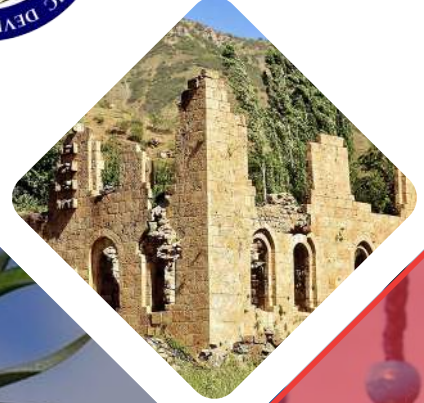




8. INTERNATIONAL
ANATOLIAN
SCIENTIFIC RESEARCH
CONGRESS

ABSTRACTS BOOK

EDITORS

Assoc. Prof. Dr. Mustafa Göktuğ KAYA
Assoc. Prof. Dr. Halil Emre DENİŞ

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www.discoveranatolia.org / info@discoveranatolia.org

APRIL 24-26, 2026
Hakkari University, Hakkari, Türkiye

8.INTERNATIONAL ANATOLIAN SCIENTIFIC RESEARCH CONGRESS

APRIL 24-26, 2026 / HAKKARI, TÜRKİYE

THE BOOK OF ABSTRACTS

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adapted by Mariam Rasulan

CONGRESS ID

CONGRESS TITLE

8.INTERNATIONAL ANATOLIAN SCIENTIFIC RESEARCH CONGRESS

DATE and PLACE

APRIL 24-26, 2026 / HAKKARI, TÜRKİYE

PARTICIPATION

Keynote & Invited

ORGANIZATIONS

Hakkari University
IKSAD Institute

CONGRESS COORDINATOR

Esma AKSAKAL

LANGUAGES

Turkish, English

PARTICIPANTS COUNTRY (32)

Türkiye, TRNC, Australia, Azerbaijan, Albania, Algeria, Bangladesh, Brazil, Bulgaria, Belarus, China, Cambodia, India, Indonesia, Italy, Lebanon, Mexico, Morocco, Moldova, Nigeria, Pakistan, Romania, Serbia, Spain, Ukraine, Georgia, Portugal, Colombia, Ethiopia, Malaysia, Tunisia, Vietnam

NUMBER of ACCEPTED PAPERS-251

NUMBER of REJECTED PAPERS-15

TOTAL NUMBER of PAPERS FROM TÜRKİYE- 109

TOTAL NUMBER OF INTERNATIONAL PARTICIPANTS: 142

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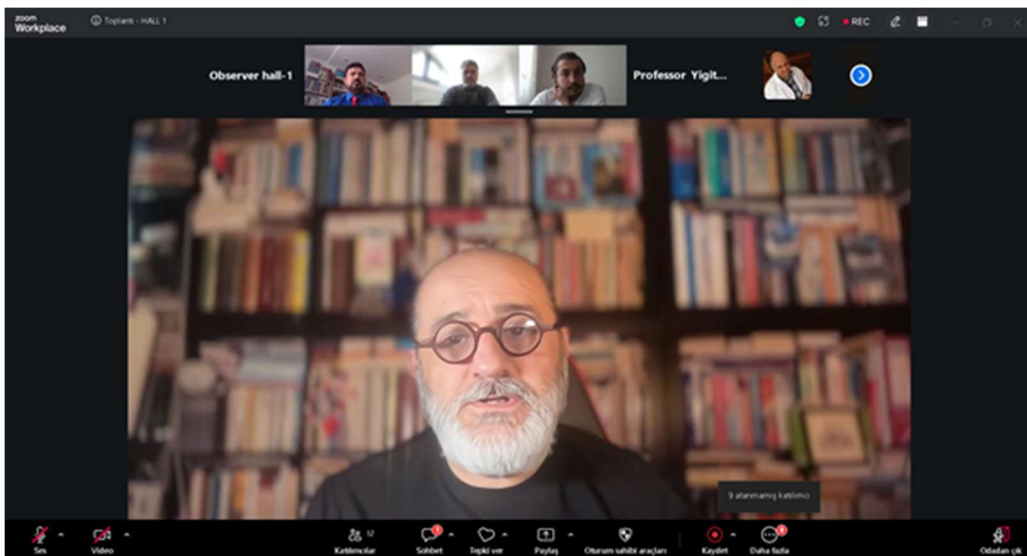
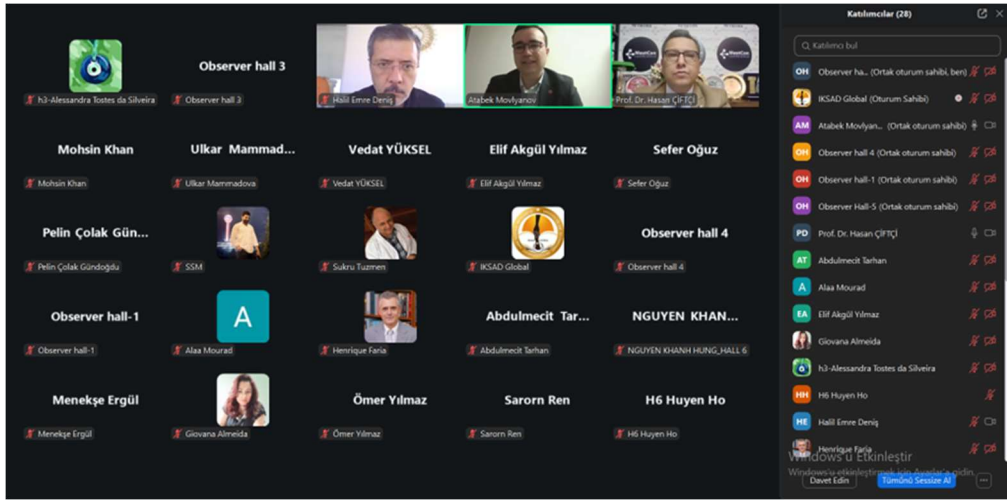
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Sefkan ÇELEBİOĞLU – Independent Researcher, Türkiye

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Dr. Vahid Ghasemi – Universidade Europeia, Portugal
Dr. Zohaib Hassan SAIN – Superior University, Pakistan

CONFERENCE GALLERY



Observer hall-1

Kelâm ilminde “hakikat” ve sınırı

- Kelâm ilminde “hakikat”, var olanın doğru biçimde kavranması ve bu kavrayışın gerekçelendirilmiş bilgi hâline gelmesidir. Bu anlayışta hakikat, sadece dış dünyada mevcut bir gerçeklik değildir; aynı zamanda bu gerçekliğin akıl ve vahiy çerçevesinde doğru şekilde bilinmesini de içerir. Bu sebeple kelâm açısından hakikat, yalnız ontolojik bir içerik taşımaz; esas belirleyici yönü epistemiktir. Çünkü bir şeyin hakikat olması kadar, onun nasıl bilindiği ve hangi delillerle temellendirildiği önemlidir. Kelâm alimleri hakikati akıl, vahiy ve duyular üzerinden açıklayarak onu bireysel kanaatten çıkarıp denetlenebilir bilgi alanına taşır. Bu çerçevede hakikat, hem varlıkla ilgili bir temele dayanır hem de bu temelin doğrulanabilir bilgiye dönüşmesiyle anlam kazanır.

1 app. istenilen ekranı paylaşın Paylaşmayı durdur Gözle

Observer hall-1

Zorbalık bilimleri sunu - PowerPoint

KONGRE BİLDİRİSİ - PSİKOLOJİ - 2024

Çocuklarda Zorbalık Bilişlerinin Yordayıcıları:

Engelleyici ve Desteleyici Aile İlişkileri

Doç. Dr. İbrahim TAŞ - Doç. Dr. Emine Göçel Tekin

Sakarya Üniversitesi - Psikoloji Bölümü

Zorbalık Bilişleri Aile İlişkileri Cinsiyet Çocuklar

N = 360 Çocuk - Yaş: 11-15 - %52.5 Erkek

Sosyal Biliş ve Davranış Çerçevesi

Observer-Hall 2

fuat Esin ÖMER ULU... Gülsüm HOŞ

fuat Esin ÖMER ULU... Vedat YÜKSEL Gülsüm HOŞ

Z E

ZYNEP GÖMÜŞÖZ Prof. Dr. Şiğirü Taamen_Hall 1-6 EVİN ÖNÜŞÖZ

Observer hall 3

Observer hall 3

H3 Dr Faisal Modarres

Cláudia Goretti Almeida

S-1 H-3 Slobodan Popovic

H3 Alessandra Iostes da Silveira

HALL-3, IBRAHI...

José Pereira

8 atanmamuy kahlemo

Windows's Etkinlikler

 Hall-4, Ulkar Mammadova

Muqadas Altaf, Session-1/ Hall-4

Sese bağlanıyor ..

results

Didactic objectives in each level

Introduction to Basic Scientific Skills
Balanced diversity

Empirical Mediation
constrained by the content of the school curriculum

Causal and functional reasoning
Partial return

Back to the observation
BREAK

11

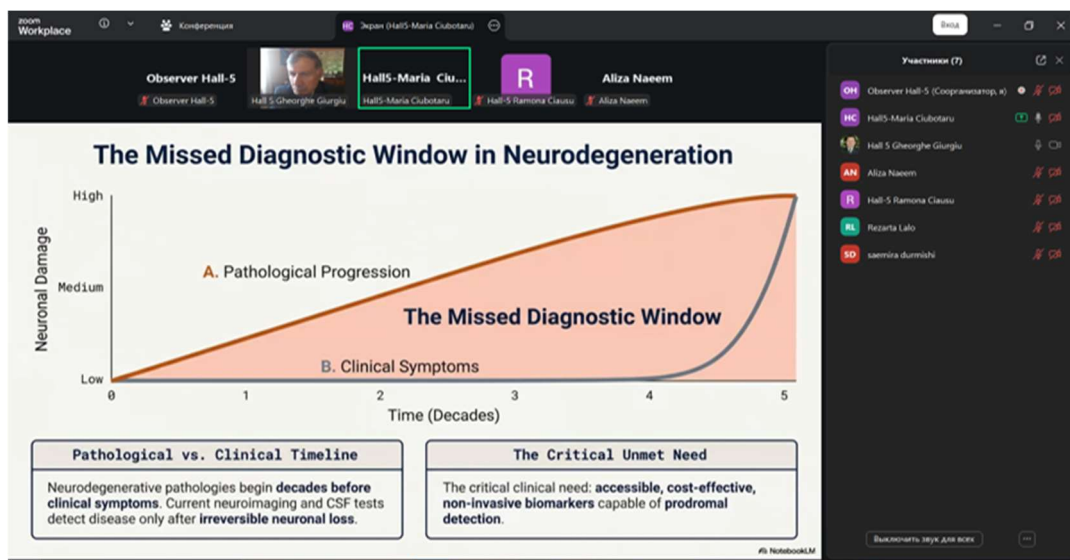
KHALID TALEBALI

Observer hall 4

Observer hall 4

Esma Aksakal

Esma Aksakal



Observer Hall-6

Hall-6, Pramila

Hall-6, Ananda Majumdar

Observer Hall-6

Hall-6, Pramila

Hall-6, Henrique Faria

Mohsin Khan

H6 Huyen Ho

NGUYEN KHAN...

NGUYEN KHANH HUNG_HALL 6

11 неназначенных участников

Выключить звук для всех

Observer hall-1

Gürültü ve İş Sağlığı Açısından Önemi



- Endüstriyel Gelişim ve Risk Faktörleri**
Modern endüstriyel süreçlerde fiziksel risk etmenlerinin önemi arttı. Gürültü, özellikle ağır sanayide çalışan işçiler için ciddi bir mesleki tehlike olarak kabul edilmektedir.
- Gürültünün Teknik Tanımı**
Literatürde gürültü istenmeyen ses olarak tanımlansa da, iş sağlığı açısından daha teknik bir anlam taşır. Desibel (dB) cinsinden ölçülen ve belirli eşik değerleri aşan sesler, mesleki gürültü olarak değerlendirilir.
- Sağlık Üzerindeki Etkiler**
Uzun süreli yüksek düzeyde gürültüye maruz kalma, işitme kaybının yanı sıra kardiyovasküler sistem, uyku düzeni, bilişsel işlev ve psikolojik sağlık üzerinde olumsuz sonuçlara yol açabilir.

Observer hall-1

Hall 1 - Zübeyd... Esmâ Aksakal

Observer-Hall 2

Hall-2, Nesim T... dinleyici-Melsa... Beril Özay



S-2, H-3, Popescu G. Cristina Raluca

Observer hall 3

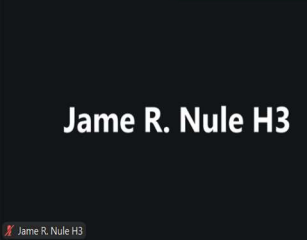


S-2, H-3, Moses Adeolu AGOI



ODU ADEJARE

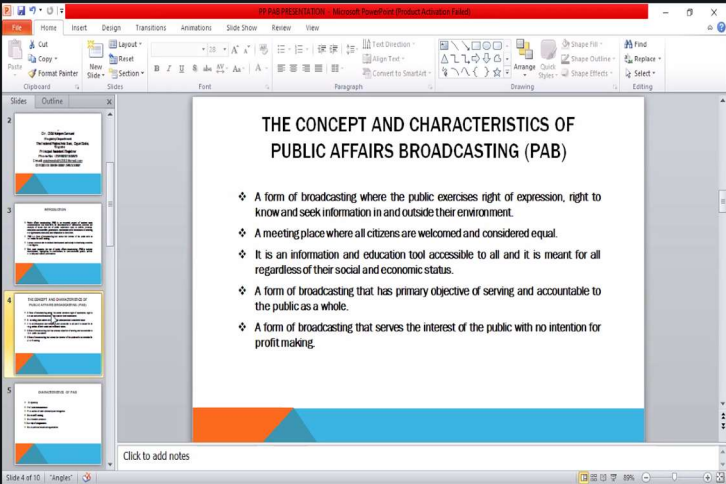
Jame R. Nule H3



Jame R. Nule H3

2 atanmamg kablimo

Windows'u Etkinleştir



THE CONCEPT AND CHARACTERISTICS OF PUBLIC AFFAIRS BROADCASTING (PAB)

- ❖ A form of broadcasting where the public exercises right of expression, right to know and seek information in and outside their environment.
- ❖ A meeting place where all citizens are welcomed and considered equal.
- ❖ It is an information and education tool accessible to all and it is meant for all regardless of their social and economic status.
- ❖ A form of broadcasting that has primary objective of serving and accountable to the public as a whole.
- ❖ A form of broadcasting that serves the interest of the public with no intention for profit making.



S-2, H-3, Popescu G. Cristina Raluca

Observer hall 3



ODU ADEJARE

Jame R. Nule H3



Jame R. Nule H3

S-2 H-3, Moses...

S-2, H-3, Moses Adeolu AGOI

Algae as an Alternative Feed Source



- Microalgae are primary producers in aquatic ecosystems
- Rich source of proteins, carbohydrates, lipids, vitamins, and pigments
- Easily digestible by fish and shellfish
- Can partially or completely replace fish meal in feeds
- Economically viable and renewable resource

H-4 Natavan Ba...

H-4 Natavan Bakhshtalyeva

Observer hall 4

Observer hall 4

Laiba Riaz/ Sessi...

Laiba Riaz/ Session-2, Hall-4

H-4 Vandhana K.

H-4 Dani Nur Arfin

Fareeha Ijaz

Fareeha Ijaz

Extraction of bioactive compounds:
Cleaning and drying of fruit peels, and Grinding into fine powder

- Extraction techniques:
- Solvent extraction
- Ultrasound-assisted extraction (UAE)
- Extracts rich in phenolics and antioxidants
- Obtained extracts rich in:
- Polyphenols
- Natural pigments
- These compounds provide functional properties

(Chen et al., 2022)

Modern Methods of Extraction

Ultrasonic Flow Probe-based System

Observer hall 4

Laiba Riaz/ Session-2, Hall-4

Samsung SM-A...

Samsung SM-A546E

H-4 Vandhana K

M

Usman Rasheed Hall no.4

H-4 Dani Nur Arifin

Fareeha Ijaz

Fareeha Ijaz

8. INTERNATIONAL ANATOLIAN SCIENTIFIC RESEARCH CONGRESS

Evaluation of Buck Reproductive Productivity Based on Kid Birth Records in Saburai Goats

Dani Nur Arifin, Anhar Faisal Fanani, Kunaifi Wicaksana
Mulawarman University - Lampung State Polytechnic, Indonesia

Presented at: Hakkari University
April 24-26, 2026 / Hakkari, Türkiye

Formal seminar presentation

Slide 1

Laiba Riaz/ Sessi...

Observer hall 4

Laiba Riaz/ Session-2, Hall-4

Observer hall 4

Samsung SM-A...

Samsung SM-A546E

H-4 Vandhana K

M

Usman Rasheed Hall no.4

H-4 Dani Nur Arifin

Fareeha Ijaz

Esma Aksakal

Fareeha Ijaz

Esma Aksakal

H-4 Natanan Ba...

H-4 Natanan Bakhshaliyeva

Observer Hall-5

Shahzaib Khan

Sapna Anam Ha...

Sapna Anam Hall 5

Sumayya Akram...

Sumayya Akram (sessi...

Hajar EL GANIC...

Hajar EL GANICH_S2...

Mathematical Formulation of Coupled Drug-Surfactant and Micellar Equilibria in Colloidal Systems

Presented by:
Sapna Anam
Researcher & PhD Candidate
Department of Chemistry
Government College University Faisalabad
Colloid and Computational Lab

Conference:
23rd International & 35th National Chemistry Conference
Role of Chemistry for Sustainable Development
October 21-23, 2025

Участники (6)

OH Observer Hall-5 (Координатор, а)

SA Sapna Anam Hall 5

EA Esma Aksakal (Координатор)

HE Hajar EL GANICH_S2_HS

SH Shahzaib Khan

SA Sumayya Akram (session-2, H-5)

Observer Hall-5 Sapna Anam Ha... Hajar EL GANICH...

Observer Hall-5 Sapna Anam Hall 5 Hajar EL GANICH,S2,HS

8. International Anatolian Scientific Research Congress
April 24–26, 2026 / Hakkari, Türkiye

Magnetic Properties of Perovskite Ceramics AFeO_3 ($\text{A}=\text{Bi, La}$) and CaBO_3 ($\text{B}=\text{Mn, Ti}$) using Monte Carlo Techniques

Hajar El Ganich^{1,*}, Omar Ben Lenda², Omar El Rhazouani¹, Elmadani Saad¹

¹Hassan First University of Settat, High Institute of Health Sciences, Laboratory of Sciences and Engineering of Biomedical, Biophysics and Health, Settat, Morocco.
²The National Higher School of Mining of Rabat (ENSMR), Materials Science and Engineering, Rabat, Morocco.
*Corresponding author ✉ : hajar.gh94@gmail.com

Presented by : Hajar EL GANICH

1 ненатаначеный участник

zoom Workplace Конференция - HALL 6

Observer Hall-6

S-2 Hall-6, Müslüm GÜMÜŞ Observer Hall-6

Hall-6 Fatma Turna H-6 mert can

H-6 Pelin Çolak Gündoğdu Hall-6 metin gökbaş

Участники (6)

- OH Observer Hall-6 (Координатор, я)
- HF Hall-6 Fatma Turna
- SH S-2 Hall-6, Müslüm GÜMÜŞ
- HP H-6 Pelin Çolak Gündoğdu
- HC H-6 mert can
- M Hall-6 metin gökbaş

Выключить звук для всех

zoom Workplace Конференция Экран (H-6 Pelin Çolak Gündoğdu)

Observer Hall-6 Hall-6, Samia M...

