materials as "critical" is based on a thorough assessment of various factors, including the political and economic stability of the producing countries, supply density, bottlenecks in supply chains, substitution potential, recycling rates and impact on the economy. The European Commission draws up lists of critical raw materials based on their importance and the availability of alternatives. These lists also include factors that measure the risk of supply disruptions. However, the assessment of regional lists of critical raw materials, particularly with regard to their environmental impact, health effects and utilization characteristics, has not yet been sufficiently researched. A 2020 report by the European Environment and Monitoring Network highlighted the need to consider the concentration of CRMs in surface waters when assessing their environmental impact. The aim of this study is to investigate the potential risks posed by CRMs, which play a crucial role in global trade as they enter ecosystems via recycling facilities, particularly in industries such as oil refining, mining and technology. The study will investigate the threats to ecosystem health posed by CRMs that can easily enter the marine environment, particularly in coastal areas and cities. With this research, we aim to improve our understanding of the environmental impacts of CRM use and facilitate informed decision-making in resource management.

**Key Words:** Critical Raw Materials; Environmental Impact; Recycling; Ecosystem Health; Resource Management

## **A REVIEW OF THE ROLE OF CALCIUM ON SALINITY TOLERANCE IN CROP PLANTS**

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### **Abstract**

Salinity stress is one of the increasing problems in the world, which covers a large area of cultivated lands. Also, salinity is one of the main osmotic stresses that seriously limits the production of crops in different regions of the world, including arid and semi-arid regions. Irrigation with inappropriate and salty water is the most important factor in increasing salt and salinization of the soil and as a result, creating salinity stress. The effects of saline environments on plants include: the reduction of water potential caused by the presence of salts in the root environment, the effect of ion toxicity especially sodium and chlorine ions, and the ionic imbalance between sodium, chlorine, potassium, nitrate and phosphate ions. Soil salinity is considered as one of the most important limitations for the growth of agricultural plants due to its toxicity and preventing the absorption of water and mineral elements, and it is a major problem in agriculture. The effect of salinity on plants is related to the concentration of total salt, the type of specific ion, and also to the species and variety of the plant. There is a direct and inseparable relationship between salinity and drought stress because adding salt to water reduces its osmotic potential. The salinity stress makes the plant face a secondary osmotic stress, or in other words, a physiological drought stress. The main effect of salinity stress on plants is prevention of growth, which may be due to reduced cell division, ion imbalance, reduced water absorption, impaired absorption of elements, effects of toxic ions especially sodium, disturbance in the absorption, regeneration and metabolism of nitrogen and protein, partial or total closure of stomata and reduction of photosynthesis efficiency. Salinity, like other environmental stresses, can cause the production of reactive oxygen species (ROS) inside the cell. These compounds cause a lot of damage to the cell through the oxidation of lipids, proteins and nucleic acids. Calcium ion is a divalent cation that is considered as a necessary element in many plant processes and plays a role in maintaining membrane structure, stability of cell wall structure, regulation of ion transport and control of ion exchanges, and It also acts as a

secondary messenger in the path of signal transmission in cells. Calcium is a essential mineral element that is very effective in removing the toxicity of high concentrations of other elements in plants under salinity. Optimum concentration of calcium is important for greater resistance of plants in stress conditions. The presence of calcium ion in the intracellular and extracellular environment increases the resistance of the plant cell against the entry of additional sodium and chlorine ions, and the cell comes out of the stress condition. Studies have shown that adding calcium to the saline environment can be done in different ways, including maintaining the structure and integrity of the cell membrane and increasing cell division, reducing the absorption and transfer of sodium to aerial organs, increasing the absorption of potassium, and as a result, increasing the ratio of potassium to sodium in the plant, improving nitrogen metabolism and photosynthetic activity of the plant, reduces the destructive effects of salinity on plant growth.

**Keyword:** Salinity tolerance, Crop plants, Calcium, Secondary messenger, Maintaining membrane structure

## **A REVIEW OF MEDICINAL PROPERTIES AND BIOACTIVE COMPONENTS OF GANODERMA LUCIDUM MUSHROOM**

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### **Abstract**

Ganoderma lucidum mushroom is one of the medicinal mushrooms belonging to the branch of basidiomycetes with unique medicinal properties. Ganoderma lucidum is one of the mushrooms known as one of the best and most effective medicinal mushrooms due to its multiple therapeutic properties. The Japanese believe that the red strain of this mushroom has medicinal properties, but the Chinese believe that the black strain has many more medicinal properties than the red strain. Ganoderma lucidum has many usages in traditional Chinese medicine. In ancient sources and books, this mushroom is known to be useful for treating shortness of breath, strengthening memory, increasing physical strength, increasing longevity, treating kidney and liver diseases, arthritis, asthma, stomach ulcers, diabetes and anorexia. In China, for many years, Ganoderma was known as a traditional and effective elixir in the treatment of various diseases. All the texts of traditional Chinese medicine have mentioned this mushroom and consider it effective for the treatment of various diseases (without side effects). Today, this mushroom, which is available in cultivated form, is used to treat headaches and weak nerves, insomnia, dizziness, hepatitis, lowering cholesterol and blood pressure, cardiovascular and vascular problems, poisoning caused by consuming poisonous mushrooms, and cancer. Ganoderma is a group of fungi that grows on wood and includes about 80 species. The edible mushroom Ganoderma lucidum is known as "Lingzhi" in China and "Reishi or Manetake" in Japan, and it has been used for more than 2000 years to promote health and longevity in China and other East Asian countries. There are several reports about active biological substances in this mushroom. Ganoderma lucidum mushroom has more than 400 biologically active substances, the most important of which include triterpenoids, polysaccharides, nucleotides, sterols, steroids, fatty acids, protein, peptides, etc. Melanin is another substance found in this mushroom. Melanin has antioxidant activity, strengthening the immune system, protecting against radiation and anti-mutation. Mineral cations such as Cu, Fe, Mn, Zn, Ca, and Mg are

also found in this mushroom. Spores contain substances such as choline, betaine, stearic acid, palmitic acid, behenic acid, tetracosane, ergosterol and  $\beta$ -sitosterol. Among these, polysaccharides and terpenoids are more important.

**Keywords:** Ganoderma lucidum, medicinal-edible mushroom, biologically active compounds, effective elixir, anti-cancer

**DEVELOPMENT OF A DRIFT-BASED METHOD FOR DETERMINING THE  
TYPES OF DAMAGE IN EXISTING REINFORCED CONCRETE STRUCTURAL  
ELEMENTS**

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**Abstract**

**Introduction and Purpose:** The earthquakes that occur worldwide and will continue to happen make the seismic performance of structures and the necessity of research in this area mandatory. Taking precautions not only minimizes the loss of life but also reduces economic losses, which allows society to recover more quickly. It is also extremely important for the preservation of historical structures, the transfer of cultural heritage to future generations, and achieving sustainable development missions. The complexity associated with predicting and interpreting rotations occurring at the ends of structural elements under the influence of earthquakes has led to the development of drift-based formulations in this study. The aim was to develop a reliable method for predicting building performance by relating the rotations at the element ends to displacements, based on shear force (V) and displacement (D).

**Materials and Methods:** This approach addresses the challenges in determining the seismic performance of existing buildings, as estimating and interpreting rotations caused by earthquake effects are intricate. After determining the damage limits and damage states within the framework of the VD method, it was observed in the study that the length of plastic hinges significantly affects the seismic performance of columns. In order to ensure both safety and practicality, the plastic hinge length defined in (TBDY, 2018) was adopted as a reference in this study. **Results:** After analyzing two buildings with regular geometry and two buildings with irregular and asymmetric geometry, it was found that for symmetric buildings the VD Method showed 100% compatibility with (TBDY, 2018). However, the compatibility was relatively lower for highly irregular buildings.

**Discussion and Conclusion:** Considering this level of compatibility for symmetric buildings, the VD Method was identified as an alternative technique for assessing seismic performance.

**Key Words:** Earthquake; Performance Analysis; Reinforcement; Drift

## **IDENTIFICATION OF ACETYLCHOLINESTERASE INHIBITORS AS NEW CANDIDATES FOR ALZHEIMER DISEASE VIA VIRTUAL SCREENING AND MOLECULAR DYNAMICS SIMULATION**

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### **Abstract**

Huperzine A (HA), a reversible acetylcholinesterase (AChE) inhibitor, is an important psychotherapy medicine that improves cognitive function in Alzheimer's patients by boosting central cholinergic tone. Acetylcholinesterase (AChE) catalyzes the hydrolysis of the neurotransmitter acetylcholine to acetate and choline in synaptic clefts. Cholinergic neurotransmitter deficits are closely linked to the progression of Alzheimer's disease (AD), a neurodegenerative disorder marked by memory loss and reduced cognitive function. Since the previously approved AChE inhibitors, donepezil (Aricept), galantamine (Reminyl), and rivastigmine (Exelon), huperzine A, have undesirable effects, several investigations are being conducted to develop innovative AD medications. In this study, we focused on the interaction between huperzine A and AChE (4EY5). The purpose is to develop possible HUP equivalents with superior physicochemical qualities, less hazardous features, has significant biological activity. As a result, many *in silico* methodologies were used. We created an e-pharmacophore model based on the complex (4EY5-ligand) and then conducted a virtual screening using a set of 912 natural compounds from the PubChem database. This screening yielded 131 molecules that were consistent with the established pharmacophoric hypothesis; these ligands were docked in the active site of the 4EY5 inhibitor. As a result, four compounds with high docking scores and low free binding energy to the target were discovered. The top four compounds, CID\_162895946, CID\_44461278, CID\_44285285, and CID\_81108419, were subjected to ADMET prediction and molecular dynamic simulations, which yielded promising results in terms of pharmacokinetic properties and stability. As a result, these four compounds are recommended for further investigation as potential 4EY5 inhibitors. Finally, molecular dynamics simulation, cross-dynamic correlation matrix, free energy landscape, and MM-PBSA calculations show that the suggested ligands form extremely stable complexes with the enzyme acetylcholinesterase, with an always-targetable affinity.

**Keywords:** Alzheimer, 4EY5, HUP, e-pharmacophore, docking, ADMET, molecular dynamics, MM-PBSA

## **CLIMATE JUSTICE: PERCEPTION OF FACULTIES IN PUBLIC UNIVERSITIES OF BANGLADESH**

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### **Abstract**

Climate Justice refers to addressing the unequal impacts of climate change on vulnerable communities. It emphasizes fair treatment for all, especially those disproportionately affected, such as low-income and marginalized groups. This research delves into the intersection of climate justice in developing nations and our obligations, with a specific focus on public universities in Bangladesh. It investigates the applicability of Climate Justice principles within the framework of developing countries such as Bangladesh and explores the responsibilities of students and faculty in addressing climate change. Employing qualitative research methods, including interviews and surveys, the study aims to elucidate perceptions, attitudes, and actions regarding climate justice among university stakeholders. The findings shed light on the level of awareness, attitudes, and potential barriers to establish climate justice programs in public universities to teach faculty and students about fair climate solutions as well as foster dialogue to take collective action. Ultimately contributing to more equitable and sustainable responses to climate change in Bangladesh and beyond.

**Keywords:** Climate Justice, Awareness, Perception, Climate change, Climate solutions, Responsibility, Bangladesh situation.



## PHARMACOLOGICAL IMPORTANCE OF CLITORIA TERNATEA-A REVIEW

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### **Abstract**

*Clitoria ternatea*, commonly known as butterfly pea, is a versatile plant species belonging to the Fabaceae family. It contains tannins, phlobatannin, carbohydrates, saponins, triterpenoids, phenols, flavonoids, flavonol glycosides, proteins, alkaloids, anthraquinone, anthocyanins, cardiac glycosides, Stigmast-4-ene-3,6-dione, volatile oils and steroids. The plant showed many pharmacological effects including antioxidant, hypolipidemic, anticancer, anti-inflammatory, analgesic, antipyretic, antidiabetic, CNS, antimicrobial, gastro-intestinal antiparasitic, insecticidal and many other pharmacological effects. Traditionally, different parts of the plant, such as the flowers, leaves, and roots, have been used in traditional medicine to treat a range of ailments. This review will highlight the chemical constituents and pharmacological effects of *Clitoria ternatea*.

**Key words:** Plant, *clitoria ternatea*, pharmacological effects.

**STUDENTS' ADJUSTMENT AND THEIR ACADEMIC PERFORMANCE IN  
SENIOR SECONDARY SCHOOLS IN KWARA STATE, NIGERIA**

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**Abstract**

The study investigated the students' adjustment and their academic performance in senior secondary schools in Kwara State. Specific objectives, research questions and hypotheses were formulated to guide the study. The sample of three hundred and eight four (384) students out of a population of 217,377 were selected to participate in the study. A self-constructed questionnaire titled: Students' Adjustment Question (SAQ) and Mathematics and English Language objective test questions. The validity and reliability of the instruments were established. The reliability index of 0.84, showed a high reliability of the items. Frequency distribution, percentages, mean statistic, t-test Pearson Product Moment Correlation (PPMC) were used to analyzed the data. The findings revealed that in senior secondary schools in Kwara State; there is significant relationship between social adjustment and academic performance; there is no significant relationship between emotional adjustment and academic performance; the study found that there is significant relationship between academic adjustment and academic performance. Based on the findings the study recommended that Kwara State government should have functional psychological testing centres in all public senior secondary schools in order to attend to students with social, emotional and academic problems for proper adjustment.

**Key:** Students' Adjustment, Academic Performance

## **HOME BACKGROUND, CONDUCT DISORDER AND ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS IN FCT ABUJA**

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### **Abstract**

The interplay between home background and conduct disorder can have a profound impact on the academic achievement among students. Therefore, understanding the impact of home background and conduct disorder on academic achievement is crucial for developing targeted interventions and support systems for students in FCT Abuja. This study aimed to investigate the influence of home background and conduct disorder on the academic achievement of secondary school students in the Federal Capital Territory (FCT) of Abuja. A mixed-method approach was used for the study (Quantitative surveys and Qualitative interviews). The survey was used to measure students' home background, conduct disorder symptoms, and academic performance, while the interviews were employed to explore students' lived experiences and perspectives on these factors. A total number of Ten (10) private and Ten (10) public secondary schools were randomly selected across the Federal Capital Territory (FCT) of Abuja. During data collection, a structured interview and a 4-point Likert scale instrument containing 20-items (Statements) were administered to 100 respondents consisting of 05 students from each selected school (05x20=100). Mean score and standard deviation were used to answer the research questions while the hypotheses were tested using independent sample t-test statistical tool. The findings from the study highlighted the significant impact of home background and conduct disorder on the academic achievement of secondary school students in FCT Abuja. It is recommended that, (i) Educators, policymakers, and parents should collaborate to create a supportive and nurturing environment for students, irrespective of their home background or behavioral challenges (ii) Stakeholders should provide access to mental health services and academic support so as to improve the academic outcomes of vulnerable students in the region (iii) Further research should be conducted to explore additional factors that may influence academic achievement in the region and inform evidence-based interventions.

**Key words:** Conduct Disorder, Home Background, Academic Achievement

**INFORMATION AND COMMUNICATION TECHNOLOGIES AS A TOOL FOR  
AWARENESS: THE BLACK SEA AND THE AFRICAN CONTINENT**

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**Abstract**

The increasing realization about the potentialities of the Information and Communication Technologies (ICTs) in creating alertness, mindfulness and attentiveness on issues in African Continent cannot be overemphasized. This study attempts to look at the role of ICTs in order to edify and relate the Black Sea which is the a marginal Mediterranean Sea lying between Europe and Asia, East of Balkans, South of the East European Plain, west of the Caucasus.

**Key words:** ICTs, Awareness and the Black Sea

## **A REVIEW ON PROBLEM AREAS OF DIGITAL TRANSFORMATION AND ENVIRONMENTAL SUSTAINABILITY**

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### **Abstract**

**Purpose:** Digital transformation is a key driver of innovation and growth across industries. The increasing demand for natural resources that comes with industrialization, urbanization, and rapid population growth, and the fact that this demand is being met in a way that does not allow nature to renew itself, is causing major environmental problems. The most important of these problems are the increasing energy consumption and electronic waste resulting from the rapid aging of digital devices. The main purpose of this research is to examine the environmental sustainability potential of digital transformation. The convergence of digital transformation and environmental sustainability has emerged as a critical research topic in contemporary discourse. As institutions and organizations seek to harness the potential of digital technologies to support operational efficiency and innovation, they face a complex set of issues that encompass both technological and environmental dimensions. The analysis also examines the interrelationship by exploring how environmental concerns may impact digital transformation efforts.

**Method:** Descriptive statistics technique is used in the method part of this research. It was preferred to use descriptive statistics in the research because it is a technique that quantitatively describes or summarizes the features in the information collection, taking into account the purpose, scope, and problem situation of the research. In addition, descriptive statistics is an appropriate technique for this research because it aims to summarize a sample rather than using the data to obtain information about the population that the data sample is believed to represent.

**Conclusion:** This review study provides valuable information for practitioners, policy makers, and researchers who want to understand the complex interaction between digital transformation and environmental sustainability in a nuanced way. The implications of this study extend to a broader consideration of the ethical, social and political dimensions that shape the course of modern technological progress in the context of environmental protection.

**Keywords:** Digital Transformation, Environmental Sustainability, E-Waste, Smart City.

## COMPETENCY ASSESSMENT IN DIGITAL RELATIONS: A CONTENT ANALYSIS DIRECTED ON TR42 REGION MUNICIPALITIES

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### **Abstract**

**Purpose:** This research aims to analyze the comprehensive review of literature and practices by classifying the essential competencies required for effective Digital Public Relations from both a techno-digital and socio-cultural dimension. The content analysis technique was utilized due to its suitability to the subject, purpose, and main problem of the research.

**Method:** Initially, a systematic review of the literature was conducted, followed by data collection using the "Digital Public Relations Skills Classification Form" (DHİBSF) developed by researchers from the web pages of municipalities in the TR42 Region. The collected data were analyzed using the directed content analysis technique, and various recommendations were made. The study examined two fundamental dimensions critical to DHİBSF: techno-digital and socio-cultural competencies. Within the techno-digital dimension, sub-dimensions such as visual adequacy, content adequacy, technical adequacy, information adequacy, and SEO optimization adequacy of the website were analyzed. The socio-cultural competencies dimension consisted of sub-dimensions including reputation management adequacy, crisis communication adequacy, social media management adequacy, and accessibility adequacy for people with disabilities. The competency classification presented in this research reveals the state of skills in the field of digital public relations.

**Conclusion:** Given the evolving nature of digital communication, constant skill development and adaptation are necessary, making this classification a dynamic reference for the profession of digital public relations. The methodology used in the research, the developed Digital Public Relations Skills Classification, and the practical results of the study are expected to make significant contributions to the literature on digital public relations skills.

**Keywords:** Digital public relations, Techno-digital dimension, socio-cultural dimension. web page design

## PEDAGOGICAL TECHNOLOGIES AND SUBCOMPONENTS IN MODERN EDUCATION

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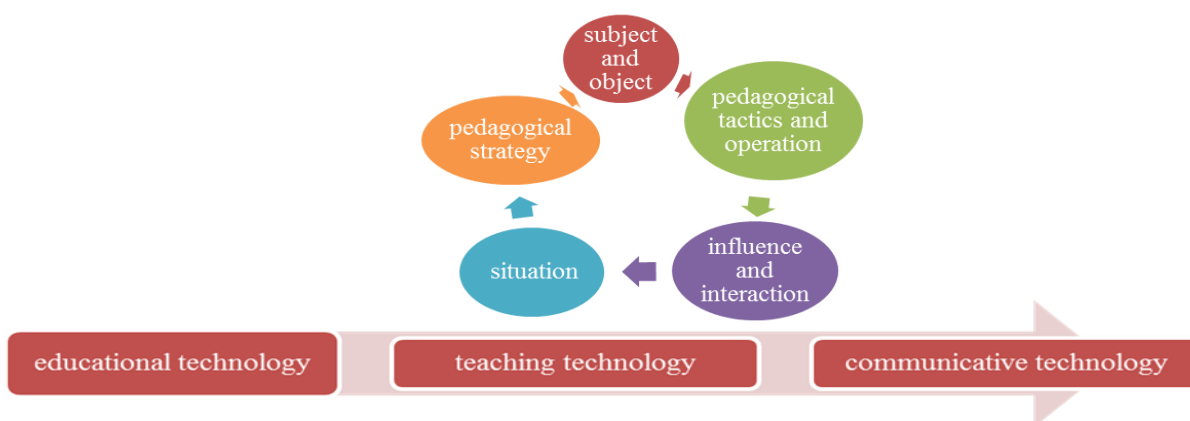
### Abstract

**Introduction and Purpose:** The development of society largely depends on the development of education. Experience also shows that innovations in society create serious changes in the education system. The education system needs to be constantly updated to meet these and other social needs of society and individuals. As the needs, direction and content of society change, the education system works accordingly. From this perspective, education is seen today as a whole system that combines important social values and procedures, provides the basic needs of the society, and is organized on the basis of social relations and social norms.

**Materials and Methods:** UNESCO defines the concept of "pedagogical technology" as follows: "Pedagogical technology is a method of creating a system and program, taking into account technical and human resources and their interaction, and bringing to the fore the task of optimizing educational forms."

Because people's cognitive processes interact with their behaviors, activities, and communications, social processes influence the lives of individuals, who in turn influence social processes. As a result, worldview, evaluations and relationships gain a new content. His attitude towards himself, the environment in which he studies, the object and subject of this environment changes. According to N. E. Shurkov: "Pedagogical technology is an applied pedagogical science and includes a number of categories: subject and object, pedagogical strategy, pedagogical tactics and operation, situation, effect and interaction.

Figure 1. The structure of the pedagogical technology apparatus (Shurkova)



Pedagogical technology is divided into various subcomponents in its structure

**Results:** Educational technologies are applied in the pedagogical system. The features of this system give a certain direction to the author of educational technology.

**Discussion and Conclusion:** The technological revolution in education never ends. It's always ongoing. During this development process, the technologies themselves come into play and reach the end of their useful life. Therefore, the generalizations we make about new educational technologies should be technology that is more relevant and can be included in the structure of strategies that can be the locomotive of education.

**Key Words:** Educational Technology; Pedagogical Technology; Education System; Pedagogical Tactics; Impact and Interaction



## **A SAGA OF EMOTIONAL INTELLIGENCE IN HR: A LITERATURE REVIEW**

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### **Abstract**

This study reviews the body of research on the relationship between emotional intelligence, and human resources. It examines how emotional intelligence and its constituent parts influence human resource development. The report summarizes key theoretical ideas and is based on examining top scientific papers through documentary analysis. The analysis's findings demonstrate the various ways in which emotional intelligence aids workers in achieving success at work and emphasize the necessity of giving employees' emotional intelligence development in organizations more priority. The evaluation also covers promotion-related concerns, which if considered can help organizations prevent future troubles. Administrators will find this study very helpful in raising the caliber of work their staff produces. This analysis of emotional This review adds to the body of knowledge regarding human resource development and management by examining the relationship between emotional intelligence and other related variables. It may also suggest future directions for survey research.

**Keywords:** Emotional Intelligence (EI), Human Resources (HR), Literature Review

**Objectives:** 1. To find the association between emotional intelligence and human resources in various organizations.

2. To analyze the various components of Emotional Intelligence.

3. To Suggest various techniques and strategies to boost the emotional intelligence in human resources (HR).

### **Research Methodology:**

The current study follows the huge literature extracted from various journals and databases such as EMERALD, SCOPUS, and Web of Sciences. The Authors thoroughly read all the articles on “Emotional Intelligence Among Human Resources”.

### **Findings of the study**

After reading all the relevant articles on the given topic authors found that there is a positive association between emotional intelligence and human resources concerning these sectors: healthcare workers, the manufacturing sector, the education sector, and the service sector. (obj 1). Self-awareness, self-regulation, empathy, self-management, social competencies, adaptability, understanding & analyzing emotions, behavioral dispositions, relevance, and compatibility with other intelligence for cultural intelligence, spiritual intelligence, and multiple intelligence, are the components of emotional Intelligence. (obj 2). Various strategies and techniques to boost emotional Intelligence in HR are stress management techniques, mindfulness-based interventions, emotional compassion and regulation programs, emotional control, and empathy training workshops (obj 3).

## NEUROPLASTICITY AND MENTAL HEALTH

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### **Abstract**

Investigating Adaptive Mechanisms for Improved Mental Health Neuroplasticity, the brain's remarkable ability to restructure itself through the creation of new neural connections over a lifetime, holds significant implications for mental well-being. The objective of this research is to clarify the intricate correlation between neuroplasticity and mental well-being, with a focus on leveraging the brain's adaptive processes to enhance resilience, recovery, and overall mental wellness. Through an extensive review of literature encompassing neuroscience research, clinical trials, and therapeutic interventions, this study examines neuroplasticity mechanisms and their role in mental health outcomes. Analysis of pertinent studies reveals that neuroplasticity plays a pivotal role in shaping mental well-being. The brain's adaptive capabilities allow it to respond to various stimuli and interventions, offering avenues for bolstering resilience, facilitating recovery, and mitigating psychiatric disorders. Innovative therapeutic strategies harnessing neuroplasticity, such as cognitive-behavioral therapy, mindfulness-based interventions, and neurofeedback, demonstrate promise in improving mental health outcomes. Neuroplasticity emerges as a fundamental concept in comprehending and enriching mental well-being. Acknowledging the brain's adaptive potential enables the development of tailored therapeutic interventions to optimize resilience, recovery, and overall mental health. Future research should delve deeper into the underlying mechanisms of neuroplasticity and its tailored application in mental healthcare, aiming to advance outcomes for individuals grappling with mental health challenges.

**Keyword:** Neuroplasticity, Mental well-being, Adaptive mechanisms, Therapeutic interventions

## **EFFECTS OF THE USE OF ANTIAGREGANTS AND ANTICOAGULANTS IN ROBOT-ASSISTED LAPAROSCOPIC RADICAL PROSTATECTOMY ON THE AMOUNT OF PERIOPERATIVE BLEEDING**

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### **Abstract**

**Introduction and Purpose:** The aim of this study is to evaluate the impact of antiplatelet and anticoagulant use on perioperative and postoperative complications in patients undergoing robot-assisted laparoscopic radical prostatectomy (RALRP).

**Material and Methods:** Data of RALRP cases performed between June 2022 and March 2024 were retrospectively reviewed. Patients were divided into two groups: those using antiplatelet and anticoagulant medications (Group 1) and those not using them (Group 2), and compared in terms of perioperative bleeding.

**Results:** Data of a total of 60 patients were analyzed. Group 1 consisted of 19 patients using antiplatelet and/or anticoagulant drugs, while Group 2 consisted of 41 patients not using them. Antiplatelet and/or anticoagulant use was discontinued 5-7 days preoperatively based on cardiology consultation. There were no differences in age and PSA levels between the two groups ( $p=0.78$  and  $p=0.364$ , respectively). There was no significant difference between preoperative and postoperative Hb and Htc levels ( $p=0.08$ ;  $p=0.174$ ;  $p=0.416$ ;  $p=0.854$ , respectively).

**Discussion and Conclusion:** The use of antiplatelet and anticoagulant medications in RALRP did not lead to a significant increase in perioperative complications. RALRP can be safely performed in patients under antiplatelet and anticoagulant therapy that has been discontinued based on cardiology recommendations.