Observer Hall-6 S-2 Hall-6, Müslüm GÜMÜŞ H-6 Pelin Çolak Gündoğdu Hall-6, Samia Moust...

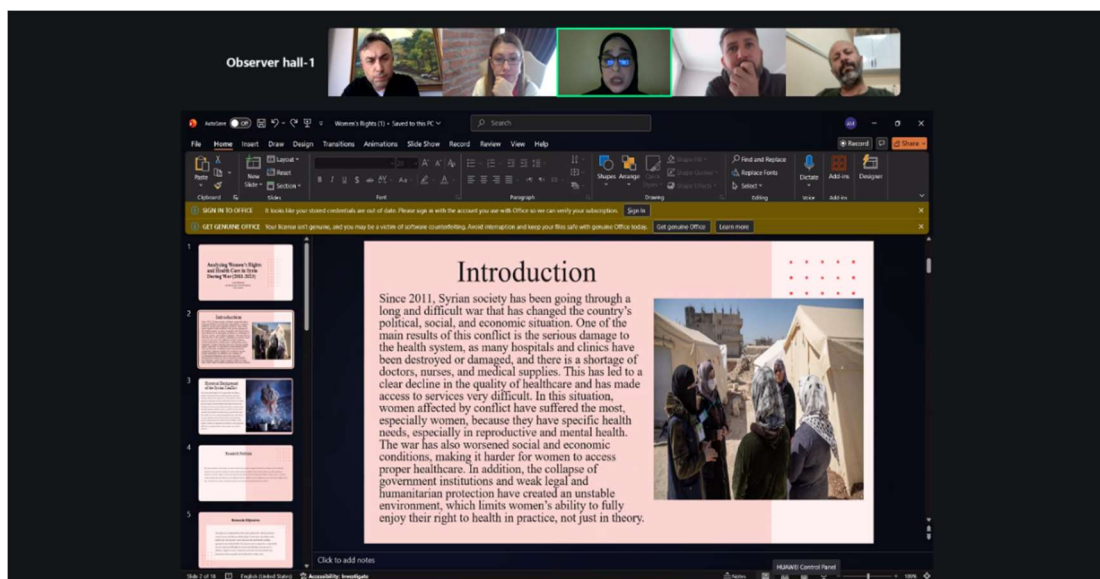
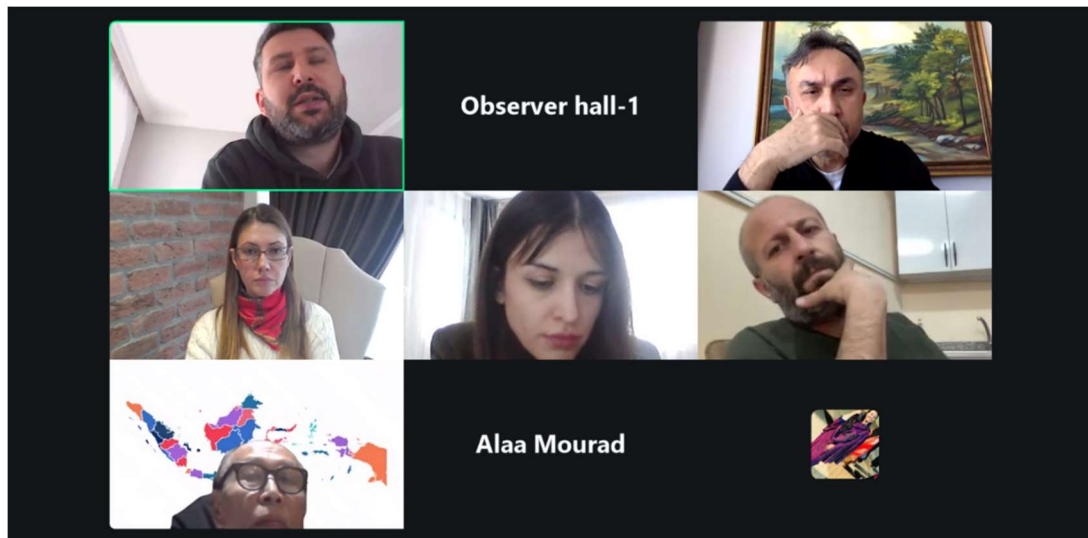
8. ULUSLARARASI ANADOLU BİLİMSSEL ARAŞTIRMALAR KONGRESİ

«2014 SONRASI RUSYA'NIN ENERJİ VE DIŞ TİCARET POLİTİKALARINDA DÖNÜŞÜM: YATIRIMLAR VE EKONOMİK ARAÇLAR»

Hazırlayan: Dr. Pelin ÇOLAK GÜNDOĞDU

Участники (12)

- OH Observer Hall-6 (Координатор, я)
- HP H-6 Pelin Çolak Gündoğdu
- SH S-2 Hall-6, Müslüm GÜMÜŞ
- PD PROF.DR.ÖZLEN ONURLU
- AI Ali Bilgen
- HC H-6 mert can
- M Hall-6 metin gökbaş
- HS Hall-6, Samia Moustaghfir
- H Hüseyin Kılıncı
- IK İlknur BİLGEN
- LN Leyla Nur Akman
- SR Sarom Ren





Hall-2: Ibrahim Faruk Kurukaya

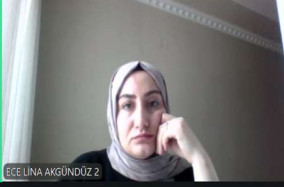
Observer-Hall 2



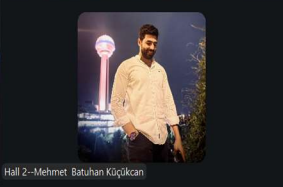
H-2: Sibel ÇANAN



Altun ALTUN



ECE LINA AKGÜNDÜZ 2



Hall 2-- Mehmet Batuhan Kırıkcan



İlknur BİLGEN



H-2-Abdulmeit Tarhan

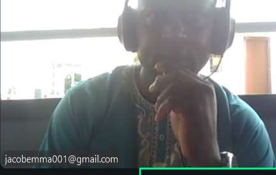


Hall3-SAMAR MAHMOUD-Session3

Observer hall 3



Vasyil Puzanov



jacobemma001@gmail.com



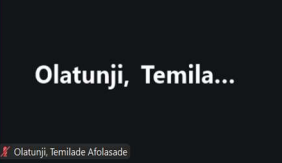
HALL 3 dinn wahyudin



Hall-3 Pramila Joachim Harshavardhana



Session 3-Hall 3-Sagaya Aurelia



Olatunji, Temilade Afolasade

Katılımcılar (8)

Q Katılımcı bul

- OH Observer... (Ortak oturum sahibi, ben)
- S Hall3-SAMAR MAHMOUD-Session3
- S3 Session 3-Hall 3-Sagaya Aurelia
- J jacobemma001@gmail.com
- d HALL 3 dinn wahyudin
- HU Hall-3,Pramila Joachim Harshavardhana
- OT Olatunji, Temilade Afolasade
- VP Vasyil Puzanov



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(DEEMED TO BE UNIVERSITY)
BANGALORE - INDIA

AIIT -ARTIFICIAL INTELLIGENCE INNER TRANSFORMATION

Pramila JOACHIM HARSHAVARDHANA
Prof. Dr. Sagaya AURELIA P
Affiliated to - Christ University Bangalore India

IKSAD Institute -International Congress on Scientific Research Hakkari 2026

Mission
Christ University is a nurturing ground for an individual's holistic development to make effective contribution to the society in a dynamic environment

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Core Values
Faith in God | Moral Uprightness
Love of Fellow Beings | Social Responsibility
Pursuit of Excellence

Observer hall 3

HALL 3 dinn wahyudin

El Habib Banouisse

Hall-3 Pramila Joachim Harshavardhana

jacobemma001...

jacobemma001@gmail.com

Vasyil Puzanov

Session 3-Hall 3...

Olatunji, Temilade Afolasade

Hall-3; Ajayi

Esma Aksakal

zoom Workplace

27°C Güneşli 15:22 25.04.2026

José Luis adli kişinin ekranı

REC Giriş yapın

Observer hall 4

Hall 4 Session 3: Viviane D...

Observer hall 4

Martina Perrone

José Luis

Sarahi Osorio

LEONEL JUNIO DOS SANT...

R

Aisha Ohieku

Ruslan Sheverdin

Aisha Ohieku

John ADOLE

John ADOLE

Windows'u Etkinleştir

Salvataggio automatico

Pediatric tNVS, Biophysical Mo... • Salvato in questo PC

Cerca

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Registra Presenta in Teams Condividi

Modifica Dettaglio Add-ins Designer

1 2 3 4 5 6

Targeting the Vagal Brake: Transcutaneous Vagus Nerve Stimulation (tVNS) for Pediatric Anxiety and Depression

A Biophysical Model

Viviane Dasilva | vivianedasilva@brain-performance.eu
Olivia Pino | oliviana.pino@unipr.it
Martina Perrone | mtperrone@studenti.unipr.it
Department of Medicine and Surgery, University of Parma, Parma, Italy

Fare clic per inserire le note

app.zoom.us sta condividendo lo schermo

Interrompi condivisione Nascondi

Diapositiva 1 di 11

Accessibilità conforme

Observer hall 4

Hall 4 Session 3: Viviane D...

Observer hall 4

Sarahi Osorio

Martina Perrone

José Luis

LEONEL JUNIO DOS SANT...

José Luis

R

Aisha Ohieku

Ruslan Sheverdin

Aisha Ohieku

Esma Aksakal

John ADOLE

Esma Aksakal

John ADOLE

Salvataggio automatico

Harmonising the Autistic Brain • Salvato in questo PC

Cerca

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Registra Presenta in Teams Condividi

Modifica Dettaglio Add-ins Designer

1 2 3 4 5 6

Harmonising the Autistic Brain

Personalised tACS Protocols Based on the i-FAI and Golden Ratio Resonance - Mathematical Model Approach

Viviane Dasilva, Olivia Pino, Riccardo Fidele & Renata Nasser
Department of Medicine and Surgery, University of Parma, Parma, Italy

QEEG PHAETRIC AUTISM TACS FIBONACCI BETTER FREQUENCY

Observer hall 4

Hall 4 Session 3: Viviane Dasil...

Observer hall 4

Sarahi Osorio

Martina Perrone

José Luis

LEONEL JUNIO DOS SANT...

José Luis

R

John ADOLES

Ruslan Sheverdin

John ADOLES

aisha ohieku

aisha ohieku

Green and Blue Infrastructure (GBI) as a Dual-Purpose Technology

The Past: Gray Infrastructure
Unilateral and rigid water management through concrete systems. Works reactively.

The Future: Nature-Based Solutions (NBS)
Floodable parks and constructed wetlands. Act proactively as adaptation technology, offering continuous ecosystem services.

The innovation lies not only in water management, but in the capacity of these infrastructures to act simultaneously as a tool for public health.
(Venkataramanan et al., 2019; Sommesse et al., 2024)

Observer hall 4

LEONEL JUNIO DOS SANTOS ...

Observer hall 4

Sarahi Osorio

José Luis

José Luis

Ruslan Sheverdin

aisha ohieku

Muhammad Ars...

Muhammad Arslan Ashraf

Zoom user

Zoom user

Observer Hall-5

Session-3, Hall-5, Viktor S...

Session-3 Hall-5, Sri Rest...

Hall 5 -Agbor Agbor Enu

Halyna Mamus,...

RESEARCH METHODS

ADDIE & SDL

To develop learning technology, the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model is used. ADDIE is a model for designing learning models. The ADDIE model is a general, systems-oriented learning design model.

Meanwhile, the learning method used is Self-Directed Learning (SDL), an active process in which individuals take the initiative to determine their own needs, goals, strategies, learning resources, and evaluate their own learning outcomes, both with and without the assistance of others. This process focuses on independence, internal motivation, and self-development..

2 неназначенных участников

Участники (6)

OH Observer Hall-5 (Координатор, я)

S Session-3 Hall-5, Sri Restu Ningsih

V Session-3, Hall-5, Viktor Sopha

HM Hall-5, Muhammad Aftab

HM Halyna Mamus, Session 3, Hall-5

H5 Hall 5 -Agbor Agbor Enu

Выключить звук для всех

Observer Hall-6

Hall 6 Maria Bdadouni

Observer Hall-6

Hall6-Pheareak SiN (Cambodia)

Session3-Hall-6, Samia Moustaghfir

Hall-6, Robraw ANN (Cambodia)

Hall-6, Ghina El Zein

Saem Oeun_Hall...

Esma Aksakal

Saem Oeun_Hall 6_Session-3

Esma Aksakal

4 неназначенных участников

Участники (8)

Q. Найти участника

OH Observer Hall... (Координатор, я)

SS Session3-Hall-6, Samia Moustaghfir

EA Esma Aksakal

H6 Hall 6 Maria Bdadouni

H6 Hall-6, Ghina El Zein

HR Hall-6, Robraw ANN (Cambodia)

H6-Pheareak SiN (Cambodia)

SO Saem Oeun_Hall 6_Session-3

Observer hall-1

SICAK STRESİ ALTINDA MAKARNALIK BUĞDAYDA GENOTİP * SULAMA İNTERAKSİYONU: FİZYOLOJİK ÖZELLİKLER ve VERİM ÜZERİNE ETKİLERİ

Dr. Merve BAYHAN
Dr. Öğr. Üyesi Remzi ÖZKAN
Zir. Y. Müh. Yunus AKTAR
Prof. Dr. Mehmet YILDIRIM

Hakkari-2026

Observer hall-1

anadolu medeniyetleri...

Hintlerin yıkılmasından sonra Trakya üzerinden Anadolu'ya gelen ve bir tarım toplumu olan Friglerin (MÖ 8.yy-7.yy), "Medes Kibele" yani dediklerin anımsı dedikleri, doğa toprak ve bereket tanrıçası olan Kibele ayinlerinde davul, flüt, lir eşliğinde coşkulu bir ritmik bir müzik karşımıza çıkar. Doğa tanrıçası Kibele Yunan mitolojisindeki adıyla da Artemis da müziğe çok düşkün bir tanrıya olarak bilinmektedir. Meşhur Kibele heykeli yanında çifte flüt ve Arp çalan İdi çüce müzisyen bulunmaktadır. Bu müziğin Friglerin dinsel ve toplumsal ritüellerinin ayrılmaz bir parçası olduğunu göstermektedir. Bunun dışında bir de hititlili ve derin duyulur uyandıran Yunanlıların: frigyan mod dedikleri Frig makamı vardır. Klasik Türk musikisinde Kırda makamına denk gelen bu makama tasavvud musikisinde ve Yunus Emre ilahilerinde rastlanmaktadır.

Observer-Hall 2

Observer-Hall 2

Hall-2 Kader En...

Hall-2 Nazife N...

Ahmet Sakin

Hall-2, Nesim T...

Ahmet Sakin

Hall-2, Nesim Tüzmen

Sukru Tüzmen



Katılımcılar (6)

- OH Observer... (Ortak oturum sahibi, ben)
- ERSİN MENGEŞ session-1, Hall-3
- HV Hall-3 Vural Öntürk
- S SERKAN ERDOĞAN
- MT MEHMET TALHA
- P Pelin YÖĞÜN

Observer hall 3

Windows'u etkinleştir
Windows'u etkinleştirmek için Avarlar'a bakın.

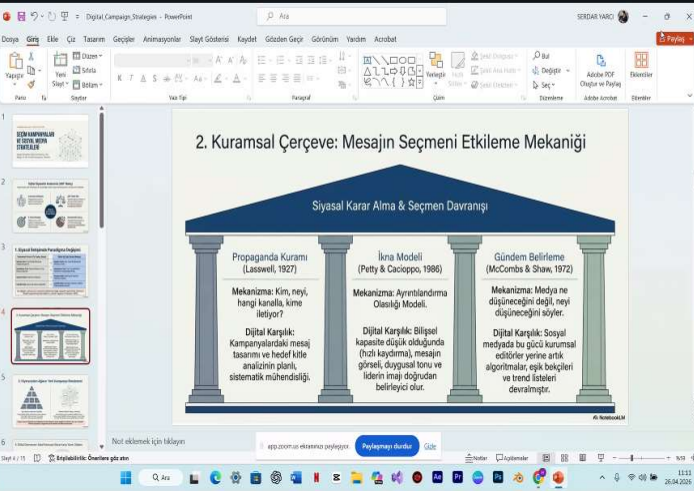


Katılımcılar (7)

- OH Observer... (Ortak oturum sahibi, ben)
- MT MEHMET TALHA
- ERCAN BASKIN
- ERSİN MENGEŞ session-1, Hall-3
- HV Hall-3 Vural Öntürk
- P Pelin YÖĞÜN
- S SERKAN ERDOĞAN

Observer hall 3

Windows'u etkinleştir

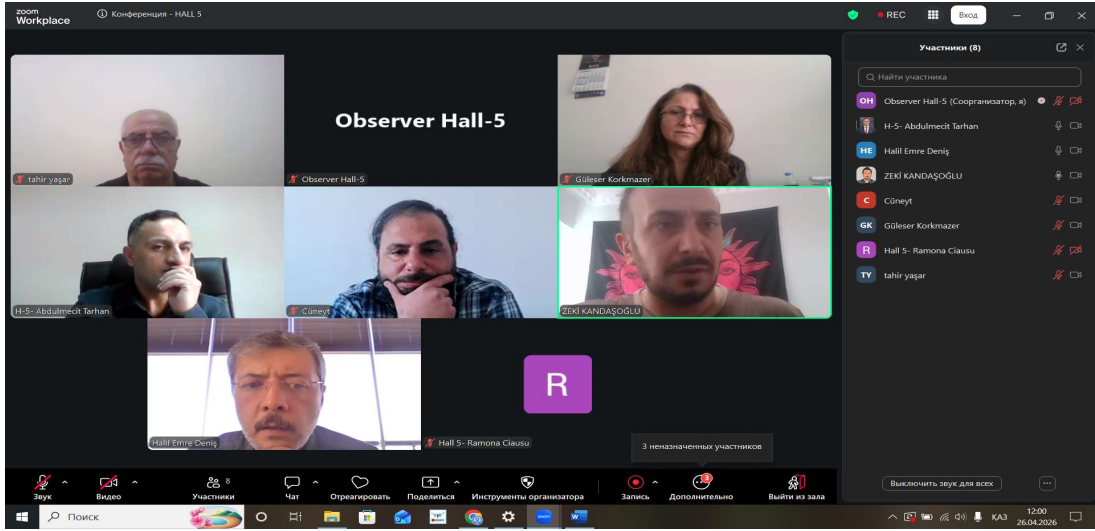


Observer hall 4

- H-4 Ayhan Yavuz Özdemir
- EDA TAŞ
- Hall-4 YUSUF TAN
- ŞİVAN EKİCİ
- Pervin Bozkurt

Observer hall 4

Windows'u etkinleştir



Observer-Hall 2

Feyzi KAYA-Hall-2

Observer-Hall 2

Yüksekova BİLSEM

Hall-2 Ferdi YAGAN

DOÇ.DR.HÜLYA ŞENOL

Hall 2- FECRI YAVI

BERİL ÖZAY

ERTUĞRUL GÜL

Prof. Dr. Şükrü...

Esma Aksakal

Prof. Dr. Şükrü Tüzmen's iPhone

Esma Aksakal

8. Uluslararası Anadolu Bilimsel Araştırmalar Kongresi
24-26 Nisan 2026 / Hakkari Üniversitesi, Hakkari

SÜRDÜRÜLEBİLİR BİYOÇEŞİTLİLİK İÇİN YENİ BİR
MODEL: IUCN KRİTERLERİNİN VE İSLAM HUKUKUNUN
ENTEGRASYONU

A NEW MODEL FOR SUSTAINABLE BIODIVERSITY:
INTEGRATION OF IUCN CRITERIA AND ISLAMIC LAW

Fevzi ÖZGÖKÇE
Prof.Dr. Van Yüzüncü Yıl Üniversitesi, Fen Fakültesi, Moleküler Biyoloji ve Genetik
Bölümü

Fatma AYTEKİN POYRAZ
Yüksek Lisans Öğrencisi, Van Yüzüncü Yıl Üniversitesi, Fen Bilimleri Enstitüsü,
Moleküler Biyoloji ve Genetik Bölümü

Observer hall 3

Hall-3 Mehmet Bayram Kirazlı

Observer hall 3

Hall-3 Fatma AYTEKİN POYRAZ

3 Fevzi ÖZGÖKÇE

Esma Aksakal

Hall 3 Mustafa Akkuş

Esma Aksakal

Halil Emre Deniz

Halil Emre Deniz

1 atanmış katılımcı

zoom Workplace

Elif Yaman 3 adlı kişinin ekranı

REC

Giriş yapın

ETHNOBOTANICAL USES /
ETNOBOTANİK KULLANIMLAR

Observer hall 3

3 Fevzi ÖZGÖKÇE

Observer hall 3

Elif Yaman 3

Hall-3 Fatma AYTEKİN POYRAZ

M

Hall 3, Mustafa...

Hall-3 Mehmet Bayram Kirazlı

Hall 3, Mustafa Akkuş

Eşitsizliğin Anatomisi: Buzdağının Görünmeyen Yüzü

Fiziki Altyapı
Kamuyunda ve geleneksel planlamada en çok odaklanılan, görünür donanım ve tesis eksiklikleri.

İnsan Gücü Dağılımı:
Uzman personelin bölgesel tutulum zorlukları

Finansman:
Kaynak tahsisindeki esneklik eksikliği

Planlama Farklılıkları:
Makro planların mikro gerçeklerle uyumsuzluğu

Bölgesel eşitsizlik sadece bir altyapı sorunu değildir; derinlerde yatan yapısal bir sistemik tasarımıdır.

Observer hall 4

Observer hall 4

Hall-4 Şeyda ÇAVMAK

Hall-4 Adem Bilgin

Hicran HAMZA CELIKYAY Düzce

Umut KAZAK

Umut YILMAZ Hall -4 Umut YILMAZ

Umut KAZAK

Mürşit AKSOY

Observer hall 4

Umut YILMAZ Hall -4 Umut YILMAZ

Yadigar Akyüz

Hicran HAMZA CELIKYAY Düzce Üni.

Hall-4 Adem Bilgin

Umut KAZAK

Mürşit AKSOY

Halil Emre Deniş

Rojin Tansu hall 4

1 atanmamış katılımcı

Antrenman Yüğü (Training Load) Kavramı

- İç yük (Internal Load): Kalp atım hızı, kan laktat düzeyi, RPE (algılanan zorluk)
- Dış yük (External Load): Mesafe, hız, güç çıktısı, tekrar sayısı Antrenman yüğü = İç yük + Dış yük etkileşimi
- Giyilebilir teknolojiler her iki yükü birlikte analiz eder.

(Hodkinson et al., 2021)

Observer hall 4

Umut YILMAZ Hall -4 Umut YILMAZ

Yadigar Akyüz

Mürşit AKSOY

Hicran HAMZA...

Hall-4 Adem Bilgin

Observer hall 4

Umut KAZAK

Hall-4 Şeyda ÇAVMAK

Hall-4 Adem Bilgin

Windows'u Etkinleştir

zoom Workplace 1 v Конференция Экран (Hall-6 George Saliba Leba Вход

Observer Hall-6

Observer Hall-6

Hall-6, Daniel Roque Go

H-6 George Saliba LU

Amin Berri

Behavioral Biases and Entrepreneurial Decision-Making in Times of Crisis

A Conceptual Model for Lebanese Startups

Elena MAKDISSI, PhD Candidate, Lebanese University, Lebanon

Cendrella ABOU FAYAD, Full Professor, ISSAE – Cnam Liban, Lebanon

Gregory WEGMANN, Full Professor, Université Bourgogne Europe, France



Участники (10)

Найти участника

- OH Observer Hall... (Соорганизатор, я)
- HG Hall-6 George Saliba Lebanese U...
- HD Hall-6, Daniel Roque Gomes
- A Amin Berri
- DM derra mourad
- EO Eduardo Ortega
- Gabriela Gomes
- H-6 George Saliba LU
- HE H-6, Elena MAKDISSI
- VA Vanda Asseiro

Observer Hall-6

Eduardo Ortega

Observer Hall-6

Hall-6, Daniel Roque Gomes

Amin Berri

H-6 George Saliba LU

Hall-6 George Sa...

Hall-6 George Saliba Lebanese University

Vanda Asseiro

Associate Profes...

Vanda Asseiro

Associate Professor Dr. derra mourad

Участники (8)

Найти участника

- OH Observer Hall... (Соорганизатор, я)
- HD Hall-6, Daniel Roque Gomes
- A Amin Berri
- AP Associate Professor Dr. derra mourad
- EO Eduardo Ortega
- H-6 George Saliba LU
- HG Hall-6 George Saliba Lebanese Univer...
- VA Vanda Asseiro

zoom Workplace 1 v Конференция Экран (Brenda Florêncio Oliveira Вход REC

Observer Hall-5

Observer Hall-5

aasma hashmi

Fasil Desalew

Brenda Florêncio Oliveira

Ramona Clausu

8th International Anatolian Congress

Google Earth Engine Applied to Spatio-temporal Analysis of Meteorological Drought and CMIP6 Projections

Brenda Florêncio Oliveira Costa

Environmental Engineer | Federal University of Mato Grosso do Sul (UFMS)

MSc student | Postgraduate Program in Environmental Technologies (PGTA/UFMS)

brenda.florencio@ufms.br

Участники (5)

Найти участника

- OH Observer Hall-5 (Соорганизатор, я)
- B Brenda Florêncio Oliveira Costa
- a aasma hashmi
- FD Fasil Desalew
- R Ramona Clausu

Выключить звук для всех

Звук Видеo Участники Чат Отреagirовать Поделиться Инструменты организатора Запись Дополнительно Выйти из зала

23°C Mostly cloudy 15:26 26.04.2026

Discover Anatolia

8th INTERNATIONAL ANATOLIAN SCIENTIFIC RESEARCH CONGRESS

April 24-26, 2026 / Hakkari, Türkiye



CONGRESS PROGRAM

Zoom Meeting ID: 858 1117 0419

Zoom Passcode: 080808

<https://us02web.zoom.us/j/85811170419?pwd=7yjkQmicrxfzet6OumOmJlQUtwWGI1.1>

Participant Countries (32):

Türkiye, TRNC, Australia, Azerbaijan, Albania, Algeria, Bangladesh, Brazil, Bulgaria, Belarus, China, Cambodia, India, Indonesia, Italy, Lebanon, Mexico, Morocco, Moldova, Nigeria, Pakistan, Romania, Serbia, Spain, Ukraine, Georgia, Portugal, Colombia, Ethiopia, Malaysia, Tunisia, Vietnam

Önemli, Dikkatle Okuyunuz Lütfen

- Kongremizde Yazım Kurallarına uygun gönderilmiş ve bilim kurulundan geçen bildiriler 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 5 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 özelliğini 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 5 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.

Zoom'a giriş yapmadan önce lütfen örnekteki gibi salon numaranızı, adınızı ve soyadınızı belirtiniz
Before you login to Zoom please indicate your hall number, name and surname

exp. H-1, Gamze TURAN

Opening Ceremony

April 25, 2026 / Ankara Time: 09:30-10:00

Assoc. Prof. Dr. Mustafa Göktuğ KAYA
CONGRESS CO-PRESIDENT

Assoc. Prof. Dr. Halil Emre DENİŞ
CONGRESS CO-PRESIDENT

Dr. Mustafa Latif EMEK
President of the IKSAD Institute

Prof. Dr. Musa GENÇCELEP
Rector of the Hakkari University

Panel Session

April 25, 2026 / Ankara Time: 12:00-12:30

Prof. Dr. Şükrü TÜZMEN - Eastern Mediterranean University
"Cancer Drug Discovery in the Genomics Era"



ONLINE PRESENTATIONS

25.04.2026 / Session-1, Hall-1



ANKARA LOCAL TIME: 10⁰⁰ : 12⁰⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. Faruk GÜN

AUTHORS	AFFILIATION	TOPIC TITLE
Ferhat Atik	Girne American University	PERFORMING AUTHENTICITY: SELF-PRESENTATION AND EMOTIONAL LABOR ON SOCIAL PLATFORMS
Mustafa Ali MINARLI	Marmara University	INSTRUMENTAL REASON, TECHNOLOGY AND WAR: RETHINKING CRITICAL THEORY
Faruk GÜN	Pamukkale University	THE POSSIBILITY OF TRUTH IN KALĀM AND THE EPISTEMIC STATUS OF SUFISM
Faruk GÜN	Pamukkale University	PHILOSOPHICAL DIALECTIC AND THE RECONSTRUCTION OF THE CONCEPTION OF BEING IN POST- AVICENNIAN KALĀM
Murat ERKOÇ	Hasan Kalyoncu University	PROTECTIVE PRACTICES IN ANATOLIA FROM SHAMANISM TO ISLAM: THE EVIL EYE, AMULET, AND BURDOCK
İbrahim TAŞ Emine Göçet TEKİN	Sakarya University	ANHEDONIA AND SUBJECTIVE WELL- BEING IN ADOLESCENTS: THE ROLE OF GENDER
İbrahim TAŞ Emine Göçet TEKİN	Sakarya University	PREDICTORS OF BULLYING COGNITIONS IN CHILDREN: DISCOURAGING AND SUPPORTIVE FAMILY RELATIONSHIPS



ONLINE PRESENTATIONS

25.04.2026 / Session-1, Hall-2



ANKARA LOCAL TIME: 10⁰⁰ : 12⁰⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. Deniz Mertkan GEZGİN

AUTHORS	AFFILIATION	TOPIC TITLE
Fuat ERDUĞAN Sena KEDERSİZ Onur NURLU Deniz Mertkan GEZGİN	Trakya University	EXAMINATION OF ACADEMIC MOTIVATION IN SPORTS SCIENCE STUDENTS ACCORDING TO DEMOGRAPHIC VARIABLES AND ARTIFICIAL INTELLIGENCE USE IN EDUCATION
Esin ÖMER ULUKAYA Onur NURLU Deniz Mertkan GEZGİN	Trakya University	EXAMINING THE RELATIONSHIP BETWEEN FEAR OF MISSING OUT AND PROBLEMATIC SMARTPHONE USE AMONG ADULTS IN KOSOVO
Dursun DEMİR	Ondokuz Mayıs University	VERBAL SENTENCES IN THREE MASTER'S THESIS FROM DIFFERENT DISCIPLINES
Ayşenur BAYSAK Gülsüm HOŞ KARAKOÇ	Munzur University	EXAMINING CHILDREN'S VIEWS ON CLIMATE CHANGE: ANXIETY, UNCERTAINTY, AND CLIMATE ANXIETY
Ayşenur BAYSAK Gülsüm HOŞ KARAKOÇ	Munzur University	EXAMINING CHILDREN'S PERCEPTIONS AND EXPECTATIONS REGARDING SCHOOL SPACES
Vedat YÜKSEL Ömer YILMAZ	Hakkari University	DIFFICULTIES FACED BY STUDENTS STUDYING IN A LANGUAGE OTHER THAN THEIR MOTHER TONGUE



ONLINE PRESENTATIONS

25.04.2026 / Session-1, Hall-3



ANKARA LOCAL TIME: 10⁰⁰ : 12⁰⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Prof. Dr. Paulo ALMEIDA

AUTHORS	AFFILIATION	TOPIC TITLE
Mshvidobadze TINATIN	Gori State University	INTERNATIONAL EXPERIENCE IN THE USE OF MODERN TECHNOLOGICAL TOOLS IN TOURISM SERVICES
Giovana Goretti Feijó ALMEIDA José Luis JIMÉNEZ-CABALLERO Paulo ALMEIDA	Sevilla University Leiria University	DISCUSSION-ORIENTED SMART TOURISM DESTINATIONS: TERRITORIAL BRANDING AND LOCAL INTELLIGENCE IN EMERGING CULTURAL REGIONS
José Marques PEREIRA José Luis JIMÉNEZ-CABALLERO Giovana Goretti Feijó ALMEIDA Paulo ALMEIDA	Sevilla University Leiria University	DISCUSSION OF THE "SPAIN" BRAND IN THE SCIENTIFIC LITERATURE: A SCOPUS AND WEB OF SCIENCE REVIEW (2013–2025)
Alessandra TOSTES Giovana Goretti Feijó ALMEIDA	Porto University Leiria University	INTERNATIONAL QUALITY AND ADMINISTRATIVE TRANSPARENCY IN THE EVALUATION OF NEW SCHENGEN MEMBERS: IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT
Lali SRESELI	Gori State University	INNOVATIVE MODELS OF CREATIVE TOURISM AND THEIR IMPACT ON REGIONAL ECONOMIC DEVELOPMENT
Milica NIČIĆ Dragan ĐURANOVIĆ Ivan ARNAUTOVIĆ Slobodan POPOVIĆ	Vocational Studies Academy	THE BASIS OF THE FUNCTIONING OF A DEFINED INTERNAL AUDIT THAT APPLIES IT TECHNOLOGIES IN ITS WORK
Milica NIČIĆ Dragan ĐURANOVIĆ Ivan ARNAUTOVIĆ Slobodan POPOVIĆ	Vocational Studies Academy	THE IMPORTANCE OF INTRODUCING ETHICAL BUSINESS IN THE WORK OF INTERNAL AUDIT WHICH IMPLEMENTES IT BUSINESS SYSTEMS AND DIGITALIZATION PROCESSES
Bhavana BHARDWAJ Anurag SHAKYA	Mangalayatan University	IMPACT OF ARTIFICIAL INTELLIGENCE IN TRANSFORMATION OF HUMAN RESOURCE MANAGEMENT WITH REFERENCE TO SELECTED IT COMPANIES OF UTTAR PRADESH
Bhavana BHARDWAJ Anurag SHAKYA	Mangalayatan University	AI-POWERED TRANSFORMATION OF HR PRACTICES: A STUDY ON IT COMPANIES IN UTTAR PRADESH
Ibrahim Kolapo YUSUF	The Federal Polytechnic	IN-SERVICE TRAINING AND EMPLOYEE PRODUCTIVITY: AN EMPIRICAL ANALYSIS OF ORGANISATIONAL PERFORMANCE



ONLINE PRESENTATIONS

25.04.2026 / Session-1, Hall-4



ANKARA LOCAL TIME: 10⁰⁰ : 12⁰⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Dr. Yalpi KARTHIK

AUTHORS	AFFILIATION	TOPIC TITLE
Mammadova ULKAR Talibov TARIYEL Movsumova NURI	Nakhchivan State University	SCIENTIFIC ASSESSMENT OF CONSERVATION PROSPECTS OF CERTAIN SPECIES BELONGING TO THE SUBFAMILY VALERIANOIDEAE RAF. IN THE NAKHCHIVAN AUTONOMOUS REPUBLIC UNDER CONDITIONS OF GLOBAL CLIMATE CHANGE
Natavan BAKHSHALIYEVA Zeynepnur ALEMDAĞ Murat Erdem GÜZEL	Baku State University Karadeniz Technical University	ASSESSMENT OF GENETIC POLYMORPHISM IN DIOSPYROS KAKI USING ISSR MARKERS IN AZERBAIJAN
Yalpi KARTHIK Kalpana NANJAREDDY Manoj-Kumar ARTHIKALA	Mexico University (UNAM)	CRK44-MEDIATED SIGNALING IN PHASEOLUS VULGARIS: A MOLECULAR SWITCH BETWEEN MYCORRHIZAL SYMBIOSIS AND PATHOGEN-TRIGGERED IMMUNITY
Muqadas Zhijia FANG	Guangdong Ocean University	STATUS OF PHAGE-DERIVED ENZYBIOTICS AS NEXT-GENERATION AGENTS IN VIBRIO KILLING
Shubham SHARMA Sunil GUPTA	Mangalayatan University	FORMULATION AND EVALUATION OF NANOEMULGEL CONTAINING TEA TREE OIL AND TURMERIC OIL FOR THE TREATMENT OF FUNGAL INFECTION
Shubham SHARMA Sunil GUPTA	Mangalayatan University	DEVELOPMENT AND EVALUATION OF NANOEMULGEL FOR FUNGAL INFECTION USING TEA TREE AND TURMERIC OIL
Anhar Faisal FANANI Nurul FAJRIH	Mulawarman University	GROWTH DYNAMICS AND LEAF BIOMASS PRODUCTION OF CASSAVA UNDER REPEATED PRUNING FOR ANIMAL FEED OPTIMIZATION
Abed ZOULIKHA Lachabi ABDELHADI Laid ABDELALI Malki FAIZA Abid HAMZA	Sidi Bel Abbes University Boumerdes University	FIRST-PRINCIPLES STUDY OF THE EFFECT OF BORON CONCENTRATION ON THE ELECTRONIC PROPERTIES OF $TL_{1-x}B_xN$ ALLOYS USING THE MBJ-GGA APPROACH WITH SPIN-ORBIT COUPLING
Jumoke Florence JODA Oluwafemi Adebayo OYEWOLE Isiaka Adedayo ADELERE Abdulasheed Olakunle OJUTIKU	Federal University	THE POTENTIALS OF PROBIOTIC SUPPLEMENTED FEEDS ON THE GROWTH AND HEALTH OF AFRICAN CATFISH (<i>Clarias gariepinus</i>)
Raisa N. Ranjani S. S. HEMALATHA	B.S. Abdur Rahman Crescent Institute	EXTRACTION AND CHARACTERIZATION OF PECTIN FROM CITRUS PEELS FOR EXTENDING THE SHELF LIFE OF FRUITS
Rajaa DIANY	Sultan Moulay Slimane University Chouaib Doukkali University	CHEMICAL STRUCTURE MODIFICATION OF PHENYLAZONAPHTHALENE-BASED AZO DYES FOR IMPROVED PHOTOVOLTAIC PROPERTIES IN DSSC APPLICATIONS: A DFT AND TD-DFT INVESTIGATION



ONLINE PRESENTATIONS

25.04.2026 / Session-1, Hall-5



ANKARA LOCAL TIME: 10⁰⁰ : 12⁰⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Prof. Dr. Alin Stelian CIOBICA