**Key Words:** Antiplatelet; Anticoagulant; Prostate Cancer; Robotic Surgery

## **EFFECT OF THYME ESSENTIAL OIL EXTRACTS ON VARROA JACOBSONI BEES**

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### **Abstract**

With the aim of contributing to the development of a control method without major drawbacks such as residues in hive products and the appearance of Varroa resistance, we propose to test medicinal plants - thyme essential oils - against Varroa jacobsoni. Algeria's geographical location offers a rich and diverse vegetation. A large number of aromatic and medicinal plants grow spontaneously. Interest in these plants has grown steadily in recent years. Their properties, particularly the essential oil fraction, can be used to treat the varroa mite problem. For this reason, we tested the thyme plant growing spontaneously in the Oued-Chorfa mountains, and Mekhatria, which is less frequently used or not applied by beekeepers. The results obtained show that varroa mites attached to the lower part of the larva's body escape the effects of the treatment. Clearly, thyme treatment reduced the final infestation rate. The weak effectiveness of the treatment is due to the presence of capped broods, which "protect" the varroa inside the cells and thus prevent smoke penetration.

**Key words:** Varroa destructor; Apis mellifica intermissa; Thymus vulgaris; Treatment; Fumigation.

## ANALYSIS AND MODELING OF ELECTROCARDIOGRAM (ECG) SIGNALS

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### Abstract

**Introduction and Purpose:** The survival of all living organisms depends on the electrical signals produced within the organisms. Thousands of electrical signals are always produced and transmitted within our body. By constantly monitoring these signals, information about human health can be obtained and early detection of possible diseases is possible. Of course, such an interpretation can only be made by correctly defining and understanding of these signals. The most popular among these signals is the Electrocardiogram (ECG) signal. Many people know what the shape of an ECG signal looks like, without knowing what it stands for, and that it is a heart-related signal. In this study, the ECG signal, which is vital for all living things, was analyzed using real ECG signals and modeled with as simple method as possible. The performance of the obtained model was demonstrated by comparing it with real ECG signals.

**Materials and Methods:** Real signals were used to analyze ECG signals. For this purpose, the publicly shared data set in the "PhysioNet" database was used. The ECG signals in this database were downloaded to the computer and analyzed by redrawing/processing them in the MATLAB program. The data set used includes many ECG signals from healthy or cardiovascular patients. In this work, only 100 data from healthy patients were used and healthy ECG signals were analyzed and modeled. Important parameters of ECG signals, such as repetition frequency and size, were determined and their mathematical modeling was done.

**Discussion and Conclusion:** As a result of analyzing the real ECG signals, it was seen that the P, R and T peaks, which are the main components of the ECG signal, can be modeled with Gauss functions in the simplest and most accurate way. At this stage, it was observed that the ECG signal was not fully periodic, and the selection of the period was critical for modeling the signal. Based on the results obtained, a model was proposed, and this model was compared with real ECG signals. As a result, it has been shown that ECG signals can be successfully modeled with Gauss functions.

**Key Words:** Electrocardiogram Signal; ECG; ECG Analysis; ECG Modeling

**COMPUTATIONAL STUDY OF POTENTIAL MAO-B INHIBITORS BASED ON QUINOLINYL-THIENYL-CHALCONES USING 3D-QSAR, DOCKING, MOLECULAR DYNAMICS SIMULATIONS, AND ADMET PROPERTIES**

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**Abstract**

This study used a dataset comprising thirty-four Quinoliny-Thienyl Chalcones derivatives as selective monoamine oxidase B (h-MAO-B) inhibitors to design more effective h-MAO-B inhibitors. To this end, molecular modelling methods were applied. Of the various field models examined, the CoMSIA/SE model proved to be the most effective compared with the other models ( $Q^2 = 0.60$ ;  $R^2 = 0.97$ ;  $R^2_{test} = 0.711$ ;  $F = 151.84$ ;  $SEE = 0.21$ ;  $ONC = 4$ ). The contour maps identified structural features important for inhibitory activity, leading to the design of four highly active inhibitors. The study explored the interaction between the new compounds (M1, M2, M3 and M4) and the most active molecule, 3, using molecular docking simulations. This process revealed a positive interaction characterised by the formation of significant bonds with key protein residues such as Arg:42, Glu:58, Met:436, Tyr:398, Tyr:435 and Tyr:60. The ADMET properties of the predicted molecules (M1-M4) were generally favourable, with the exception of molecule 3, which retained its toxicity. The results of these simulations indicate that the proposed molecule, M1, has slightly greater structural stability than the most active compound, 3, making M1 a promising candidate.

**KeyWords:** ADMET; 3D-QSAR; Molecular docking.

**EMPOWERING MSME AS A DRIVER OF ECONOMIC GROWTH AND  
IMPROVING ECONOMIC'S WELFARE ( Case Study of MSME in Kajen Subdistrict)**

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**Abstract**

Everyone aspires to have a prosperous life where they can fulfill their needs for clothing, food, and shelter while going about their daily activities. Groups of people will continue to make various efforts to achieve these goals. One of the efforts that can be made is to build MSMEs (micro, small, and medium enterprises). The research method used in this article is qualitative research. The main data source is the findings of observations and interviews. The approach used is a descriptive-qualitative approach. MSMEs (micro, small, and medium enterprises) are businesses owned by a person, individual, or group on a small and medium scale. Usually, this MSME is one of the businesses that is in great demand by the community. The role of micro, small, and medium enterprises (MSMEs) is crucial to a country's economic growth. First, MSMEs create significant employment. Second, MSMEs increase people's income. Third, all segments of the MSME economy contribute to the overall contribution made by MSMEs. Finally, MSMEs can increase social inclusion and reduce economic disparities. To the national GDP. The research results in this study show that people in the Kajen sub-district rely on the MSME sector for their livelihoods, but they do not have a high welfare level. This is due to several reasons, including a lack of government attention, not being able to expand their businesses, and inflation.

**Keywords:** MSME, Economic growth, Economics welfare



## **EFFECT OF FORMALDEHYDE ON STUDENTS IN THE ANATOMY LABORATORY IN 2023-2024: SYSTEMATIC REVIEW**

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### **Abstract**

**Introduction and Purpose:** Formaldehyde is a highly volatile, toxic and irritating gas at room temperature. The aim of the study was to review articles published between 2023 and 2024 investigating the effects of formaldehyde, which is easily accessible and used for embalming cadavers in anatomy laboratories, on students.

**Materials and methods:** In this context, 6350 studies were accessed by using the keywords 'formaldehyde exposure' and 'formaldehyde and anatomy' in the Google scholar database. As a result of all titles and abstracts obtained, 52 articles were identified. Five full-text research articles that were found suitable for the study and related to the subject were included in the study.

**Results:** The sample of the studies consisted of medical faculty students. The maximum number of participants was 452 and the minimum number was 25. All of the studies were conducted in the anatomy laboratory. Two of the studies were control-experimental in the same time period, one of them examined formaldehyde concentration in plant and non-plant environments, and the other 2 studies examined symptoms that may occur in students during cadaver dissection.

**Discussion and Conclusion:** In the studies analyzed, asthma, tearing in the eyes, nasal congestion, increased blood pressure and decreased respiratory test values were found as a result of student exposure to formaldehyde. In the articles analyzed, it was reported that irritant symptoms were seen in many students after exposure to formaldehyde concentrations in the anatomy laboratory.

**Keywords:** Anatomy laboratory, formaldehyde exposure, formaldehyd and anatomy.

**RESEARCH CONDUCTED ON ONLINE ANATOMY EDUCATION IN TURKEY IN  
2020: SYSTEMATIC REVIEW**

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**Abstract**

**Introduction and Purpose:** Anatomy is fundamental to medical education, with courses offered across health-related departments in Turkey. The COVID-19 pandemic necessitated a shift from face-to-face lectures to online education worldwide. This review aimed to explore studies on online anatomy education in the 2020 Web of Science database.

**Materials and Methods:** Searches were conducted in Google Scholar, PubMed, and Springer using keywords like "gross anatomy education and online learning" and "online learning in anatomy." Five relevant full-text research articles were included.

**Results:** Four articles focused on medical students, while one included all anatomy course students. One study compared online and face-to-face exam scores for a dissection course. Participant numbers ranged from 92 to 184, with four studies during the pandemic and one independent.

**Discussion and Conclusion:** In summary, the reviewed studies support online anatomy education as a viable option, especially during times like the pandemic. Its advantages, such as tech integration and flexibility, are clear. However, managing communication gaps and video overload remains critical for effective implementation. In summary, the reviewed studies support online anatomy education as a viable option, especially during times like the pandemic. Its advantages, such as tech integration and flexibility, are clear. However, managing communication gaps and video overload remains critical for effective implementation.

**Key Words:** Online anatomy education, pandemic, survey study.

## HOW DOES PSORIASIS AFFECT CAROTID ARTERY INTIMA-MEDIA THICKNESS AND OCULAR VASCULAR FLOW? A COMPARATIVE ULTRASONOGRAPHIC INVESTIGATION

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### Abstract

**Introduction and Purpose:** Psoriasis, an inflammatory skin disease marked by remission and relapse phases, is linked to increased risks of arterial and venous occlusive disorders, potentially associated with cardiovascular diseases, hypertension, and hyperlipidemia. The effect of psoriasis-related atherosclerosis on eye vasculature is not well studied. This research assesses psoriasis's impact on carotid artery intima-media thickness (CMT) and blood flow velocities in the ophthalmic, central retinal, and posterior ciliary arteries.

**Materials and Methods:** The study compared 25 psoriasis patients (10 females, 15 males, mean age  $46.0 \pm 13.4$ ) with 25 healthy controls (14 females, 11 males, mean age  $44.0 \pm 10.8$ ). High-resolution ultrasonography measured CMT, and color Doppler ultrasonography evaluated peak systolic volume (PSV), end-diastolic volume (EDV), and resistance indices (RI) of the arteries after a 20-minute rest. Averages were calculated from two measurements.

**Results:** Age and gender were not significantly different between groups ( $p=0.607$  and  $p=0.262$ ). Psoriasis patients had a higher average CMT ( $0.67 \pm 0.21$  mm) than controls ( $0.46 \pm 0.11$  mm). For psoriasis patients, the central retinal artery showed PSV, EDV, and RI values of  $10.59 \pm 2.77$  mm/sec,  $2.67 \pm 1.29$  mm/sec, and  $0.75 \pm 0.08$ ; posterior ciliary artery had  $9.85 \pm 3.22$  mm/sec,  $3.09 \pm 1.40$  mm/sec, and  $0.69 \pm 0.07$ ; ophthalmic artery had  $36.95 \pm 12.25$  mm/sec,  $10.74 \pm 4.26$  mm/sec, and  $0.70 \pm 0.07$ . No significant PSV differences were found in controls, but psoriasis patients showed significantly higher CMT ( $p<0.001$ ) and lower RI in all studied arteries ( $p=0.037$ ,  $p=0.012$ ,  $p<0.001$ ), and lower EDV in SRA and PSA ( $p=0.047$ ,  $p=0.009$ ).

**Discussion and Conclusion:** Increased CMT in psoriasis patients suggests higher atherosclerosis risk. Despite higher intima-media thickness and RI in larger and smaller arteries, blood flow velocity did not increase, indicating pre-atherosclerotic changes without affecting retrobulbar blood flow.

**Key Words:** Psoriasis, Carotid Artery, Intima-Media Thickness (CMT), Ophthalmic Artery, Blood Flow Velocities

## **PRIVACY-PRESERVING CLOUD-BASED PHOTO STORAGE APPLICATION: A SOLUTION DEVELOPED WITH FLUTTER**

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### **Abstract**

In our daily lives, we are constantly faced with the reality that the photos we take occupy a significant amount of space in our phone's memory over time. This situation not only creates storage issues but also negatively impacts the performance of our devices. It is at this point that the importance of a cloud-based solution emerges. This application has been developed to allow users to securely store their photos in the cloud, thereby freeing up space on their phones. Developed using Flutter, the mobile application comes with a user-friendly interface, allowing users to easily store photos taken or uploaded within the app through Firebase Storage integration. Specifically designed for users who desire that their photos remain solely within this platform, the application provides assurance in terms of privacy and control. This prevents photos from being uploaded to external sources, ensuring user privacy. The primary objective of the application is to safeguard personal and private photos while providing convenience to users. Therefore, this cloud-based yet accessible application aims to enable users to maintain their daily lives in a more organized and secure manner.

**Key Words:** Cloud Storage, Mobile Application, Flutter, Firebase, Privacy Protection

## **GUT DYSBIOSIS IN DOGS WITH SPINAL CORD INJURY: IMPACT OF POLENOPLASMIN**

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### **Abstract**

**Background** Studies have demonstrated the presence of gut dysbiosis (alterations in gut bacterial homeostasis) secondary to spinal cord injury in dogs. The dysbiosis is thought to impair recovery by decreasing the production of short-chain fatty acids which play a role in suppressing inflammation within the central nervous system.

**Objective** Therefore, targeting gut dysbiosis could have significant therapeutic value in the management of spinal cord injury. The purpose of this study is to determine if gut dysbiosis occurs in dogs with spinal cord injury. Another area of potential intervention interest is in situations of spinal injury where there is an urgent need to generate new neurons. To arrive at these observations, the authors examined how Polenoplasmin and diet solve paralysis in dogs.

**Materials and methods** The most common cause of spinal problems in dogs is trauma. We are currently assessing whether indoles can also stimulate formation of neurons in dogs with paralysis.

**Results** We found that gut microbes that metabolize tryptophan-an essential amino acid-secrete small molecules called indoles, which stimulate the development of new brain cells in dogs, also demonstrated that the indole-mediated signals elicit key regulatory factors known to be important for the formation of new neurons.

**Conclusion** This study is another intriguing piece of the puzzle highlighting the importance of lifestyle factors and diet.

In conclusion, the link between the health of the microbiome and the health of the brain shows how microorganisms in the gut solve paralysis. Gut microbe secreted molecule linked to formation of new nerve cells in paralysed dogs.

**Keywords:** intestinal dysbiosis, indoles, paralysed dog, Polenoplasmin.

## THE PRINCIPLES OF REDUNDANCY AND ECONOMY OF WORDS IN THE AZERBAIJANI, TURKISH AND ENGLISH LANGUAGES

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### **Abstract**

Scientific researches about the principles of redundancy and economy of words in the Azerbaijani, Turkish, and English languages are a minority in linguistics.

The principles of redundancy and economy of words display themselves at the phonetic, lexical, grammatical and stylistic levels of any language. The history of these linguistic phenomena is very ancient, they first appear in oral speech, in colloquial speech, in dialects, and then rise to the level of a literary language. Some of them are not fixed in the language. In the modern era, words, manifesting themselves in the phenomena of redundancy and economy of words did not suddenly reach their current form, but stabilized, having gone through a long and very complex process of development.

Having familiarized ourselves with the materials on redundancy and economy of words in linguistics, we come across that the term redundancy is not utilized in language in a positive sense. Language tends to distance itself from redundancy of the elements.

From time to time, structural and semantic redundancy appears in the language; after a certain time, this principle gives a way to economy of words.

Economy of words is one of the tendencies that is always active in language. The phenomenon of economy of words arises on the basis of the internal laws of language development and this is a property of developed languages. Language is always inclined to simplification. Whether at the phonological, lexical-semantic or grammatical level, the phenomenon of economy of words prevails.

In these processes the crucial mechanism is the change that occurs in the language. Economy of words in the language is created via the various means.

The tradition of economy of words means of the language is one of the universal processes that characterize the development and functionalization of language.

**Key Words:** redundancy; economy of words; various means; development; principle.

## LANDSCAPE VALUE OF PSEUDOMAQUIS PLANTS IN THE EASTERN BLACK SEA REGION

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### Abstract

**Introduction and Purpose:** Turkey is a very rich country in terms of plant species diversity due to its geographical location. Each region has plant communities with their own characteristics. One of them, the Eastern Black Sea region, is located in the north-east of the country. Humid and rainy climatic characteristics, geographical structure and sea effects have led to the formation of different plant communities in the region. Aesthetic, functional and ecological properties of many of these plants are important for urban planting designs. For this reason, the aim of this study is to evaluate the landscape possibilities of the plants in the pseudomaquis formation in this region.

**Materials and Methods:** Plant species found in the pseudomaquis formation in the area were identified through literature searches. Leaf, flower, fruit characteristics of these species as well as their functional and ecological uses were presented in tables.

**Results:** As a result of the study, it was observed that some species of plants in the pseudomaquis formation such as *Ligustrum vulgare*, *Buxus sempervirens*, *Laurus nobilis*, *Olea europea*, *Cotinus coggygria*, *Spartium junceum* and *Ilex aquifolium* were used in landscape designs. However, it has been determined that natural species are not preferred in plant designs in cities although they have aesthetic and functional landscape value.

**Discussion and Conclusion:** Pseudomaquis formation, which consists of moist species unlike maquis, consists of both evergreen and deciduous plants. These plants are remarkable with their flower, leaf and fruit characteristics. In addition, they have ecological tolerance and are suitable for plant designs. Production difficulties and exotic species limit the use of these plants. As a result, in order to increase the use of these species with high design potential in urban landscapes, the production of these plants should be emphasised and their use should be encouraged.

**Key Words:** Pseudomaquis; Planting Design; Eastern Black Sea; Turkey

## COASTAL RECREATION; THE CASE OF KARADENİZ TECHNICAL UNIVERSITY SOCIAL FACILITIES

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### Abstract

**Introduction and Purpose:** Coasts are areas with important resource values as the junction of water and land. Turkey, which is surrounded by seas on three sides, has a long coastal length. One of the important areas within this coastal asset is the Eastern Black Sea Region. However, the coastal road filling works in the Eastern Black Sea Region have significantly reduced the coastal utilisation opportunities in the region. Karadeniz Technical University social facilities are located in areas that can protect the existing coastal structure. For this reason, the study aims to evaluate the coastal recreation potential of Karadeniz Technical University social facilities by taking into account the current situation.

**Materials and Methods:** In the field studies; the functions of the buildings in the area, plant texture, seating areas, car park, children's playgrounds and sports areas were evaluated. In addition, the user profile and activity diversity were determined by making observations in the area.

**Results:** The user profile of the area consists of academic staff and their families and students. For eating and drinking needs, indoor and outdoor spaces allow the area to be used in all seasons. Observations showed that the existing open green areas are used for different activities such as resting, watching, reading, kite flying, and playing ball. The presence of wildlife such as crabs, fish, otters, cats, dogs and birds is remarkable as well as the rich plant diversity on the shore. In addition to these, garbage accumulation on the shore, odour and intense algae growth in the water are observed from time to time.

**Discussion and Conclusion:** The fact that the area belongs to a public institution limits the user profile. In addition, swimming in the sea is inconvenient due to water pollution. However, even if there is no swimming activity, activities that utilise the sea should be included. For this reason, alternative design proposals have been brought by considering the different possibilities of the research area.

**Key Words:** Coastal; Recreation; Design; Black Sea; Türkiye



## **HARMONY OR DISSONANCE: INVESTIGATING PERCEIVED FIT IN BRAND EXTENSIONS FOR CONSUMER PERCEPTION AND BRAND EQUITY**

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### **Abstract**

This conceptual study delves into the intricate relationship between perceived fit and brand extensions, seeking to unravel the dynamics that govern consumer perceptions in this complex interplay. As brands continually seek avenues for expansion and growth, the perceived fit of brand extensions becomes a critical factor influencing consumer acceptance and loyalty. The abstract aims to provide insights into the nuanced connections between a brand's core identity and the extended products or services it introduces. Drawing on established theories of brand management and consumer behavior, our research navigates the uncharted waters of perceived fit in the context of brand extensions. We employ a multi-dimensional framework to analyze the various facets that contribute to consumers' perceptions of fit, encompassing product attributes, brand image, and consumer expectations. Through an extensive review of existing literature and empirical studies, we aim to construct a comprehensive understanding of the factors that shape perceived fit and its subsequent impact on brand extensions. This study adopts a holistic approach, combining qualitative and quantitative methodologies to gather data from diverse consumer segments. By examining real-world examples and conducting surveys, we aim to validate our conceptual framework and uncover patterns that illuminate the intricacies of perceived fit in the realm of brand extensions. Ultimately, our research contributes valuable insights for brand managers and marketers seeking to optimize their brand extension strategies. By decoding the elements that influence perceived fit, this study serves as a guide for fostering consumer acceptance and enhancing the success of brand extensions in an ever-evolving marketplace.

**Keywords:** Perceived Fit, Conceptual Framework, Brand Extensions, Extended Brands

## **REVIEW PAPER - EFFECT OF DIFFERENT TYPES OF COARSE AGGREGATE ON CONCRETE**

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### **Abstract**

Numerous factors, including the type of cement, coarse aggregate, and the interface between the aggregate and mortar, affect how strong a concrete mix is. But in most cases, the coarse aggregate is researched solely for its physical characteristics, such as size, shape, water absorption, and specific gravity, and is considered an inert substance. On the other hand, the strength of the coarse aggregate also becomes important as the mortar mix quality increases. The kind of coarse aggregate used in high performance concrete greatly affects the concrete's strength and elasticity modulus. This paper provides a thorough analysis of previous studies on the impact of varying coarse aggregate types on the compressive strength, tensile strength, and elasticity modulus of concrete mixes.

**Keywords:** Strength, Physical characteristics, Inert substance, Quality, Elastic modulus

**IMPACT OF MAGNETIC FIELD ON NATURAL CONVECTION IN A SQUARE CAVITY FILLED WITH  $Fe_3O_4$  NANOPARTICLES USING THE LATTICE BOLTZMANN METHOD**

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**Abstract**

This comprehensive investigation aims to examine natural convection in a square enclosure containing a  $Fe_3O_4$ /water nanofluid under the effect of a horizontal magnetic field. The primary objective of this research lies in understanding the mechanisms of thermal transfer and fluid circulation in this specific context, presenting potential applications in various fields, such as enhanced thermal dissipation, advanced cooling systems, and micro-electromechanical devices (MEMS), where magnetic effects may play a crucial role. In this study, the vertical walls of the enclosure undergo differential heating, while the horizontal walls remain adiabatic. The use of the lattice Boltzmann method (LBM) enables the efficient and accurate resolution of the complex connection between flow and temperature fields. Carefully selected parameters are studied, covering a significant range for the base fluid Rayleigh number (Ra) from  $10^3$  to  $10^6$  and the Hartmann number (Ha) from 0 to 60. The solid volume fraction of nanoparticles is set at  $\phi = 4\%$ , a relevant value for many nanofluid systems. The obtained results reveal crucial insights into the behavior of natural convection in this specific context. Specifically, the heat transfer rate increases with the increase in the Rayleigh number, while it decreases with the increase in the Hartmann number.

**Keywords:** lattice Boltzmann, natural convection, nanofluids, magnetic field.

**INTERMEDIATE HOSTS OF PROTOSTRONGYLUS Sp. OF SHEEP IN SPREAD  
BELGRADE AREA**

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**Abstract**

**Introduction and Purpose:** Protostrongylidoses are widespread helminthoses in small ruminants causing a serious health problem for a great number of countries all over the world. Protostrongylids belong to the class Nematoda family Protostrongylida and genera Protostrongylus. In Belgrade rea persist Protostrongylus rufescens and sporadicaly P.brevispiculum. Their etiological agents are the so-called small lungworms. Protostrongylinae are biohelminths - transitional hosts are necessary for their development. terrestrial gastropods - snails and slugs.

**Materials and Methods:** During the investigation of the presence of protostrongylids of small ruminants in the Belgrade area, pastures were also examined to presence of their inremedial host snails and slugs. Identification was made on the basis of morphological characteristics.

**Results:** During our examination of pulmonary parasitosis of sheep and goats in the Belgrade area, we also investigated their intermedial hosts in pastures. The most common intermedial hosts for the genus *Protostrongylus* was *Abeda frumenta*, *Cepae vindobenensis*, *Chondrula tridens*, *Deroceras reticulatum*, *Eucomphalia strigella*, *Fruticola fruticum*, *Helicella obvia*, *H. barbesiana*, *H. rugosiuscula*, *Helicigona faustina*, *Helix pomatia*, *Monacha syrlanca*, *Monachoidas incarnata*, *Retinella nintellina*, *Succina putris*, *Theba carthusan* and *Zebra detritus*.

**Discussion and Conclusion:** The larvae in mollusk survive the winter so that the pasture remains infective for years. Larvae of the L1 stage penetrate the foot of the mollusk and reach its entire body, where after two moults they develop into L3 larvae. The length of development is directly dependent on the type of snail that is infected (tropism) and the conditions of the external environment (humidity and temperature). Infection of gastropods is caused by larvae of the L1 stage, which are eliminated through the feces of infected animals (with eggs or free). The presence of these molluscs enables the constant persistence of protostrongylid larvae and permanent infection of sheep.

**Key Words:** *Protostrongylus* sp, inmediate hosts, slugs, snails, sheep

## IPQA AND QUALITY CONTROL - AN OVERVIEW

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### **Abstract**

One important facet of the manufacturing industry is in-process quality assurance, or IPQA, which guarantees product quality at different stages of production. Throughout the whole manufacturing process, this proactive approach makes use of real-time monitoring, inspection, and control procedures. As a result, the quality management system is ultimately more effective overall. By promptly resolving any potential problems, IPQA seeks to uphold consistency, reduce defect rates, and enhance product quality. For the most part, pharmacies depend on In-Process Quality Assurance (IPQA) to guarantee the security and accuracy of their goods. Continuous supervision and control are necessary during all of the many stages of the pharmaceutical production process. Regulatory compliance, early defect detection, quality consistency, effective problem solving, and patient safety are just a few benefits that IPQA provides to the pharmaceutical sector."The rigorous process of ensuring that products and services consistently meet predefined standards is known as "quality control." Quality control works to ensure the production of exceptional and dependable results in a variety of industries, including manufacturing, healthcare, and technology, by identifying and correcting deviations or flaws. Following procedures and guidelines all the way through the manufacturing or service delivery process, along with fast testing and careful inspection, are crucial components of quality control. Finally, the objectives are to ensure general product or service dependability, adhere to regulations, and meet customer satisfaction. Through real-time monitoring across various manufacturing stages, IPQA prevents errors and deviations. Nonetheless, quality control (QC) makes sure that raw materials, intermediates, and final goods are put through a rigorous testing process to guarantee that they meet predetermined standards for quality. This is achieved by means of analytical control. IPQA and QC work together to sustain product quality, adhere to regulatory requirements, and ensure the safety and efficacy of medications.

**Keywords:** Production Stages, Testing Raw Materials, Quality Standards, Finished Products and Defect Prevention.

**CHEMICAL ANALYSIS OF NEEM GUM FROM SELECTED NEEM TREE BARKS  
(AZADIRACHTA INDICA) IN KAZAURE, NIGERIA**

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**Abstract**

The Neem tree, is well-known for its various medicinal properties. One of the valuable products derived from this tree is Neem tree gum also referred to as Neem gum or gum Arabic. It is an organic, viscous substance obtained from the tree bark. Neem gum has a long history of traditional use in Ayurvedic medicine. It is highly regarded for its medicinal properties and is often incorporated into various remedies and treatments. This natural gum has been utilized for centuries due to its numerous health benefits and applications. Kazaure is a local government area (LGA) in the north western region of Jigawa state. This LGA houses a vast plantation of neem trees. Some of the neem tree barks were sampled for neem gum. The samples were stored and prepared for Fourier Transform Infrared Spectroscopy (FTIR). The various applications of neem gum which include oral care products, skin care products, food additives and textiles printing required investigating the chemical analysis of the gum's constituents. Therefore, the present work, delves on the FTIR analysis of Neem tree Gum obtained from neem trees in kazaure LGA. The results reveal that, The FTIR spectrum of the Neem tree Gum samples has H-bonded functional groups, carbon-carbon triple bond stretching, carbonyl group, carboxylic group and the hydrocarbon group. These results corroborated the aforementioned uses of the gum. These outcomes are also compared with results from other similar studies. Other instrumental analysis are suggested to further elucidate the chemical misery of neem gum.