AUTHORS	AFFILIATION	TOPIC TITLE
Gheorghe GIURGIU Manole COJOCARU	Deniplant-Aide Sante Medical Center Titu Maiorescu University	NATURAL MODULATION OF THE GUT MICROBIOTA IN PATIENTS WITH FOOD ALLERGIES. IMPACT OF ALERGIPLANT
Balasubramani G. L. Rinky RAJPUT Manish GUPTA Pradeep DAHIYA Jitendra K THAKUR Rakesh BHATNAGAR Abhinav GROVER	Jawaharlal Nehru University 3Banaras Hindu University	STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS
Maria CIUBOTARU Alin Stelian CIOBICA	Alexandru Ioan Cuza University Apollonia University	THE GUT MICROBIOME AS AN EMERGING BIOMARKER IN THE EARLY DIAGNOSIS OF NEURODEGENERATIVE DISEASES
Aliza NAEEM Muhammad Bilal HUSSAIN Marwa WAHEED Farhan SAEED Bushra NIAZ Ali IMRAN	Government College University Riphah International University	NUTRITIONAL AND PHARMACOLOGICAL CHARACTERISTICS OF LAVENDER (LAVANDULA ANGUSTIFOLIA): A DETAILED REVIEW
Saemira DURMISHI Rezarta LALO Shkëlqim HIDRI Mitilda GUGU	Ismail Qemali University	ASSESSMENT OF HEALTH-RELATED BEHAVIORS AMONG PREGNANT WOMEN
Mariami MANAGADZE	Tbilisi State Medical University	THE PROBLEM OF MICROPLASTICS IN ENVIRONMENTAL MEDICINE
Bisela ASLLANAJ Suzana GJECI	Dental Clinic Smile Now Medical University	DENTAL ANXIETY AND PANIC
Gentjan ASLLANAJ Fatime ELEZI	Medical University	PHYSICAL COMORBIDITIES IN SCHIZOPHRENIA
Yoana Yoncheva	Medical University	APPLICATION OF GREEN NANOTECHNOLOGY IN MALARIA TREATMENT



ONLINE PRESENTATIONS

25.04.2026 / Session-1, Hall-6



ANKARA LOCAL TIME: 10⁰⁰ : 12⁰⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Dr. Enkelejda BILLA

AUTHORS	AFFILIATION	TOPIC TITLE
Ananda MAJUMDAR	Independent Researcher	NAVIGATING TURBULENCE: UNDERSTANDING CRISES IN THE MEDIEVAL AND EARLY MODERN WORLD
Ananda MAJUMDAR	Independent Researcher	THE ROLE OF IMAGINATION IN CHILDREN'S UNDERSTANDING OF LIGHT
Moldir BAKHYT Serikbay TUZELBAY Adil KHARIFOLLA Kairat AUGAMBAYEV	Al-Farabi Kazakh National University	ASSESSING URBAN DEVELOPMENT IN TALDYKORGAN CITY USING VEGETATION AND BUILT-UP INDICES (1996–2025)
VORONEANU-POPA Rareş-Vasile CONSTANTINESCU Richard	"Grigore T. Popa" University	MEDICAL MALPRACTICE INSURANCE: A CRITICAL PERSPECTIVE ON INSURANCE CONTRACT CLAUSES
Quang Ngoc LE Dieu Huyen HO	Vietnam Academy Of Social Sciences South Asian Institute	UNDERSTANDING YOUTH PERCEPTIONS OF DIGITAL PUBLIC SERVICE APPLICATIONS IN VIETNAM'S DIGITAL TRANSFORMATION CONTEXT
Quang Ngoc LE Dieu Huyen HO	Vietnam Academy Of Social Sciences South Asian Institute	QUALITY OF LIFE AND SUSTAINABLE DEVELOPMENT IN VIETNAM: ECONOMIC PERFORMANCE, SOCIAL PROGRESS AND EMERGING STRUCTURAL CONSTRAINTS
Nguyễn Khánh Hùng	Thu Dau Mot University	LEGAL PROVISIONS OF VIETNAMESE LAW ON DEEPFAKE
Sureyya YIGIT	New Vision University	EARTHQUAKE LESSONS FROM 2011 TŌHOKU
Ameilia Zuliyanti SIREGAR	Sumatera Utara University	EMPOWERING DIFABEL FOR INNOVATION IN THE AGRICULTURAL SECTOR (HYDROPONICS AND VERTICAL CULTIVATION) IN MEDAN, NORTH SUMATRA, INDONESIA
Mohsin KHAN Mohammad PARVEJ Athar Ali KHAN	Aligarh Muslim University	BAYESIAN APPROACHES TO FLEXIBLE HAZARD MODELING FOR SURVIVAL DATA WITH TIME-VARYING COVARIATES IN STAN
Abdelfattah ABOULFARAJ Abdelhalim TABIT Abdelmalek GOUMIH	Cadi Ayyad University	STRUCTURAL INHERITANCE AND OROGENIC EVOLUTION OF THE OUZELLARH (HIGH ATLAS, MOROCCO)
Enkelejda BILLA	Ismail Qemali University	VLORA 1912: ALBANIAN STATE FORMATION BETWEEN NATIONALISM AND INTERNATIONAL REALPOLITIK



ONLINE PRESENTATIONS

25.04.2026 / Session-2, Hall-1



ANKARA LOCAL TIME: 12³⁰ : 14³⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. İrfan UÇKAN

AUTHORS	AFFILIATION	TOPIC TITLE
Mahmut Ziya DURAL Kübra ORTAKAYA Melih Gaffar GÖZÜKARA Dilek ÖZTAŞ Ergün ERASLAN	Ankara Yıldırım Beyazıt University	NOISE-INDUCED HEARING LOSS IN THE METALWORKING SECTOR: FREQUENCY, RISK FACTORS, AND PREVENTIVE APPROACHES
Kübra ORTAKAYA Mahmut Ziya DURAL Melih Gaffar GÖZÜKARA Dilek ÖZTAŞ Ergün ERASLAN	Ankara Yıldırım Beyazıt University	LEVEL-BASED DISASTER AND EMERGENCY MANAGEMENT STRUCTURES
Aytekin ÇELİK Ekrem AYDIN Mustafa YEGİN	Fırat University Munzur University	SCALABLE FABRICATION AND TECHNO-ECONOMIC ANALYSIS OF $Ti_4N_3T_x$ MXENE-BASED COMPOSITE MEMBRANES
Nurullah GÖZET Mustafa YEGİN Aytekin ÇELİK	Fırat University	ECONOMIC EVALUATION AND PROCESS OPTIMIZATION OF Ti_3CNTx MXENE SYNTHESIS AND POLYMER-BASED MEMBRANE FABRICATION
İrfan UÇKAN	Van Yüzüncü Yıl University	THE USE OF PHASE CHANGE MATERIALS (PCMS) IN COOLING LITHIUM-ION BATTERIES
Melih ÇİÇEK Bahadır Erol ÜNAL Yunus YALMAN MOEİN ATTAR	Ankara Yıldırım Beyazıt University	DESIGN AND CONTROL OF PV-POWERED INDUCTIVE WIRELESS POWER TRANSFER SYSTEM
Zafer KURT Muhammed Emin TOPAL	Recep Tayyip Erdoğan University	PRELIMINARY STUDY ON A NATURAL POZZOLANIC SOURCE: A BANANA PEEL SAMPLE
Tarık BAYDAR Ekrem AYDIN Naim ASLAN	Munzur University	STRUCTURAL AND MORPHOLOGICAL INVESTIGATION OF HYDROTHERMALLY SYNTHESIZED Cr_2O_3 AND Nd-DOPED Cr_2O_3 NANOPOWDERS



ONLINE PRESENTATIONS

25.04.2026 / Session-2, Hall-2



ANKARA LOCAL TIME: 12³⁰ : 14³⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc.Prof. Dr. Metin KILINÇ

AUTHORS	AFFILIATION	TOPIC TITLE
Halil İbrahim AKBAY	Yüzüncü Yıl University	CURRENT BIOCHEMICAL MARKERS IN REGULATED CELL DEATH PATHWAYS: NEW DIAGNOSTIC APPROACHES FROM APOPTOSIS TO DISULFIDPTOSIS
Halil İbrahim AKBAY	Yüzüncü Yıl University	THERANOSTIC BIOCHEMISTRY IN ONCOLOGY: CDX AND LIQUID BIOPSY
Menekşe ERGÜL Ümran SEVİL	Harran University Hasan Kalyoncu University	FACTORS AFFECTING WOMEN'S PREFERENCE FOR CESAREAN BIRTH AND THE ROLE OF THE NURSE
Menekşe ERGÜL Ümran SEVİL	Harran University Hasan Kalyoncu University	BODY IMAGE IN WOMEN AFTER BREAST CANCER SURGERY AND NURSING APPROACHES
Zeynep ÖZMEN Hacer ALATAŞ	Malatya Turgut Özal University	THE EFFECT OF INTERMITTENT FASTING ON METABOLIC HEALTH
Ayşenur YILDIZ Hacer ALATAŞ	Malatya Turgut Özal University	SUSTAINABLE NUTRITION MODELS AND THEIR IMPACT ON PUBLIC HEALTH
Metin KILINÇ	Mardin Artuklu University	ACUTE CEREBRAL ISCHEMIC LESIONS ASSOCIATED WITH CARBON MONOXIDE POISONING: A CASE REPORT
Huda AHMED ALİ AL-RAJABİ Hülya ŞENOL Şükrü TÜZMEN	Cyprus Health and Social Sciences University Eastern Mediterranean University	THE EFFECT OF NURSES' ATTITUDES TOWARD AI AND THEIR LEVELS OF AI-RELATED ANXIETY ON THEIR DIGITAL LEADERSHIP: A CASE OF : SAUDI ARABIA



ONLINE PRESENTATIONS

25.04.2026 / Session-2, Hall-3



ANKARA LOCAL TIME: 12³⁰ : 14³⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. Hicham MIZAB

AUTHORS	AFFILIATION	TOPIC TITLE
Moses Adeolu AGOI Oluwanifemi Opeyemi AGOI Samuel Olayiwola AJAGA Moyosore Oluwaferanmi OLAJUBE	Lagos State University Obafemi Awolowo University	DIGITAL SHARIAH: A COMPARATIVE ANALYSIS OF ISLAMIC FINANCIAL REGULATION AND INFORMATION TECHNOLOGY IN EMERGING ECONOMIES
Moses Adeolu AGOI Olajuwon Victor OLAYINKA Samuel Olayiwola AJAGA Victor Oluwapelumi OGONGO	Lagos State University Obafemi Awolowo University	REAL-TIME ACTION RECOGNITION IN SPORTS USING EDGE-BASED COMPUTER VISION
Habil Cristina Raluca Gh. POPESCU	The Bucharest University	KEY SUSTAINABLE TOURISM INITIATIVES IN ANATOLIA, TÜRKIYE: PARTNERSHIPS WITH UNITED NATIONS AND GLOBAL SUSTAINABLE TOURISM COUNCIL TO SUPPORT THE SUSTAINABLE DEVELOPMENT GOALS
Muhammad FAISAL	Allama Iqbal Open University	BLOCKCHAIN FOR TRANSPARENT SOCIAL PROTECTION SYSTEMS
Ulviyya MEHDIYEVA	Azerbaijan University	GLOBAL ENERGY TRANSITION AND AZERBAIJAN'S ECONOMIC INTEGRATION: GREEN ENERGY CORRIDORS AND DIVERSIFICATION STRATEGIES
Zahra ALIEVA	Azerbaijan State University Of Economics (UNEC)	EXCHANGE RATE FLUCTUATIONS AND FOREIGN TRADE: THEORETICAL FOUNDATIONS AND ANALYSIS
JAMES R. Nule BARIFE Loanyie Dennis OGUNLEYE A.D.	Federal University Rivers State University	DIGITALIZATION AND SMART PORT TECHNOLOGIES: A REVIEW ON IMPLICATIONS FOR EFFICIENCY AND GLOBAL TRADE
JAMES R. Nule IBETO Odinakachukwu Joseph	Federal University	MARITIME SAFETY AND COMMUNITY LIVELIHOODS: AN EVALUATION OF BOAT TRANSPORT ACCIDENTS IN BAYELSA STATE
ODU Adejare Samuel	The Federal Polytechnic Iloro	PUBLIC AFFAIRS BROADCASTING AND NA TIONAL DEVELOPMENT: THE NIGERIAN EXPERIENCE
Hicham MIZAB	Abdelmalek Essaâdi University	THE AUTOMOTIVE SECTOR AND ITS ROLE IN ENHANCING INDUSTRIAL ATTRACTIVENESS IN MOROCCO



ONLINE PRESENTATIONS

25.04.2026 / Session-2, Hall-4



ANKARA LOCAL TIME: 12³⁰ : 14³⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Dr. Shabir SIDHU

AUTHORS	AFFILIATION	TOPIC TITLE
Jatin SETHI Shabir SIDHU	I.K. Gujral Punjab Technical University	EFFECT OF SUGAR REPLACEMENT BY SUGAR ALCOHOLS ON THE TEXTURAL PROPERTIES OF CAKES: A SYSTEMATIC REVIEW AND META-ANALYSIS
Muhammad Haseeb Ahmad Laiba Riaz	Government College University	DEVELOPMENT OF BIOACTIVE AND INTELLIGENT BIODEGRADABLE PACKAGING FILMS FROM FRUIT PEEL WASTE
Dani Nur ARIFIN Anhar Faisal FANANI Kunaifi WICAKSANA	Mulawarman University	EVALUATION OF BUCK REPRODUCTIVE PRODUCTIVITY BASED ON KID BIRTH RECORDS IN SABURAI GOATS
Ayodele, M.A. Omotoso, A.B. Awolola, A.A.	Oyo State College	CLIMATE RISK AND SMALLHOLDER VULNERABILITY IN FOOD CROP PRODUCTION: A MULTILEVEL ANALYSIS OF HOUSEHOLD AND COMMUNITY-LEVEL DRIVERS IN NIGERIA
Aya Bouteldja Ali Haimoud Safia	Hassiba Benboudli University	THE PREVALENCE OF DENTAL CARIES AND ITS CORRELATION WITH DIETARY HABITS IN SCHOOLCHILDREN IN ALGERIA (CHLEF REGION)
Muhammad Arslan Ashraf Rizwan Rasheed	University of California Davi	DIFFERENTIAL EFFICACY OF TAURINE APPLICATION STRATEGIES IN ALLEVIATING CR(VI)-INDUCED PHYTOTOXICITY IN CHICKPEA
Muhammad Usman RASHEED	Agriculture University	SURFACE-ENHANCED RAMAN SPECTROSCOPY (SERS) BASED DETECTION OF LIVER DYSFUNCTION BIOMARKER USING SILVER NANOPARTICLES
Vandhana.K. Murugesan KAMARAJ	SRM Institute	ENVIRONMENT-RESISTENT ALGAL FEED FOR SUSTAINABLE FISH PRODUCTION
Muhammad Usama TAHIR Ali IMRAN Muhammad Umair ARSHAD Fareeha IJAZ	Melbourne University Government College University	INNOVATION AND NUTRITIONAL PROFILING OF HIGH- FIBER, SUGAR-FREE BURGER BUNS FROM WBF ZERO FLOUR
Buruiana ANDREEA	Ștefan cel Mare University	INTERSECTION BETWEEN EMERGING TECHNOLOGIES AND ENVIRONMENTAL LAW: GOVERNANCE OPPORTUNITIES AND REGULATORY CHALLENGES



ONLINE PRESENTATIONS

25.04.2026 / Session-2, Hall-5



ANKARA LOCAL TIME: 12³⁰ : 14³⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Prof.Dr. Moisoiu Roxana

AUTHORS	AFFILIATION	TOPIC TITLE
Sabrina ROGUAL	Abbes Laghrour University	SPRAY PYROLYSIS DEPOSITION AND CHARACTERIZATION OF ZNO AND LA-DOPED ZNO THIN FILMS FOR PHOTOCATALYTIC APPLICATIONS
Sabrina ROGUAL	Abbes Laghrour University	SYNTHESIS OF CUO NANOPARTICLES FOR ENHANCED PHOTOCATALYTIC DEGRADATION OF METHYLENE BLUE IN ADDRESSING URBAN POLLUTION CHALLENGES (WATER, SOIL, AND AIR)
Sumayya Akram Matloob Ahmad Sana Aslam	Government College University Women University	SYNTHESIS, COMPUTATIONAL AND EXPERIMENTAL EVALUATION OF COUMARIN-BENZAMIDE HYBRIDS AS POTENTIAL UREASE INHIBITORS
Shahzaib KHAN Soumaya GOUADRIA Abdullah G. AL-SEHEMI Abhinav KUMAR	Government College University Princess Nourah bint Abdulrahman University Ural Federal University The Islamic University	SYNTHESIS OF AN EFFECTIVE IRON MANGANESE OXIDE-COBALT OXIDE NANOCOMPOSITE ELECTRODE FOR ENERGY STORAGE SUPERCAPACITORS
Neha Berma Sachin Singh Parihar	Central University	ARTIFICIAL INTELLIGENCE AS A TOOL FOR ADVANCING CIRCULAR ECONOMY: AN ANALYSIS ON BIO MEDICAL WASTE MANAGEMENT
Yasmine GHRAIRI Chokri BAYOUDH Afifa MAJDOUB Taoufik BETTAIEB	Monastir University Carthage University	EVALUATION OF BIOSTIMULANT EFFECTS OF ROSEMARY AND THYME ESSENTIAL OILS ON IN VITRO MULTIPLICATION OF PEAR (<i>Pyrus communis</i> L.)
Sapna Anam	Government College University	A DYNAMIC THREE-DIMENSIONAL MODEL FOR MICELLAR DRUG SOLUBILIZATION AND EQUILIBRIUM BEHAVIOR
Hajar EL GANICH Omar Ben LENDA Omar EL RHAZOUANI Elmadani SAAD	Hassan 1st University	MAGNETIC PROPERTIES OF PEROVSKITE CERAMICS AFeO_3 ($\text{A} = \text{Bi, La}$) AND CaBO_3 ($\text{B} = \text{Mn, Ti}$) USING MONTE CARLO TECHNIQUES
Omisande, Lawrence ADEMOLA	The Federal Polytechnic Ilaro	EVALUATION OF THE MECHANICAL PROPERTIES OF CONCRETE CONTAINING PERIWINKLE WASTE DUST AS PARTIAL AGGREGATE REPLACEMENT
Moisoiu Roxana	German College	THE SYNERGY BETWEEN ARTIFICIAL INTELLIGENCE AND FORENSICS



ONLINE PRESENTATIONS

25.04.2026 / Session-2, Hall-6



ANKARA LOCAL TIME: 12³⁰ : 14³⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Asst. Prof. Dr. Müslüm GÜMÜŞ

AUTHORS	AFFILIATION	TOPIC TITLE
Fatma TURNA	Hakkari University	WAR TAX RESISTANCE: A TAX VIOLATION OR A SOCIAL REACTION?
Fatma TURNA	Hakkari University	COULD A WEALTH TAX BE A VIABLE SOLUTION TO CLIMATE CHANGE?
Ali Sırrı YILMAZ Mert CAN	Fırat University	THE ROLE OF LOCAL GOVERNMENTS IN BUILDING DISASTER-RESILIENT CITIES: THE CASE OF THE EASTERN ANATOLIA REGION
Müslüm GÜMÜŞ	Hakkari University	THE IMPACT OF POLITICAL DECISION-MAKING PROCESSES ON TAX POLICIES: AN ASSESSMENT OF TAX AMNESTIES
Pelin ÇOLAK GÜNDOĞDU	Independent Researcher	THE TRANSFORMATION OF RUSSIA'S ENERGY AND FOREIGN TRADE POLICIES AFTER 2014: SANCTIONS AND ECONOMIC INSTRUMENTS
Metin GÖKBAŞ	İstanbul Aydın University	DIGITAL CONSCIENCE IN DIGITAL MARKETING: A CONCEPTUAL REVIEW ON ETHICS, PRIVACY, AND TRUST