## **BECOMING TURKISH: THE FIGURE OF MEVLANA JALALUDDIN RUMI BETWEEN NATIONALISATION AND POPULAR CULTURE**

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### **Abstract**

**Introduction and Purpose:** Founder of the Mevlevi - one of the most famous Sufi orders – Mevlana Jalaluddin Rumi is an iconic figure in Sufism: his teachings have been shared among disciples from all over the world since centuries, his nationality is contented between Iran and Turkey. Concerning the latter, although in 1925 a special law reduced the visibility of Sufi practices, the Turkish Republic recognised the importance of Rumi's literary and poetic work, thus promoting Mevlevi's cultural activities.

**Materials and Methods:** Drawing on Michel Foucault and Edward Said's theoretical insights, through an examination of these policies and cultural debates concerning Rumi as a poet and Islamic thinker, the goal of this study is to shed light on the modalities through which the Turkish authorities aimed to nationalise Rumi's figure, thus making him a key figure of Turkish literature, Islamic thought, and culture. Furthermore, through the analysis of contemporary cultural products such as songs, books focusing personal growth and self-improvement, and novels, this research aims to investigate how the "Turkified" Rumi has been received by Turkish popular culture over the decades.

**Findings:** The analysis revealed a close connection between Turkish policies and Rumi's Turkification. At the same time, it has emerged that cultural products that are inspired by Rumi's phrases and teachings are successful because the public identifies Rumi as a "Turkish" thinker, thus seeing him closer to them.

**Discussion and Conclusion:** We conclude that an artfully constructed imagery has arisen around Rumi. Through the latter, the Turkish authorities reinterpreted the iconic Islamic thinker, making him a kind of myth in the eyes of the population. In this framework, recalling the ideas of Barthes (1978), we argue that to understand the legacy of Rumi in contemporary Turkey is necessary to focus on the relationship between authority and popular culture.

**Keywords:** Rumi, Sufism, Popular Culture, Nationalism, Contemporary Turkey



## THE CONCEPT OF NEW MODEL ENTREPRENEURSHIP: START-UP

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### Abstract

**Introduction and Purpose:** The word Start-Up basically means “start-up” or “start-up” and comes across as “entrepreneurship” in the business world. The definition of a Start-Up, which means “a new venture”, has started to be mentioned for the first time in America, in Silicon Valley. The fact that a company is a Start-Up is not related to its capital. The product that the company will produce or the service that it will offer starts from scratch and produces solutions by focusing on problems that have not been solved before. In this study, it is aimed to reveal the current state of the Start-Up ecosystem in Turkey.

**Materials and Methods:** By taking into account the data of the Turkish Start-Up Ecosystem Investment Report (2023), the highest investments, investment amounts, the sectors that receive the most investment, cities and investors are examined with a qualitative approach.

**Results:** According to the report, Turkey's entrepreneurial ecosystem witnessed 347 investment transactions and a total investment of 901 million dollars in 2023. The provinces with the most invested startups are Istanbul (126 startups and 190 million dollars), Ankara (14 startups and 9.2 million dollars), Izmir (10 startups and 12.5 million dollars), Kocaeli (4 startups and 3.3 million dollars), Kayseri (2 startups and 324.600 dollars), Sakarya (1 startup and 239.500 dollars).

**Discussion and Conclusion:** Artificial intelligence and machine learning, gaming, finance and health are attracting attention among the sectors that receive the most investment. In addition, investments in the digital marketing and sales vertical have also been prominent in recent years.

**Key Words:** Start-Up; Start-Up Ecosystem; Entrepreneurship; Investment Report; Turkey

## PHYSIOLOGICAL EFFECTS OF ROYAL JELLY AS A FUNCTIONAL FOOD

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### **Abstract**

Royal jelly is a functional food with a light creamy-bone colour, jelly-like consistency and a pungent, sour taste and smell. It is partially water soluble and highly acidic. The main components of royal jelly are proteins, carbohydrates and fats. Approximately two-thirds of its wet weight is water. Approximately 65-68% of royal jelly is water, 12-14% is crude protein, 11-13% is sugar, 5% is fatty acids and 1% is minerals. In studies investigating the potential health effects of 10-hydroxy-2-decenoic acid (10-HDA), an important fatty acid in royal jelly, on various biological systems, it has been found to have anti-inflammatory, hypoglycaemic, immunomodulatory, neuroprotective, anti-tumour, antibacterial and protection against various types of cellular damage. Many studies have shown that royal jelly consumption may reduce the risk of cardiovascular disease (CVD) by lowering serum total cholesterol and low-density lipoprotein cholesterol (LDL) levels without causing liver or kidney damage. There are studies showing that royal jelly use in people with diabetes results in significant reductions in fasting blood glucose, HbA1c levels, and improvements in lipid profiles and markers of oxidative stress. Royal jelly has been reported to support reproductive health and have anti-aging effects. With its therapeutic effects, royal jelly is expected to become more prominent in apitherapy applications.

**Key Words:** royal jelly, beekeeping, apitherapy, health, 10-HDA

**INHIBITION ACTIVITY OF TRIAZOLES AS A NEW FAMILY FOR THE  
INHIBITION OF THE INDOLEAMINE 2,3-DIOXYGENASE 1 IDO1 PROTEIN  
USING 2D-QSAR APPROACH**

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**Abstract**

Protein IDO1 (indoleamine 2,3-dioxygenase) occupies a critical position in the regulation of the immune system and is involved in cancer progression and the development of immune diseases. Being a therapeutic target for such critical diseases, we aimed to investigate the IDO1 inhibition activity of thirty-nine triazole derivatives using a quantitative structure-activity relationship. The dataset was under principal component analysis, multiple linear regression, and multiple non-linear regression from which two models were generated. The best 2D-QSAR model was generated using linear regression, demonstrating a determination coefficient of  $R^2=0.680$ , a good acceptable internal cross-validated coefficient of  $R^2_{cv}=0.700$ , an error of  $MSE=0.074$ , and a good predictive potential of  $R^2_{test}=0.809$ . The QSAR model was further investigated using the applicability domain, which showed that all molecules were within the applicability domain, hence the absence of an outlier. Overall, the obtained results provide a reliable and highly predictive model for the design and prediction of new IDO1 inhibitors thereby influencing cancer progression and autoimmune disease development.

**Keywords:** IDO1, 2D QSAR, PCA, MLR, MNLR.

**EFFECTS OF NUTRACEUTICALS AS SUPPLEMENTARY TREATMENT FOR  
CHRONIC KIDNEY DISEASE: AN OBSERVATIONAL STUDY IN LAHORE,  
PAKISTAN**

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**Abstract**

Chronic kidney disease (CKD) is a global health issue and its frequency of incidence is increasing continuously. The pathogenesis of CKD is complex and has not been completely understood yet. A balanced diet can help to maintain healthy life and also assists to decrease the incidence of the development of the chronic diseases, including chronic kidney disease, diabetes mellitus and cardiovascular disease. The objective of this study was to evaluate the impact of nutraceuticals as an adjunct therapy in CKD. A questionnaire based, randomized observational study of 3 months was conducted by enrolling 200 patients as per inclusion and exclusion criteria. Consumption of nutraceuticals by chronic kidney disease (CKD) patients was estimated. Data was collected from two different hospitals of Lahore Pakistan by using questionnaire and E- questionnaire. The major sections of questionnaire are patient's basic socio-demographic information, questions related to knowledge of nutraceuticals, usage of nutraceuticals and attitude towards nutraceuticals.

In this study, we collected the evidences that nutraceuticals have positive impact on chronic kidney disease as an adjunct therapy. Because they have anti-inflammatory, anti-oxidative, anti-cancer and anti-microbial characteristics, so they reduce oxidative stress and inflammation in CKD patients. In particular, the awareness and consumption of nutraceuticals was studied. This study will help in modifying the lifestyle pattern especially diet of chronic kidney disease patients to avoid the complications associated with CKD. Moreover, it will provide a base for further studies on the fruitful nutraceuticals for prevention of CKD.

**Keywords:** Chronic kidney disease, Nutraceuticals, Anti-inflammatory, Anti-oxidative, Anti-cancer, Anti-microbial.

## **EVALUATION OF BIOSORBENT TYPES AND THEIR EFFICIENCIES USED IN HEAVY METAL REMOVAL FROM CONTAMINATED ENVIRONMENT**

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### **Abstract**

Environmental pollution is becoming a more important problem day by day with the rapid increase in population, technological developments and irregular urbanization. Heavy metals are one of the important pollutants that cause environmental pollution. Remediation techniques used in areas contaminated with heavy metals are generally costly. Many methods such as chemical precipitation, electroplating, ion exchange and membrane processes are used for the removal of heavy metals from liquid media.

Adsorption is one of the widely used techniques in heavy metal removal. In adsorption, activated carbon has been used as an adsorbent for many years. Activated carbon is a chemically stable adsorbent with a large surface area due to its pore structure. However, it has disadvantages such as cost, disposal after use, and reduced capacity in harsh environments. In recent years, studies in heavy metal removal have focused on the use of economical and environmentally friendly biosorbents as adsorbents.

Biosorption can occur actively through metabolism or passively through some physical and chemical processes. Biosorption technology based on the use of dead biomass offers some important advantages such as no toxicity limitations, no need for nutrient source and convenient desorption. However, agricultural wastes, crab shells, algae, bacteria, cyanobacteria, fungi and yeasts are also used as potential metal biosorbents. In this study, biosorbents used in the treatment of environments polluted with heavy metals and the yields obtained were evaluated in detail.

**Key Words:** Adsorption, Biosorption, Biosorbent, Heavy metal.

## MODELLING PERFORMANCE AND COST ANALYSES OF A HEAT PUMP

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### Abstract

**Introduction and Purpose:** The energy consumption and environmental impacts of traditional HVAC systems are increasingly problematic. This study aims to evaluate the advantages of water source heat pumps (WSHPs) over conventional boiler-chiller systems.

**Materials and Methods:** A comparative analysis was conducted using energy analysis software to compare the features, performance, and environmental impacts of WSHPs and traditional boiler-chiller systems. Factors such as energy efficiency, operational costs, maintenance requirements, and environmental sustainability were considered in the comparison.

**Results:** Obtained results suggest that Water Source Heat Pump systems offer several advantages over conventional HVAC systems. WSHP systems exhibit higher energy efficiency, with COP/EER values surpassing those of boilers and chillers. Additionally, WSHP systems utilize renewable energy sources such as groundwater or surface water, reducing reliance on fossil fuels and minimizing environmental impact.

**Discussion and Conclusion:** This study highlights the advantages of water source heat pumps over conventional boiler-chiller systems. The superior energy efficiency, reduced operational costs, and minimized environmental impact make water source heat pumps an attractive alternative for HVAC systems.

**Keywords:** Water Source Heat Pumps, Conventional HVAC Systems, Energy Efficiency, Environmental Sustainability.

## ETHICS AND TRANSPARENCY IN MEAT PRODUCTS

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### Abstract

**Introduction and Purpose:** Ethics and transparency in the meat production process are significant issues faced by consumers, producers, and the environment. This study aims to examine the current situation on topics such as animal welfare, environmental sustainability, workers' rights, supply chain management, technological solutions, consumer awareness and education, sustainable consumption, and related policies and regulations. In this context, the establishment of ethical standards in meat production and the enhancement of transparency, as well as the promotion of sustainable and ethical consumption practices, will be emphasized.

**Materials and Methods:** The research was conducted through a comprehensive literature review and examination of current practices. International standards on ethics and transparency in meat production, environmental and social sustainability practices, technological innovations (especially blockchain), and developments in supply chain management have been discussed. Additionally, consumer behavior and education strategies, the use of alternative protein sources, and the effects of political regulations have been evaluated.

**Conclusion and Findings:** The study highlights the importance of strict standards for animal welfare and environmental sustainability, the necessity of protecting workers' rights in meat processing facilities, and the significance of increasing transparency and traceability throughout the supply chain. Technological solutions, especially blockchain, play a critical role in tracing the origin of meat products, while consumer awareness and education are significant factors in enhancing sustainable and ethical consumption behaviors. Moreover, the use of alternative protein sources has the potential to reduce the environmental and ethical costs of meat consumption. National and international regulations play a critical role in developing ethical and transparency standards in the industry. These findings encourage the taking of concrete steps to strengthen the principles of ethics and transparency in the meat production sector.

**Keywords:** Ethical Production, Transparency, Animal Welfare, Environmental Sustainability, Blockchain, Consumer Awareness

## OPINIONS OF MEDICAL UNIVERSITY STUDENTS ABOUT ALTERNATIVE METHODS OF TREATING ONCOLOGICAL DISEASES

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### **Abstract**

**Introduction and Purpose:** Oncological diseases remain one of the main problems of medicine and, therefore, the search for new antitumor drugs remains relevant. The purpose of this work was to study the opinion of students of Grodno Medical University about alternative methods (traditional medicine) for the treatment of malignant tumors was studied.

**Materials and Methods:** Using an online survey of the Google Forms website, 100 students of the Medical University of both sexes aged 17 to 23 were surveyed. The majority of them (82%) were junior (1-3 course) students. For the survey, students' email addresses were first collected and a questionnaire was sent to randomly selected addresses. Statistical processing of the obtained data was carried out on a personal computer using the Excel and Statistica 10.0 programs.

**Results:** More than half (64%) of the medical university students surveyed are, to one degree or another, inclined to trust biological products with unproven effectiveness when answering questions about the treatment of cancer. Medical university students, as future doctors, must develop a professional mindset during their studies, in this case, a mindset based on evidence-based medicine. Evidence-based medicine takes any preventive, diagnostic and therapeutic



interventions based on the available scientific evidence of their effectiveness and safety and, at the same time, such evidence is evaluated, compared, generalized and widely disseminated for use in the interests of patients.

**Discussion and Conclusion:** As follows from the survey data, a significant number of students have not yet mastered the principles of evidence-based medicine. This may be explained by the fact that the majority of respondents (82%) were junior (1-3) year students who had not yet sufficiently studied clinical disciplines. In this particular case, the efforts of pharmacology and oncology teachers are of particular importance for the formation of scientific thinking among medical university students.

**Key words:** students, questionnaires, traditional medicine, oncological diseases.

**LONG TERM CHANGES IN LANDSCAPE PATTERN OF THE SOUTHERN  
BLACK SEA BLUE FLAG BEACHES**

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**Abstract**

**Introduction and Purpose:** Türkiye's climatological and geographical peculiarities allow different tourism modes to occur in this country throughout the year. Among all tourism activities “sun, sea and sand” visits have special place in terms of their volume and quality. Recent climatological shift in Southern Black Sea coast has led to increase touristic beach activity in the region. Therefore, the number and service quality of the available beaches have reached to important level with rising number of registered “blue flag” beach designation in the region. In this study, as an integral part of coastal landscape formation Land Use/ Land Cover (LULC) structure is linked to landscape value and regarded as cover changes that determines landscape pattern of the area under investigation. The aim of the current study

focused on how coastal LULC structure has changed in the last 35-40 years and what are the possible impacts on blue flag beaches in the region.

**Materials and Methods:** The Black Sea coast, which is the subject of the study, covers the area defined by the geographical coordinates of 41° 54' 27" N, 28° 03' 07" E, and 41° 33' 49" N, 41° 34' 21" E. Fifteen blue flag beaches which are located on the Black Sea coast of Türkiye were selected based on their morphological dimensions. To determine landscape changes and potential human induced effects on selected beaches for the last 35-40 years period, georeferenced, atmospherically corrected Landsat 5 TM and Landsat 8 OLI-TIRS satellite images were used. Considering the maximum ground resolution (30m) during the image classification stage, four classes were produced using Support Vector Machines (SVM). These classes were determined as vegetation, impervious surface, soil/agriculture, and water areas.

**Results:** According to the results of the research, it is clearly observed that all beach areas are under anthropogenic pressure. The most important evidence of this situation is the proportional increases in the IS (Impervious Surface) cover class in the classified images between 1985 and 2021 in all 15 beaches. Moreover, these increases have reached up to 5-6 times for some beaches.

**Discussion and Conclusion:** As a result, beaches need to be carefully managed with state-of-the-art techniques, prioritising adaptive planning that takes into account the participation of all stakeholders. Moreover, the activities, authorization and attitudes of municipalities regarding the coastal zones must be limited and inspected by a higher organization.

**Key Words:** Landscape Change; Blue Flag; Beach; Black Sea

**ROOM-TEMPERATURE DETECTION OF SF<sub>6</sub> DECOMPOSITION BYPRODUCTS  
USING a g-C<sub>3</sub>N<sub>4</sub>@SnO<sub>2</sub>-ZnO COMPOSITE SENSOR**

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**Abstract**

Sulfur hexafluoride (SF<sub>6</sub>) is usually found in gas-insulating switchgear for its insulating medium to douse arc formation in electrical transmission and generation systems. Various electrical faults decompose SF<sub>6</sub>, and detection of its decomposition components is widely used for fault monitoring. One important decomposition component of sulfur hexafluoride (SF<sub>6</sub>) is sulfur dioxide (SO<sub>2</sub>), which is challenging to detect at room temperature. In the current project, we present the preparation of heterojunction of zinc oxide (ZnO) rods and tin oxide nanoparticles (SnO<sub>2</sub> NPs) via the hydrothermal method, followed by the addition of graphitic-carbon nitrate (g-C<sub>3</sub>N<sub>4</sub>) for improved sensing response of SO<sub>2</sub> at room temperature. Metal oxide semiconductors (MOS) have been reported as a suitable material to maximize gas sensing performance and fast recovery speed. The SnO<sub>2</sub>-ZnO heterojunction exhibited responsivity of 2.7 (1.2) for a target gas concentration of 80 (10) ppm. The ultralong carrier lifetime, excellent charge carrier transport, metal-free catalysis, and reduced carrier recombination advocate the utilization of g-C<sub>3</sub>N<sub>4</sub> in applications for gas sensing. By decorating heterojunction with g-C<sub>3</sub>N<sub>4</sub>, the responsivity significantly increased to 5.6 (2.8) for the concentration of 80 (10) ppm, showing a performance enhancement of more than 200% at low concentrations. This work highlights the performance of a highly g-C<sub>3</sub>N<sub>4</sub>@SnO<sub>2</sub>-ZnO stable composite for detecting SF<sub>6</sub> decomposed components at room temperature, such as toxic SO<sub>2</sub>, for fault diagnosis in GIS-based high-voltage electrical protection systems.

## M.A. RASULZADE AND HIS LOVE FOR AZERBAIJAN

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### **Abstract**

Muhammad Amin Rasulzadeh is an outstanding state and social-political figure, publicist, genius thinker, national ideologist, one of the founders of the Azerbaijan Democratic Republic (1918-1920) and one of the leaders of the Azerbaijani political emigration. He was one of the most prominent and great personalities in the history of Azerbaijan and led the national independence movement of Azerbaijan. His "Flag raised once, will never come down!" phrase became the slogan of the independence movement in Azerbaijan in the 20th century.

The people of Azerbaijan faced only the issue of freeing themselves from colonialism and creating their own independent national state, so that all injustices would end. Leading Azerbaijani intellectuals under the leadership of M.A. Rasulzade took on this difficult task at that time. On December 7, 1918, at the ceremonial opening of the Parliament of Azerbaijan, M.A. Rasulzade said: "At that time, we were defending the best issue for us - the independence of Azerbaijan, and we were subjected to merciless criticism from the right and the left. They told us from the right that with the slogan of Azerbaijaniism, you are dividing Muslims, and by raising the flag of Turkism - may God destroy it - you are undermining the foundation of Islam. "And from the left, they reproached us that by demanding the autonomy of Azerbaijan, we split the united democratic front. Despite this, the Musavat party was the first to raise the flag of Azerbaijan's independence."

Many obituaries were published in Turkey, Iran and Western European countries regarding his death. The most interesting of them is the obituary printed by S.H.Taghizade. Originally from Ordubad, he was born in Tabriz, considered one of the main leaders of the Iranian mashruta revolution together with M.A. Rasulzadeh, who later became a supporter of the Pahlavi method of government and thus became a stranger to his native people, the most prominent statesman and diplomat of Iran. and Seyyed Hasan Taghizadeh, who is considered a scientist, wrote in "Suhan" magazine: "Rasulzadeh, I can say without exaggeration, was one of the rarest people I have ever met in the Eastern world."

**Keywords:** M.A. Rasulzade, democracy, independence, state, personality.

## GENES RELATED TO mTOR SIGNALING PATHWAY AND BIOINFORMATICS APPROACH TO CANCER ETIOPATHOGENESIS

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### Abstract

**Introduction and Purpose:** The mTOR signaling pathway plays a crucial role in intracellular and intercellular signal transduction. Excessive activation or dysregulated regulation of this signaling pathway can lead to uncontrolled cell growth and proliferation, contributing to cancer development. In our study, we aimed to investigate the impact of the mTOR signaling pathway and associated genes on cancer etiopathogenesis using bioinformatics tools.

**Materials and Methods:** PathCards and GENEMANIA/GWAS databases were used to determine the interaction of the mTOR signaling pathway with other genes, while the STRING database was used to understand intergenic relationships. MalaCards, GeneCards, STRING databases, and GWAS were used to demonstrate its role in diseases. UniProt/KEGG Pathways database was utilized for pathway and protein interactions.

**Results:** Through our investigation using GENEMANIA and PathCards databases, it was found that the mTOR signaling pathway is closely associated with genes such as PTEN, the PI3K gene family, AKT, mTOR, the RAS gene family, and TP53. Our examination using MalaCards and STRING databases revealed that the mTOR signaling pathway is associated with cancer types such as breast cancer (Score: 66.389), lung cancer (FDR: 3.73e-06), colorectal cancer (Score: 62.136), prostate cancer (Score: 52.312), gastric cancer (Score: 49.312), and pancreatic cancer (Score: 48.528). It was determined that these cancer types interact with genes associated with the mTOR signaling pathway shown in GENEMANIA and PathCards databases. With KEGG bioinformatics pathways, it was observed that the mTOR signaling pathway is associated with pathways such as the MAPK signaling pathway (FDR: 6.78e-25), Insulin signaling pathway (FDR: 1.47e-47), and PI3K-Akt signaling pathway (FDR: 1.19e-44).

**Discussion and Conclusion:** This study, conducted using bioinformatics tools, presents findings indicating that the mTOR signaling pathway plays an important role in cancer etiopathogenesis. It is believed that the information obtained will contribute to a better understanding of the function of the mTOR signaling pathway in cancer and the development of new treatment methods targeting this pathway.

**Key Words:** mTOR Signaling Pathway; Cancer Etiopathogenesis; Bioinformatics

## **PHYTOPLANKTONS DIVERSITY IN SOME SELECTED INLAND WATERS IN NORTHERN NIGERIA**

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### **Abstract**

Phytoplankton diversity provides vital information into the functioning of aquatic habitats and their responses to environmental changes, with implications for biodiversity conservation, climate regulation, and human well-being. The diversity of phytoplanktons in some selected inland water in Northern Nigeria was carried out from June 2023 to September 2023. Three reservoirs were chosen for the study. They include: Zobe reservoir in Katsina state, Muhammad Ayuba reservoir in Jigawa state and CAAS reservoir in Kaduna state. A phytoplankton identification guide was used for the identification of the phytoplanktons from genus to species level. One way ANOVA was used to determine the difference between the study areas. The result revealed that there is significant difference between the diversity of phytoplanktons between the study areas. The Family Chlorophyceae has the highest number of individual species (4), Cyanophyceae and dinophyceae (2) each and bacillariophyceae and euglenophyceae with 1 species each. Zobe reservoir has the most diverse phytoplanktons (107) individuals, then CAAS reservoir (54) and Muhammad Ayuba reservoir the least (46).

**Key Words:** Phytoplankton, diversity, aquatic habitats, biodiversity, inland water, Muhammad Ayuba reservoir, Zobe reservoir, CAAS reservoir.

## **A SYSTEMIC APPRAISAL OF THEMATIC PROGRESSIONS IN ADICHIE'S THE THING AROUND YOUR NECK**

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### **Abstract**

This paper seeks to examine, from a systemic functional linguistic perspective, themes and thematic progressions in two excerpts from Adichie's *The Thing Around your Neck*. The choice to carry out such an investigation is motivated by the desire to uncover, in the selected excerpts, the different writing techniques used by the novelist to provide her texts with texture. It further looks into how these different writing techniques (Thematic Progressions) have helped her to foreground and emphasize various key messages in the selected excerpts to make her texts readable and accessible for her readership. To reach these objectives, the paper uses a mixed quantitative and qualitative method. The investigation has made important findings. Among several others, different types of themes have been recorded in the scrutinized texts namely topical, interpersonal, and textual themes. Drawing upon the context of usage, they are categorized as single/simple and multiple themes. Of them all, Topical themes stand head and shoulders above all the other recorded theme types. They are followed in the ranking order by the textual and interpersonal themes. The topical themes have served to encode messages about adultery, jealousy, tradition and culture, forced and arranged marriage, marriage and interests, clandestine immigration. As for the interpersonal themes, they have been used to establish power relationships and social distance between the characters. The recorded textual themes have enabled the writer to provide her studied excerpts with texture. In other respects, theme reiteration has been used to achieve cohesion and coherence in the studied excerpts while juxtaposition progression has served to compare and contrast sociocultural realities therein. As systemists contend, a text conveys three simultaneous meanings. As such, these excerpts would perfectly fall in with the studies of experiential and interpersonal meanings.

**Keywords:** Meaning, SFL, thematic progression, theme, texture



**THE SIGNIFICANCE OF INCORPORATING BLENDED LEARNING MODEL INTO EARLY CHILDHOOD EDUCATION TRADITIONAL APPROACH FOR BETTER COGNITIVE DEVELOPMENT AMONG THE CHILDREN IN NORTH WEST NIGERIA**

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**Abstract**

Early childhood education plays a crucial role in the cognitive development of children. Traditional approaches to early childhood education in North West Nigeria often lack the incorporation of technology and modern instructional methods that are proven to enhance learning outcomes. Blended learning is regarded as a pedagogical approach that combines traditional face-to-face instruction with online learning tools and resources. This study aimed at investigating the significance of incorporating a blended learning model into the traditional approach of early childhood education for enhancing cognitive development among children in North West Nigeria. The study employed a mixed-methods research design to collect both quantitative and qualitative data from teachers, parents, and children. The quantitative survey was employed to measure the perceived effectiveness of blended learning in enhancing cognitive development among children, while the qualitative interviews used to provide insights into the experiences and perspectives of stakeholders on the topic. It was hypothesized that incorporating a blended learning model into the traditional approach of early childhood education will have a positive impact on the cognitive development of children in North West Nigeria. Findings from the study revealed that, when technology and modern instructional methods are used in the class room, educators can create a more engaging and interactive learning environment that empowers young children to reach their full potential. Therefore, the study concluded that incorporating a blended learning model into the traditional approach of early childhood education is highly significant toward improving cognitive development among children in North West Nigeria. It was recommended that policy should be in places to support the full integration of blended learning in to the traditional learning approach for the benefit of all children in the region (North West Nigeria ) and beyond, Teachers should be train on blended learning, and Adequate found should be provided for the implementation reviewed curriculum.

**Keywords:** Blended Learning, Cognitive Development, Early Childhood Education, Traditional Approach, North West Nigeria

**RELATIONSHIP BETWEEN ACADEMIC STRESS AND ACADEMIC PERFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS IN KATSINA STATE, NORTH WEST NIGERIA**

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**Abstract**

The study examined the relationship between academic stress and academic performance of senior secondary school students in Katsina state, north-west Nigeria. Two objectives, two research questions and one hypothesis guided the study. Descriptive survey research design and correlational research design were adopted for the study. The population of the study covered a total number of 9,446 students in 13 public senior secondary schools of Katsina state-Nigeria. The sample size of this study covered a total number of 365 students drawn from 10 out of 13 public senior secondary schools using Systematic random sampling technique. Students achievement scores and a validated four-point Likert scale questionnaire entitled: Academic Stress of senior secondary students' questionnaire (ASSSQ) were the instruments employed for data collection. The questionnaire after validation indicated a reliability index of 0.73 which is fairly adequate for the study. The findings showed that, the mean academic performance scores of senior secondary school students in Katsina State is average including English and Mathematics; the study equally reviewed that among senior secondary school students in Katsina state, there was significant positive relationship between academic stress and academic performance. Based on the findings, the study recommended the need for school administrators in Katsina state to provide the prerequisite academic environment to boost students academic performance particularly in English and Mathematics; the study also recommended the need for schools to establish functional career services units to orientate students on coping strategies for Stress in order to improve their academic performance.

**Key Words:** Relationship, Students, Academic Stress and Academic Performance

## OCULAR DRUG DELIVERY SYSTEMS - AN OVERVIEW

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### **Abstract**

delivery systems play a vital role in the treatment of various ocular diseases by efficiently delivering therapeutic agents to targeted ocular tissues while minimising systemic side effects. The development of innovative administration techniques, including ocular inserts, implants, and contact lenses, has improved patient compliance by providing sustained drug release and reducing the frequency of administration. Refractive errors, glaucoma, cataracts, ocular surface infections, inflammation, dry eye syndrome, diabetic retinopathy (DR), diabetic macular edema (DME), age-related macular degeneration (AMD), etc. are the most common conditions that call for ODDS. Because so little is known about the genesis of ocular illnesses and this sense organ, developing ODDS presents a significant challenge for scientists and researchers. Drug distribution is further complicated by the prominent characteristics that make the heart and eye windows to the outside environment. A thorough grasp of the anatomy and physiology of the eye is necessary for the successful creation of ODDS. These delivery systems offer the added advantage of enhanced patient comfort and convenience, leading to improved treatment outcomes and quality of life for patients with ocular diseases. The ongoing advancements in ocular drug delivery systems hold great promise for revolutionising the management of ocular diseases by enhancing therapeutic efficacy, improving patient compliance, and minimising side effects. Continued research efforts in this field are essential for translating these innovations into clinical practice and addressing the unmet needs of patients with ocular conditions.

**Keywords:** Sustained drug release, innovative administration techniques, diabetic macular edema, dry eye syndrome and age-related macular degeneration

## OLFACTORY LANDSCAPE IN MIRCEA ELIADE'S NOVELS

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### **Abstract**

**Introduction and Purpose:** Olfactory motifs are powerful devices of emotional communication and their contribution to rhetoric effects of literary texts deserves the attention of literary historians. However, the substantial contribution made by odour imagery to our moods, emotions and affects goes largely unnoticed, which accounts for the comparatively late attention paid to smell in research on the significance of sensory images in literature. Literary-historical studies have only recently begun to explore pertinent themes, problems, views and techniques in more breadth and depth. The literary study of smell and of olfactory experience is still in its early stages and could be regarded as minor. Its fleeting and transitory nature, as well as its traditional cultural neglect, have made smell a challenging object for researchers, who often choose to ignore it. Even now the science of olfaction occupies a tiny fraction of the space occupied by the study of vision or audition.

The current study aims at expanding the theory of smell regarding its creative nature and emphasizes its importance in creating personal literature space. In an attempt to redress the neglect of the sense of smell in criticism, the article examines the olfactory landscapes in Mircea Eliade's novels. Romanian-born historian of religion, fiction writer, philosopher, professor at the University of Chicago, and one of the pre-eminent interpreters of world religion in the last century, Eliade was an intensely prolific author of fiction and non-fiction.

**Materials and Methods:** The article focuses on the role of smell in Eliade's novels "La țiganci" and "Domnișoara Christina". The author tries to show how these novels offer highly intriguing configurations of smell, characters and narration.

**Discussion and Conclusion:** The analyses reveal that some smells are treated by the writers in his personal way. Finally, the article proposes that smell plays a significant role in creating Eliade's personal literature space and represents an unique kind of embodied cognition, knowledge, and poetics.

**Key Words:** olfaction / smell, Mircea Eliade, odour, literature discourse.

## INVESTIGATION OF TRANSIENT CONJUGATE NANOFLUID HEAT TRANSFER IN PIPES WITH TWO-PHASE APPROACH

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### Abstract

This paper is on the numerical analysis of transient conjugate heat transfer with nanofluid flow in a thick-walled pipe. Laminar, hydrodynamically developed and thermally developing flow is considered and both radial and axial conduction terms are taken into account both in the wall and in the flow sides. The pipe is two-regional and extends infinitely in both directions. The upstream region is externally insulated while a uniform heat flux is suddenly applied on the outer surface in the downstream region. The two-phase modified Buongiorno model that fully accounts for the effects of nanoparticle volume fraction distribution is employed and the governing equations are solved numerically using the finite volume method. A new code is written for the study and the results are obtained for two types of nanofluids, namely alumina-water and titania-water and compared with the results for the base fluid. Transient distributions of outer and inner wall temperatures, bulk temperature, interfacial heat flux and Nusselt number are investigated. A parametric study is done to see the effects of defining parameters of the problem i.e; wall thickness ratio, wall-to-nanofluid thermal conductivity and thermal diffusivity ratios, the Peclet number, nanoparticle volume fraction, velocity slip parameter, and the ratio of Brownian to thermophoretic diffusivities. The results emerged from this research showed that the heat transfer characteristics may not only be improved by adding the nanoparticles to the base fluids but they have also been affected by the studied parameters.

**Key Words:** Nanofluid heat transfer, Conjugate heat transfer in pipes, Velocity slip factor, Modified Buongiorno model, Forced convection.

## **ONLINE MEDIA IN NORTH MACEDONIA: LEGAL FRAMEWORK, CHALLENGES AND PERSPECTIVES**

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### **Abstract**

Online media in North Macedonia falls under the same legal framework as traditional media, with laws and regulations governing issues such as freedom of expression, defamation, hate speech, and privacy.

The legal framework for online media in North Macedonia includes the Law on Media, which applies to both traditional and online media outlets. This law sets out regulations concerning the registration and operation of media outlets, as well as standards for journalistic ethics and professional conduct. Media outlets are indirectly regulated by multiple laws and regulations that intersect with other areas of law, such as telecommunications and information technology, copyright infringement, cybercrime, and the spread of misinformation or harmful content.

However, online media in North Macedonia are not regulated and are subject to self-regulation. The need for strengthening self-regulation of online media has been stated in the EC Country Progress Report in the past few years. The global trend of receiving news by online media gives the digital environment the possibility to use algorithms in order to adjust the content to the viewers' preferences but at the same time the online environment can be used for spreading disinformation. Online media in North Macedonia have become an unregulated space where disinformation has been spread very often for different purposes, and social networks have been used for the same purposes, too. One of the key challenges of the Macedonian media landscape is how ethical and professional principles that apply to traditional media could be also applied to the online media as a growing source of information for the public.

The paper analyses the need for changes and development of a legal framework governing online media in North Macedonia in response to technological advancements, changes in societal norms, and international developments.

**ONLINE PLATFORM UTILIZATION ON LEARNING CONDUCT OF  
PRESCHOOL STUDENT-TEACHERS IN KADUNA STATE COLLEGE OF  
EDUCATION, NIGERIA**

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**Abstract**

The purpose of this study was to examine the impact of online platform utilization on learning conduct of preschool student-teachers in Kaduna State College of Education Gidan-Waya. A descriptive survey design was used on population of 558 Nigeria Certificate in Education preschool student-teachers with sample size of 60 drawn for the study. An 11-item questionnaire, "Online Platform Utilization and Learning Conduct of College Students' Questionnaire (OPULCCSQ) was administered on students. Data collected was analyzed using tables, frequencies and percentages. Findings revealed that accessibility of the online platform impact learning conduct of preschool students-teachers. Also, there was wasting of learning time among students. The research concludes that teachers should monitor the conduct of their students on online platform utilization. The study recommends functional counselling and educational psychologist in the mitigation of online platform issues affecting preschool student-teachers learning conduct.

**Keywords:** Learning Conduct, Online-Platform, Internet, WhatsApp, Twitter, Instagram, YouTube.

**STRUCTURAL, VIBRATIONAL, MAGNETIC, AND ELECTRONIC  
CHARACTERIZATION OF THE DOUBLE PEROVSKITE  $\text{La}_2\text{ZnMnO}_6$**

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**Abstract**

Double perovskite oxides, characterized by their versatile ion placement within the A and B sub-lattices, have attracted considerable attention due to their array of fascinating physical phenomena, including multiferroic behavior, colossal magnetoresistance, ferroelectric/piezoelectric properties, and notable capabilities in oxygen ion transport and storage crucial for solid oxide fuel cells and water-splitting catalysis. Specifically, phases like  $\text{La}_2\text{NiMnO}_6$  (LNMO) and  $\text{La}_2\text{CoMnO}_6$  (LCMO) have been the focus of extensive research owing to their distinctive magnetic, electric, magnetoelectric, magnetoresistance, and multiferroic features. This study explores the influence of chemical composition on the structural, vibrational, magnetic, and electronic characteristics of  $\text{La}_2\text{ZnMnO}_6$ , a manganese-based 3d double perovskite, synthesized via high-temperature solid-state chemistry. The crystalline structure of  $\text{La}_2\text{ZnMnO}_6$  was elucidated using X-ray diffraction (XRD) and refined to a monoclinic structure within the P21/n space group, where zinc and manganese ( $\text{Mn}^{4+}$ ) ions are positioned at the Wyckoff 2b (0, 0, 1/2) and 2a (0, 0, 0) sites, respectively, while lanthanum ( $\text{La}^{3+}$ ) and oxygen ( $\text{O}^{2-}$ ) atoms are dispersed across various 4e (x, y, z) positions. The dynamic, structural, magnetic, and electronic attributes of  $\text{La}_2\text{ZnMnO}_6$  were meticulously investigated through infrared spectroscopy, Raman spectroscopy, and XRD. Infrared spectra disclosed distinct peaks indicative of the Mn-O stretching modes in the Zn/Mn octahedra, enriching our



understanding of the compound's vibrational properties. XRD analysis not only confirmed the crystalline phase and symmetry but also provided insights into the material's magnetic and electronic behaviors, underscoring the potential of  $\text{La}_2\text{ZnMnO}_6$  in applications requiring advanced magnetic and electronic properties.

**Keywords:** Double Perovskites; Magnetic Properties; High-Temperature Solid-State Chemistry; Structural Properties; Vibrational Properties; Electronic Properties;  $\text{La}_2\text{ZnMnO}_6$ ; Monoclinic Structure; X-ray Diffraction; Infrared Spectroscopy.

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## TAX COLLECTION METHODS IN THE TIMAR SYSTEM APPLIED IN THE OTTOMAN PROVINCIAL ORGANIZATION

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### **Abstract**

**Introduction and Purpose:** The basis of the Ottoman land system, which is divided into three parts: miri, property and foundation, consists of miri lands, the property rights of which belong to the state and the right of disposition belongs to the subjects. These lands, which are administered through the timar system, are based on the principle that all or part of the tax revenues are given to the official as a gratuity, and financial, administrative and military services are expected in return. In this study, it is aimed to associate the Timar system not only with the land and to reveal the effects of this system on many institutions such as Ottoman administrative, military, agricultural, and especially the financial structure.

**Materials and Methods:** While preparing the relevant topic, primary sources and primary sources such as cadastral records, dividends and archive documents were researched and examined and a thesis was put forward.

**Findings:** Although it varies depending on the economic conditions of the period in the Ottoman Empire, the most important one among the tax collection methods is undoubtedly the timar system.

**Discussion and Conclusion:** In order for this system to be implemented perfectly, all goods and human resources that can generate tax revenue must first be counted and the results must be recorded in the books called tahrir. In these lands, which were divided into dirliks as a result of the censuses and examinations and where the timar system called couples was applied, the sipahi distributed the couples to the subjects in return for the title deed and received various taxes in return. In this way, the burden of the treasury was greatly reduced and relieved. The most important income that the sipahi collects from the subjects is the double duty and tithe tax. Apart from these, sipahi, title deed picture, custom-i ağnam, picture-i grazing, picture-i zebiha, picture-i sheepfold and picture-i monster, picture-i asiya, picture-i arus, picture-i mücerred, picture-i mücerred, the one who leaves his couple. or collects various taxes, such as double change duty, from the subjects who do not sow in a row. Apart from taxes collected from land revenues, tax items such as jizye, cerime, bad-ı heva, niyabet are also included in timar revenues.

In the Ottoman Empire, tax affairs and operations were regulated by law and unlawful practices were strictly prohibited. However, timari-holding sipahis, who wanted to increase their economic earnings, sometimes chose to illegally increase their earnings and collected irregular taxes under different names, further increasing the burden on the subjects. Some factors such as the spread of firearms, failure to keep up with the reforms, favoritism, bribery, unfair tax demands and waiver of expeditions led to the deterioration of this system. The disruption of this system means the disruption of the agricultural economy, military structure, provincial administration and finance in general, like a chain reaction. The Timar system, which lost its function over time and caused disruptions in the Ottoman economy, came to an end completely with the Tanzimat Edict of 1839.

**Key Words:** Grooming; Tax; Reaya; collection

## RECENT DEVELOPMENTS ON A FILAMENT EXTRUDER MACHINES FOR 3D PRINTING: A REVIEW

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### Abstract

**Introduction and Purpose:** Fused Deposition Modelling (FDM) is one of the most widely used rapid prototyping methods. This method allows many complex parts to be produced rapidly in 3D. As with other manufacturing processes, this method produces many defective parts due to parameter or manufacturing errors. As it is almost impossible to reuse defective parts, this results in a large amount of plastic waste. There are those works on parameter controls to prevent this; extruder machines are designed to solve this problem. Extruder machines allow defective parts to be reused. This study aims to summarize the studies on 3D printer extruder machines.

**Materials and Methods:** For this purpose, the defective parts produced are divided into equal sized pieces and then transferred to the part where they will be melted through a vessel. The heat required for melting is provided by a resistance and filament is produced using a nozzle of the desired diameter. Measuring instruments or lasers are used for diameter control. **Results:** The literature generally reports that machines reduce material waste and prevent pollution through recycling. Additionally, it is determined that the 3D printing systems provide continuity. The mechanical properties of recycled filaments and normal production filaments were compared.

**Discussion and Conclusion:** By integrating extruders into the system and automating the process, the aim is to produce a filament with a non-porosity structure and superior mechanical properties.

**Key Words:** Extruder Machine; Recycled; PLA; ABS; PETG.

## IMPACT OF ENERGY CONSUMPTION ON ECOLOGICAL FOOTPRINT: AN EMPIRICAL ANALYSIS ON TURKEY

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### Abstract

**Introduction and Purpose:** With the increase in population and the rapid development of technology, the demand for natural resources in the world countries is increasing. This increase also includes the demand for energy. As a matter of fact, energy constitutes an important economic factor in both production and consumption. Ecological footprint is a numerical indicator that shows how much natural resources should be used within the framework of environmental sustainability and the world's self-renewal capacity. Identifying the impact of energy consumption on the environment is important in terms of increasing the effectiveness of applicable policies. The aim of this study prepared in this context is to determine the effect of energy consumption on the ecological footprint.

**Materials and Methods:** For this purpose, in addition to energy consumption with annual data for the period 1990-2022 for Turkey, urbanization rate, GDP per capita and foreign direct investment variables were included in the model as control variables and ARDL analysis was carried out.

**Results:** For this purpose, in addition to energy consumption with annual data for the period 1990-2022 for Turkey, urbanization rate, GDP per capita, urbanization and foreign direct investment variables were also included in the model as control variables and ARDL analysis was carried out.

**Discussion and Conclusion:** According to these results obtained from the study, for environmental sustainability, the share of non-renewable energy consumption in energy consumption should be reduced and renewable energy sources should be substituted.

**Key Words:** Energy Consumption, Ecological Footprint, ARDL Analysis

## ANALYSIS OF MORAL QUESTIONS IN THE BOOK OF PHILOSOPHY QUESTIONS FOR HIGH SCHOOL CLASSES DATED 1935

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### Abstract

**Introduction and Purpose:** After the establishment of the Republic of Turkey, it entered into an all-out development effort in almost every field. For this purpose, various innovations have been made in all fields, from law to politics, economy to education. Various standards have been brought to philosophy group education as part of the innovation efforts in education. In this period, minds still need to be made clear about whether philosophy group courses will be given separately or combined. However, the Ministry of National Education has tried to bring a standard to the field by preparing a guidebook containing the questions in these courses. This study aims to analyze the moral questions in the book *Philosophy Questions for High School Classes*, written in 1935.

**Materials and Methods:** The primary source of the study is the book *Philosophy Questions for High School Classes*, written in 1935. The book comprises six chapters and contains questions for high school Psychology, Logic, Ethics, Metaphysics, Aesthetics, and Social Sciences courses, respectively. A qualitative research method was chosen in the study. This method allows for interpreting a subject and examining it in depth. **Results:** The Ethics section of the book consists of a total of twenty-six questions. The questions include content related to the subject and parts of morality and topics related to fundamental concepts such as conscience and responsibility.

**Discussion and Conclusion:** It is understood from the questions regarding morality in the book that this issue is taken seriously and given importance. In addition, ethics, which is examined today as a sub-branch of philosophy and sociology, was seen as an independent subject in the early periods of the Republic and was taught as a separate course.

**Keywords:** Philosophy, Sociology, Ethics, Republican Era Textbooks

**ANALYSIS OF SOCIOLOGY QUESTIONS IN THE BOOK OF PHILOSOPHY  
QUESTIONS FOR HIGH SCHOOL CLASSES DATED 1935**

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**Abstract**

**Introduction and Purpose:** The newly established Republic of Turkey wanted to develop and improve society. In this direction, some innovations have been made in all social institutions, such as politics, family, law, economy, and education. During this period, various standards were tried to be brought to philosophy group education. However, there has yet to be a consensus on whether philosophy, psychology, sociology, and logic courses within the philosophy group should be taught together or separately. On the other hand, the Ministry of National Education has endeavored to bring a standard to the field of philosophy group courses by determining the questions to be asked both during the teaching of these courses and in their exams. This study aims to analyze the moral questions in the book *Philosophy Questions for High School Classes*, written in 1935.

**Materials and Methods:** The primary source that forms the basis of this study is the book *Philosophy Questions for High School Classes* dated 1935. The book under review consists of six chapters and questions to be asked in high school Psychology, Logic, Ethics, Metaphysics, Aesthetics, and Social Sciences courses. The study chose a qualitative research method, which allows for the in-depth interpretation and examination of a subject.

**Results:** The İctimaiyat section at the end of the book consists of seventy-one questions. The questions include content related to the subject and parts and topics related to fundamental concepts of morality such as conscience and responsibility.

**Discussion and Conclusion:** Social institutions such as family, religion, economy, education, and various social concepts such as division of labor, competition, and sanctions are discussed in the book. When compared quantitatively, the book has the most problems in this section.

**Keywords:** Sociology, Philosophy, Republican Era Textbooks

**INVESTIGATE CONSTRUCTION TECHNIQUES AND BUILDING MATERIALS  
OF TRADITIONAL DWELLINGS AS A STRATEGY FOR ATTAINING  
SUSTAINABLE BUILDING IN GHARYAN AND GHADAMES, LIBYA**

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**Abstract**

The traditional underground dwellings in the mountainous region of Gharyan and the traditional compact dwellings in the desert region of Ghadames, Libya are distinguished with unique construction techniques and architectural features that reflect the local building traditions and environmental considerations. These vernacular dwellings were built employing domestically available materials and simple construction methods, displaying the wealth of conventional knowledge and vernacular construction approaches. Local inhabitants ingeniously designed these dwellings to protect themselves from the rigors of harsh climatic conditions without having pre-training about architectural design.

This study aims to amass comprehensive data on building materials and construction techniques utilized in the traditional dwellings of Gharyan and Ghadames in particular. The data can help in understanding the strategy of solutions utilized, preserving these traditional dwellings, and learning from these construction techniques for future buildings.

Quantitative research methods were used in the study, starting with an overview of related literature review, and then gathering information through a field survey.

The results of the study showed that the building materials and construction techniques used and applied in the two cases, Gharyan and Ghadames, can be said to be sustainable and environmentally friendly, due to its reliance on the local resources and materials available in both regions.

Moreover, these traditional practices can be developed to meet contemporary needs and reduce the damage caused to nature by using manufactured building materials.

**Keywords:** Construction Technique, Traditional Houses, Contemporary, Vernacular, Libya

## **A CASE STUDY OF SOME RIVER CORRIDORS CONNECTING WITH THE BLACK SEA**

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### **Abstract**

**Introduction and Purpose:** In today's conditions where intense climatic changes are experienced, maintaining the ecological balance of river corridors and ensuring sustainability is the most important phenomenon of ecological planning. The natural and cultural data of river ecosystems constitute the ecosystem services of that region. In this study, several river corridors with different qualities flowing into the Black Sea will be discussed and rehabilitation studies will be proposed to improve the negative ecological conditions detected. In these rehabilitation studies, the approaches developed by McHarg will be taken into consideration and the "River Corridor Management Model" will be created.

**Materials and Methods:** Area photographs will be taken at the points where the determined river corridors meet the sea, and two-dimensional and three-dimensional proposal models will be created for these areas.

**Results:** The more ecosystem services are protected and sustainable, the more the natural life corridors of the region preserve their ecological balance and enable the use of more livable spaces.

**Discussion and Conclusion:** It is aimed to transform the river corridor management model, which is considered on a local scale, into a national model in the future.

**Key Words:** River corridors, River ecosystems, Sustainability.



## THE ROLE OF URIC ACID ALBUMIN RATIO IN PREDICTING CORONARY ARTERY BYPASS GRAFT IN PATIENTS UNDERGOING CORONARY ANGIOGRAPHY

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### **Abstract**

**Introduction and Purpose:** Coronary artery disease (CAD), whose prevalence is increasing in developed and developing countries, continues to be one of the leading causes of morbidity and mortality in the world. Coronary Artery Bypass Graft (CABG) is one of the commonly used treatment methods in addition to medical treatment in CAD, which is increasingly common today. This study aims to examine the importance of uric acid albumin ratio in patients undergoing CABG.

**Materials and Methods:** 1815 patients who underwent coronary angiography in our hospital between 1-January 2022 and 1-January 2024 were retrospectively scanned for the study. Patients who underwent CABG as a result of coronary angiography were recorded. Laboratory parameters (uric acid, albumin, etc.) of these patients were recorded. Patients who did not receive CABG treatment as a result of coronary angiography and whose heart vessels were normal were excluded.

**Results:** 394 of 1815 patients included in the study were treated with CABG. 75.1% of the patients undergoing CABG were male. The average age of patients undergoing CABG was  $65 \pm 10$  years. The uric acid albumin ratio was statistically significant in patients who received CABG medical treatment ( $p < 0.001$ ).

**Discussion and Conclusion:** In this study, uric acid albumin ratio was observed to be statistically significant in predicting CABG.

**Key Words:** Coronary artery disease, Coronary artery bypass graft

## MOLECULAR ELUCIDATION OF THE ROLE OF INFLAMMATORY RESPONSES IN CARCINOGENESIS AND ITS PROGRESSION

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### **Abstract**

Inflammation is part of the process by which the immune system defends the body from harmful events. Acute inflammation is triggered by injury, infection, or exposure to corrosive substances. Chronic inflammation is linked to infection or autoimmune diseases. However, if inflammation does not go through the destruction and repair process properly as desired, leukocytes, lymphocytes and collagens cause permanent damage to the tissues. When the hemostatic balance in the tissues is disrupted, bioactive substances such as cytokines, chemokines, macrophages and reactive oxygen factors are released, and inflammation occurs. Prolonged inflammatory response leads to chronic inflammation. Chronic inflammation causes many diseases, especially cancer, shown by clinical studies. Cancer is the abnormal growth of cells, which divides very quickly and spread to various parts of the body. Many inflammatory cells and signaling molecules of the immune system are involved in the formation and progression of the tumor. NF- $\kappa$ B is a transcription factor that stimulates tumor cell cycle progression, epithelial-to-mesenchymal transition, angiogenesis, metastasis and the prevention of tumor cell death. IKK/NF- $\kappa$ B signaling pathway inhibitors are activated through many pro-inflammatory cytokines. Cytokines, which are inflammatory elements, play a key role in the spread or suppression of cancer. Intense inflammatory responses lead to weakening of the immune response and progression of cancer, neoangiogenesis, and followed by metastasis. Various cytokines, such as TNF- $\alpha$ , TRAIL, IL-6, IL-17, IL-18, IL-12, IL-23, IL-10 and TGF- $\beta$  can promote or inhibit tumor development. Interleukin-6 (IL-6) performs its function through receptors called JAK through the activation of STAT-3, which affects survival, angiogenesis, invasion and tumor development events. The level of IL-6 and IL-18 are increased in various types of cancers. Despite the advancement of diagnostic and therapeutic of cancers, the mortality rate of cancer patients is higher. Still there are scopes remain to understand the molecular mechanisms of inflammatory responses behind carcinogenesis.

Therefore, it is important to study the role of inflammatory responses, so as to open new avenues for the future of cancer patients survival.

**Key Words:** Inflammation, cancer, carsinogenezis

## INVESTIGATION OF PROSPECTIVE TEACHERS' ATTITUDES TOWARDS DIGITAL AND PAPER READING

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### **Abstract**

**Introduction and Purpose:** In this study, it was aimed to examine pre-service teachers' attitudes towards digital and paper reading. The research was conducted with undergraduate students studying at Kastamonu University Faculty of Education.

**Materials and Methods:** In this study, in which the relational survey model was used, data were collected from a total of 262 pre-service teachers studying in different programs of the Faculty of Education. 179 of the students were female and 83 were male. Data were collected with two different measurement tools. In the analysis of the data, independent t-test was used to determine the relationship between gender variables, and One Way ANOVA was used to reveal the relationship between students' scores and class variables. In addition, frequency, percentage and mean scores were used to describe the data.

**Results:** While there was no significant difference in the gender variable, it was found that the digital reading attitude levels of 4th grade students differed significantly compared to 3rd grade students at the grade level. In addition, it was found that Turkish and Social departments had higher paper reading attitudes than Mathematics department students in the programs of study.

**Discussion and Conclusion:** At the end of the research, the average score of the attitude scale towards digital reading was found to be ( $X=3.60$ ), while the average score of the attitude scale towards paper reading was found to be ( $X=3.70$ ). This result shows us that pre-service teachers' attitudes towards digital and paper reading are above the middle level.