ONLINE PRESENTATIONS

25.04.2026 / Session-3, Hall-1



ANKARA LOCAL TIME: 15⁰⁰ : 17⁰⁰

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. Sefer OĞUZ

AUTHORS	AFFILIATION	TOPIC TITLE
Ümit YETİK	Bilecik Şeyh Edebali University	MAZHAR MÜFİT (KANSU) BEY AS THE VOICE OF HAKKÂRÎ IN THE FIRST GRAND NATIONAL ASSEMBLY PERIOD
İmge KUZGUN	İzmir Konak Vocational School	THE CRIMINAL LIABILITY OF THE APARTMENT MANAGER UNDER ARTICLE 136 OF THE TURKISH PENAL CODE AND ADMINISTRATIVE LIABILITY UNDER ARTICLE 18 OF THE PERSONAL DATA PROTECTION LAW WITHIN THE FRAMEWORK OF THE PERSONAL DATA PROTECTION BOARD'S PRINCIPLE DECISION NO. 2026/348: AN ASSESSMENT WITHIN THE FRAMEWORK OF THE "NE BIS IN IDEM" PRINCIPLE
Sefer OĞUZ	Yalova University	AN EVALUATION OF THE LEGAL PROTECTION OF CIVIL NAMES BASED ON EVOLVING AREAS OF USE LINKED TO ECONOMIC AND CULTURAL DEVELOPMENTS
Alaa MOURAD	Altınbaş University	ANALYSIS OF WOMEN'S RIGHTS AND HEALTH CARE IN SYRIA (2011–2023)
Marah Mohamed Albalah ABDELRAHMAN	Altınbaş University	VIOLENCE AGAINST WOMEN DURING WARS: SUDAN WAR (2023–PRESENT)
Zübeyde AY Tuncay YILMAZ	Sakarya University	THE EFFECT OF LEADERSHIP STYLES OF HUMAN RESOURCE MANAGERS ON ORGANIZATIONAL COMMITMENT DIMENSIONS: A STUDY ON HUMAN RESOURCE PROFESSIONALS
Özkan DENİZ Ömer TANYÜREK	Hakkari University	HAKKARÎ: IN THE TRAIL OF URARTU, AT THE HEART OF NATURE AN EVALUATION IN TERMS OF ARCHAEOLOGICAL HERITAGE AND CULTURAL TOURISM



ONLINE PRESENTATIONS

25.04.2026 / Session-3, Hall-2



ANKARA LOCAL TIME: 15⁰⁰ : 17⁰⁰

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc.Prof.Dr. Altun ALTUN

AUTHORS	AFFILIATION	TOPIC TITLE
Mahmut KUTLU	Hakkari University	HISTORICAL DEVELOPMENT OF TURKEY-BULGARIA RELATIONS AND THEIR CURRENT STATUS: THE EFFECT OF THE CUSTOMS FACTOR ON THE RELATIONS BETWEEN THE TWO COUNTRIES
Ece Lina AKGÜNDÜZ Altun ALTUN	Hakkari University	THE STRATEGIC USE OF SOCIAL MEDIA IN TURKISH FOREIGN POLICY WITHIN THE FRAMEWORK OF DIGITAL DIPLOMACY AND INTERNATIONAL IMAGE
Mehmet Batuhan KÜÇÜKCAN	Hakkari University	CYBER TERRORISM AND THE SHIFTING APPROACH TO INTELLIGENCE
Rıdvan ERİK Hilal ORHAN	Tarsus University	THE ROLE OF QUOTA SYSTEMS IN ADDRESSING INEQUALITIES IN POLITICAL REPRESENTATION: A COMPARATIVE ANALYSIS BASED ON THE CASES OF TURKEY AND RWANDA
Sibel CANAN İbrahim Faruk KURUKAYA	Hakkari University	BARRIERS TO THE IMPLEMENTATION OF CIRCULAR ECONOMY IN TURKIYE: A LITERATURE-BASED ANALYSIS
İbrahim Faruk KURUKAYA Sibel CANAN	Hakkari University	TURKIYE'S POSITION IN THE ECOLOGICAL FOOTPRINT LITERATURE: A COMPARATIVE REVIEW WITH GLOBAL LITERATURE



ONLINE PRESENTATIONS

25.04.2026 / Session-3, Hall-3



ANKARA LOCAL TIME: 15⁰⁰ : 17⁰⁰

ZOOM ID: 858 1117 0419

ZOOM PASSCODE: 080808

HEAD OF SESSION: Dr. Sagaya Aurelia P.

AUTHORS	AFFILIATION	TOPIC TITLE
Temilade, A. OLATUNJI Adamu Auwal, M.	The Federal Polytechnic	FINANCIAL MARKETS AND LITERARY IMAGINATION: THE REPRESENTATION OF ECONOMIC CONCEPTS IN POST-COLONIAL NIGERIAN LITERATURE
Temilade Afolasade OLATUNJI	The Federal Polytechnic	MORTALITY-THEMED LYRICS AND ARTIST MORTALITY: CULTURAL INTERPRETATION, PSYCHOLOGICAL EXPRESSION, AND COINCIDENCE IN POPULAR MUSIC
Sachin Yashvant JADHAV Nazim	JSPM University	LAPLACIAN SPECTRUM OF ANNIHILATOR GRAPH OF THE RING $\mathbb{Z}_n$
Fasil DESALEW	Wollo University	FRACTIONAL CALCULUS OPERATORS: BRIDGING MATHEMATICAL FOUNDATIONS AND PHYSICAL APPLICATIONS
El Habib BANOUISSSE M'hamed ELOMARI Aziz El GHAZOUANI	Sultan Moulay Slimane University	EXISTENCE, UNIQUENESS, AND STABILITY OF SOLUTIONS FOR NON-LINEAR SEQUENTIAL Ψ -CAPUTO FRACTIONAL DIFFERENTIAL EQUATION
Vasyl PUZANOV	National University Zaporizhzhia Polytechnic	ANATOLIAN HYPOTHESIS OF MODERN CHESS
Jacob EMMANUEL Durojaye, M.O. Ayinde Abdullahi MUHAMMED	Abuja University	MATHEMATICAL MODELLING AND ANALYSIS OF TUMOUR PROGRESSION WITH IMMUNE RESPONSE REGULATION
Samar Jamal Hassan MAHMOUD Noor Maizura Binti Mohamad NOOR Zuriana Abu BAKAR	Malaysia University	DESIGNING AN ADAPTIVE USABILITY MODEL FOR MOBILITY APPLICATIONS FOR VISUALLY IMPAIRED USERS
Pramila JOACHIM HARSHAVARDHANA Sagaya AURELIA P	Christ University	ARTIFICIAL INTELLIGENCE INNER TRANSFORMATION
Sagaya Aurelia P.	Christ University	IMMERSION TECHNOLOGY IN CARE FACILITIES



ONLINE PRESENTATIONS

25.04.2026 / Session-3, Hall-4



ANKARA LOCAL TIME: 15⁰⁰ : 17⁰⁰

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Ruslan SHEVERDIN

AUTHORS	AFFILIATION	TOPIC TITLE
Ruslan SHEVERDIN Victor KAZAKEVICH	Belarusian State University	FEATURES OF RENAL AND LUMBAR HEMODYNAMICS DURING MUSCLE CONTRACTION AND AFTER COFFEE INTAKE IN STUDENTS
Leonel FLORES Johannes JANZEN Lucas ALVES	Federal University of Mato Grosso do Sul (UFMS)	GREEN AND BLUE INFRASTRUCTURE AS ADAPTATION TECHNOLOGY: THE ROLE OF FLOODABLE PARKS AND BIOPHILIA IN PROMOTING URBAN MENTAL HEALTH
José Luis Díaz RUIZ Viviana Castellanos SUÁREZ Gloria Sarahi Osorio PÉREZ	Juárez Autonomous University Of Tabasco	AN EMPATHIC PROPOSAL FOR PSYCHOEDUCATION AND SUPPORT IN MENTAL HEALTH
Ankita CHOUDHARY	Ct Group of Institutions	CLINICAL DIAGNOSIS OF ENDOMETRIOSIS IN ASSOCIATION WITH NATURAL MICROFLORA
Viviane DASILVA Olimpia PINO Martina PERRONE	Parma University	TARGETING THE VAGAL BRAKE: TRANSCUTANEOUS VAGUS NERVE STIMULATION (TVNS) FOR PEDIATRIC ANXIETY AND DEPRESSION – A BIOPHYSICAL MODEL
Viviane DASILVA Olimpia PINO Ricardo FIDELLIS Renata NASSER	Parma University	HARMONIZING THE AUTISTIC BRAIN: PERSONALIZED TACS PROTOCOLS BASED ON THE I-FAI AND GOLDEN RATIO RESONANCE – MATHEMATICAL MODEL APPROACH
Viviane DASILVA Olimpia PINO Andre CUNHA Fernanda CASTRO	Parma University	HARMONISING ASYNCHRONOUS DEVELOPMENT: SYNERGISTIC TRNS AND VECTORIAL PYTHAGOREAN NEUROFEEDBACK IN TWICE EXCEPTIONAL (2E) CHILDREN
Pooja RASAL Gaurav KASAR	JES's SND College of Pharmacy Divine College of Pharmacy	PROTECTIVE EFFECTS OF SOME BIOACTIVE COMPOUNDS NEUROPATHY
Aisha A OHIEKU	Abuja University	STRENGTHENING PATIENT-CENTERED CARE DELIVERY THROUGH CULTURAL COMPETENCE IN NURSING PRACTICE: A SYSTEMATIC REVIEW
Taskeen FATIMA Anas RAZA	Hajvery University Lahore Garrison University	CORRELATION STUDY ON ETIOLOGICAL FACTORS OF HEART DISEASE IN DIABETIC PATIENTS IN LAHORE, PAKISTAN



ONLINE PRESENTATIONS

25.04.2026 / Session-3, Hall-5



ANKARA LOCAL TIME: 15⁰⁰ : 17⁰⁰

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Viktor SOPIHA

AUTHORS	AFFILIATION	TOPIC TITLE
Viktor SOPIHA Halyna Mamus	Ternopil National Pedagogical University	FORMATION OF SAFETY COMPETENCES OF STUDENTS IN TECHNOLOGY LESSONS
Sri Restu NINGSIH Wahyudi Rahmadini DARWAS Rusli SAPUTRA Ade Irma SURYANI Monanda Rio META Erdisna	Metamedia University Negeri Padang University	ADOPTION OF LEARNING TECHNOLOGY USING DIRECTED SELF-LEARNING (SDL) METHODS IN HIGHER EDUCATION
Seriyya ABIDOVA	Quba Genocide Memorial Complex	THE IMPORTANCE OF THE SILK ROAD IN THE FORMATION OF TURKIC CIVILIZATION
TALEBALI Khalid	Abdelmalek Essaadie University	THE STRUCTURED FORMS OF EXPERIMENTAL ACTIVITY IN THE MOROCCAN LIFE AND EARTH SCIENCES CURRICULUM: A VERTICAL ANALYSIS OF THEIR DISTRIBUTION AND IMPLICATIONS FOR THE INVESTIGATIVE APPROACH
Ajayi FARUK OMOKOLADE Agbor ENU	Federal University	THE ROLE OF FEMINISM IN CONTEMPORARY AFRICAN LITERATURE: A CASE-STUDY OF THE WORK "I HATE MEN" BY PAULINE HARMANGE.
Okewu Enenche ABRAHAM Agbor ENU	Federal University	CRITICAL ANALYSIS ON FEMINISM IN PAULINE HARMANGE « MOI LES HOMMES, JE LES DETESTE ».
John ADOLE Agbor ENU	Federal University	STRUGGLE AND RESISTANCE IN THE WORK OF OUSMANE SEMBEN: A CRITICAL VIEW OF "LES BOUTS DE BOIS DE DIEU »
OKORAFOR, U. AMUSA, S. O. AKINTUNDE K. F.	Yaba College	CHI-SQUARE ANALYSIS OF THE OPINION OF THE EFFECT OF CRAMPED ENVIRONMENT ON STUDENTS BEHAVIOUR AND ACADEMIC PERFORMANCE
Dinn Wahyudin Agus Sudarya Dandan Irawan	IKOPIN University	COOPERATIVE INTELLIGENCE: APPLYING THE VELOX ET EXACTUS PRINCIPLE FOR DATA-DRIVEN AND ACCOUNTABLE COOPERATIVE GOVERNANCE
Muhammad AFTAB Muhammad Ali RAZA Fareeha NOSHEEN Shahid ADEEL Kashaf ARZOO	Government College University	DATA VISUALIZATION APPROACHES FOR UNDERSTANDING MODEL BEHAVIOR IN THE TEXTILE INDUSTRY



ONLINE PRESENTATIONS

25.04.2026 / Session-3, Hall-6



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ZOOM PASSCODE: 080808

HEAD OF SESSION: Dr. Samia Moustaghfir

AUTHORS	AFFILIATION	TOPIC TITLE
Laura Maria Roznovan	Secondary School Zvoriștea	PSYCHOPEDAGOGY AND EDUCATIONAL COUNSELING – THEORETICAL LANDMARKS AND APPLICATIONS IN THE CONTEMPORARY EDUCATIONAL CONTEXT
Paola Andressa SCORTEGAGNA Daniel Teixeira dos Santos BRAZ Marsiel PACIFICO Maria Aparecida Crissi KNUPPEL	Mato Grosso do Sul State University (UEMS)	ACADEMIC EXCELLENCE AND REGIONAL DEVELOPMENT: AN ANALYSIS OF PARANÁ STATE UNIVERSITIES FROM THE PERSPECTIVE OF INNOVATION ECOSYSTEMS (2024-2025)
Saem OEUN Kimkong HENG Sereyrath EM	Cheasim Kamchaymear University Queensland University Paññāsāstra Cambodia University	FACTORS CONTRIBUTING TO STUDENTS' FAILURE IN THE ENGLISH SUBJECT IN NATIONAL GRADE 12 EXAMINATIONS IN CAMBODIA: A QUALITATIVE CASE STUDY
Bora PHAN	Cheasim Kamchaymear University	ENHANCING MATHEMATICS EDUCATION QUALITY: AN SEM ANALYSIS OF TEACHING SELF-EFFICACY, INSTRUCTIONAL BEHAVIORS, AND LEARNING MOTIVATION
Robraw ANN Pheareak SIN	Hun Sen Kang Tanoeng High School	IMPLEMENTING PROFESSIONAL LEARNING COMMUNITIES IN CAMBODIAN SECONDARY SCHOOLS: TEACHERS' PERCEPTIONS AND EMERGING CHALLENGES
Mireuță PETRONELA	Secondary School of Verești	THE TRANSFORMATION OF EDUCATION THROUGH NEW DIGITAL TECHNOLOGIES
Sarom REN	Cambodian University	CAMBODIAN EFL TEACHERS' PERCEPTIONS OF EDUCATIONAL LEADERSHIP IN INFLUENCING TEACHING PERFORMANCE: A CROSS-SECTIONAL STUDY
Violla MAKHZOUM Ghina NABIL ELZEIN Maria Bdadouni Abdel NOUR	Islamic University Saint Joseph University	ARTIFICIAL INTELLIGENCE AS A TRANSFORMATIVE FORCE IN ALIGNING GENERAL AND HIGHER EDUCATION: OPPORTUNITIES AND CHALLENGES
Ana Gorenca	Albania University	FROM COGNITIVE CONFLICT TO JUSTIFICATION: A MODERATED MEDIATION MODEL OF ACADEMIC CHEATING AMONG UNIVERSITY STUDENTS
Samia Moustaghfir Sakina Elkhatabi	Ibn Tofail University	COMMUNICATION AS PROFESSIONAL CAPITAL: AN EMPIRICAL GAP ANALYSIS IN BUSINESS ENGLISH



ONLINE PRESENTATIONS

26.04.2026 / Session-1, Hall-1



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HEAD OF SESSION: Prof. Dr. Mehmet YILDIRIM

AUTHORS	AFFILIATION	TOPIC TITLE
Kübra KALOŞ ERDOĞAN Hasan Serdar KAYA	Istanbul Technical University	MEASURING THE IMPACT OF ŞANLIURFA'S UNIQUE URBAN MORPHOLOGY ON URBAN MOBILITY USING THE SPACE SYNTAX METHOD
Merve BAYHAN Remzi ÖZKAN Yunus AKTAR Mehmet YILDIRIM	Dicle University Hakkâri University	GENOTYPE × IRRIGATION INTERACTIONS IN DURUM WHEAT UNDER HEAT STRESS: EFFECTS ON PHYSIOLOGICAL TRAITS AND YIELD
Remzi ÖZKAN Merve BAYHAN Hasip YAKAR Cuma AKINCI	Dicle University Hakkâri University	MITIGATING HEAT AND DROUGHT STRESS IN BREAD WHEAT: ROLE OF IRRIGATION AND GENOTYPIC DIFFERENCES UNDER LATE SOWING CONDITIONS
Nihal Başak UZUN	Yüzüncü Yıl University	MUSIC IN ANATOLIAN CIVILIZATIONS
Gülideniz GENÇTÜRK	Munzur University	THE SOCIOLOGICAL INFLUENCE OF THE TOPOGRAPHICAL STRUCTURE OF SOUTHEASTERN ANATOLIA ON LOCAL MUSIC FORMS
Bilge ÖZEL	MoNE	EXAMINING FOLK SONGS IN MUSIC TEXTBOOKS IN THE CONTEXT OF CULTURAL MEMORY



ONLINE PRESENTATIONS

26.04.2026 / Session-1, Hall-2



ANKARA LOCAL TIME: 10⁰⁰ : 12⁰⁰

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. Nilay KINAY CİVELEK

AUTHORS	AFFILIATION	TOPIC TITLE
Nilay KINAY CİVELEK	Hakkari University	READING THE MEM U ZİN MASNAVI AS BILDUNGSROMAN
Ahmet SAKİN Nazife Nur SUBATAN	Sakarya University	AN EXAMINATION OF PRESCHOOL TEACHERS' VIEWS ON SCIENCE ACTIVITIES THEY IMPLEMENT
Kader ENGİN İsa AYDEMİR	Hakkari University	THE ROLE OF EXERCISE ON MOTOR SKILLS AND SOCIAL BEHAVIORS IN CHILDREN WITH AUTISM
İshak KESKİN İsa AYDEMİR	Hakkari University	COMPARISON OF HEDONIC EATING BEHAVIORS BETWEEN SEDENTARY INDIVIDUALS AND ATHLETES FROM DIFFERENT SPORTS DISCIPLINES
Hülya ŞENOL Tutku KARAÖZ Beril ÖZAY	Cyprus Health and Social Sciences University	DIGITAL TRANSFORMATION IN EDUCATION: A COMPARISON OF SINGAPORE, JAPAN, AND THE TRNC
Ertuğrul GÜL	Hakkari University	EFFECTS OF CLIMATE CHANGE ON WATER RESOURCES
Ertuğrul GÜL	Hakkari University	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING APPLICATIONS IN ENVIRONMENTAL ENGINEERING