**Key Words:** Digital reading; Reading from paper; Reading Attitude

## STRUCTURAL ANALYSIS OF EMPLOYMENT IN THE SERVICE SECTOR: KAZAKHSTAN EXAMPLE

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### Abstract

**Introduction and Purpose:** The service sector is a sector that is becoming increasingly important in world economies. Traditionally, the service sector, as well as the agricultural and industrial sectors, contribute to economic growth and employment. Especially in developed countries, the service sector constitutes a large portion of GDP. The service sector covers a wide range and includes sub-sectors such as tourism, education, health, finance, communications and retail. Technological advances and digital transformation enable the service sector to grow and develop further. In particular, the spread of internet and mobile technologies makes services more accessible and opens up to global markets. While the development in the service sector supports economic growth, it also causes changes in the labor market. Changes in people's consumption habits and rise in living standards increase the demand in the service sector. In Kazakhstan, which is one of the countries that has shown significant development in the service sector in recent years, the service sector constitutes a large part of the employment. The Kazakhstan government is developing various policies and investment incentives to support and encourage the service sector. In this way, it is aimed to further grow and develop the sector. This study was carried out to determine the structural and characteristic features of the service sector in the labor market in Kazakhstan.

**Materials and Methods:** Within the scope of the study, sectors in the economy and employment rates of men and women in these sectors were examined for the period 1991-2022. In this study, World Bank data was used.

**Results:** As a result of the investigations, it was concluded that the proportion of the population employed in the agricultural sector in Kazakhstan has been decreasing continuously since 1991, while the total employment rate in the industry and service sectors has been in an increasing trend. In addition, it has been determined that the increase in employment in the service sector is higher than in the industrial sector, and while the female employment rate in the industrial sector has remained stable after 2010, the female employment rate in the service sector has continuously increased.

**Discussion and Conclusion:** As a result, the service sector has become an increasingly important sector for the Kazakhstan economy, as well as for the world economies. Developments in the service sector increase the country's international competitiveness and make significant contributions to economic growth. Therefore, it is important for economic development to closely follow and support the developments in the service sector

**Key Words:** Service Sector, Employment, Labor Market.

## **THE RELATIONSHIP BETWEEN DIGITAL GAME ADDICTION, READING MOTIVATION AND COMPREHENSION LEVELS OF 4TH GRADE STUDENTS**

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### **Abstract**

**Introduction and Purpose:** This study's primary objective is to determine the relationship between digital game addiction, reading comprehension, and reading motivation among 4th-grade elementary school students.

**Materials and Methods:** The research was designed as a correlational survey study. The research sample group consisted of 4th grade elementary students attending schools during the 2023-2024 academic year in the Pursaklar district of Ankara province. The Digital Game Addiction Scale, Reading Comprehension Test, and Reading Motivation Scale were used as data collection tools. For data analysis, the SPSS software package was utilized, and Pearson's Product-Moment Correlation Coefficient, t-test, mean, and percentage were used in the analysis of the findings.

**Results:** This study found a moderate negative correlation between digital game addiction and reading motivation among 4th-grade elementary school students. Additionally, a moderate negative correlation was identified between digital game addiction and reading comprehension, while a moderate positive correlation was found between reading motivation and reading comprehension.

**Discussion and Conclusion:** Results indicates that there is a significant difference in reading motivation between male and female students, with female students showing higher levels of reading motivation compared to male students. Kızgın and Baştuğ (2020) attempted to determine the level of prediction of students' reading motivation and reading comprehension skills on academic achievement, and concluded that 4th-grade students, specifically female students, have higher levels of reading motivation compared to male students.

**Key Words:** Digital game addiction, reading motivation, reading comprehension

## **OBLIGATION TO CONDUCT AN EFFECTIVE INVESTIGATION AND PROSECUTOR'S AUTHORITY TO EVALUATE EVIDENCE**

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### **Abstract**

When the Criminal Procedure Code and case law are considered, the public prosecutor has to carry out the investigation effectively with the help of judicial law enforcement officers. If the investigation phase is passed efficiently, the evidence that has to be obtained in order to reach the material truth will be acquired. In this way, it becomes easier to reach the correct conclusion when the judgment ends.

After an effective investigation is carried out, first of all, the prosecutor evaluates the criminal elements in the incident under investigation. After that the public prosecutor must evaluate the available evidence. Having reached sufficient doubt as a result of this evaluation, the public prosecutor, as a rule, file an indictment and submits it to the court. Therefore, the public prosecutor, like the judge, has to evaluate the evidence. Additionally, the prosecutor must evaluate whether there is public interest to file a public criminal case.

In our study, examining the effective investigation and the evaluation of the evidence by the prosecutor will be explained. Although it is accepted that the public prosecutor has the authority to evaluate the evidence, according to the characteristics of the criminal case, it is concluded that it is necessary to prepare an indictment for the files, such as the reasons for compliance with the law and the reasons that eliminate culpability, which should be discussed mutually in the court.

**Keywords:** Investigation, Prosecutor, Effective investigation, Doubt, Discretion power.

## EVALUATION OF ANTIARTHRITIC ACTIVITY OF CORIANDRUM SATIVUM L. SEEDS IN VITRO

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### Abstract

**Introduction and Purpose:** Coriander is a medicinal plant rich in phenolic compounds with several biological activities such as anti-inflammatory and antiarthritic.

**Materials and Methods:** This study aimed to evaluate the in vitro antiarthritic activity of aqueous and hydroalcoholic extracts of *Coriandrum sativum* seeds and phytochemical screening of these extracts.

**Results:** The extraction yields showed that the yield of the aqueous extract (8.02%) was high compared to the hydroalcoholic extract (5.65%). The presence of alkaloids, flavonoids, tannins, saponins, coumarins and polyphenols in both extracts was confirmed by phytochemical analysis. Quinones and terpenoids were present in the aqueous extract. For in vitro antiarthritic activity, the IC<sub>50</sub>s of hydroalcoholic extract, aqueous extract and diclofenac by BSA method were 10.495±0.262, 10.240±0.07 and 14.490±0.56 mg/ml, respectively. In the egg albumin denaturation test, the aqueous extract showed the highest protective effect with IC<sub>50</sub> of 16.083±0.105 mg/ml.

**Discussion and Conclusion:** *Coriandrum sativum* seed extracts possessed antiarthritic activity in vitro based on the results of this study. This activity may be due to the presence of polyphenols. Polyphenols exert their anti-arthritis properties by inhibiting inflammation, either by modulating the mitogen-activated protein kinase (MAPK) signaling pathway or by inhibiting the nuclear factor kappa-beta (NF-κβ) pathway and activating protein-1 (AP-1) transcription factors. They also inhibit the production of inflammatory cytokines and chemokines that suppress cyclooxygenase (COX) activity. Inhibition of inducible nitric oxide synthase (iNOS) further reduces the production of free radicals such as reactive oxygen and nitrogen species.

**Key Words:** Antiarthritic activity; *Coriandrum sativum* L; Aqueous extract; Hydroalcoholic extract; Flavonoids; Coumarins.

## HYDROGEOLOGICAL CHARACTERISTICS OF TOKAT PLAIN ALLUVIAL AQUIFER

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### Abstract

**Introduction and Purpose:** Today, increasing urbanization due to excessive population density, climate changes, industrialization, etc. These problems pose a danger in terms of groundwater quantity and quality. For this reason, studies on determining the quantity and quality of water come to the fore in meeting the water needs of the society. In order to determine qualified water resources suitable for health, it is necessary to know the hydrogeological characteristics of the aquifer environments containing groundwater. For this reason, it becomes important to evaluate drinking and utility water resources from a hydrogeological perspective. In this study, it was aimed to evaluate the alluvial aquifer in the Tokat plain from a hydrogeological perspective.

**Materials and Methods:** The study area is located in the inner parts of the Central Black Sea Region in the Black Sea Region, between 39° 52' 40° 55' north latitudes and 35° 27' 37° 39' east longitudes. The study area is located in the center of Tokat, with Amasya in the west (113 km), Samsun in the north (227 km), Ordu (214 km) in the northeast, Sivas in the east and southeast (107 km), and Yozgat (193 km) in the southwest. The 1/100,000 scale geological map of the study area was prepared with the CoreDRAW X3 software program by revising the data obtained from previous studies. The hydrogeological map was rearranged by taking into account the hydrogeological characteristics of the lithological units cropping out in the region. In the study area, physical and chemical analysis results of 7 drilling wells opened in the plain by SHW 7th Regional Directorate were evaluated in terms of their usability as drinking and irrigation water using different diagrams and classifications.

**Results:** In the Tokat plain and its immediate surroundings, there are the Tokat metamorphics (Pzt) belonging to the Sakarya Zone, the Artova ophiolite complex (Ka) belonging to the Izmir-Ankara-Erzincan zone, and the Cover rocks unconformably overlying these units. In the study area, metamorphite and ophiolitic units are impermeable and are distinguished as an aquifuge medium. The Boyunpınarı formation, consisting of conglomerate, sandstone, limestone and travertine, and the Haydaroglu formation, consisting of conglomerate, siltstone, sandstone and andesitic-basaltic lava, are defined as aquitard mediums. They are the Tahtoba limestone member and alluvium and slope debris that crop out in a narrow area as permeable units in the region. The unit that has an important aquifer feature is alluvium and there are drilling wells drilled in this environment. The pH of the groundwater in the study area is between 7.4 and 8.5



and these waters are "basic in character". The electrical conductivity (EC) of water varies between 450 and 954  $\mu\text{S}/\text{cm}$ . Their hardness varies between 21.50 and 46.51  $\text{Fr}^\circ$ . According to the French hardness degree, the waters of wells numbered 16079, 16080, 5301 and 5868 are in the "quite hard water" class, while the waters of wells numbered 6623, 20166 and 7230 are in the "hard water" class. According to the chemical analysis results, the general major cation and anion sequences of the groundwater in the Tokat plain are  $\text{Ca}^{+2} > \text{Mg}^{+2} > \text{Na}^+ > \text{K}^+$  and  $\text{HCO}_3^- > \text{SO}_4^{-2} > \text{Cl}^- > \text{CO}_3^{-2}$ .  $\text{Ca}^{+2}$ ,  $\text{Mg}^{+2}$  and  $\text{HCO}_3^-$  ions are dominant in water.

**Discussion and Conclusion:** In this study, different water types were determined in the groundwater taken from boreholes drilled in the Tokat plain alluvial aquifer. While the waters of wells no. 6623, 16079, 16080, 5301 and 5868 have  $\text{CaMgHCO}_3$  water type, the waters of wells no. 20166 and 7230 have  $\text{MgCaHCO}_3$  water type because the  $\text{Mg}^{+2}$  ion concentration is high. The increase in  $\text{Mg}^{+2}$  ion in these wells is thought to be due to water-rock interaction with the Tokat metamorphites located under the alluvium in the locations where the wells were opened. The analyzed physical properties and major elements of the groundwater in the study area were compared with standard values. According to these parameters, it was determined that the waters comply with the World Health Organization and Turkish Drinking Water Standards. US Salinity Laboratory and Wilcox diagrams were used to determine the usability of groundwater in the study area for irrigation purposes in agricultural areas. In these evaluations, it was determined that some water samples were in the overly saline class and were not suitable for use as irrigation water. It is thought that the  $\text{Ca}^{+2}$ ,  $\text{HCO}_3^-$  and  $\text{SO}_4^{-2}$  contents in these waters are high and the increase is due to interaction with metamorphites.

**Key Words:** Tokat Plain; Alluvium; Groundwater; Hydrogeology

## INTRODUCTION AND INVESTIGATION OF THE APPLICATION POTENTIAL OF GREYWATER TREATMENT UNIT WITH INNOVATIVE NATURAL VACUUM TECHNIQUE USING PELTIER MODULES

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### Abstract

**Introduction and Purpose:** Wastewater treatment is a technical process that involves cleaning wastewater from domestic and industrial usage for reuse in various purposes. Currently, wastewater is categorized into two groups: Blackwater and Greywater. Greywater refers to slightly contaminated domestic wastewater without septic waste from showers, baths, and sinks, as well as collected rainwater. The aim of greywater treatment is to obtain water suitable for different uses that do not require potable water quality. Greywater treatment processes have low costs and do not require supplementary disinfection after treatment. Treated water from greywater systems is utilized for toilet flushing, garden irrigation, car washing, cooling tower feed, and general cleaning operations. This study will introduce the design and function of a unit compatible with an innovative natural vacuum technique incorporating Peltier modules for the rehabilitation of greywater. The potential of this technique, which is open to both individual and urban applications and has low operational costs, can be evaluated as an alternative technique in this field. This study will introduce the design and function of a unit compatible with an innovative natural vacuum technique powered by Peltier modules.

**Materials and Methods:** The introduced natural vacuum technique in the literature will be examined by comparing the methods of increasing the production of clean water in wastewater treatment using the cold obtained through thermoelectric element applications in the designed system.

**Results:** The fact that this technique is open to individual and urban application and the operating cost is low can be considered as an alternative technique to the techniques in this field.

**Discussion and Conclusion:** The system's environmentally friendly structure utilizing renewable energy sources and its versatility for both mobile and stationary use make it stand out as an alternative solution in this field.

**Key Words:** Gray water, natural vacuum, peltier module

## USE OF HADITH IN POLITICAL CONFLICTS AND ITS IMPACT VALUE

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### Abstract

**Introduction and Purpose:** While the Prophet was still alive, his words, actions and inlays were sometimes understood differently among the companions. The situation is the same not only in matters related to worship but also in matters related to belief and conduct. Of course, when language, culture and other factors are included in this different meaning and interpretation, sometimes a word and an action are perceived in a completely opposite way. During the lifetime of the Prophet, the situation in question was often resolved by asking him personally, and sometimes with the reference of a companion whose opinion was more respected, or by negotiation. In this regard, the verses of the Quran or the hadiths, which include the words, deeds and approvals of the Prophet, have great importance in the history of Islamic culture as the main basis. However, when necessary, even these two sources could be understood differently in many cases, and from time to time, different groups could distort the verses and hadiths to support their own views.

**Materials and Methods:** In the study, first-hand classical hadith sources, especially of Sunni and Shia origin, were taken into consideration, and the identified hadiths and narrations were evaluated according to the literature in terms of their degree of authenticity.

**Results:** It was determined that different groups produced many narrations on behalf of their members in the following centuries, especially based on hadith sources.

**Discussion and Conclusion:** This study has revealed that in the historical process, in the centuries after the death of the Prophet, different political groups produced many narrations or interpreted some hadiths and narrations about the head of state in line with their own understanding.

**Key Words:** Hadith; Narrative; Politics; Sunni; Shia

## THE USE OF PROMPT ENGINEERING TECHNIQUES IN THE GENERATION OF EXAM QUESTIONS RELATED TO THE TABAL REGION

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### **Abstract**

**Introduction and Purpose:** In this study, we investigate how prompt engineering techniques can be used to generate exam questions related to the Tabal Region, an important area in Central Anatolia during the Late Hittite Period. Prompt engineering is the design and development of instructions given to large language model-based chatbots to produce the desired output. In our work, we present a series of examples that demonstrate how prompt engineering techniques can be used to create exam questions related to the Tabal Region.

**Materials and Methods:** In this study, Zero-Shot and Role-Playing techniques were used for question generation. Question generation experiments were conducted on popular and free chatbots ChatGPT-3.5, Gemini and Copilot. The quality of the questions and answer choices generated by the techniques was compared with each other.

**Results:** Ten questions were generated by each techniques. These questions had five multiple-choice options. Additionally, an answer key was requested. Thus, sixty questions and three hundred options were generated from three chatbots.

**Discussion and Conclusion:** This study shows that prompt engineering techniques can be partially utilized for generating exam questions related to the Tabal Region. However, exam questions generated using the two techniques for the Tabal Region, are found to be largely weak in terms of measurement and evaluation. This situation is thought to be due to the insufficient data available to the chatbots on the subject matter.

**Key Words:** Prompt; Engineering; Tabal; Exam; Question.

**REVIEW OF GRADUATE THESES THAT EVALUATES THE PROBLEMS  
EXPERIENCED BY CAREGIVERS DURING HOME VISITS TO THE  
CAREGIVERS OF ELDERLY INDIVIDUALS IN TURKEY**

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**Abstract**

**Purpose:** This study was conducted to examine postgraduate thesis studies evaluating the problems experienced by caregivers during home visits to caregivers of elderly individuals in Turkey.

**Materials and Methods:** To access postgraduate theses, Turkey National Thesis Database was searched using the keywords "elderly", "elderly individual", "caregiver", "caregiver", "home visit", "nurse". Four theses evaluating the problems experienced by caregivers during home visits to caregivers of elderly individuals were found. The theses obtained were examined using the document analysis method.

**Findings:** The 4 theses included in the scope of the study were made between 2009 and 2013, 3 of them are master's theses and one is a doctoral thesis. Theses were made in the Department of Public Health Nursing. It was determined that 3 of the studies were descriptive and 1 was quasi-experimental. As a result of the examination of theses, it was determined that the majority of caregivers were women. It has been determined that the length of time the caregiver lives with the elderly and the time the caregiver spends with the elderly during the day affects the care burden. It was determined that the majority of caregivers did not receive assistance in care, their perceived social support levels were not at the desired level, their life satisfaction was low and it affected the care burden. In the semi-experimental thesis study, it was determined that home visits positively affected caregivers' depression, coping with stress and quality of life.

**Conclusion:** It is recommended to increase postgraduate theses on this subject in Turkey, to determine the problems of caregivers through regular home visits by nurses, to focus on reducing care difficulties and problems with nursing interventions to be implemented in this direction, and to conduct randomized controlled studies to provide evidence.

**Key Words:** Home visit, caregiver, elderly, nursing

## MOLECULAR DYNAMICS STUDY ON GRAPHENE-BASED NANOMATERIALS AS SMART NANOCARRIERS FOR RAPAMYCIN ANTICANCER DRUG

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### Abstract

**Introduction and Purpose:** Graphene an exceptional two-dimensional sp<sup>2</sup> hybridized allotrope of carbon, features a honeycombed structure composed of six-atom rings, with unique physical attributes. Its status as the thinnest, strongest, and stiffest material, linked with remarkable solubility, biocompatibility, and versatility, has driven it to the frontline of extensive scientific research and exploration. Oxygenation of graphene gives rise to a promising derivative known as graphene oxide (GO). Its exceptional dispersibility in aqueous solution, conductivity, high stability, and various advantageous properties render it an invaluable tool to solve some issues that face systemic targeting applications and a flexible vehicle for local drug delivery systems. Rapamycin (RPM), also known as Sirolimus, is a macrolide antitumor drug that has recently achieved extensive use due to its significant potential in inhibiting the proliferation and growth of cancer cells.

**Materials and Methods:** A molecular dynamics (MD) simulation program will be utilized to analyze the interactions, binding affinity, properties, and parameters between the chemical compounds of the nano-embellished sheet GO surface and the bounded RPM. This study will serve to explore the molecular interactions between RPM-GO and understand the mechanisms of drug loading, release, and transportation using computational techniques and analytical approaches. A computer model was created to stimulate how nano-sized holes are placed on an oxide (GO) surface followed by arranging rapamycin (RPM) molecules, around the GO surface in a solution. Different force fields were chosen using the Automated Topology Builder tool, to ensure that the system reached an energy equilibration for a stable environment. Simulations were carried out for 30 nanoseconds, during which the MD observed that RPM molecules were absorbed into the decorated GO surface, with monitoring of parameters tracking. The analysis included observing changes in distance over time, RMSD, MSD, and calculations of diffusion coefficients throughout all simulations.

**Discussion and Conclusion:** Comparing the simulation results with experimental data confirmed the accuracy of the findings. These techniques provided insights into how RPM-loaded GO carriers absorb molecules to remain stable and could be used in drug delivery systems. The MD results suggested that it is possible to design RPM-loaded GO nanocomposites to improve solubility, stability, and targeted delivery, to cancer cells. The main goal is to enhance treatment efficacy while minimizing side effects.

**Key Words:** Molecular Dynamics Simulations, Graphene, Graphene Oxide, Rapamycin, Nanocarrier, Drug Delivery

## INTER-RATER AND TEST-REPLAY RELIABILITY OF THE CLOSED KINETIC CHAIN MODE MEASUREMENT OF JOINT POSITION SENSE OF ELBOW FLEXION

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### Abstract

**Purpose:** This study aimed to evaluate the interobserver and test-retest reliability of closed kinetic chain joint position sense measurement at 45°-60°-75° flexion angles of the elbow joint.

**Materials and Methods:** The study was designed as a non-invasive, cross-sectional study. 74 healthy individuals between the ages of 18-25 were included in the study. Elbow joint position sense at flexion angles of 45°-60°-75° was measured using a standard universal goniometer, separately in the supine and mid-position of the wrist. Two different observers repeated the evaluations simultaneously at three different elbow angles, three days apart.

**Results:** In the evaluation between 2 observers, a moderate correlation was found between the results in all aspects ( $p < 0.001$ ). (Wrist in supine position 45°  $r=0.507$ , 60°  $r=0.580$ , 75°  $r=0.537$ ; wrist in mid position 45°  $r=0.243$ , 60°  $r=0.408$ , 75°  $r=0.578$ ). In test-retest reliability, a moderate relationship was found between the results in all aspects in the evaluations made at 3-day intervals ( $p < 0.001$ ). (Wrist in supine position 45°  $r=0.405$ , 60°  $r=0.585$ , 75°  $r=0.536$ ; wrist in mid position 45°  $r=0.340$ , 60°  $r=0.388$ , 75°  $r=0.325$ ). Inter-rater reliability coefficient in wrist supine position was 0.888 at 45°, 0.845 at 60°, 0.854 at 75°; In the mid wrist position, it is 0.523 at 45°, 0.540 at 60°, and 0.730 at 75°. The test-retest reliability coefficient was 0.882 at 45°, 0.853 at 60°, 0.832 at 75° in the wrist supine position; In the mid wrist position, it is 0.523 at 45°, 0.540 at 60°, and 0.730 at 75°.

**Discussion and Conclusion:** Closed kinetic chain joint position sense measurement at 45°-60°-75° flexion angles of the elbow joint with the wrist in supine and mid position is reliable and is recommended to be applied during evaluation.

**Keywords:** Joint Position Sense; Proprioception; Physiotherapy and Rehabilitation, Elbow

**ANALYSIS OF GRADUATE THESIS RELATED TO VESTIBULAR  
REHABILITATION IN THE FIELD OF PHYSIOTHERAPY AND  
REHABILITATION**

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**Abstract**

**Purpose:** This study aimed to examine the characteristics of theses dealing with the vestibular rehabilitation method in the field of physiotherapy and rehabilitation in Turkey.

**Material and Method:** A qualitative research model was used within the scope of the study. Theses registered in the "Thesis Documentation Center of the Council of Higher Education" between 2000 and 2024 were scanned with the keyword "vestibular rehabilitation". A total of 16 postgraduate theses that met the inclusion criteria were analyzed by document analysis method with Microsoft Excel.

**Results:** As a result of the study, there were 11 master's and 5 doctoral theses; these were conducted in Istanbul, Ankara, Izmir, Edirne, and Malatya; It was first done in 2013 and the most in 2021; Most of the thesis advisors are 9 Prof.Dr. and 4 Assoc. Prof.Dr. 3 of them are Dr. Lecturer Of which he is a member; The majority of the studies were randomized controlled studies (13); The most frequently used outcome measure is balanced (15); It was observed that the largest sample group was individuals with peripheral vestibular hypofunction (7), followed by individuals with BBPV (4). The vestibular system plays a primary role in the execution of balance and functional movements.

**Discussion and Conclusion:** Although thesis studies in this field are relatively rare, balance, walking, etc. Vestibular rehabilitation is an effective method for individuals with functional losses.

**Key Words:** Vestibular Rehabilitation, Physiotherapy and Rehabilitation, Postgraduate thesis



## LEVERAGING STEMMING TECHNIQUES FOR SENTIMENT ANALYSIS IN ARABIC TEXT

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### Abstract

**Introduction and Purpose:** With the internet and the advent of social networks, users have become accustomed to leaving their opinions online, in forums, blogs, on Facebook, or other sites. These textual data, carrying opinions and feelings, can be analysed for various purposes, particularly decision support. An opinion describes a person's feelings or assessment about a topic of interest. The objective of the subject is to exploit the field of opinion mining to analyse opinions in textual data, using a set of tools and classification techniques.

**Materials and Methods:** The aim of this work is to study the influence of different stemming approaches on classification algorithms. In this context, we applied two stemming methods, ISRI and Tashaphyne, and then experimented with the preprocessing results on three classifications.

**Results:** The results that we have obtained are very efficient, very competitive, and very encouraging because we have obtained a better accuracy of "83%" when using the SVM classifier.

**Discussion and Conclusion:** In this paper, we have presented an application for analysing feelings in Arabic textual data (positive/negative) and (positive/negative/neutral) based respectively on the KNN, SVM, and RF algorithms based on a methodology and a precise work plan, going through the most important phase, which is the pre-processing phase, whose purpose is to make the classification more efficient. To validate the performance of our models, we carried out evaluations to confirm that the objectives have been achieved.

**In conclusion,** the automatic processing of the Arabic language, and in particular, the extraction of stems, remains a very open field and has significant progress margins due to the morphological richness of this language, which, as we have shown, remains one of the major problems of Arabic, where great improvements can still be made.

**Key Words:** Extraction d'opinions, données textuelles, stemming, classification.

## **CORRUPTION AS A BARRIER TO INTERNATIONAL TRADE<sup>1</sup>**

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### **Abstract**

Corruption affects the economy and society as a whole in a wide range of ways. The rule of law, democracy, and economic growth are all threatened by corruption, which can take many different forms, including bribery, nepotism, embezzlement, extortion, kickbacks, money laundering, fraud, and conflicts of interest. It impedes economic expansion and has an impact on employment, investments, and corporate operations. If companies are reluctant or unable to engage in corruption, they are restricted or forbidden from providing their goods and services in that economy. The increasing interconnectedness of the global economy provides cover for unscrupulous criminal networks, which facilitate corrupt activities and hinder international trade. Many believe that globalization is the main culprit for the expansion of corruption in international trade. Although bribery occasionally acts as a kind of lubricant for stimulating international trade, this phenomenon is undesirable in the long run since it slows down economic progress by generating costs and inefficiencies. Of particular concern is the fact that the appearance of corruption in international trade can stigmatize the state, which can be seen as problematic regionally or globally. In that case, international companies will hesitate to invest and trade with that country because of the increased dangers and uncertainty. The government must devote substantial financial, material, and human resources to anti-corruption operations in order to monitor and combat corruption. However, the intricate correlation between government benefits and investment depends on a country's political and economic progress.

**Key words:** Corruption, International Trade, Global Economy, Globalization.

<sup>1</sup> The paper presents findings of a study developed as a part of the research project “Serbia and challenges in international relations in 2024”, financed by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia, and conducted by Institute of International Politics and Economics, Belgrade during year 2024.

## GLOBAL ECONOMIC EFFECTS OF FAKE NEWS<sup>2</sup>

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### **Abstract**

Fake news is defined as any deliberate spread of misinformation, propaganda, and deception. These kinds of content have been spreading dramatically through social media platforms lately, which is detrimental for the global economy. This problem affects several domains, including as politics, the economy, and democracy. Fake news mostly aims to advance a particular ideology within society. This type of misinformation typically originates from unreliable alternative media. When such news breaks, businesses, governmental organizations, and public institutions have to move fast to contain the issue and stop the content from spreading by reporting or removing it from social media. The companies of today must have crisis communication procedures in place to prevent fake news from spreading. The intention of those who create fake news is to deceive readers into thinking that the information they are reading is authentic. This effect has made the news less significant in general. Because fake news draws more viewers, which boosts the media company's revenue, it now plays a larger part in media business models. Fake news can negatively impact businesses worldwide by lowering sales, disturbing supply chains and operations, eroding customer confidence, and causing reputational harm that is hard to repair. Competitors may take advantage of such a circumstance. In order to counteract misinformation, businesses must set aside funds for crisis management and public relations initiatives. Around the world, fake news is becoming a major concern that is hurting key sectors like healthcare, politics, e-commerce, journalism, and finance.

**Keywords:** Fake news, Global economy, Society, Business.

<sup>2</sup> The paper presents findings of a study developed as a part of the research project "Serbia and challenges in international relations in 2024", financed by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia, and conducted by Institute of International Politics and Economics, Belgrade during year 2024.

## IS METALINGUISTIC NEGATION A SUBTYPE OF POLEMIC NEGATION?

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### Abstract

**Introduction and Purpose:** The French linguist Oswald Ducrot (1984) classifies negative utterances into three categories: polemic, descriptive and metalinguistic. Ducrot characterises negation, which is used to oppose a preceding utterance, as polemic. Since it basically involves the act of opposing, he considers metalinguistic negation as a sub-type of polemic negation. This study suggests that metalinguistic negation, with its unique uses and purposes, should be treated as a different category from polemic negation. In this context, it is emphasised that a broader perspective should be adopted towards the understanding and categorisation of negation mechanisms in language.

**Materials and Methods:** After detailing the characteristics of both types of negation, sample negative utterances taken from certain literary texts by free choice method were comparatively analysed to reveal the use and functions of these types in language.

**Results:** Although metalinguistic negation is classified as a subtype of polemic negation because it contains an act of opposition, in this study, it was observed that unlike polemic negation, metalinguistic negation semantically contains and affirms the utterance it opposes.

**Discussion and Conclusion:** This study reveals that metalinguistic negation is not only a sub-type but also has an independent value in linguistic analysis. It is concluded that a broader perspective should be adopted to understand the multifaceted nature of negation in the study of language, and therefore, while examining the subtleties between polemic and metalinguistic negation, metalinguistic negation should be treated as a separate category due to its unique function and effects in language.

**Keywords:** Oswald Ducrot, types of linguistic negation, metalinguistic negation, polemic negation

## FORENSIC MEDICAL EVALUATION OF FORENSIC CASES AUTOPSIED AFTER ORGAN AND TISSUE TRANSPLANTATION

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### **Abstract**

**Introduction and Objective:** One of the controversial areas in the field of organ transplantation is the determination of the priority between forensic and medical procedures for donors who are forensic cases. Just like surgical procedures, the priorities of legal procedures in terms of their own disciplines may also be a matter of debate. In this study, it was aimed to examine forensic cases diagnosed as brain death and autopsied after organ transplantation, and to discuss the contributions of the subject to forensic medicine practices and the forensic process in general based on the findings.

**Materials and methods:** In this study, demographic characteristics (age, gender, nationality, marital status), year, month, occupation, reasons for admission to intensive care unit, origin and type of forensic event, duration of hospitalization, which organs were excised by transplantation, how long after the surgical procedure they were delivered to the autopsy center, autopsy findings and causes of death will be statistically evaluated in cases whose autopsies were performed in Trabzon between 01.01.2011-31.12.2022.

**Results:** It was determined that 13 of the 14 cases were male, 1 was female, the age range was 1-64 years, the most common event was drowning with 3 cases, 1 case was physical abuse of a child, liver and kidneys were the most frequently excised organs for transplantation, and for all cases, a decision was taken jointly between the Chief Public Prosecutor's Office responsible for the forensic case, the relevant physicians and the relatives of the deceased.

**Discussion and Conclusion:** The most basic principle in practice is to give priority to transplantation, to record all possible forensic evidence obtained in order to preserve the evidence with photographs, videos and writing and to present it to the forensic authority and thus to the team and institution performing the autopsy. In special cases, alternative methods include the participation of a forensic medicine specialist in the operation.

**Key Words:** Organ transplantation, forensic case, autopsy

## INNOVATIVE APPROACHES IN NURSING CARE

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### **Abstract**

**Introduction and Purpose:** Technological and scientific advances have affected all fields, as well as the field of healthcare. As a result of the increasing demand for healthcare services, changes in care practices and changes in diagnosis/treatment processes, the need for renewal and innovation in healthcare has arisen. Derived from the English word "innovation" is defined by the Turkish Language Association as "innovation/doing something new and different". Innovation in health; It can be expressed as a feasible and achievable process such as preventing diseases, quality patient care and improving health. Innovation in nursing is an entity that encourages nurses to seek new ways for innovation and transformation, along with quality and new care delivery models, and to develop new ideas that lead to innovation. Nurses must be ready for continuous change and development and combine innovative approaches with their services in order to achieve effective and desired results while providing services. Innovation in nursing can increase the quality of medical service, work efficiency, and effectiveness of treatment, while reducing service costs and the patient's dependence on healthcare professionals. However, innovation is of great importance in meeting the demand for healthcare services in nursing, providing the most accurate patient care and detecting flaws in the healthcare system, directly improving the future of nursing and the quality and results of patient care with its innovative behaviors. National and international organizations recognize that creativity and innovation are essential for institutional transformation. In this sense, nurses should encourage innovative behavior in the clinical practice environment and support innovative behavior with the perception of a positive working environment.

**Conclusion:** In line with this information, in this review study, the concept of innovation, its types, innovation in health, innovative practices in nursing and examples of innovation in nursing will be discussed.

**Key Words:** Care, Nursing, Innovation.

## ANALYSIS OF SECONDARY SCHOOL STUDENTS' LEVELS OF POSSESSING BASIC DEMOCRATIC VALUES

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### Abstract

**Introduction and Purpose:** Democratic values are one of the basic elements of a modern society. Through these values, the individual is supported to become a citizen with the desired qualities. In the acquisition of democratic values, education provides students with opportunities to gain the necessary knowledge and skills in understanding, internalizing and implementing democratic values. The aim of this study is to determine the level of basic democratic values of secondary school students and to examine the variables affecting these levels (gender, grade, residential unit, parental education level, family income status, family structure).

**Methods:** Survey (descriptive) model, one of the quantitative research methods, was used in the study. The sample of the study consisted of 376 students studying at the 5th, 6th, 7th and 8th grade level of secondary school in the 2023-2024 academic year. The data collected with the "Personal Information Form" and "Basic Democratic Values Scale" were analyzed using the SPSS 22 program. Independent samples t-test and one-way analysis of variance (ANOVA) were used to analyze the data.

**Results:** According to the findings of the study, it was determined that the level of having basic democratic values of secondary school students showed significant differences according to the variables of gender, residential unit, parental education level, family income status and family structure. On the other hand, no significant difference was found in the grade level variable.

**Discussion and Conclusion:** The findings show that the level of having democratic values may vary depending on various socio-demographic factors. In this context, it provides an important reference point to understand students' predisposition to democratic values and to develop these values.

**Key Words:** Democracy; Democratic Values; Education; Secondary School Students

**INVESTIGATION OF THE EFFECT OF MATERIAL USE IN PRIMARY SCHOOL  
4TH GRADE TURKISH COURSE ON STUDENTS' COURSE MOTIVATION  
ACCORDING TO VARIOUS VARIABLES**

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**Abstract**

**Introduction and Purpose:** The child learns through play in the natural process and does not easily forget what she has learned through play. The materials used in these games attract the child's attention and interest in that game. The situation is the same in education and training. It is about the child's liking the school, liking his teacher, liking the lesson he will learn, liking the subject he will learn, learning and ensuring the permanence of what he has learned, and his interest and desire in all of these. By having children play games appropriate to the subjects they will learn and by preparing and using appropriate materials for these games, children will both enjoy Turkish lessons, understand the subjects of Turkish lessons better, and will not easily forget what they have learned. In addition to the constructivist approach, Turkish teaching has evolved towards an educational approach based on multiple intelligences, student-centered learning, brain-based education, teaching sensitive to individual differences, thematic and spiral methods. The main purpose of the research is to examine the effect of material use in the 4th grade primary school Turkish course on students' motivation according to various variables. In this context, students' course motivations will be examined according to variables such as demographic factors, parental education level, and socioeconomic income level.

**Materials and Methods:** The study was created according to the experimental research model, one of the quantitative research methods. The experimental group and control group were composed of equal numbers and equal level students. The study group will consist of students studying in a primary school in Istanbul. "Turkish Lesson Motivation Scale" will be used as a data collection tool, and t test and ANOVA analyzes will be used in data analysis.

**Results and Conclusion:** Findings regarding students' motivation levels in using materials in Turkish lessons, socioeconomic income level, parent's education level, child's room, gender, and pre-school education status will be revealed in the results of the study.

**Key Words:** Motivation, Turkish, Primary school, Materiel



## **PASSIVE COOLING SYSTEMS IN THE ARCHITECTURE OF LIBYAN DESERT**

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### **Abstract**

Nowadays, modern architecture spreads without borders, regardless of environmental and social conditions, ignoring traditional architecture, which used to provide comfortable functional spaces for humans using various vernacular techniques.

It is important to find the missing relationship between traditional architecture in Libya that used natural renewable energies with various climate adaption techniques with the modern local architecture which almost entirely uses non-renewable energies.

The research sheds light on cooling methods using passive solar energy in traditional residential buildings to clarify its effect in its spatial dimension. Due to the difference in the climatic regions of Libya, it was divided into three basic regions: coastal, mountainous, and desert. The concentration was limited to tracking architectural and urban treatments using passive solar energy techniques in the desert region to adapt to the climate.

Traditional architecture in the desert region of Libya has addressed climatic problems, especially related to the impact of direct, reflected, and diffused solar radiation on buildings with various urban and architectural treatments and techniques. These treatments have contributed to reducing heat gain for buildings and thus achieving thermal comfort within architectural spaces.

The aim of this research is to collect and present some passive cooling systems in Libyan desert architecture in a hot and dry climate to learn about the different methods used to achieve human comfort. Thus, benefiting from, developing, and taking advantage of it in making the right design decisions in contemporary local architecture.

**Key Words:** Ghadames, passive solar, thermal comfort, vernacular, traditional architecture, desert buildings.

## THE RELATIONSHIP BETWEEN HUMAN DEVELOPMENT INDEX AND INNOVATION IN TURKEY: 1990-2020

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### Abstract

**Introduction and Purpose:** It is accepted that the level of development reached by countries is closely related to the importance given by those countries to scientific and technological developments. For this reason, it is observed that countries that allocate more resources to research and development activities in order to invent new products and techniques enter into a faster growth and development process over time. In today's world where technological competition and race is accelerating, Turkey allocates some of its resources to R&D expenditures and thus tries not to fall behind in the development race. The aim of the study is to analyse how and in what direction there is a relationship between the Human Development Index (HDI), which shows Turkey's development level, and R&D expenditures (R&D), which shows the level of innovation in the 1990-2020 period.

**Materials and Methods:** Econometric causality analyses were used to determine the direction and degree of the relationship between the human development index and R&D expenditures.

**Results:** In the 1990-2020 period, a strong long-run causality relationship was found between the human development index and R&D expenditures in Turkey.

**Discussion and Conclusion:** In Turkey, in the long run, increases in R&D expenditures increase inventions and innovations, and as a result, the level of development expressed by the human development index is positively affected. In other words, new products and technologies emerging in the economy contribute to the progress of development.

**Key Words:** Human Development Index; Innovation; Research and Development Expenditures

## EVALUATION OF THE GEOGRAPHICAL INDICATION GASTRONOMIC PRODUCTS OF THE PROVINCES OF THE BLACK SEA COAST OF TURKEY

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### Abstract

**Introduction and Purpose:** One of the most important factors affecting the unique culture of a region is geography. Geographical conditions of the region such as climate, vegetation, water resources, transport, communication, etc. can affect many situations and even the character of people. One of the areas it affects is culinary culture. The mountainous areas on the Black Sea coast of Turkey increase as you go from west to east. This situation causes the altitude to increase on the north-south axis. Due to this feature, a four-season rainy climate is experienced in the eastern part of the Black Sea coast, while the amount and frequency of precipitation decreases as you move towards the west. Depending on the precipitation, the vegetation cover has become greener and lush forests in the east and vice versa in the west. As a result, differentiated agriculture and animal husbandry have been among the reasons affecting the shaping of culinary culture. The culinary culture that emerged due to geographical features has caused some products to be unique to the region. Some of these products, which are unique to the region, have been registered with Geographical Indication. This study was carried out in order to determine the products registered with geographical indication belonging to the provinces of the Black Sea coast of Turkey

**Materials and Methods:** For this, a descriptive model with a survey design from qualitative research methods was used and the data obtained from the relevant sources were interpreted by content analysis.

**Results:** Kastamonu is the province with the highest number of geographical indication gastronomic products in the region with 24 products, while Istanbul has the lowest number of geographical indication gastronomic products with 3 products.

**Discussion and Conclusion:** At the end of the study, it is seen that some provinces on the Black Sea coast do not attach much importance to the issue, while some provinces approach the issue with sensitivity. For this reason, recommendations and suggestions have been made regarding what needs to be done to improve the region in terms of geographical indication products.

**Key Words:** Black Sea Cuisine; Coastal Cities; Geographical Indication.

## THE SHARE OF THE SERVICE SECTOR IN THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND EMPLOYMENT IN KAZAKHSTAN

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### **Abstract**

**Introduction and Purpose:** The main purpose of economic growth refers to the expansion and increase in a country's production of goods and services. This expansion contributes to an economy achieving greater prosperity and standards of living, increasing job opportunities and reducing poverty. Balance and cooperation between the main sectors of the economy, namely agriculture, industry and service sectors, are very important for the economy to grow healthily and for the growth to be sustainable. The economic performance of these sectors affects economic growth. In recent years, the share of the services sector in total employment has increased more than other sectors. In the study, the share of the service sector in the relationship between economic growth and employment was examined through the example of Kazakhstan and it was tried to determine whether there is a causality relationship between them.

**Materials and Methods:** In the study using 1991-2022 data, ADF (Augmented Dickey-Fuller) and PP (Phillips-Perron) tests were used to test the existence of unit root on the time series, and Granger causality test was used to determine the causality relationship between variables.

**Results:** According to the findings obtained from the analysis, it was determined that there is a long-term relationship between the variables and a unidirectional causality relationship from economic growth to services sector employment.

**Discussion and Conclusion:** These results show that the service sector should be focused on when shaping Kazakhstan's economic policies and that investments in this field can support economic growth. Therefore, it will be important to determine and implement strategies for the service sector for the future economic development of the country.

**Key Words:** Economic Growth, Employment, Services Sector, Granger Causality Test.

## EFFECT OF INDUSTRIAL WASTES AND TITANIUM DIOXIDE ON THE STRENGTH OF CL SOIL

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### **Abstract**

**Introduction and Purpose:** The use of solid waste in the stabilization of soils is important from the point of view of geotechnical engineering, as well as makes a great contribution to the solution of environmental problems. By using these wastes, negative effects such as environmental pollution and landfilling can be eliminated. Nowadays, the use of nanomaterials in soil stabilization is receiving increasing attention. In this study, the effect of stabilization of low plasticity clay soil with Titanium Dioxide and blast furnace slag on strength was investigated. In line with the purpose of the study, Titanium Dioxide and blast furnace slag were added to the clay soil in different percentages.

**Materials and Methods:** Samples were taken from the Niğde Ömer Halisdemir University campus to be used in the research. The clay soil to be stabilized was prepared by grinding the sample taken from the field after drying it in the oven and sifting it through sieve no. 40. Atterberg limit tests were performed to evaluate the consistency of the clay soil to be stabilized, and unconfined compression test was carried out to determine its strength. The sample, classified as low plasticity clay, was doped with Titanium Dioxide and blast furnace slag in different percentages taken from the literature. To determine the strength of stabilized clay, unconfined compression tests were carried out in the laboratory.

**Results:** According to the test results, it was determined that the strength increased when the clay stabilized with Titanium Dioxide and blast furnace slag.

**Discussion and Conclusion:** This study was conducted to investigate the effect of blast furnace slag and Titanium Dioxide on the strength of a clay soil. As a result, it was observed that the strength of the stabilized clay increased.

**Key Words:** Soil Stabilization; Titanium Dioxide; Low Plasticity Clay; Blast Furnace Slag

## VERB CONSTRUCTION AFFIXES IN SÜHEYL Ü NEV-BAHÂR

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### **Abstract**

Süheyl ü Nev-bahâr, a work of Old Anatolian Turkish, was translated from a Persian masnavi of unknown authorship by Hoca Mes'ud bin Ahmed and his nephew İzzeddin Ahmed in the 14th century. Some important and distinctive features of the work are that it deals with human love as opposed to the mystical themed mesnevis written until that period, it contains many ancient elements, proverbs and especially idioms are very common. Many studies have been carried out on the work so far. In this study, the verb construction suffixes in this work are discussed. There are some methods of making a new word in Turkish. One of them and the most commonly used one is to derive a word by adding certain affixes to a word, and these affixes are called construction affixes. Construction suffixes are suffixes that change the meaning of the words to which they are added, thus deriving a new word. Construction suffixes consist of four titles: noun from noun, noun from verb, verb from verb and verb from noun. In Süheyl ü Nev-bahâr, 18 verb-verb construction suffixes were identified. Their total number is 481. Among these, the number of those formed with the suffix -mA, also known as negation suffix, is 149, the number of those formed with the suffix -t- is 55, the number of those formed with the suffix -l- is 65, the number of those formed with the suffix -n- is 57, the number of those formed with the suffix -dUr- is 55, the number of those formed with the suffix -ş- is 43, and the number of those formed with the suffix -(U)r- is 32. The verb-forming suffixes other than these have a numerically lower usage. The number of verb-forming suffixes from nouns in this work is again 160. Among these suffixes, +lA- stands out with 57 uses. It is noteworthy that +lA- is combined with -ş-, -t- and -n- verb suffixes and used as +lAt, +lAş- and +lAn-.

**Key Words:** Hoca Mes'ud, Süheyl ü Nev-bahâr, construction affixes, verb construction affixes.

**DEPOSITIONAL CONDITIONS AND REDOX-SENSITIVE ELEMENT  
GEOCHEMISTRY OF THE CİHANDERE CARBONATES IN THE HADİM  
(KONYA, TÜRKİYE) AREA**

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**Abstract**

Cihandere Formation carbonates have a very important place in elucidating the redox sensitivity and sedimentation conditions of the Late Jurassic period. Therefore, this study aimed to determine the redox sensitivity and precipitation conditions of Cihandere carbonates. The material of this study consists of carbonaceous rocks of the Cihandere formation. The 1/25,000 scale geological map used for field studies was modified and taken from Turan (1990). Two measured stratigraphic sections from the study area were made using Jacob rods and 27 rock samples were collected. Element ratios such as Fe/Al, V/Cr, V/(V+Ni), U/Th, Ni/Co, and (Cu+Mo)/Zn were used to determine the redox conditions of the Cihandere formation limestones. Sr/Cu and Rb/Sr ratios were used to determine the paleoclimate. Si/Al, K/Al, Ti/Al, and Zr/Al element ratios were used to determine the role of clastic/siliclastic sediment input. CIA and Mn/Sr values were used to determine the degree of weathering of Cihandere carbonates. Fe/Al values of Cihandere Formation dolostones vary between 0.35-14.5, and limestones vary between 0.085-0.883. V/Cr values of Cihandere Formation dolostones vary between 0.23-2.22, and limestones vary between 0.63-1.71. V/(V+Ni) values of Cihandere Formation dolostones vary between 0.57-0.94, and limestones vary between 0.65-0.67. Cu/Zn values of Cihandere Formation dolostones vary between 0.031-0.875, and limestones vary between 0.131-0.254. Sr/Cu values of Cihandere formation dolostones vary between 47.4-232.5, and limestones vary between 182.8-210.5. Rb/Sr values of Cihandere Formation dolostones vary between 0.0028-0.028, and limestones vary between 0.00045-0.00625. U/Th values of Cihandere Formation dolostones vary between 0.27-17, and limestones vary between 1.45-24. Ni/Co values of Cihandere Formation dolostones vary between 0.67-25, and limestones vary between 4.44-35. (Cu+Mo)/Zn values of Cihandere Formation dolostones vary between 0.039-1.07, and limestones vary between 0.17-0.36. Fe/Al values of Cihandere carbonates are <0.5 in two samples, indicating oxic conditions, and 10 samples are >0.5, indicating anoxic conditions. V/Cr values of Cihandere carbonates indicate an oxic environment as 11 samples are <2, and a dioxic environment since one sample is >2 and <4.25. V/(V+Ni) values of Cihandere carbonates, one sample >0.84 indicates an anoxic environment, 11 samples <0.84 and >0.54 indicate a dioxic environment. U/Th values of Cihandere carbonates indicate an anoxic environment as they are >1.25 in 8 samples, dioxic environment as they are > 0.75 and <1.25 in two samples, and oxic environment as they are <0.75 in two samples. Ni/Co values of Cihandere carbonates indicate oxic environment since 6 samples are <5, dioxic environment since one sample is >5 and <7, and anoxic environment since 5 samples are >7. (Cu+Mo)/Zn values of Cihandere carbonates are <2 in all samples, indicating an oxic environment. Therefore, we can say that the redox conditions during the deposition process of Cihandere carbonates were in oxic-dioxic-anoxic phases. Sr/Cu values of Cihandere carbonates are >5, indicating a hot and humid climate, while Rb/Sr values are <0.5, indicating an arid climate. Therefore, we can say that the arid and humid climate was repeated during the deposition of Cihandere carbonates.

**Key Words:** Carbonate; Cihandere; Hadim; Paleoclimate; Redox-conditions

## PETROGRAPHIC CHARACTERISTICS OF THE DEDEBELENİ FORMATION CARBONATES IN THE HADİM (KONYA, TÜRKİYE) AREA

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### Abstract

This study aims to determine the petrographic characteristics of dolostone and limestones belonging to the Dedebele Formation (Jurassic), located around Beyreli Village of Hadim District, southwest of Konya. The Jurassic-aged Dedebele Formation begins with limestone at the base, continues with limestone-mudstone and limestone-dolomitic limestone alternation towards the top, passes into dolostone-limestone alternation towards the middle parts, and ends with limestone in the upper part. Dedebele Formation carbonates according to their textural characteristics: They were observed to be in the form of wackestone, dolosparite, packstone, and crystalline limestone. In Dedebele carbonates taken from ÖSK-A, 0-26% fossil, 0-25% pellet, 0-5 intraclast, 3-100% sparite and 0-63% micrite were determined. Dolomite crystals in the form of euhedral, subhedral, and anhedral grains with sizes ranging from micro to large were observed in thin sections of Dedebele carbonates. Dedebele carbonates taken from ÖSK-B contain 14-23% fossil, 9-21% pellet, 8-20% sparite and 41-63% micrite. Again, thin sections of Dedebele carbonates taken from ÖSK-B, euhedral, zoned-subhedral, and anhedral dolomite crystals ranging in size from medium crystalline to coarse were observed. In addition, partially dolomitized micritic limestone, partially dolomitized bio-mold, organic matter wackestone, and sparcalcitic-filled ostracod packstone were observed in the Dedebele limestones. Unimodal, very fine-fine crystalline planar-s dolomites; Small crystal sizes (<60 µm) indicate supratidal to subtidal environments. Fine crystal size may develop as early diagenetic dolomite or as a result of concurrent neomorphism or early replacement of original peritidal carbonate mudstones. Dolomite often selectively replaces fine crystalline calcium carbonate. Unimodal, medium-coarse crystalline subhedral mosaic dolomites; suggest mid-late diagenetic replacement dolomite. The preservation of the original depositional textures and the coarse crystal size indicate a major, possibly long-term, dolomitization event. This type of dolomite mineral development has been highlighted as being of late burial origin. Medium-large crystalline euhedral mosaic dolomites; It has been shown as evidence of pre-dolomitization texture. Because the crystal size in individual mosaics is unimodal, it is thought that the nucleation areas for dolomite are homogeneously distributed. The fact that dolomite crystals share compatible boundaries indicates that they were formed in situ. They grow simultaneously to form matching crystal boundaries and develop euhedral mosaics by the combined growth of zones in adjacent crystals. In summary, dolostones of the Dedebele Formation were formed early diagenetically in a shallow burial environment and late diagenetically in a medium-deep burial environment, while limestones were deposited in a shallow marine (carbonate shelf) environment.

**Key Words:** Beyreli-Hadim; Dedebele Formation; dolomitic limestone; Jurassic; Petrography



## MARGINAL PRICING IN THE ERA OF ENERGY TRANSITION

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### **Abstract**

**Introduction and Purpose:** In recent years, energy markets have undergone major changes, and currently facing energy crises due to shortages of gas because of the war, inter alia, therefore rapid increase in renewable energy production and new technologies is seen as important drivers for mitigating the current high energy prices, ensuring security of supply with final objective towards net zero agenda.

Economic development in focus the power sector, and maintaining the day ahead and intraday wholesale market paves the way for assessing the evolution of marginal pricing in the wholesale electricity markets.

**Materials and Methods:** The traditional model of the electricity markets is based on Marginal Cost for procuring electricity, using resources with techno-economic characteristics not very different. With the maket's increase in the penetration of renewables, the phenomena of misalignment among the generation resources with the impact of surge of electricity prices, the marginal pricing set mechanism need to be analyzed.

**Results:** Ensuring uninterrupted and reliable supplies of critical energy-related commodities at affordable prices remains a fundamental policy goal of great importance. The global goal on energy is based on increasing substantially the share of renewable in the global energy mix; significantly improving energy efficiency; and ensuring affordable, reliable and universal access to modern energy services.

**Discussion and Conclusion:** The objective of this paper is to assess the marginal cost concept in order reflect the price formation with the new fundamentals most efficient and completely relied and based on merit order.

**Key Words:** intra-day, day ahead, forward market, energy transition, marginal cost, merit order

## EVALUATION OF PHENOLIC COMPOUNDS AND BIOLOGICAL ACTIVITIES OF FRESH FRUIT MORUS NIGRA L. EXTRACTS

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### Abstract

**Introduction and Purpose:** *Morus nigra* L., a type of mulberry rich in anthocyanins, is a fruit with high nutritional and medicinal value. This study aimed to investigate the phenolic profile of black mulberry (*Morus Nigra* L.) extracts to their antioxidant and carbonic anhydrase (CA) inhibition potentials.

**Materials and Methods:** For this purpose, the phenolic composition was evaluated by RP-HPLC-DAD. The antioxidant activity was assessed by 2,2-diphenyl-1-picrylhydrazil (DPPH•) radical scavenging assay and ferric-reducing/antioxidant power (FRAP) assay, while the CA inhibitory activity in mulberry juice was determined by the esterase activity method of CA. Additionally, the contents of total phenolic (TPC) were also assessed by the Folin–Ciocalteu method.

**Results:** Rutin was confirmed as the main flavonol in the mulberry juice (38.076 µg/L extract) and methanol extract (32.442 µg/L extract). The mulberry juice showed higher contents of total phenolics (221.67±0.83 GAE, µg/mL), the DPPH• radical scavenging activity (SC<sub>50</sub>: 1.342±0.013 µg/mL), and FRAP antioxidant activity (75.56±2.78 µM TEAC) compared to methanol extract. The CA inhibition potential of black mulberry juice, which was reported for the first time in this study, is 0.0319 mg/mL IC<sub>50</sub> value.