ONLINE PRESENTATIONS

26.04.2026 / Session-1, Hall-3



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ZOOM PASSCODE: 080808

HEAD OF SESSION: Assist. Prof. Dr. Ersin MENGEŞ

AUTHORS	AFFILIATION	TOPIC TITLE
Vural ÖNTÜRK	Van Yüzüncü Yıl University	THE STRAIT OF HORMUZ IN MEDIEVAL GEOGRAPHICAL SOURCES
Vural ÖNTÜRK	Van Yüzüncü Yıl University	MIGRATION ROUTES OF THE GREAT SELJUK EMPIRE FROM YENGİKENT TO MALAZGIRT
Serkan ERDOĞAN Mehmet Talha KALKAN	Hakkari University	PROVINCIAL BUREAUCRACY IN THE OTTOMAN EMPIRE: AN ANALYSIS OF GAZA-BORN OFFICIALS BASED ON SICILL-I AHVÂL REGISTERS
Mehmet Talha KALKAN Serkan ERDOĞAN	Hakkari University	TURKS IN IRELAND: AN ACCOUNT OF OTTOMAN PIRACY IN THE EARLY MODERN PERIOD
Ersin MENGEŞ	Hakkari University	FINANCIAL RATIOS OF COMPANIES AND PERFORMANCE ANALYSIS AND INVESTMENT DECISION EVALUATION: A STUDY ON MANUFACTURING COMPANIES TRADED ON BIST
Ersin MENGEŞ	Hakkari University	FINANCIAL LITERACY IN AN INFLATIONARY ENVIRONMENT: HOW SHOULD INDIVIDUALS BE PROTECTED?
Ercan BASKIN	Hakkari University	THE DOSKI TRIBE IN THE CONTEXT OF TRIBAL-POLITICAL RELATIONS
Pelin YOĞUN	Hakkari University	THE REPRESENTATION OF HAKKÂRÎ IN THE GRAND NATIONAL ASSEMBLY OF TURKEY DURING THE FIRST TRANSFER OF POWER IN THE MULTI-PARTY PERIOD (1950): THE CASE OF SELİM SEVEN



ONLINE PRESENTATIONS

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. Ayhan Yavuz ÖZDEMİR

AUTHORS	AFFILIATION	TOPIC TITLE
Ayhan Yavuz ÖZDEMİR	Hakkari University	GERMAN TEACHER CANDIDATES' PERCEPTIONS OF THE TEACHING PROFESSION LAW AND THE NATIONAL EDUCATION ACADEMY
Pervin BOZKURT Ömer YILMAZ	Hakkari University	EDUCATION AND GLOBALIZATION
Eda TAŞ Ömer YILMAZ	Hakkari University	THE ECONOMIC FOUNDATIONS OF EDUCATION
Ercan DEMİR	Hakkari University	A SOCIOLOGICAL EVALUATION OF CHILD CUSTODY PRACTICES AFTER DIVORCE: THE HAKKARI EXAMPLE
Yusuf TAN	Hakkari University	ACTION LOGIC AND ETHICAL RESPONSIBILITY: A THEORETICAL ANALYSIS OF NUEL BELNAP'S BRANCHING-TIME THEORY
Serdar YARCI Halil Emre DENİŞ	Hakkari University	ELECTION CAMPAIGNS AND SOCIAL MEDIA STRATEGIES



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ZOOM PASSCODE: 080808

HEAD OF SESSION: Assoc. Prof. Dr. Halil Emre DENİŞ

AUTHORS	AFFILIATION	TOPIC TITLE
Fırat KESKİN Abdullah YOLDAŞ Zeki KANDAŞOĞLU	Hakkari University	CHALLENGES AND SOLUTIONS IN ELT PRACTICUM ACROSS SCHOOLS
Fırat KESKİN Abdullah YOLDAŞ Zeki KANDAŞOĞLU	Hakkari University	ELT BETWEEN IDEALIZED MODERNITY AND LOCAL IDENTITY: CULTURAL HEGEMONY AND STRATEGIC APPROPRIATION
Esat KUZU	Hakkari University	INCLUSIVITY IN AI-GENERATED ELT MATERIALS: AN EXPLORATORY CONTENT ANALYSIS
Tahir YAŞAR	Hakkari University	FEMININE CHARACTERS IN HEMINGWAY'S "FOR WHOM THE BELL TOLLS"
Güleser KORKMAZER Cüneyt DİNÇER	Hakkari University	INTEGRATED USE OF PRINTED AND DIGITAL BOOKS IN FOREIGN LANGUAGE TEACHING: THE CASE OF GERMAN LANGUAGE INSTRUCTION
Hilal KAZU Kerem AKTAŞ	Fırat University	EXAMINATION OF HIGH SCHOOL STUDENTS' ACHIEVEMENT GOAL ORIENTATIONS IN TERMS OF VARIOUS VARIABLES
Barış DAYAN Halil Emre DENİŞ	Hakkari University	A COMPARISON OF INTERNATIONAL CRIMINAL COURTS IN TERMS OF THEIR BINDING NATURE
Abdilmecit TARHAN Halil Emre DENİŞ	Hakkari University	A PORTRAIT OF A STATESMAN: MAZHAR MÜFİT KANSU FROM THE NATIONAL STRUGGLE TO THE PARLIAMENT AND HIS DEPUTYSHIP OF HAKKÂRİ



ONLINE PRESENTATIONS

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Prof.Dr. Giovanni Barrera TORRES

AUTHORS	AFFILIATION	TOPIC TITLE
Giovanni Barrera TORRES Carlos Mario Gutierrez AGUILAR María I. Arias JARAMILLO	Institución Universitaria ITM	CIRCULAR ECONOMY APPLICATION ON RUBBER INDUSTRY
Derra MOURAD	Ibn Zohr University	ROBUST ULTRASONIC TRANSMISSION FOR ACCURATE SOC AND SOH ASSESSMENT IN REAL- WORLD LITHIUM BATTERIES
Derra MOURAD	Ibn Zohr University	ADVANCING WELD INTEGRITY EVALUATION WITH TIME-OF-FLIGHT DIFFRACTION ULTRASONICS IN HIGH-STRESS ENVIRONMENTS
Henrique Antonio Mendonça FARIA Rafael Alexandre Pinho LOPES	São Paulo State University	DEEP LEARNING FOR OPTIMISATION OF CATALYTIC REACTIONS IN CSTR REACTORS
Jogendra KUMAR Harshit BHANDARI Harshdeep GAUR Anuj CHAMOLI Vedansh TOMAR	GBPIET	DEVELOPMENT OF AN AI/ML BASED SOLUTION FOR THE DETECTION OF FACE-SWAP BASED DEEPFAKE VIDEOS
Jogendra KUMAR Uttkarsha JOSHI Ankur BAHUGUNA Nitesh Singh BISHT Sourabh KUMAR Ishika BAGORIA	GBPIET	DEEP LEARNING-BASED ROAD SURFACE DAMAGE DETECTION: CNN AND SEMI- SUPERVISED SEMANTIC SEGMENTATION
Abirami V. Chinmayee B. Dhanusri R. S. R.Monica LAKSHMI	R.M.D Engineering College	GESTURE CONTROLLED CAR USING MEMS SENSOR AND IOT
Adaikkammai . A. Madhurya V. Dhip Jyoshika M. Jahnavi R.	R.M.D. Engineering College	IOT BASED REFRIGERATOR WITH SMART EXPIRY SCANNER
Dmytro HRYTSENKO Dmytro KHOLIIVINSKYI	Igor Sikorsky Kyiv Polytechnic Institute	KINEMATIC ANALYSIS AND OPTIMIZATION OF THE FOREGRIPPER MECHANISM IN HIGH-SPEED SHEET-FED OFFSET PRINTING MACHINES
Dilshath Fathima I. Priyadharshni S. Sajith Mubashir S. A. Senthil Murugan R. Hannah Lalitha R.	B.S. Abdur Rahman Crescent Institute	DESIGN AND REAL-TIME VALIDATION OF A THREE-PORT DUAL ACTIVE BRIDGE CONVERTER FOR EV CHARGING APPLICATIONS



ONLINE PRESENTATIONS

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HEAD OF SESSION: Assoc. Prof. Dr. Ayşe ERTUŞ

AUTHORS	AFFILIATION	TOPIC TITLE
Ali Yiğit Selçuk YORULMAZ	Hakkari University	REMOTE SENSING-BASED EARTHQUAKE DAMAGE ASSESSMENT: A BIBLIOMETRIC ANALYSIS
Selçuk YORULMAZ Ali Yiğit	Hakkari University	A BIBLIOMETRIC ANALYSIS OF LIDAR AND PHOTOGRAMMETRY-BASED BUILDING AND INFRASTRUCTURE APPLICATIONS
İlhami AY Yunus BAŞARAN	Hakkari University	BIM-IOT INTEGRATION IN CONSTRUCTION AND ARCHITECTURE: A BIBLIOMETRIC ANALYSIS OF EMERGING DIGITAL PRACTICES
Yunus BAŞARAN İlhami AY	Hakkari University	DIGITAL TWIN APPLICATIONS IN URBAN REGENERATION: A BIBLIOMETRIC ANALYSIS AND RESEARCH AGENDA
Güneş ÇİL	Van Yüzüncü Yıl University	TILKITEPE HALAF CULTURE HORIZON POTTERY: AN ASSESSMENT OF THE DISTRIBUTION AROUND LAKE VAN IN THE LIGHT OF TYPOLOGY AND DECORATION
Ayşe ERTUŞ	Hakkari University	TRACES OF HIS LIFE IN HASAN HÜSEYİN KORKMAZGİL'S CHILDREN'S BOOKS
Elif AKGÜL YILMAZ	Hakkari University	A LINGUISTIC ANALYSIS OF 'HİKÂYE-I BÎ-NAMÂZ'



ONLINE PRESENTATIONS

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HEAD OF SESSION: Assist. Prof. Dr. Feyat KAYA

AUTHORS	AFFILIATION	TOPIC TITLE
Zöhre KAYA Ferdi YAĞAN Mehmet Nuri EREN	Van Yüzüncü Yıl University Yüksekova Science and Art Center Batman University	EXAMINING THE EFFECT OF LIFE GOALS ON CAREER INDECISION IN HIGH SCHOOL STUDENTS
Zöhre KAYA Ferdi YAĞAN Osman Melik Gazi DAĞ	Van Yüzüncü Yıl University Yüksekova Science and Art Center MoNE	EXAMINATION OF ACADEMIC MOTIVATION PROFILES BASED ON HIGH SCHOOL STUDENTS' PERCEPTIONS OF SCHOOL CLIMATE
İshak GÖÇ Ali Arvan TOZUN Yusuf Hamza ÇEVİK	Yüksekova Science and Art Center	THE EFFECTIVENESS OF DIGITAL GAMES IN INCREASING THE ACHIEVEMENT OF 6TH GRADE STUDENTS IN THE TOPIC OF DIVISIBILITY RULES
İshak GÖÇ Musab Kadir GELİNCİK Vezir AYBAR	Yüksekova Science and Art Center	SPECIAL EDUCATION ADAPTATION PROGRAM (SEAP): A CASE STUDY ON THE SOCIAL ACCEPTANCE OF INDIVIDUALS WITH SPECIAL NEEDS
Hülya ŞENOL Aynur KILIÇ	Cyprus Health And Social Sciences University	THE IMPACT OF SCHOOL PRINCIPALS' DIGITAL LEADERSHIP SKILLS ON CRISIS MANAGEMENT PRACTICES AND SCHOOL EFFECTIVENESS
Feyat KAYA	Hakkari University	A BIBLIOGRAPHIC ANALYSIS OF GRADUATE THESES FOCUSING ON PROBLEM BEHAVIORS IN INDIVIDUALS WITH AUTISM SPECTRUM DISORDER IN TÜRKİYE
Fecri YAVİ	Hakkari University	MULTIPLE MORPHOLOGICAL AND SEMANTIC USES OF ARABIC DERIVED WORDS IN KAZAN TATAR AND TURKISH
Fecri YAVİ	Hakkari University	THE ROLE AND TRACES OF CENTRAL ASIAN LEXICON AND SHARED TURKIC CULTURE IN THE TURKISH LANGUAGE REFORM



ONLINE PRESENTATIONS

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ZOOM PASSCODE: 080808

HEAD OF SESSION: Prof. Dr. Fevzi ÖZGÖKÇE

AUTHORS	AFFILIATION	TOPIC TITLE
Mustafa AKKUŞ Adem Sezai BOZAOĞLU	Van Yüzüncü Yıl University	POLLUTION CAUSED BY RECREATIONAL FISHING IN ZAP STREAM AND ITS EFFECTS ON THE ECOSYSTEM
Fevzi ÖZGÖKÇE Fatma AYTEKİN POYRAZ	Van Yüzüncü Yıl University	A NEW MODEL FOR SUSTAINABLE BIODIVERSITY: INTEGRATION OF IUCN CRITERIA AND ISLAMIC LAW
Fevzi ÖZGÖKÇE Mehmet Bayram KİRAZLI	Van Yüzüncü Yıl University	EVALUATION OF FAMILY IDENTIFICATION KEYS IN THE ILLUSTRATED FLORA OF TÜRKİYE FOR LANDSCAPE ARCHITECTURE
Fevzi ÖZGÖKÇE Elif YAMAN	Van Yüzüncü Yıl University	ETHNOBOTANICAL APPROACH AGAINST VITILIGO DISEASE: Gundelia L. TAXA



ONLINE PRESENTATIONS

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HEAD OF SESSION: Assist. Prof. Dr. Umut YILMAZ

AUTHORS	AFFILIATION	TOPIC TITLE
Şeyda ÇAVMAK	Çağ University	SUSTAINABLE HEALTH POLICIES IN REDUCING REGIONAL HEALTH INEQUALITIES: AN EVALUATION OF THE EASTERN ANATOLIA REGION
Adem BİLGİN Doğancan ÇAVMAK	Çağ University Tarsus University	COMPLEMENTARY HEALTH INSURANCE AS A NEW REVENUE MODEL IN PRIVATE HEALTH CARE MANAGEMENT: A CONCEPTUAL ANALYSIS
Yadigar AKYÜZ Hicran HAMZA ÇELİKAY	Düzce University	FUNCTIONING, EFFICIENCY AND COMPARATIVE ANALYSIS OF FAMILY MEDICINE SYSTEMS IN TURKIYE AND GERMANY
Mürşit AKSOY Rojin Şeval TANSU	Hakkari University	THE EFFECT OF OFF-SEASON DRY-LAND TRAINING ON ATHLETIC PERFORMANCE AND INJURY RISK IN ALPINE SKIING
Umut YILMAZ	Hakkari University	THE HOLISTIC EFFECT OF EXERCISE ON HUMAN PHYSIOLOGY: CARDIOVASCULAR, BIOCHEMICAL, AND MORPHOLOGICAL ADAPTATIONS
Umut KAZAK Umut YILMAZ	Hakkari University	THE USE AND APPLICATION AREAS OF WEARABLE TECHNOLOGIES IN EXERCISE TRACKING



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ZOOM PASSCODE: 080808

HEAD OF SESSION: Asst.Prof. Dr. Kanchi Ravi PADMA

AUTHORS	AFFILIATION	TOPIC TITLE
Brenda Florêncio Oliveira COSTA	Federal University of Mato Grosso do Sul (UFMS)	GOOGLE EARTH ENGINE APPLIED TO THE SPATIO-TEMPORAL ANALYSIS OF METEOROLOGICAL DROUGHT AND CMIP6 PROJECTIONS
Wodu Douye PERE-ERE	Federal Polytechnic Ekowe	LAND USE DYNAMICS AND ENVIRONMENTAL DEGRADATION
Ramona-Alexandra Ciausiu Ionut-Alexandru Chelaru Dorel Ureche Andrei-Gabriel Andronic Nicoleta Popa Alin-Stelian Ciobica Mircea Nicusor Nicoara	Alexandru Ioan Cuza" University Vasile Alecsandri Bacau University Apollonia University	BEHAVIORAL RESPONSES OF ZEBRAFISH TO CEFTAZIDIME, POLYPROPYLENE MICROPLASTICS, AND THEIR MIXTURE
Kanchi Ravi PADMA	Women's University	BIOLOGICAL INNOVATIONS IN COMBATING PLASTIC POLLUTION: THE ROLE OF PET-DEGRADING BACTERIA
Sanjay KUMAR Pintu DAS	Sarala Birla University	A GENERALIZED ADVECTION-DISPERSION MODEL WITH TIME-DEPENDENT FLOW FOR GROUNDWATER CONTAMINANT TRANSPORT
Maria Francisca MARCELINO	NOVA Law School	THE WASTE TRADE TRAP: MYTHS AND REALITIES OF WASTE COLONIALISM
AIT OUJALLAL Ilham BOUDRAHAM Salima MOUSSADIK Ali MABROUKI Jamal ABROUKI Younes	Mohammed V University	RENEWABLE ENERGY OPTIONS FOR POWER GENERATION AND DESALINATION: THE STATE-OF-THE-ART AND OPPORTUNITIES
BOUDRAHAM Salima AIT OUJALLAL Ilham ANOZLA Abdelkader MABROUKI Jamal ABROUKI Younes	Mohammed V University	SUSTAINABLE MATERIALS AND SYSTEMS FOR WATER DESALINATION: TECHNOLOGIES, APPLICATIONS, AND INNOVATIONS
Aasma HASHMI	Jinnah University	EVALUATION OF THERMAL DESALINATION PERFORMANCE UNDER VARYING ENVIRONMENTAL CONDITIONS
Nazmul Hasan ARFIN Nishat Ara SHARMIN	Sylhet Agricultural University	EFFECT OF SEAWEED ENRICHED HUMIC ACID ON GROWTH AND YIELD OF BT. BRINJAL (SOLANUM MELONGENA L.)



ONLINE PRESENTATIONS

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HEAD OF SESSION: Prof.Dr. Daniel Roque GOMES

AUTHORS	AFFILIATION	TOPIC TITLE
Amin BERRI Ahmad HAYEK	Islamic University	SMART GOVERNANCE IN THE AGE OF ARTIFICIAL INTELLIGENCE: TRANSFORMING ACCOUNTING AUDITING TOWARD GREATER TRANSPARENCY AND ACCOUNTABILITY
George SALIBA Sélim MEKDESSI Gregory WEGMANN	Lebanese University Burgundy Europe University	FROM MOTIVATION TO PERFORMANCE IN NGOs: A MULTIDIMENSIONAL MODEL OF ORGANIZATIONAL COMMITMENT
Elena MAKDISSI Cendrella ABOU FAYAD Gregory WEGMANN	Lebanese University Burgundy Europe University	BEHAVIORAL BIASES AND ENTREPRENEURIAL DECISION-MAKING IN TIMES OF CRISIS: A CONCEPTUAL MODEL FOR LEBANESE STARTUPS
Eduardo ORTEGA	Coimbra University	THE EFFECT OF GREEN HUMAN RESOURCE MANAGEMENT ON ORGANIZATIONAL INNOVATION PERFORMANCE
Daniel Roque GOMES Vanda Asseiro GOMES Eduardo ORTEGA Gabriela Pedro GOMES Neuza RIBEIRO	Coimbra University	RETAIN, PERFORM, SUSTAIN: EXPLORING THE TRIPLE PROMISE OF SUSTAINABLE HUMAN RESOURCE MANAGEMENT
Khalid USMAN Deniel Roque GOMES	Naples University Coimbra University	IMPACT OF GHRM ON SUSTAINABILITY WHILE TAKING AI AS A MODERATOR
Gabriela Pedro GOMES Neuza RIBEIRO Daniel Roque GOMES Eduardo ORTEGA André Matos PEREIRA Vanda Asseiro GOMES	Coimbra University	HOW INCLUSIVE LEADERSHIP ACTIVATES EMPLOYEE OUTCOMES
Truong Chanh ĐUC	Politics Region IV Academy	DIGITAL DIALOGUE RIGHTS OF CITIZENS IN CONTEMPORARY PUBLIC GOVERNANCE: FROM THEORETICAL FRAMEWORKS TO LEGAL REFORM REQUIREMENTS BASED ON PRACTICES IN THE MEKONG DELTA
Diriba Andasha DURESSO Parmjit Kaur GILL	Punjabi University	TOWARDS PRAGMATIC FEDERALISM: A COMPARATIVE STUDY OF FEDERAL TRAJECTORIES IN INDIA AND ETHIOPIA
Kazeem Damola ARIJE	The Federal Polytechnic	IMPACT OF FOREIGN PORTFOLIO INVESTMENT ON STOCK MARKET PERFORMANCE IN NIGERIA

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PERFORMING AUTHENTICITY: SELF-PRESENTATION AND EMOTIONAL LABOR ON SOCIAL PLATFORMS

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ABSTRACT

Authenticity has become a central currency in social media culture, where credibility and social visibility often depend on appearing genuine and relatable. However, authenticity is not simply a natural expression of the self; it involves complex processes of emotional labor and identity performance. Users must present themselves as sincere while simultaneously adapting to algorithmic systems, audience expectations, and platform norms. This paper examines how users perform authenticity within algorithmically curated environments and explores the emotional labor required to sustain credible online personas. The study integrates theoretical perspectives from performance studies, digital sociology, and platform studies in order to analyze both structural and psychological dimensions of authenticity. Particular attention is given to how platform features and visibility metrics such as likes, shares, and comments influence perceptions of sincerity and trustworthiness. Rather than being a stable personal trait, authenticity emerges as a negotiated practice shaped by technological conditions and social expectations. Empirically, the research relies on in-depth qualitative interviews and digital ethnographic observations across multiple social media platforms. The findings indicate that users adopt various emotional strategies, including selective self-disclosure and controlled self-presentation, in order to appear authentic while managing social risks. Results show that authenticity is a performative practice shaped by platform affordances and audience feedback. These practices influence identity construction, social capital formation, and emotional accountability in digital environments.

Keywords: Authenticity, emotional labor, identity performance, platform affordances, social media culture.

ÖZGÜNLÜĞÜN PERFORMANSI: SOSYAL MEDYA PLATFORMLARINDA BENLİK SUNUMU VE DUYGUSAL EMEK

ÖZET

Özgünlük (otantiklik), sosyal medya kültüründe güvenilirlik ve görünürlük açısından temel bir değer haline gelmiştir. Dijital ortamlarda bireylerin kabul görmesi çoğu zaman samimi ve gerçek görünmelerine bağlıdır. Ancak özgünlük yalnızca doğal bir benlik ifadesi değildir; duygusal emek ve kimlik performansı içeren karmaşık bir süreçtir. Kullanıcılar bir yandan içten görünmeye çalışırken diğer yandan algoritmik sistemlere, izleyici beklentilerine ve platform normlarına uyum sağlamak zorundadır. Bu çalışma, algoritmik olarak düzenlenen sosyal medya ortamlarında kullanıcıların özgünlüğü nasıl performe ettiklerini ve güvenilir çevrimiçi kimlikler sürdürebilmek için gerekli olan duygusal emek biçimlerini incelemektedir. Araştırma, performans çalışmaları, dijital sosyoloji ve platform çalışmaları alanlarından yararlanarak özgünlüğün hem yapısal hem de psikolojik boyutlarını ele almaktadır. Özellikle beğeni, paylaşım ve yorum gibi görünürlük ölçütlerinin samimiyet ve güvenilirlik algısını nasıl etkilediği üzerinde durulmaktadır.

Bu bağlamda özgünlük sabit bir kişilik özelliği olarak değil, teknolojik koşullar ve toplumsal beklentiler içinde şekillenen bir pratik olarak değerlendirilmektedir. Araştırmanın ampirik kısmı, farklı sosyal medya platformlarında gerçekleştirilen derinlemesine nitel görüşmeler ve dijital etnografik gözlemlere dayanmaktadır. Bulgular, kullanıcıların özgün görünmek için seçici paylaşım ve kontrollü benlik sunumu gibi duygusal stratejiler geliştirdiklerini göstermektedir. Sonuçlar, özgünlüğün platform olanakları ve izleyici geri bildirimleri tarafından şekillenen bir performans pratiği olduğunu ortaya koymaktadır. Bu süreç, kimlik inşasını, sosyal sermaye oluşumunu ve duygusal sorumluluk duygusunu etkilemektedir.

Anahtar Kelimeler: Özgünlük, duygusal emek, kimlik performansı, platform olanakları, sosyal medya kültürü.

INSTRUMENTAL REASON, TECHNOLOGY AND WAR: RETHINKING CRITICAL THEORY

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ABSTRACT

This article comparatively examines, from a critical theory perspective, the armament policies and the discourses legitimizing them in Nazi Germany and Great Britain during World War II, taking into account contemporary technomilitarist understandings. The main aim of the study is to evaluate the discourses of war production and technocratic armament represented by Albert Speer (Nazi Germany), Lord Beaverbrook, and Herbert Morrison (Great Britain) during World War II, and by Alex Karp today, within the framework of Max Horkheimer's conceptualization of instrumental reason, Jürgen Habermas's distinction between instrumental and communicative rationality, and Herbert Marcuse's analyses of the relationship between technology, power, and fascism. To this end, the study first outlines the theoretical field created by these representatives of critical theory. It then focuses on the discourses of the armament leaders of the warring parties with totalitarian and democratic political regimes during World War II. This review discusses the renewed importance of the relationship between the state and the technology sector in the context of transformations marked by the use of artificial intelligence and software-based warfare technologies today. In this vein, it focuses on Alex Karp's technodeterminist approach, which argues that the relationship between war, technology, and political power needs to be rethought.

The study argues that modern technological rationality is not exclusive to totalitarian regimes; similar instrumental logics can be produced in democratic political contexts with different forms of legitimation. In this context, it demonstrates that war is not only a conflict but also an epistemological process that facilitates the penetration of technical rationality into social and political spheres.

In conclusion, the article emphasizes that instrumental reason, with both historical and contemporary examples, is a fundamental form of rationality shaping both the relationship between war and technology and the social and political structure, and suggests that a rethinking of critical theory would be useful in analyzing this relationship.

Keywords: Critical theory, instrumental reason, technology, war, artificial intelligence.

ARAÇSAL AKIL, TEKNOLOJİ VE SAVAŞ: ELEŞTİREL TEORİYİ YENİDEN DÜŞÜNMEK

ÖZET

Bu makale, II. Dünya Savaşı sırasında Nazi Almanyası ve Büyük Britanya'da silahlanma politikalarını ve bu politikaları meşrulaştıran söylemleri günümüzün teknomilitarist anlayışlarını da hesaba katarak eleştirel teori perspektifinden karşılaştırmalı olarak incelemektedir. Çalışmanın temel amacı 2. Dünya Harbi esnasında Albert Speer (Nazi Almanyası), Lord Beaverbrook ve Herbert Morrison'un (Büyük Britanya) günümüzde ise Alex Karp'ın temsil ettiği savaş üretimi ve teknokratik silahlanma söylemlerini Max Horkheimer'in araçsal akıl kavramsallaştırması, Jürgen Habermas'ın araçsal ve iletişimsel rasyonalite ayrımı ve Herbert Marcuse'nin teknoloji, iktidar ve faşizm ilişkisine dair analizleri çerçevesinde değerlendirmektir. Bu doğrultuda çalışma öncelikle eleştirel teorinin bahsi geçen temsilcilerinin meydana getirdiği kuramsal alanı serimlemektedir.

Ardından 2. Dünya Savaşı'nın totaliter ve demokratik siyasal rejimlere sahip savaşan taraflarının silahlanmadan sorumlu yöneticilerinin söylemlerine yönelmektedir. İnceleme günümüzde yapay zekâ ve yazılım temelli savaş teknolojilerinin kullanımıyla belirginleşen dönüşümler bağlamında devlet ile teknoloji sektörü arasındaki ilişkinin yeniden önem kazanmasını tartışmaktadır. Bu minvalde Alex Karp'ın savaş, teknoloji ve siyasal iktidar arasındaki ilişkinin yeniden düşünülmesi gerektiğine yönelik teknobelirlenimci yaklaşımına odaklanmaktadır.

Çalışma, modern teknolojik rasyonalitenin yalnızca totaliter rejimlere özgü olmadığını; demokratik siyasal bağlamlarda da benzer araçsal mantıkların farklı meşrulaştırma biçimleriyle üretilebildiğini ileri sürmektedir. Bu bağlamda savaşın yalnızca bir çatışma değil, aynı zamanda teknik rasyonalitenin toplumsal ve siyasal alanlara nüfuz edişini kolaylaştıran epistemolojik bir süreç olduğunu göstermektedir.

Sonuç olarak makale, araçsal aklın hem tarihsel hem de çağdaş örnekleriyle hem savaş ve teknoloji arasındaki ilişkiyi hem de toplumsal ve siyasal yapıyı şekillendiren temel bir rasyonalite biçimi olduğunu vurgulamakta ve bu ilişkiyi analiz etmede eleştirel teorinin yeniden düşünülmesinin yararlı olacağını öne sürmektedir.

Anahtar Kelimeler: Eleştirel teori, araçsal akıl, teknoloji, savaş, yapay zeka

THE POSSIBILITY OF TRUTH IN KALĀM AND THE EPISTEMIC STATUS OF SUFISM

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ABSTRACT

In the history of Islamic thought, kalām has undertaken the rational defense of truth as a discipline that grounds the principles of faith through rational and transmitted proofs. Sufism, on the other hand, has developed as a field that constructs the dimension of ihsan, spiritual purification, and inner depth within religious life. However, throughout the historical process, the assertion of mystical elements such as unveiling (kashf), inspiration (ilham), and dreams as sources of knowledge has produced an epistemic tension between kalām and Sufism. This paper will first present how truth is grounded within kalām through its recognized sources of knowledge. It will then analyze the epistemic claims of Sufism.

Keywords: Kalām, Sufism, Truth, al-Ghazālī, Epistemology.

KELAM İLMİNDE HAKİKATIN İMKÂNİ VE TASAVVUFUN EPİSTEMİK KONUMU

ÖZET

İslam düşünce tarihinde kelam ilmi, iman esaslarını aklî ve naklî delillerle temellendiren bir disiplin olarak hakikatin rasyonel savunusunu üstlenmiştir. Tasavvuf ise dinî hayatın ihsan, tezkiye ve manevî derinlik boyutunu inşa eden bir alan olarak gelişmiştir. Ancak tarihsel süreçte keşf, ilham ve rüya gibi tasavvufî unsurların bilgi kaynağı olarak ileri sürülmesi, kelam ile tasavvuf arasında epistemik bir gerilim doğurmuştur.

Bu tebliğde öncelikle kelam ilminde bilginin kaynakları olan akıl, vahiy ve duyular çerçevesinde hakikatin nasıl temellendirildiği ortaya konulacaktır. Ardından tasavvufun bilgi iddiası, özellikle sübjektif tecrübenin doğrulanabilirliği problemi üzerinden analiz edilecektir. Gazzâlî'nin tasavvufa yönelişi, kelamın terk edilmesi şeklinde değil, hakikatin yaşantı boyutunun güçlendirilmesi olarak yeniden değerlendirilecektir.

Çalışmanın temel iddiası hakikat hakkında bağlayıcı konuşmanın şartı, denetlenebilir epistemik ölçütlerdir. Bu ölçütler kelam ilmi tarafından kurulmaktadır. Tasavvuf ise ahlâk ve manevî arınma alanında değerli olmakla birlikte, epistemik olarak kelamın belirlediği çerçeveye bağlıdır.

Anahtar Kelimeler: Kelam, Tasavvuf, Hakikat, Gazzâlî, Epistemoloji.

PHILOSOPHICAL DIALECTIC AND THE RECONSTRUCTION OF THE CONCEPTION OF BEING IN POST-AVICENNIAN KALÂM

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ABSTRACT

Understanding the nature of the relationship between kalâm and philosophy is of particular importance not only for grasping the historical terrain of debate within Islamic thought, but also for discerning through which intellectual transformations conceptions of being, knowledge, and divine truth were formed. For this reason, the period shaped after Avicenna should be read not merely as a phase in which two distinct disciplines confronted one another, but as a process of reconstruction in which kalâm expanded its own internal possibilities and acquired a new conceptual depth. While classical kalâm, with its being-centered understanding of origination, grounded the relationship between God and the world within the framework of creation and temporality, the language of necessity and possibility that became more pronounced with Avicenna made it possible to address being in a more comprehensive and systematic order. This new language influenced not only the style of argumentation in kalâm, but also its way of formulating and grounding problems, in a process that began with al-Ghazālî and attained a clearer and stronger framework with Fakhr al-Dîn al-Râzî. Thus, kalâm emerged not as a passive discipline borrowing philosophical concepts from outside itself, but as a constructive intellectual activity that reworked those concepts within its own theological and rational principles. When the conceptual possibilities of Avicennan metaphysics are considered together with the orientation of post-Râzian kalâm, the resulting picture appears not as one of dissolution or loss of originality, but rather as an intellectual deepening moving toward a more coherent, more layered, and more systematic conception of being. In this framework, it becomes clear that kalâm did not lose its boundaries through its engagement with philosophy; on the contrary, it reconstructed its own understanding of being on a stronger intellectual foundation.

Keywords: Kalâm, Ibn Sînâ, Philosophy, Conception of Being, Ontology, Fakhr al-Dîn al-Râzî.

İBN SÎNÂ SONRASI KELÂMDA FELSEFÎ DİYALEKTİK VE VARLIK TASAVVURUNUN YENİDEN İNŞASI

ÖZET

Kelâm ile felsefe arasındaki ilişkinin mahiyetini doğru kavramak, İslam düşüncesinin yalnız geçmişteki tartışma zeminini değil, varlık, bilgi ve ilahî hakikat tasavvurunun hangi zihnî dönüşümler üzerinden kurulduğunu anlamak bakımından da ayrı bir önem taşımaktadır. Bu sebeple İbn Sînâ sonrasında şekillenen dönem, yalnızca iki ayrı disiplinin karşı karşıya geldiği bir evre olarak değil, kelâmın kendi iç imkânlarını genişleterek yeni bir kavramsal derinlik kazandığı bir yeniden kuruluş süreci olarak okunmalıdır. Klasik kelâmın hudûs merkezli varlık anlayışı, Tanrı ile âlem ilişkisini yaratma ve zaman ekseninde temellendirirken, İbn Sînâ ile belirginleşen zorunluluk ve imkân dili, varlığı daha kuşatıcı ve sistemli bir tertip içinde ele alma imkânı doğurmuştur. Bu yeni dil, Gazzâlî ile başlayan, Fahrüddîn er-Râzî ile daha açık ve güçlü bir çerçeveye kavuşan süreçte kelâmın yalnız tartışma biçimini değil, meseleleri kurma ve temellendirme usulünü de etkilemiştir. Böylece kelâm, felsefî kavramları dışarıdan alan edilgen bir disiplin olmaktan ziyade, onları kendi teolojik ve aklî ilkeleri içinde yeniden işleyen kurucu bir düşünce faaliyeti hâline gelmiştir.

İbn Sînâ metafiziğinin kavramsal imkânları ile Râzî sonrası kelâmın yönelişi birlikte değerlendirildiğinde, ortaya çıkan tablonun bir çözülme veya özgünlük kaybı değil, aksine daha tutarlı, daha katmanlı ve daha sistematik bir varlık tasavvuruna doğru ilerleyen fikrî bir derinleşme olduğu görülmektedir. Bu çerçevede kelâmın, felsefe ile temas içinde kendi sınırlarını kaybetmediği, bilakis kendi varlık anlayışını daha güçlü bir zihnî zemin üzerinde yeniden kurduğu anlaşılmaktadır.

Anahtar Kelimeler: Kelâm, İbn Sînâ, Felsefe, Varlık Tasavvuru, Ontoloji, Fahrüddîn Râzî

PROTECTIVE PRACTICES IN ANATOLIA FROM SHAMANISM TO ISLAM: THE EVIL EYE, AMULET, AND BURDOCK

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ABSTRACT

Shamanism, one of the oldest belief systems in human history, shaped life rituals in ancient cultures by connecting nature, spirits, and humans. Shamanism can be considered a belief system that shaped the pre-Islamic religious world of the Turks and certain elements of which continued to survive in Anatolia after Islamization through cultural expressions and traditions. As a result, ancient symbols and rituals were revitalised within Turkish culture. The inherent need to contact supernatural entities and seek protection against invisible threats demonstrates continuity through various symbolic practices in Anatolia. Talismans, objects, and signs used in Shamanism to ward off malevolent spirits were reinterpreted with religious meanings after Islam. The belief in the evil eye (nazar), deeply rooted among Anatolian and Turkestan Turks and originating from magic, fear, and vulnerability to nature, forms the foundation of these protective practices. The amulet (muska) and evil eye talisman (nazarlık), both of Arabic origin, are concrete examples. Amulet motifs woven into Anatolian kilims represent a centuries-old belief system. These motifs symbolise inscribed talismans believed to possess magical and spiritual power, shielding their owner from dangerous external factors. Eye motifs in flat weavings, designed to protect against the evil eye, are generally woven into geometric shapes such as squares, triangles, or pentagons. Similarly, the burdock plant (pıtrak), commonly found in disturbed habitats and capable of attaching to clothing or fur via hooked fruits, has been stylised for traditional handicrafts. In certain weaves, the eye motif is uniquely positioned within an open hand with five fingers. Certain practices associated with the evil eye and amulets may be interpreted as being related to shamanistic elements that held an important place in the belief system of Turkestan. In the eleventh century, Mahmud al-Kashgari identified the words “abakı” and “kösgük” as practices specifically aimed at warding off the evil eye. The common objective of talismans produced across Anatolia is to protect individuals and society from negative influences.

Keywords: Shamanism, cultural memory, protection practices, belief in the evil eye, amulet and burdock motif.

ŞAMANİZM'DEN İSLÂMİYET'E ANADOLU'DA KORUNMA PRATİKLERİ: NAZAR, MUSKA VE PITRAK

ÖZET

İnsanlık tarihinin en eski inançlarından biri olarak kabul edilen Şamanizm, doğa, ruhlar ve insan arasındaki bağlantıyı sağlayan, kadim kültürlerde yaşam ritüellerini şekillendiren bir inanış biçimidir. Diğer taraftan Şamanizm, Türklerin İslâmîyet öncesi inanç dünyasında etkili olan ve Müslümanlaşma sonrasında da bazı unsurları kültürel yansıma ve gelenekler aracılığıyla Anadolu coğrafyasında varlığını sürdüren bir inanç sistemi olarak değerlendirilebilir. Nitekim bu inanış bağlamında sembol ve ritüeller yeniden canlanarak Türk kültürü içerisinde yerini almıştır. Bu çerçevede, eski inanç sistemlerinin doğaüstü varlıklarla temas kurma ve görünmeyen tehlikelere karşı korunma ihtiyacı, Anadolu'da çeşitli sembolik pratiklerle süreklilik göstermiştir.