**Discussion and Conclusion:** The results showed that black mulberry juice had higher phenolic compound and antioxidant activity than the methanol extract. Moreover, it has significant CA inhibition potential. These results provide valuable information that black mulberry juice can be used as a natural antioxidant source and enzyme inhibitor in the food and pharmaceutical industries.

**Key Words:** *Morus nigra* L.; Black Mulberry; Phenolic; Antioxidant Activity; Carbonic Anhydrase; Enzyme Inhibition.

**DETERMINATION OF GRAIN SIZE DISTRIBUTION AND TOXIC METAL CONTENTS IN CURRENT COASTAL SEDIMENTS OF SOUTHEASTERN BLACK SEA; CASE STUDY OF YOMRA-ARSIN**

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**Abstract**

**Introduction and Purpose:** Coastal sediments are a key focus in geological, biological, environmental, and industrial research, driving extensive studies in ocean sciences. Thus, the study aims to explore the interaction among geological features, toxic metal contamination, and physicochemical parameters in the coastal areas of Yomra and Arsin districts in Trabzon province, known for their high population density, coastal settlements, and industrial activity.

**Materials and Methods:** The study was carried out in June 2022 at five stations, three located in the Yomra district and two in the Arsin district, spanning depths from 5 to 100 meters. Toxic metals under investigation included Copper (Cu), Lead (Pb), Zinc (Zn), Nickel (Ni), Cobalt (Co), and Chromium (Cr). Sediment grain size analyses and material compositions across various fractions were conducted using the wet sieve analysis method.

**Results:** In the sieve analysis, average uniformity coefficient ( $C_u=7.02$ ) and gradation coefficient ( $C_g=2.88$ ) were found, indicating non-uniform, well-graded sediments. Current direction ranged from 10-90°, suggesting a west-east orientation. Current velocity decreased from surface to depth, varying from 29 to 7 cm/s. Average metal concentrations were: Cu:  $55.99\pm 16.31$ , Pb:  $24.59\pm 15.70$ , Zn:  $68.12\pm 13.22$ , Ni:  $60.86\pm 12.35$ , Co:  $23.06\pm 4.22$ , and Cr:  $60.04\pm 12.64$ .

**Discussion and Conclusion:** Metals' pollution levels in the environment were evaluated based on the Sediment Enrichment Factor (SEF). According to the pollution categories determined by SEF, Cu, Pb, Ni, and Co metals were classified as moderately polluted ( $3<SEF<5$ ), while Zn and Cr elements were categorized as low-level pollution ( $1<SEF<3$ ).

**Key Words:** Toxic Metal, Pollution, Grain Size Analysis, Sediment Enrichment Factor

## MANDALA ART THERAPY AND ITS USE IN HEALTH

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### **Abstract**

The concept of “mandala” means “circle” or “completion”. They are diagrams consisting of a center or circle in various forms such as round, octagonal and square. In addition to representing life, mandalas also represent the world we live in, living beings, the integrity of life, the ecosystem and the universe outside our consciousness. Mandalas, known to be made on fabric or paper, are made of bronze, stone or thread. Although they visually look like a work of art, each mandala carries a meditative and symbolic meaning. Mandala is an art therapy. Mandala therapy has many benefits for people. It is reported in the literature that mandala therapy treats people, improves consciousness and thus reduces symptoms. At the same time, it has been proven by many studies that it relaxes the mind and increases self-awareness in individuals, healing the elderly with dementia and children with acquired or congenital diseases. In this review, the history, types, symbolism, drawing, benefits and use of mandala in the field of health will be discussed.

**Key Words:** Mandala therapy, art therapy, health, complementary and alternative therapy

## PROCESS IMPROVEMENT WITH LEAN MANUFACTURING APPROACH IN AN AUTOMOTIVE SUBSIDIARY BUSINESS

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### Abstract

**Introduction and Purpose:** Businesses with a Japanese culture believe that there can always be a problem in every process and step of the work, or even if there is no problem, there could be a better way of doing things, and they work towards it. Lean manufacturing is a Japanese production philosophy that includes a set of methods and techniques used by businesses in these efforts. It spread worldwide under the name of the Toyota Production System since its foundations and implementation style originated from the Toyota company. Lean manufacturing advocates for the elimination of any elements causing waste in processes, suggesting that success can be achieved in this way. This study was conducted on the assembly line of a company manufacturing automobile interior components such as seats. In this assembly line, the seat assembly process progresses in a flow where workers on a conveyor perform the relevant assembly and pass the task to the next operator. In one part of the process, the operator goes to the storage area, retrieves materials from the shelves, and turns off the lights by pressing buttons. After turning off all the lights, the operator needs to return to the starting button to activate the illuminated buttons for the next set. The problem here is that the starting button is stationary and not in the direction of the flow, causing the operator to walk to the starting button for each set, leading to time loss. The aim of this study is to eliminate this problem.

**Materials and Methods:** To eliminate the existing problem, a process improvement study was conducted, utilizing the Kaizen approach, a lean manufacturing technique. Analyses of the process were carried out using standard work record forms, standard work combination sheets, and standard work charts, leading to the proposal of a solution.

**Results:** Following the implementation of the proposed solution, analysis conducted using the same methods revealed a 46.3% improvement in the production time of the relevant process.

**Discussion and Conclusion:** As a result of the study, reductions in process times and the elimination of a work step were achieved. This resulted in approximately gaining one set worth of time after every 2 sets. Considering the importance of every second in production, it can be said that a highly efficient improvement was made.

**Key Words:** Process improvement; Lean manufacturing; KAIZEN approach

## MINI REVIEW ON HYDROGELS AND THEIR MEDICAL APPLICATIONS

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### **Abstract**

Hydrogels are classified as "smart hydrogels", which can respond to external stimuli by swelling or contraction, and "super-property hydrogels", which can swell up to 1000 degrees of their original weight in about 30 seconds by rapidly absorbing water. These unique properties of hydrogels are generating interest in differentiating new biomedical devices from researchers and paving the way for numerous interesting markets. Advanced applications of hydrogels hold great promise, especially for advances in health and medical technologies. Researchers are focusing on specific applications of this potency, including controlled drug systems, degradable polymer formulations, tissue engineering, and cell encapsulation algorithms. Hydrogels are similar to living tissues due to their soft, flexible structures and ability to retain water. Natural resources, when old, are non-toxic, biodegradable, and compatible with biological systems, making them safe for therapeutic use. Increasingly controlled release regimens, and precise modulation of drug release rates offer significant advantages possible over traditional approaches. This mini-review provides an overview of hydrogels and their therapeutic applications. This capacity is achieved through the use of hydrogels in wound dressing, burn treatment, aneurysm intervention, bone regeneration, heart tissue repair and regeneration, controlled drug therapy, as well as contact lenses and glaucoma-related to the summary procedures performed.

**Key Words:** Hydrogels, superabsorbent, sorption, biomaterial, medical applications

## INVESTIGATION OF TEACHERS' PERCEPTIONS OF PARTICIPATORY DECISION MAKING ACCORDING TO VARIOUS VARIABLES

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### **Abstract**

**Introduction and Purpose:** The perceptions of teachers, one of the most important elements of the education system, in participatory decision-making processes are important in terms of effective management of educational environments and increasing student success. In this context, examining teachers' perceptions of participatory decision-making according to various variables may shed light on educational management and planning and enable the development of more effective strategies. In this regard, the main purpose of the study is to examine teachers' perceptions of participatory decision-making processes according to various variables. In this framework, it is aimed to determine effective and sustainable strategies in education by associating teachers' decision-making perceptions with variables such as demographic factors, professional experience and education level.

**Materials and Methods:** Relational screening method, one of the quantitative methods, was used in the study. The study group consists of 334 teachers working in Güngören district of Istanbul. "Decision Participation Scale" was used as a data collection tool, and t test and ANOVA analyzes were used in data analysis.

**Results:** It was determined that teachers' participatory decision-making levels were high. While teachers' participatory decision-making levels showed significant differences according to gender, age and professional seniority, there were no significant differences according to marital status, education level, school type, working time at the school and number of employees at the school.

**Discussion and Conclusion:** The findings obtained in this study emphasize the need to manage decision-making processes in educational institutions more effectively through teacher characteristics such as gender, age and seniority. In this way, it can be contributed to the creation of a more effective and sustainable management model in education.

**Key Words:** Participatory Decision Making

## CLUSTERING OF ERRORS DETECTED IN QUALITY CONTROL USING TEXT MINING

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### Abstract

**Introduction and Purpose:** Technology and digitalization are rapidly expanding and becoming ubiquitous in our lives. Consequently, the volume of digital data is increasing exponentially every day. Drawing meaningful conclusions from this data is crucial for subsequent processes. This study aims to contribute to various processes by extracting more meaningful information from textual quality error data occurring in production at a company operating in the automotive sector.

**Materials and Methods:** This study processed textual quality error data in production using Python programming to extract meaningful information. Text mining was employed for clustering quality control data, with data preprocessing used to prepare the data. The Silhouette Method was utilized to determine the optimal number of clusters, and the K-Means algorithm was applied for clustering (making the data meaningful).

**Results:** The edited Excel pivot table observed that out of 98 data points, there were 34 distinct types, thus determining the range of cluster numbers as 1-34. K-Means was applied for the determined range of cluster numbers, and silhouette scores for each cluster and variance graphs for the elbow method were plotted. The program was rerun for the specified clusters; the data were clustered using the K-Means algorithm, and the results were printed to the target file.

**Discussion and Conclusion:** Upon examining the results, it was evident that similar quality errors such as "Rear wiper not installed," "Front wiper not installed," "Front wiper broken," "Front wiper not working," and "Wiper not working" were grouped at a high rate. Additionally, while there were at most 14 instances of a single type of error in the previous scenario, the highest error group increased by 19 data points due to the operations conducted. Consequently, similar errors were associated with reducing the number of data clusters. Errors with similar meanings were clustered rapidly, leading to a 67% reduction in data diversity. Moreover, more accurate data was obtained for studies such as Failure Mode and Effects Analysis (FMEA).

**Key Words:** Text Mining; Data analysis; K-Means, Quality errors; Python



## THE NEW BLACK SEA GEOPOLITICS

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### **Abstract**

**Introduction and Purpose:** As a result of recent dramatic developments, the Black Sea region has moved to different geopolitics. This new geopolitics of the region includes some dynamics from history, including the Ukraine-Russia War. This paper aims to define the new geopolitics of the Black Sea region considering changes in the global balance of power. For this purpose, the different geopolitical equations of the Black Sea region throughout the historical process are briefly mentioned. Subsequently, the geopolitical characteristics that the accumulations of previous periods and today's power struggle conditions have brought to the region are defined.

**Findings/Results:** In the light of the strategic assessment made within the framework of these definitions, the political, military, economic, social, cultural, ecological, and energy-political findings of the Black Sea region were discussed from the international security perspective.

**Discussion and Conclusion:** In the light of these evaluations, three scenarios for the future of the region have been developed. These are 1) The continuation of the armed conflict environment, 2) The continuation of controlled tension in the grey peace environment, and 3) The expansion of peace and cooperation and the construction of a complex interdependence. In the conclusion section of the paper, a synthesis is made on what kind of losses and gains these three scenarios would create in the region.

**Method:** In the paper; three qualitative analysis methods: historical perspective, comparative analysis and geopolitical assessment are made and the subject is discussed at individual, state, and international system levels of analysis. Quantitative data is included to the extent required by the scope.

**Key Words:** Black Sea; Geopolitics; Conflict; Ukraine-Russia War; International Security

## HARMONY OF FORM AND CONTENT IN GRAPHIC DESIGN

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### **Abstract**

This study examines the **integration of form and content in graphic design**, emphasizing its crucial role in effective visual communication. It distinguishes between form (visual elements) and content (the message), highlighting their interdependence. The **objectives** of the research include explaining design integration principles such as contrast, alignment, repetition, proximity, discussing techniques like typography, color theory, and imagery, addressing challenges of coherence, balancing innovation with tradition, and subjective interpretations, and assessing the impact of technological advancements on design practices. The **method** of the study involves using a random sampling technique to select case studies from secondary sources like academic journals and design portfolios. This approach provides a diverse representation of graphic design practices without the bias of primary data collection, allowing for an objective analysis of successful form and content integration. The **results** underscore the essential nature of integrating form and content for resonant visual communication. Case studies illustrate how designers overcome creative and technical challenges to produce designs that are both aesthetically appealing and effectively communicative. The research emphasizes the need for a deliberate approach to this integration, considering the difficulties of maintaining coherence and the effects of technology on expanding design possibilities. In conclusion, the study contributes to both academic discussion and practical guidance in graphic design, advocating for a thoughtful integration of form and content to enhance the communicative power of designs.

**Key Words:** Graphic Design, Form and Format, Content Design, Visual Communication

## **PERFORMANCE ANALYSIS OF SOLAR AIR HEATER WITH PROTRUSIONS AS ARTIFICIAL ROUGHNESS**

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### **Abstract**

An inexpensive, easy-to-use, and environmentally beneficial tool for process heating, space heating, and agricultural uses is the solar air heater. Artificially roughening the underside of the absorber surface can enhance the thermal performance of a solar air heater. One useful method for improving the heat transfer coefficient during air flow via solar air heater (SAH) ducts is the use of intentionally roughened absorber plates. When heat exchangers, nuclear power plants, gas turbines, and electronic devices use roughened surfaces, it was thought that solar air heaters may benefit from artificial roughness as well. To improve heat transmission from the absorber plate, ribs are machined and tiny diameter wires are attached, creating artificial roughness. On the other hand, protrusion formation is considered to be simple and less time consuming geometry. It is also thought that making dimples or protrusions on the absorber plate surface is an easy and affordable way to add artificial roughness. Numerous recent experimental studies have focused on it. When dimple shape roughness was used instead of smooth channels, surface heat transfer levels increased and were comparable to other artificial roughness geometries. However, in contrast to other rough channels, pressure drop or friction loss often does not rise much. In the same direction, protrusions arranged in different patterns needs to be studied to achieve the better thermal efficiency.

**Keywords:** Solar Air Heater, Artificial Roughness, Protrusions, Thermal Efficiency.

## THE STRONG CORRELATION BETWEEN MAGNETIC AND STRUCTURAL PROPERTIES OF MAGNETIC THIN FILMS

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### Abstract

**Introduction and Purpose:** New magnetic nanomaterials are needed to keep up with the world of technology and meet the increasing needs day by day. One of the most popular areas of use of these new magnetic materials is computer technologies and high-density magnetic recording media applications. These materials (thin films) prepared in the nanoscale bring to the fore many advantages in obtaining the desired physical properties by changing parameters such as sample structure and growth system, surfaces, interfaces, substrate temperature, and growth pressure. In addition, if these thin films are prepared with a mixture of two or more elements and/or made multilayered, they will provide great wealth for the scientific world regarding physical results. In this context, in this study, the effect of thickness on physical properties was investigated.

**Materials and Methods:** The ferromagnetic films (including Fe, and Co) were prepared using the magnetron sputter technique. The MgO (100) substrates were annealed at 500<sup>0</sup>C for one hour for degassing and cleaning and then the films were grown on it. Crystal structures of the thin films were investigated by Rigaku smart-lab X-ray diffractometer (XRD). Magnetic properties were defined using a vibrating sample magnetometer (VSM)- Quantum Design PPMS and Electron Spin Resonance Spectrometer (ESR). The main goal of this study was to establish accurate correlations between magnetic and structural properties.

**Results:** XRD pattern, M-H curves, FMR resonance fields of thin films.

**Discussion and Conclusion:** This study represented that the physical properties of these films strongly depended on the growth structure.

**Key Words:** Magnetic Thin Films; Magnetic Anisotropy; Magnetic Recording.

## THE CONCEPT OF “PARLIAMENTARY SOVEREIGNTY” AS A CONSTITUTIONAL PRINCIPLE IN THE UNITED KINGDOM

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### **Abstract**

**Objective:** Parliamentary sovereignty is a fundamental feature of the British constitutional system. This article will analyze the concept of parliamentary sovereignty according to British authors, its challenges and development during the United Kingdom’s period of EU membership and parliamentary sovereignty after Brexit.

**Methods:** The desk-review method was used to identify the most prominent British authors and their work on parliamentary sovereignty, as well as the concepts they have defined on this issue. This article aims to provide an objective evaluation of their contributions.

**Results:** The article will highlight the status of the British Parliament within the British internal constitutional system.

**Conclusion:** The doctrine, as formulated by the British authors, has traditionally stimulated theoretical debate about the sovereignty of the British Parliament and how it was reconciled with the limitations on legislative power arising from its membership to the EU. Recent developments with Brexit have increased interest in this direction.

**Key Words:** parliament, sovereignty, doctrine, orthodox view, challenges.

## HEALTHY LIFESTYLE AND EATING AMONG ADOLESCENTS FROM PLOVDIV, BULGARIA

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### Abstract

The transition from childhood to adolescence is recognized as a period in which the behavior of healthy eating decreases (10 - 12 years old). Healthy eating habits are the key to good health and success in school. The scientific study covers the group of so-called young adolescents or adolescents aged 11-14.

The present study **aims** to analyze the healthy lifestyle and eating of adolescents from the city of Plovdiv, Bulgaria.

**Materials and Methods:** The study was conducted at 17 schools on the territory of Plovdiv in two consecutive academic years: 2015/16 and 2016/17. Schools were randomly selected from among all the schools with full-time education for regular pupils are aged 11-14 years old. The type of sociological survey is a direct group survey. Based on the purpose of the study, as well as on the volume and type of the data, the statistical methods used have been descriptive statistics and alternative analysis. The  $\chi^2$  and Fisher's exact test criteria were applied.

**Results:** The subject of the survey were 275 students from the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grades of secondary schools in Plovdiv. Of these, the number of boys was 144 (52.4%  $\pm$  3.01) and girls 131 (47.6%  $\pm$  3.01). The analysis of the obtained results has shown that only half of the adolescents 138 (50.2%) have breakfast in the morning, 105 (38.2%) sometimes, and 32 (11.6%) never. Of those who do not eat breakfast in the morning, most have been girls (15.3%) compared to boys, who were only 12 (8.3%). Regarding the weekly consumption of the main food groups, the respondents stated the following: meat and fish were consumed daily by only 41 (14.9%) of all adolescents included in the study. Boys 26 (18.1%) consume more meat and fish daily than girls 15 (11.5%). Only 4 (2.8%) stated that they do not consume meat and fish.

Yogurt, a traditional Bulgarian food, is a particularly good choice because it is especially important for health - it improves digestion and increases protection against disease.

**Conclusion:** The results have shown similarities in healthy lifestyle and eating in both sexes. Boys, however, have more than two main meals a day and consume more meat and fish daily than girls who have up to two main meals a day and consume more dairy products daily. Half of all surveyed adolescents consume pasta at almost every meal, which is typical of the Bulgarian national cuisine. On the positive side, about half of the adolescents surveyed have the required daily consumption of fresh fruits and vegetables. The girls add twice as much salt to the food as the boys, which is a confirmation of the fact that salty foods are traditionally prevalent in the Bulgarian national cuisine. Yogurt, a traditional Bulgarian food, is a particularly good choice because it is especially important for health - it improves digestion and increases protection against disease

**Key words:** healthy eating lifestyle, eating habits, health behavior, adolescents.

## **FLUORINATED DRUGS OR DANGEROUS PFAS: QUO VADIS?**

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### **Abstract**

Per- and polyfluoroalkyl substances (PFAS) are a huge family of organofluorine chemical compounds (more than 12,000) that have been used in industry and consumer products worldwide since the 1940s. Despite their versatility, there are multiple concerns regarding the safety of these compounds. PFAS are ordinarily classified as persistent organic pollutants being extremely persistent in the environment and in the human body. Moreover, PFAS can cause health problems such as liver disease, dyslipidemia, thyroid disorder, obesity, fertility problems, and higher rates of kidney cancer. Ironically, a plethora of fluoro-pharmaceuticals have been developed in the last 70 years, with the first, Fludrocortisone (sold under the brand name Florinef), introduced for medical use in 1954.



The purpose of this paper is to analyze if the concerns related to PFAS used in industry and for consumer products can be discussed in the same terms for fluorine-based drugs. The papers take into account and examine some key issues related to fluoro-pharmaceuticals such as:

1) Why fluorine atoms are so important in drug development?

The C–F bond is one of the strongest bonds, enhancing the metabolic stability of fluoropharmaceuticals. Fluorine, the most electronegative element, induces bond polarization, changes the lipophilic/hydrophilic balance of synthesized drugs, and can enhance several pharmacokinetic and physicochemical properties such as metabolic stability and membrane permeation. Consequently, over 300 fluorine-based drugs have been registered worldwide.

2) Can fluoro-pharmaceuticals be classified as PFAS?

Different definitions will give different interpretations regarding the number of organofluorinated pharmaceuticals that can be classified as PFAS.

The paper examined more than 50 well-known fluorine-based drugs from the perspective of five definitions of PFAS. Thus, according to different definitions, the well-known drugs such as Prozac and Lipitor can be classified as PFAS.

3) Are fluoro-pharmaceuticals a potential danger to the environment?

Detectable levels of fluorinated drugs have been found in drinking water, rivers, and animal tissues. The main conclusion of this paper is that the future production of fluoro-pharmaceuticals can be affected by the possible restrictions imposed by the legislation in force (regulations, directives, decisions, recommendations, and opinions).

**Keywords:** fluorine-based drugs per- and polyfluoroalkyl substances (PFAS), metabolic stability

## **RESVERATROL- HEALTH EFFECTS: PROS AND CONS**

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### **Abstract**

Many substances have the reputation of true panacea, exhibiting outstanding medicinal and pharmacological properties, capable of curing any illness.

Besides well-known compounds such as quercetin, lutein,  $\beta$ -carotene, sitosterol, stigmasterol, hesperidin, resveratrol (3, 5, 4'-trihydroxy-trans-stilbene), a natural type of polyphenolic compound produced by more than 70 plants, has become the subject of interest in the last decades.

The present paper focuses on the latest advances regarding the therapeutic effects, molecular mechanism, dosage, bioavailability, toxicity of Resveratrol. Last but not least, one of the most important aims of this survey is to discriminate between science and pseudoscience, between fake news and evidence-based medicine. A plethora of recommendations and statements about the health benefits of resveratrol (taken mostly as supplements) can be found on the Internet. We often read about the resveratrol treatment in combatting diseases such as cancer, heart

disease, arteriosclerosis, allergic diseases, diabetes and hypertension, in treating and preventing retinal damage and age-related ailments. This is the reason why the market for resveratrol supplements has increased exponentially. Actually, more than \$30 million USD is spent on Resveratrol supplements every year only in the U.S.A. However, several studies found no benefits from resveratrol supplementation for antiaging or disease prevention. For instance, according to Mayo clinic: “More research is needed to determine if resveratrol lowers the risk of inflammation and blood clotting”.

The present papers discuss, also, about other key details regarding the effects of resveratrol supplementation:

- Resveratrol supplements are not regulated by the United States Food and Drug Administration (FDA). In other words, their efficacy is unverified, and the actual concentration of the compound is unknown;
- Optimal dosage in humans;
- Adverse effects;
- Interaction with other drugs.

This paper concludes that more studies are needed to clarify the impact of Resveratrol supplementation on the health benefits. Last but not least, the paper highlights the importance of using reliable sources of information from well-established institutions such as the Food and Drug Administration (FDA), the EPA (Environmental Protection Agency), the International Agency for Research on Cancer (IARC), the National Medicines Agency, EMA (European Medicine Agency), Mayo Clinic, etc.

**Key words:** Resveratrol, supplement, evidence- based medicine

## **SOCIAL CRITICISM FROM THE PERSPECTIVE OF THE HERO IN TURKISH COMEDY CINEMA**

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### **Abstract**

One of the most important genres of Turkish cinema is comedy. Comedy films, which ensure the continuation of the comedy tradition in Turkish theater in cinema, have always been sensitive to social change and transformation. When we look at the history of Turkish cinema, in comedy films; migration, urbanization, modernization, marginalization, etc. It is seen that there is a critical discourse against many social and political issues, especially issues such as. Considering the change of society over time, it can be said that the themes of comedy cinema, which reflects life, have also changed.

This study aims to reveal social change and the critical discourse built in comedy films in this context, from the perspective of the prominent heroes in Turkish comedy cinema. In this context, the period from the 1970s, when the heyday of the comedy genre in Turkish cinema was experienced, to the present day was determined as the main analysis section of the study. Films shot between these dates and containing social criticism constitute the research universe of the study. A suitable sample was taken within this universe and comedy movie heroes played by Kemal Sunal, Cem Yılmaz and Şahan Gökbağkar were included in the scope of analysis. In the study, data was collected using descriptive content analysis, one of the qualitative methods. Accordingly, concepts and themes that will reveal the perspective of comedy movie heroes have been determined.

According to the findings obtained as a result of the analysis, Kemal Sunal's various characters are education problems, financial difficulties, high cost of living, homelessness, tree system, etc. Has a critical approach to issues such as. The Arif and Recep Ivedik characters of Cem Yılmaz and Şahan Gökbağkar, who represent the recent period, are characterized by corruption, insensitivity, unconsciousness, alienation, wild capitalism, negative effects of the media, etc. It has been determined that he criticizes society and the system on issues such as.

**Keywords:** Turkish Comedy Cinema, Social Criticism, Comedy, Typecasting

**REALITY IN CINEMA FROM THE PERSPECTIVE OF PSYCHOANALYTICAL  
THEORY: THE EXAMPLE OF HANEKE'S Film BENNY'S VIDEO**

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**Abstract**

One of the most emphasized issues in the history of cinema is the relationship between cinema and reality. The first films shot by the Lumière Brothers presented the truth to the audience in a simple way. In addition, George Méliès, one of the most important names of silent cinema, brought a creative approach to the reflection of life. Different movements, directors and technical developments that emerged in the adventure of cinema have led to innovations regarding the relationship between cinema and reality.

This study primarily deals with some perspectives and periods in the history of cinema, which somehow continues to show the truth despite all developments. The second issue discussed in the continuation of the information given about these periods is the visualization of the psychological approach to reality in cinema. In this context, the focus is on the theory of Karen Horney, an important psychoanalytic theorist, who considers the relationship between the individual and the society surrounding him in the context of reality. This theory focuses on the concept of conflict regarding the individual. In this context, the films of Michael Haneke, who is one of the best narrators of reality and the conflict situation of the individual in cinema, are considered important.

Within the scope of the study, Haneke's film Benny's Video was analyzed with a psychoanalytic approach, based on Horney's theories. Accordingly, while the film clearly represents reality, it also contains discourses regarding the neurotic states of the individual in the context of family, media and society. Benny, the hero of the film, has a neurosis of alienation from people as a character who is detached from reality. According to the conclusion and evaluation reached in the study, this film by Haneke addresses criticisms of alienated and problematic people from a realistic perspective.

**Keywords:** Reality, Cinema, Michael Haneke, Psychoanalysis, Karen Horney

**PSYCHO-SOCIAL FACTORS AS DETERMINANTS OF TRUANCY AMONG STUDENTS WITH HEARING IMPAIRMENT IN THE IBADAN METROPOLIS, OYO STATE, NIGERIA**

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**Abstract**

This study examined truancy among students with hearing impairment in Ibadan, Nigeria. A descriptive survey design of correlational type was adopted. Purposive sampling technique was used to select 120 students with hearing impairment from three schools in Ibadan, Nigeria. Data was gathered with Students with Hearing Impairment Truancy Behaviour Questionnaire (SWHITBQ) which consists of three sections which are Peer Pressure ( $r=0.84$ ), Self-concept ( $r=0.88$ ) and Emotional Intelligence ( $r=0.82$ ). Two research questions and three hypotheses were raised to guide the conduct of the study. Data were analyzed using Frequency Count, Percentage, Pearson Product Moment Correlation and Multiple Regression Analysis. Peer Pressure, Self-Concept and Emotional Intelligence had significant relationship with truancy among students with hearing impairment. All the independent variables have significant relationship with truancy among students with hearing impairment. All the independent variables jointly contributed to academic underachievement of the respondents. Using the standardized regression coefficient to determine the relative contributions of the independent variables, self-concept ( $\beta = .383$ ,  $t= 2.844$ ,  $p < 0.05$ ) indicates most potent contributor to the prediction and has a positive relative effects to the truancy among students with hearing impairment, followed by peer pressure ( $\beta = 0.194$ ,  $t= 2.225$ ,  $p < 0.05$ ) and emotional intelligence ( $\beta = 0.124$ ,  $t= 1.980$ ,  $p < 0.05$ ). Therefore, all efforts should be made by teachers and parents of students with hearing impairment to curb their anti-social behaviours.

**Key words:** Truancy, Peer Pressure, Self-Concept, Emotional Intelligence, Hearing Impairment

## AN ABSTRACT ON APPLICATION OF MATHEMATICS IN PLANT PROTECTION

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### **Abstract**

Embark on a journey exploring the intricate dance between mathematics and plant protection in agriculture. This presentation unveils the unsung heroism of numbers and equations as they become the shield for our crops. Beginning with an introduction that sets the stage, each slide delves into a unique facet of the synergy between math and nature. "The Green Guardians" introduces the importance of protecting plants from threats, showcasing how mathematics plays a pivotal role in creating strategies for safeguarding crops. "Pest Census with Math" highlights the precision in understanding and controlling pest populations through mathematical models. "Precision Agriculture" demonstrates the efficiency gained in pesticide application through mathematical precision. "Weathering the Pest Storm" explores how mathematics predicts the impact of weather on pests, fostering proactive pest management. "Harmony in Numbers" delves into eco-friendly math, finding solutions that balance plant protection and environmental care. "Mathematics for Global Food Security" expands the narrative, illustrating how math is a global effort to feed the planet.

**Keywords:** Plant Protection, Agriculture, Pests, Diseases, Sustainable Practices, Global Food Security

## **A REVIEW ON GENE EDITING TECHNIQUES AND ITS ETHICAL IMPLICATIONS**

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### **Abstract**

By facilitating the development of more precise cellular and animal models of pathological processes, genome editing has increased our capacity to understand the role that genetics plays in disease. This overview covers the all aspect of genome editing methods, along with its modes of operation, potential uses, and delivery issues related to gene editing components. A broad spectrum of research is covered by genetic modification techniques, such as the creation of transgenic animals, gene functional analysis, disease model development, and medication development. Due to challenges in the mutation in protein structure of growth hormones, enzymes and monoclonal antibodies, researchers looked into different strategies, which helped advance gene editing. Thanks to many experiments and commendable efforts, techniques that alter a living cell's genetic makeup have now been introduced. Over the course of the last three decades, genome editing techniques have changed, and currently, four different types of "programmable" nucleases are available in this field: zinc finger nucleases, meganucleases, transcription activator-like effector nucleases, and the CRISPR/CRISPR associated protein 9 (Cas-9) systems. Researchers must consider the unique qualities of each group when determining which gene editing technique is best for a variety of purposes. Technology related to genome engineering and editing will transform the process of creating carefully altered genomes of cells or creatures to change a certain trait. The crucial stage in genome engineering is inserting constructs into target cells or animals. Even with the progress made thus far, genome editing methods are will be in existence.

**Key Words:** Gene Editing, Cas-9, zinc finger nucleases, meganucleases, transcription activator-like effector nucleases.



## NAVIGATING THE COMPLEXITIES OF STAPHYLOCOCCUS AUREUS PATHOGENESIS: FROM VIRULENCE FACTORS TO ANTIBIOTIC RESISTANCE

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### Abstract

**Introduction:** Staphylococcus aureus, being opportunistic, possesses an impressive arsenal of virulence factors that confer specific pathogenicity in case of lowered immunity. Since its discovery, *S. aureus* has shown a significant capacity for adaptation to its environment, initially with the emergence of Penicillin resistance followed by the emergence of Methicillin resistance. The emergence of resistant strains poses a serious problem in case of illness, especially when it is nosocomial in origin.

Humans, being the specific reservoir of the bacterium, are found in a quarter to a third of the population asymptotically.

**Materials and Methods:** Recently, new pathologies have been identified, such as recurrent primary skin infections, necrotizing pneumonia, and severe osteoarticular infections in children. They are associated with the secretion of a toxin: Pantone-Valentine Leukocidin (PVL), as well as food intoxications associated with staphylococcal enterotoxins (genes: sea, seb, sec, sed, see); Toxic Shock Syndrome (TSST1); Scalded Skin Syndrome coded by exfoliatins: Epidermolysins (genes: eta, etb, etc.).

The mode of transmission of Methicillin-resistant Staphylococcus aureus (MRSA) strains in the hospital environment is serious, underscoring the importance of individual hygiene measures and precautions aimed at limiting this transmission.

To achieve this, nasal carriage, which constitutes the primary biotope of *S. aureus* and consequently the main source of Staphylococcal infection risks, is targeted, and eradicating *S. aureus* from the nose has proven to be effective in reducing the incidence of Staphylococcal infection.

It has been observed that MRSA strains responsible for nosocomial infections and those responsible for community-acquired infections do not carry the same types of SCCmec cassettes.

This marker has been used in numerous epidemiological studies on MRSA and allows for the study of phylogenetic relationships between strains. It is considered a useful tool for investigating the epidemiology of MRSA.

At our laboratory at the Faculty of Medicine, Pharmacy, and Dentistry in Fez, we aim to determine the prevalence, resistance mechanisms, and virulence factors of Staphylococcus aureus infections, while identifying the profile of toxin-coding genes in isolated strains, and ultimately analyzing, at the molecular level, the strains of *S. aureus* implicated, in order to

distinguish host-related risk factors and identify, through molecular typing, the type of SCCmec cassette expressed in MRSA.

**Conclusion:** Recognizing these infections based on simple clinical and paraclinical elements is crucial and an important issue due to the potential for specific therapeutic management that can improve patient prognosis, in order to finally be able to provide an overview of these emerging strains in our region, especially since we do not have a reference center for staphylococci in Morocco.

**Keywords:** Staphylococcus aureus, methicillin-resistant, virulence factors, nosocomial infections, SCCmec cassettes, molecular epidemiology.

## AN APPLICATION OF CUBIC HERMITE COLLOCATION FINITE ELEMENT METHOD ON A MODEL PROBLEM

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### Abstract

**Introduction and Purpose:** Almost every phenomenon in nature, whether biological, geological or mechanical, can be described in terms of algebraic, differential or integral equations relating the different units involved with the help of the laws of physics. These equations often appear in the literature as linear or nonlinear equations. It is difficult and sometimes impossible to find analytical solutions of these governing equations. For this reason, numerical methods stand out as an alternative for finding solutions to those equations. Numerical methods convert a given differential equation into a system of algebraic equations that can be solved by a computer. There are many numerical methods developed for solving differential equations. Among others, in the finite element method, a given solution region is considered as a collection of sub-regions and the governing equation is approximated on each sub-region by one of the conventional variational methods. The main reason to search for approximate solutions on a collection of sub-regions is that it is easier to represent complex functions as a collection of simple polynomials. A survey of the literature shows that Hermite bases have been used in recent years. Previously, we see that classical, trigonometric, exponential bases are often used harmonically with many equations and/or methods. Finite element methods such as Galerkin, Petrov-Galerkin, collocation and subdomain methods have been used in the past with many different bases. In this study, we will try to find the approximate numerical solution of a second order differential equation having exact solution by using cubic Hermite bases with finite element method. The approximate solution will be compared with the exact solution with the help of tables and graphs.

**Materials and Methods:** Collocation Finite Element Method

**Results:** Approximate numerical solutions of a second order differential equation.

**Discussion and Conclusion:** A comparison of the approximate numerical solutions with the exact solution and suggestions for future work.

**Key Words:** Hermite Spline; Collocation method; Legendre and Chebyshev polynomials Roots; Finite Element Method

## LOVE POEM OR SUMMARY OF A GARÎB-NÂME

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### **Abstract**

Âşık Pasha, who was born in Arapkir in the last quarter of the 13th century, is among the important masnavi poets of the 14th century, as well as being a Sufi, ideologist and language scholar. His work, Garîb-nâme, written in 1330, is considered among the masterpieces of Anatolian Turkish literature. It is known that there are around 120 manuscript copies in libraries of this work, which includes religious-mystical and moral advice and explains Islamic tenets in a simple language. However, it is estimated that there are copies of Garîb-nâme in the manuscript collections that we have not obtained today. This study aims to introduce a concise copy of Garîb-nâme registered in the National Library Eskişehir Provincial Public Library collection number 26 Hk 860/8. In the introduction part of the study, after giving information about the general characteristics of 14th century Turkish literature, Âşık Pasha and his family will be briefly introduced. In the review section, the manuscript will be described in terms of its physical properties, and then information about its content will be given. In the last part of the study, the manuscript, which is the basis for examination, will be transferred to today's alphabet using transcription marks and will be presented to the benefit of the scientific world.

**Keywords:** 14th century Turkish literature, Âşık Pasha, Garîb-nâme, mesnevi

## ENHANCING ARABIC CHARACTER RECOGNITION VIA FEATURE ENGINEERING AND PSO

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### Abstract

**Introduction and Purpose:** Accurate recognition of handwritten Arabic characters is a challenging task, particularly for non-native learners. With the growing adoption of digital teaching and distance learning platforms, there is an increasing demand for efficient and robust automatic recognition systems capable of handling Arabic characters. This work presents a novel approach to address this challenge by combining deep learning techniques with an optimized feature selection process.

**Materials and Methods:** The proposed approach begins by processing handwritten Arabic character images to extract features using two pre-trained deep learning models: EfficientNet B2 and DenseNet 201. The extracted features from these models are concatenated to form a comprehensive feature set. Subsequently, the Particle Swarm Optimization (PSO) algorithm is employed to identify the most relevant features from this concatenated set through an optimized feature selection process. This step aims to reduce the dimensionality of the feature space while retaining the most discriminative information.

**Results:** The selected features are then fed into a classical classifier for character recognition. Experimental results demonstrate that the proposed approach achieves an accuracy exceeding 90% in recognizing handwritten Arabic characters, outperforming several existing methods. This high accuracy highlights the effectiveness of the proposed approach in addressing the challenges of Arabic character recognition, particularly in the context of digital education and distance learning.

**Discussion and Conclusion:** The proposed methodology offers a promising solution for accurate recognition of handwritten Arabic characters, potentially enhancing the learning experience for non-native learners and facilitating the adoption of digital teaching platforms in Arabic-speaking regions.

**Keywords:** Arabic handwriting recognition, feature extraction, feature selection, Particle Swarm Optimization.

## **ACTINOBACTERIA AND THEIR EFFECTIVE ROLE IN THE AGRICULTURAL SECTOR**

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### **Abstract**

Every year, between 10 and 28% of agricultural crops are lost, and this is due to agricultural pests. Among the bacterial pests, there are: *Erwinia*, *Agrobacterium*... and among the most important fungal pests we have: *Botrytis ceneria*, *Fusarium oxysporum*, ... This has a negative impact on health, food safety and leads to significant losses. Losses have also been observed in the post-harvest stages with worst-case scenarios in developing countries.

The traditional chemical means used for the control of these plant pathogens are sometimes ineffective; costly and, above all, recognized for its side effects on the environment and the health of the consumer.

Faced with these problems, the search for new bioactive molecules is more than necessary to fight against these phytopathogens. Among the most promising sources of bioactive substances are microorganisms, especially actinobacteria, which are gram-positive bacteria with a high percentage of G+C, the majority of which tend to form branched mycelium.

The major interest in actinobacteria is their ability to produce metabolites secondary to different biological activities, namely, antibiotics, antifungals, ... They are recognized by their PGPR activities (stimulation of plant growth, production of Indole-3-acetic acid, and the ability to degrade toxic substances) ...

Indeed, of the 22,000 bioactive molecules isolated from microorganisms, about half of these molecules are produced by actinobacteria, in particular the genus *Streptomyces*, which alone provides, 70% of antibiotics, mainly found in the soil, can be considered the most competent bacteria in nature, which produces many and varied secondary metabolites

All genera of this phyla exhibit great diversity in terms of morphology, physiology and metabolic capacity, they are known to produce a wide range of chemically diverse bioactive compounds, such as antibiotics, enzymes, biofertilizer, biofungicides, bio-insecticides, bioherbicides, phytohormones... So we can consider actinobacteria as a means of inhibition of phthopathogeneec agents and sustainable agricultural development.

**Keywords:** Actinobacteria, Agricultural development, Phthopathogens agents inhibition, Bioactive molecules.

## **PRIORITIZING EMPLOYEE WELL-BEING: INSIGHTS FROM THE MALAYSIAN WORKPLACE**

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### **Abstract**

Employee well-being has emerged as a critical concern for organizations in Malaysia, reflecting a growing recognition of its impact on productivity, engagement, and overall organizational performance (Khalil & Haque, 2022). This abstract provides an overview of the current landscape of employee well-being in Malaysia, focusing on key factors influencing well-being initiatives, challenges faced, and strategies adopted by organizations to promote employee wellness (Haque et al., 2022). In Malaysia, employee well-being initiatives are gaining traction across various industries, driven by factors such as increasing awareness of mental health issues, changing demographics, and evolving work practices (Khalil et al., 2022; Francis et al., 2023). Employers are recognizing the importance of creating supportive work environments that prioritize the physical, mental, and emotional health of their employees (Ahmed et al., 2022b). However, several challenges persist in effectively addressing employee well-being in Malaysia (Ahmed et al., 2022a). These include cultural stigmas surrounding mental health, limited resources for implementing comprehensive well-being programs, and the need to balance organizational goals with employee needs (Lee et al., 2023; Osman et al., 2024). To promote employee well-being, organizations in Malaysia are adopting a range of strategies (Khalil et al., 2023). These include implementing flexible work arrangements to support work-life balance, providing access to wellness programs and resources, fostering a culture of open communication and support, and offering training and education on mental health awareness and stress management (Fei et al., 2024). Despite the challenges, there is a growing commitment

among Malaysian organizations to prioritize employee well-being as a strategic imperative (Wai et al., 2024). By investing in employee wellness initiatives and creating supportive work environments, organizations can enhance employee satisfaction, engagement, and retention, ultimately driving greater success and sustainability in the dynamic Malaysian business landscape (Ying et al., 2023).

**Keywords:** Employee Well-Being, Workplace, Cultural Stigmas, Commitment, Productivity

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## **STRENGTHENING BILATERAL TIES: EXPLORING THE POLITICAL DIMENSIONS OF INDIA-UAE RELATIONS**

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### **Abstract**

The relationship between India and the United Arab Emirates (UAE) stands as a pivotal example of dynamic diplomatic engagement in the contemporary geopolitical landscape. This paper delves into the political dimensions of their bilateral relations, examining the intricacies of cooperation, strategic alignments, and shared interests that have shaped their partnership. By analyzing key events, agreements, and policy shifts, this study elucidates the evolving nature of India-UAE political ties, spanning from historical foundations to present-day collaborations. Through a nuanced exploration of diplomatic maneuvers, regional dynamics, and mutual aspirations, it sheds light on the factors driving their alliance and the implications for regional stability and global affairs. This research contributes to a deeper understanding of the multifaceted relationship between India and the UAE, offering insights into the complexities of modern diplomacy and avenues for further cooperation in the political sphere.

This paper examines the political dimensions of the enduring partnership between India and the United Arab Emirates (UAE), elucidating the dynamics of cooperation, strategic alignments, and shared interests. Through analysis of historical foundations, diplomatic maneuvers, and contemporary collaborations, it explores the evolving nature of their bilateral relations. Key events, agreements, and policy shifts are scrutinized to unravel the driving forces behind their alliance and its implications for regional stability and global affairs. By delving into mutual aspirations and regional dynamics, this study contributes to a nuanced understanding of modern diplomacy, highlighting avenues for further political cooperation.

**Key Words:** Political Relations, Diplomacy, Political dimensions, Bilateral cooperation, Strategic alliances, Regional stability

## THE DIGITAL TWIN REVOLUTION IN HEALTHCARE

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### **Abstract**

A major paradigmatic shift in patient care, therapeutic optimization, and scientific investigation is anticipated with the introduction of digital twin technology into healthcare systems. A dynamic and real-time representation of specific patients, medical equipment, and the processes of biology is provided by the use of digital twins, which are virtual copies of physical elements. The revolutionary possibilities of digital twins in healthcare are examined in this abstract. Individualized treatment is made possible by digital twins, which generate detailed digital profiles by recording complex patient data such as factors related to lifestyle, physiological measurements, and genetics. These profiles give doctors the ability to more precisely customise therapies, improving therapeutic results and lowering side effects. By mimicking the performance of medical devices in simulated settings, digital twins aid in their development and optimization. Engineers may improve the design of devices, anticipate modes of failure, and guarantee safety prior to actual deployment by examining simulated scenarios. This process ultimately speeds up invention processes and improves the effectiveness of devices. Furthermore, by offering virtual platforms for simulating drug interactions, therapy responses, and illness development, digital twins may transform studies in medicine. Drug development and customized treatment plans can be expedited by researchers' ability to model intricate biological procedures, test theories, and find new therapeutic targets. However, there are issues with data security, interoperability, and ethical considerations when using digital twin technology in the healthcare sector. Healthcare stakeholders, legislators, and technology providers must work together to create strong frameworks for data governance, privacy protection, and regulatory compliance in order to address these issues. The healthcare industry's shift to digital twins has enormous potential to improve patient care, maximize the functionality of medical devices, and spur biological research. In order to fully embrace this revolutionary technology and pave the way for a future in which healthcare is genuinely personalized, predictive, and proactive, a comprehensive approach to addressing technological, legislative, and ethical issues is needed.

**Keywords:** Digital Twin, Healthcare, Revolution, Personalized Medicine, Biomedical Research.

## **THE RISE OF ANTIBIOTIC RESISTANCE AND THE SEARCH FOR NEW TREATMENT**

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### **Abstract**

A medical revolution, the golden age of antibiotics is now under jeopardy because of the rise of microorganisms resistant to many drugs. This abstract examines the urgent need for new treatment approaches as well as the growing public health dilemma of antibiotic resistance. Antibiotic resistance has been chosen for by widespread abuse and overuse of the medications, making these life-saving medications less and less effective against common infections. This worrying trend calls for a multimodal strategy. On the one hand, scientists are working hard to find novel antibiotics. This involves looking for new antibiotic compounds in untapped natural sources such as deep-sea creatures and soil bacteria. In order to create medications that take advantage of these flaws, researchers are also concentrating on bacterial vulnerabilities that have not yet been identified. The hunt for alternatives to conventional antibiotics is gathering steam. Phage therapy has great potential since it makes use of bacteriophages, which are viruses that attack bacteria exclusively. Furthermore, immune system modulators may be able to strengthen the body's natural defences against infections, according to study. However, the creation of new drugs cannot be the only strategy used in the fight against antibiotic resistance. To decrease the evolution of resistance strains, it is imperative to practise responsible antibiotic stewardship through public education campaigns and more stringent prescribing standards for both human and veterinary medicine.

## **CAN HANDGRIP STRENGTH ASSESSED IN DIFFERENT POSITIONS BE USED TO PREDICT STRENGTH DYSFUNCTION OF PATIENTS WHO UNDERWENT BREAST CANCER SURGERY?**

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### **Abstract**

**Introduction and Purpose:** Breast Cancer (BC) treatment can cause diminished functionality, especially for those who underwent BC surgery. Decreased shoulder strength and restriction in daily life activities are well-recognized consequences. The assessment of handgrip strength (HGS) is an objective and safe option frequently used to predict potential strength-related function among patients with breast cancer. Therefore, we aimed to assess the feasibility of using values obtained from HGS in different positions to predict strength-related function of upper extremities in patients who underwent BC surgery.

**Materials and Methods:** HGS was evaluated in the following three different positions: Standard position (shoulder adducted, elbow 90° flexed), P1 (90° abducted shoulder joint), and P2 (90° flexed shoulder joint), respectively. Patients were asked to squeeze the handheld dynamometer, three times in each position and the mean of them was recorded for each position. The mean difference was obtained by subtracting the mean value of the affected side from the dominant side. Paired and independent t-tests were used in the analysis.

**Results:** A total of 44 patients with BC who underwent BC surgery were included. The right side was dominant for all. Patients who underwent surgery on their dominant side showed significantly lower mean difference compared to those who underwent surgery on their non-dominant side in each different position except for the standard position ([P1  $t=-2.517$ ,  $p=.013$ ] and [P2]  $t=-2.256$ ,  $p=.026$ , respectively).

**Discussion and Conclusion:** Since bilateral participation of both extremities is a prerequisite for optimal function, BC patients with non-dominant side surgery should be thoroughly monitored and rehabilitated to prevent an imbalance of strength.

**Key Words:** Breast cancer, Handgrip strength, Function

## **DETERMINING USER SATISFACTION ON THE BEACHES OF THE SOUTHERN BLACK SEA**

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### **Abstract**

**Introduction and Purpose:** Coasts, which have been habitats for many civilisations from past to present, are very valuable areas in terms of biodiversity as areas where land and water are combined. Moreover, coasts have important potentials in terms of recreation and tourism activities as they provide many ecological and functional uses. Due to these characteristics, coasts are the most known and active resources of the tourism sector. Therefore, the aim of this study is to evaluate the quality of beaches in the Southern Black Sea coast with a focus on user satisfaction.

**Materials and Methods:** A total of 15 blue flag beaches (İğneada Resort, Şile Resort, Palm Beach, Bağıranlı, Kumcağız, Cebeci, Sahil Park, Çuhallı, Akevler, İncesu, Omtel, Denizkızı, İnci, Deniz Evleri and Miliç) were selected as the study area from 6 different provinces covering

Samsun, Düzce, Kocaeli, Sakarya, İstanbul and Kırklareli on the Southern Black Sea coast. In order to determine user satisfaction, separate questionnaires were conducted with the users at each beach. Questionnaires consisting of four sections to determine demographic characteristics, frequency of area use, physical facilities and preferences were carried out face to face with the users. The questionnaires were converted into numerical data and evaluations were made over percentage values.

**Results:** In the results of the study, it was determined that the general users of the beaches in question consisted of local people and tourists coming from the provinces close to the region. It was determined that the users generally liked the beaches, but there were deficiencies in terms of pollution, quality and car parking. In addition, it was emphasised that the areas with dense green texture were more liked and the need to give importance to recreational activities.

**Discussion and Conclusion:** The results of the study showed that the beaches under urban influence are subjected to intense human pressure. In order to prevent water and sand pollution caused by these pressures, various studies should be carried out together with different organisations. In addition, landscaping works should be emphasised for the protection and development of green areas on the beaches.

**Key Words:** Beach; Blue Flag; User Satisfaction; Black Sea; Türkiye

**MATHEMATICAL APPLICATIONS IN MEDICAL SCIENCE: MATHEMATICAL APPLICATIONS IN EPIDEMIOLOGICAL ANALYSIS AND DISEASE CONTROL**

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**Abstract**

Epidemiology, a cornerstone of medical sciences, intricately unravels the complex web of health and disease within populations. At its core, it delves into the distribution, determinants, and dynamics of health-related events, employing meticulous research methodologies and statistical techniques such as observational studies, cohort investigations, case-control analyses, and randomized controlled trials. Through these endeavours, epidemiology identifies patterns, risk factors, and causal relationships, offering a comprehensive understanding of diverse diseases. Its paramount significance lies in contributing to public health through the informed development of evidence-based interventions and policies. By scrutinizing demographics, genetics, environmental exposures, and socio-economic determinants, epidemiologists yield crucial insights into disease prevention and control. Whether tracking infectious diseases, investigating outbreaks, or studying chronic conditions and lifestyle influences, epidemiology serves as a guiding force for healthcare strategies. Beyond its analytical methodologies, epidemiology stands as the vanguard in the ongoing quest for global health equity. Its influence extends into the development of targeted interventions and vaccination programs, actively mitigating the burden of diseases worldwide. The discipline addresses disparities in health outcomes, acknowledging the intricate interplay between biological, environmental, and social determinants. In navigating public health crises and contributing to the formulation of holistic healthcare strategies, epidemiologists become indispensable agents of change. In an era marked by interconnected global health challenges, epidemiology fosters resilience and paves the way for a healthier, more equitable future for communities worldwide.

**Key words:** Epidemiology, health-related events, research methodologies, statistical techniques, evidence-based interventions, global health equity, disease prevention, public health.



## **TÜRKİYE-EGYPT RELATIONS IN THE MORSİ PERIOD AFTER THE ARAB SPRING**

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### **Abstract**

In 2010, Mohammed Bouazzi, who worked as a street vendor in Tunisia, set himself on fire in protest after his wheelbarrow was forcibly confiscated by state security forces, initiating conflicts that would spread throughout the region. While these conflicts, called the Arab Spring, resulted in a change of power in some countries, they caused turmoil in some countries that would last for years. These conflicts quickly affected North African and Middle Eastern countries with a domino effect. The rebellions that broke out in countries such as Morocco, Algeria, Jordan, Bahrain, Syria, Tunisia and Egypt quickly turned into social movements. These events, which first manifested themselves with protests and marches, created an atmosphere of conflict with the use of force by government forces. While the conflicts between the people and the government forces were suppressed by the government forces in some countries, they led to a change of power in countries such as Tunisia and Egypt. In this process, the Morsi Government, which came to power in Egypt through democratic means, was recognized by the Republic of Turkey and a new era began in Turkey-Egypt relations. Based on this, this study aims to examine the development of Turkey-Egypt relations during the Morsi Period after the Arab Spring, how Turkey followed the Arab Spring process, and the related developments between the two countries.

**Key Words:** Arab Spring, Türkiye, Egypt, Morsi Period

## MEDICINAL VALUES OF SENNA AURICULATA – A REVIEW

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### **Abstract**

Senna auriculata, commonly known as “Tanner’s Cassia” or “Avaram Senna,” is a medicinal plant renowned for its diverse therapeutic properties. This abstract provides a succinct overview of its medicinal uses, focusing on its traditional applications and contemporary scientific evidence. In diabetic management, Senna auriculata exhibits hypoglycemic effects by enhancing insulin secretion, improving glucose uptake, and regulating key metabolic pathways. Furthermore, Senna auriculata demonstrates notable antimicrobial activity against a wide range of pathogens, including bacteria, fungi, and parasites. This antimicrobial efficacy underscores its potential in combating infections and promoting wound healing. It stands as a promising botanical resource with a rich history of medicinal use and significant potential for addressing various health ailments. Its multifaceted pharmacological profile warrants continued exploration and integration into modern healthcare practices.

**Key Words:** Senna auriculata, antimicrobial, medicinal plant.