Şamanist düşüncede kötü ruhlardan korunma amacıyla kullanılan tılsımlar, nesneler ve simgesel işaretler, İslâmiyet sonrasında yeni bir anlam katmanıyla yeniden yorumlanmıştır. Bu bağlamda Anadolu ve Türkistan Türklerinde tarihi oldukça eski olan ve büyü, korku ile doğaya karşı savunmasız olmanın etkisiyle ortaya çıkan nazar inancı, korunma pratiklerinin ve uygulamalarının temelini oluşturmaktadır. Arapça kökenli muska ve nazarlık, bu korunma pratiklerinin somut örnekleri arasında yer almaktadır. Anadolu’da kilimler üzerine işlenen muska motifi, yüzyıllardır kullanılan inanç sisteminin bir figürü olarak kabul edilmektedir. Bu motiflerin sahibini tehlikeli dış faktörlerden korumak amacıyla sihirli ve dinî bir güce sahip olduğuna inanılan yazılı tılsımları simgelediği düşünülmektedir. Düz dokumalarda yer alan ve “göz değmek” ya da “nazara gelmek” şeklinde adlandırılan göz motifleri ise genellikle kare, üçgen veya beşgen gibi geometrik şekillerde dokunmuştur. Benzer şekilde, tarla kenarlarında ve bozulmuş habitatlarda yaygın görülen; dikenli/kancalı meyveleriyle insanların giysilerine ve hayvanların tüylerine tutunabilen pıtrak bitkisi de stilize edilerek el sanatlarında kullanılmıştır. Bazı dokumalarda göz motifinin beş parmağı açık bir el formu içine yerleştirildiği de görülmektedir. Nazar ve nazarlıkla ilgili bazı uygulamaların, Türkistan inanç sisteminde önemli bir yer tutan Şamanistik unsurlarla ilişkili olarak yorumlanması mümkündür. XI. yüzyılda Kaşgarlı Mahmud, “abakı” ve “kösgük” sözcüklerinin nazardan korunmaya yönelik pratikler olduğunu belirtmektedir. Anadolu’nun muhtelif yörelerinde üretilen nazarlıkların ortak amacı, bireyi ve toplumu olumsuz etkilerden korumaya yöneliktir.

Anahtar kelimeler: Şamanizm, kültürel bellek, korunma pratikleri, nazar inancı, muska ve pıtrak motifi.

ANHEDONIA AND SUBJECTIVE WELL-BEING IN ADOLESCENTS: THE ROLE OF GENDER

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ABSTRACT

Anhedonia, defined as a diminished capacity to experience interest or pleasure, is a central symptom of depression and has been increasingly recognized as a key factor influencing adolescents' emotional functioning. Despite growing interest in subjective well-being (SWB) within positive psychology, limited research has examined the relationship between anhedonia and the multidimensional structure of SWB, particularly its relational components, during adolescence. Additionally, gender differences in these constructs remain insufficiently explored. The present study aimed to investigate the relationship between anhedonia and subjective well-being in adolescents, focusing on both overall SWB and its subdimensions (family satisfaction, satisfaction with significant others, life satisfaction, and positive affect). The study also examined whether anhedonia and SWB differ by gender. The sample consisted of 230 adolescents (53.9% female) aged between 13 and 16 years ($M = 14.87$, $SD = .72$). Data were collected using the Subjective Well-Being Scale for Adolescents and the Anhedonia Scale. Pearson correlation analyses were conducted to examine associations between variables, and independent samples t-tests were used to assess gender differences. Results indicated that anhedonia was significantly and negatively associated with overall subjective well-being ($r = -.55$, $p < .01$). Similarly, significant negative correlations were found between anhedonia and all subdimensions of SWB, including family satisfaction ($r = -.42$, $p < .01$), satisfaction with significant others ($r = -.39$, $p < .01$), life satisfaction ($r = -.49$, $p < .01$), and positive affect ($r = -.38$, $p < .01$). Gender differences were also observed: female adolescents reported significantly higher levels of anhedonia ($t(228) = 2.291$, $p < .05$), whereas male adolescents reported higher levels of subjective well-being ($t(228) = -2.480$, $p < .05$).

The findings demonstrate that anhedonia is a significant and multidimensional correlate of subjective well-being in adolescents, affecting affective, cognitive, and relational domains. The observed gender differences further highlight the vulnerability of female adolescents to both higher anhedonia and lower well-being. These results underscore the importance of addressing reward-processing deficits in interventions aimed at enhancing adolescent well-being.

Keywords: Anhedonia; Subjective well-being; Adolescents; Positive affect; Life satisfaction; Gender differences

PREDICTORS OF BULLYING COGNITIONS IN CHILDREN: DISCOURAGING AND SUPPORTIVE FAMILY RELATIONSHIPS

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ABSTRACT

Bullying is a pervasive problem associated with adverse developmental outcomes, and increasing attention has been directed toward the cognitive processes underlying bullying behaviors. The present study aimed to examine the extent to which gender, discouraging family relationships, and supportive family relationships predict children's bullying cognitions within a social-cognitive and ecological framework. The study employed a cross-sectional design with a convenience sample of 360 children aged between 11 and 15 years ($M = 12.47$, $SD = .69$). Data were collected using the Inventory of Cognitions Related to Bullying for Children and the Family Relations Scale for Children. Hierarchical regression analysis was conducted to examine the predictive roles of gender, discouraging family relationships, and supportive family relationships in explaining variance in bullying cognitions.

Preliminary analyses revealed that bullying cognitions were positively associated with discouraging family relationships and negatively associated with supportive family relationships. Hierarchical regression analysis indicated that gender significantly predicted bullying cognitions, with boys reporting higher levels. Discouraging family relationships emerged as a strong positive predictor, accounting for a substantial proportion of variance. Supportive family relationships were identified as a significant negative predictor, although with a relatively smaller contribution. Collectively, the variables explained approximately 20% of the variance in bullying cognitions. The findings suggest that both individual (gender) and familial (discouraging and supportive relationships) factors play significant roles in shaping children's bullying cognitions. Discouraging family environments appear to constitute a prominent risk factor, whereas supportive family relationships function as protective factors. These results underscore the importance of incorporating family-based components into bullying prevention efforts and highlight the need to address cognitive mechanisms underlying aggressive behavior.

Keywords: bullying cognitions, family relationships, parenting, gender differences, children, social cognition

**EXAMINATION OF ACADEMIC MOTIVATION IN SPORTS SCIENCE STUDENTS
ACCORDING TO DEMOGRAPHIC VARIABLES AND ARTIFICIAL
INTELLIGENCE USE IN EDUCATION**

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ABSTRACT

The aim of this study is to examine the academic motivation levels of sports science students according to demographic characteristics and patterns of artificial intelligence (AI) use in education. The research was conducted within the scope of the survey model, one of the quantitative research methods. The study group consisted of 389 undergraduate students enrolled in sports science programmes at five state universities in Turkey in the 2025-2026 academic year. Data were collected online via a questionnaire using the Academic Motivation Scale. During the analysis process, after checking the assumptions of normality and homogeneity of variance, descriptive statistics, independent samples t-test, and one-way ANOVA were applied. The findings showed that participants' academic motivation level was above average. Female students' academic motivation level was found to be significantly higher than that of male students. In the interdepartmental comparison, recreation students' academic motivation was found to be higher than that of physical education and sports teaching students. Academic motivation also differed according to the use of AI in education; students who did not use AI tools for educational purposes reported higher motivation than those who did. However, the use of AI tools in all educational tasks (e.g., homework, presentations, analysis) did not create a significant difference in terms of academic motivation. Among those who used AI in education, the most preferred tool was ChatGPT. The most common purposes for using ChatGPT are to support learning and deepen understanding, conduct research, and facilitate homework processes. In conclusion, the academic motivation of sports science students varies according to certain demographic variables and AI usage, pointing to the importance of structuring the use of AI in education in a way that is compatible with pedagogical goals and guidance based.

Keywords: Motivation, higher education, artificial intelligence, AI in education

SPOR BİLİMLERİ ÖĞRENCİLERİNDE AKADEMİK MOTİVASYONUN DEMOGRAFİK DEĞİŞKENLER VE EĞİTİMDE YAPAY ZEKÂ KULLANIMINA GÖRE İNCELENMESİ

ÖZET

Bu çalışmanın amacı, spor bilimi öğrencilerinin akademik motivasyon düzeylerini demografik özelliklere ve eğitimde yapay zekâ (YZ) kullanımına göre incelemektir. Araştırma, nicel araştırma yöntemlerinden biri olan anket modeli kapsamında gerçekleştirilmiştir. Çalışma grubu, 2025-2026 akademik yılında Türkiye'deki beş devlet üniversitesinde spor bilimi programlarına kayıtlı 389 lisans öğrencisinden oluşmuştur. Veriler, Akademik Motivasyon Ölçeği kullanılarak bir anket aracılığıyla çevrimiçi olarak toplanmıştır. Analiz sürecinde, normallik ve varyans homojenliği varsayımları kontrol edildikten sonra, betimsel istatistikler, bağımsız örneklem t-testi ve tek yönlü ANOVA uygulanmıştır. Bulgular, katılımcıların akademik motivasyon düzeyinin ortalamanın üzerinde olduğunu göstermiştir. Kadın öğrencilerin akademik motivasyon düzeyinin erkek öğrencilere göre anlamlı olarak daha yüksek olduğu bulunmuştur. Bölümler arası karşılaştırmada, rekreasyon bölümü öğrencilerinin akademik motivasyonunun beden eğitimi ve spor öğretimi bölümünde öğrenim gören öğrencilerinden daha yüksek olduğu bulunmuştur. Akademik motivasyon, eğitimde yapay zekâ kullanımına göre de farklılık göstermiştir. Eğitim amaçlı yapay zekâ araçlarını kullanmayan öğrenciler, kullananlara göre daha yüksek motivasyon bildirmiştir. Ancak, tüm eğitim görevlerinde (ör. ödevler, sunumlar, analizler) yapay zekâ araçlarının kullanılması, akademik motivasyon açısından önemli bir fark yaratmamıştır. Eğitimde YZ kullananlar arasında en çok tercih edilen aracın ChatGPT olduğu görülmüştür. ChatGPT'yi kullanmanın en yaygın amaçları, öğrenmeyi desteklemek ve anlayışı derinleştirmek, araştırma yapmak ve ödev süreçlerini kolaylaştırmaktır. Sonuç olarak, spor bilimi öğrencilerinin akademik motivasyonu belirli demografik değişkenlere ve YZ kullanımına göre değişiklik göstermektedir. Bu durum, eğitimde YZ kullanımının pedagojik hedefler ve rehberlik temelli bir şekilde yapılandırılmasının önemine işaret etmektedir.

Anahtar Kelimeler: Motivasyon, Yükseköğretim, Yapay zekâ, Eğitimde YZ kullanımı.

EXAMINING THE RELATIONSHIP BETWEEN FEAR OF MISSING OUT AND PROBLEMATIC SMARTPHONE USE AMONG ADULTS IN PRIZREN, KOSOVO

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ABSTRACT

The increasing centrality of digital technologies and social media platforms in daily life has heightened individuals' fear of missing out on online developments. In this context, Fear of Missing Out (FoMO) has become a notable psychosocial phenomenon, particularly among social media users of all ages. The aim of this study is to examine the relationship between problematic smartphone use (PSU) and FoMO among Kosovar citizens residing in Prizren, Kosovo, who speak Turkish. The study was conducted using a correlational survey model. The study group consisted of 105 adults residing in Prizren, Kosovo. Data were collected via an online survey; descriptive statistics, the Mann-Whitney U test, and Spearman correlation analysis were used in the analyses. The findings showed that adults' PSU and FoMO levels were below average. No significant difference was found in PSU and FoMO levels according to gender. In contrast, a moderate, positive, and significant relationship was found between PSU and FoMO. Furthermore, negative relationships were identified between age and PSU and FoMO, and positive relationships were identified between social network usage time and both PSU and FoMO. In conclusion, the relationship between FoMO and PSU suggests that psychosocial vulnerabilities in digital life among adults in Prizren are shaped not only by smartphone use behaviour, but also by the local social context in which social connectedness and accessibility remain salient.

Keywords: FoMO, Technology addiction, Kosovo, Adults.

KOSOVA PRİZREN'DEKİ YETİŞKİNLERDE GELİŞMELERİ KAÇIRMA KORKUSU VE PROBLEMLİ AKILLI TELEFON KULLANIMI ARASINDAKİ İLİŞKİNİN İNCELENMESİ

ÖZET

Dijital teknolojilerin ve sosyal medya platformlarının günlük yaşamda giderek daha merkezi bir konuma gelmesi, bireylerin çevrim içi gelişmeleri kaçırma kaygısını artırmıştır. Bu bağlamda Gelişmeleri Kaçırma Korkusu (Fear of Missing Out, FoMO), özellikle her yaştan sosyal medya kullanıcıları arasında dikkat çeken bir psikososyal olgu hâline gelmiştir. Bu araştırmanın amacı, Kosova'nın Prizren kentinde ikamet eden, Türkçe bilen Kosova vatandaşı yetişkinlerde problemlili akıllı telefon kullanımı (PAK) ile FoMO arasındaki ilişkiyi incelemektir. Araştırma, ilişkisel tarama modelinde yürütülmüştür. Çalışma grubunu, Kosova'nın Prizren kentinde ikamet eden 105 yetişkin oluşturmaktadır.

Veriler çevrim içi anket yoluyla toplanmış; analizlerde betimsel istatistikler, Mann-Whitney U testi ve Spearman korelasyon analizi kullanılmıştır. Bulgular, yetişkinlerin PAK ve FoMO düzeylerinin ortalamanın altında olduğunu göstermiştir. Cinsiyete göre PAK ve FoMO düzeylerinde anlamlı bir farklılık bulunmamıştır. Buna karşılık, PAK ile FoMO arasında orta düzeyde, pozitif yönlü ve anlamlı bir ilişki saptanmıştır. Ayrıca yaş ile PAK ve FoMO arasında negatif yönlü; sosyal ağ sitesi kullanım süresi ile hem PAK hem de FoMO arasında pozitif yönlü ilişkiler belirlenmiştir. Sonuç olarak, FoMO ile PAK arasındaki ilişki, Prizren’de yaşayan yetişkinlerin dijital yaşamdaki psikososyal kırılganlıklarının yalnızca akıllı telefon kullanım davranışlarıyla değil, aynı zamanda sosyal bağlılık ve erişilebilirliğin önemini koruduğu yerel sosyal bağlamla da şekillendiğini göstermektedir.

Anahtar Kelimeler: FoMO, Teknoloji Bağımlılığı, Kosova, Yetişkinler.

VERBAL SENTENCES IN THREE MASTER'S THESIS FROM DIFFERENT DISCIPLINES

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ABSTRACT

One common characteristic of theses across all disciplines is that they are texts produced using academic language and style. In order to describe academic Turkish, theses need to be examined from many perspectives. The aim of the present study is to examine the verbal sentences in theses written in the fields of biology, economics and social studies. The sentences were examined in terms voice, tense and verbs used as predicates. In order to carry out the study, one thesis was downloaded from each discipline and examined. Non empirical thesis (those that do not have a method section) were not included in the study. The results revealed that there was a total of 1,880 sentences in all three theses, 1,500 (80%) of which were verbal and 380 (20%) were nominal sentences. In terms of percentage, the most nominal sentences (29%) were found in economics thesis, and the least (13%) were found in biology thesis. 59% of the verbal sentences were active and 41% of them were passive. However, 69% of the verbal sentences in the economics thesis were active. When the sentences in the sections of the theses are examined in terms of voice, it is seen that the sentences in the method sections of all three theses are predominantly constructed in the passive voice. The verbs most commonly used in the construction of verbal sentences in the theses were also investigated. Sentences formed with the 10 identified verbs constitute 27% of the total verbal sentences. When we look at the tenses, we see that most sentences are constructed in the present tense (-mAktAdIr), followed by the past tense (-mİştIr). The ratio of sentences constructed with both tenses is 70%. It is thought that the results of the study will be useful for postgraduate students and can be used in academic Turkish and academic writing courses.

Keywords: Master's thesis, verbal sentence, nominal sentence, tense, voice, academic Turkish.

FARKLI DİSİPLİNLERE AİT ÜÇ YÜKSEK LİSANS TEZİNDEKİ FİİL CÜMLELERİ

ÖZET

Bütün disiplinlerdeki tezlerin ortak özelliklerinden biri de akademik dil ve üslup kullanılarak üretilmiş metinler olmasıdır. Akademik Türkçenin betimlenmesi için tezlerin birçok yönden incelenmesi gerekmektedir. Mevcut çalışmanın amacı; biyoloji, iktisat ve sosyal bilgiler alanında yazılmış tezlerdeki fiil cümlelerini incelemektir. Cümleler, çatı, kip ve yüklemelerinde yer alan fiiller açısından incelenmiştir. Çalışmayı gerçekleştirmek için söz konusu her bölümden birer tez indirilmiş ve incelenmiştir. İncelenen tezlerin görgül olmasına yani yöntem bölümlerinin olmasına dikkat edilmiştir. Analiz sonucunda, her üç tezde toplam 1.880 cümle olduğu, bunların 1.500'ünün (%80) fiil, 380'inin (%20) ise isim cümlesi olduğu görülmüştür. Oran olarak en çok (%29) isim cümlesi iktisat, en az (%13) ise biyoloji tezinde yer almıştır. Fiil cümlelerinin %59'u etken, %41'i ise edilgen çatıda kurulmuştur. Bununla birlikte iktisat tezindeki fiil cümlelerinin %69'u etken çatıdadır. Bu veri, edilgen çatıdaki en az cümlelerin söz konusu tezde yer aldığını göstermektedir. Fiil cümlelerinin çatı özelliklerine tez bölümleri açısından bakıldığında, her üç tezin de yöntem bölümündeki fiil cümlelerinin ağırlıklı olarak edilgen çatıda kurulduğu görülmektedir. Tezlerde ayrıca fiil cümlelerinin kuruluşunda en çok kullanılan fiiller de araştırılmıştır.

Tespit edilen 10 fiille kurulan cümleler, toplam fiil cümlelerinin %27'sini oluşturmaktadır. Fiil cümlelerinin kurulduğu kiplere bakıldığında, en çok cümlelerin şimdiki zamanda (–mAktAdIr) kurulduğu bunu geçmiş zamanın (-mİştIr) izlediği görülmektedir. Her iki kiple kurulan fiil cümlelerinin oranı %70'tir. Çalışma sonuçlarının lisansüstü eğitim almakta olan öğrencilere faydalı olacağı ve akademik Türkçe ve akademik yazma derslerinde kullanılabileceği düşünülmektedir.

Anahtar Kelimeler: Yüksek lisans tezi, fiil cümlesi, kip, çatı, akademik Türkçe.

EXAMINING CHILDREN'S VIEWS ON CLIMATE CHANGE: ANXIETY, UNCERTAINTY, AND CLIMATE ANXIETY

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ABSTRACT

Climate change is considered today not only as an environmental problem but also as a multidimensional global crisis that affects individuals' psychological world. One of the groups most affected by this process is children in the developmental stage. Children may exhibit different responses compared to adults in perceiving and interpreting environmental threats; uncertainties related to climate change may create various reflections in their emotional world. The aim of this study is to reveal children's perceptions, emotions, and experiences regarding climate change. The study was conducted within the framework of a qualitative research approach using a phenomenological design. The study group consisted of children aged between 11 and 14. Participants were selected through purposive sampling, and data were collected through semi-structured interviews.

The obtained data were analyzed using thematic analysis. The findings revealed that children mostly define climate change through observable environmental changes; they experience emotions such as anxiety, sadness, and uncertainty related to this process; and their thoughts about the future include both hope-based and anxiety-based scenarios. In addition, it was found that children develop awareness of environmental issues and show a tendency to produce solutions.

The findings contribute to understanding how children make sense of climate change and provide insights for developing educational approaches that support children's emotional well-being.

Keywords: Climate change, child psychology, climate anxiety, phenomenology, children's perceptions.

İKLİM DEĞİŞİKLİĞİNE İLİŞKİN ÇOCUKLARIN GÖRÜŞLERİNİN İNCELENMESİ: KAYGI, BELİRSİZLİK VE İKLİM ANKSİYETESİ

ÖZET

İklim değişikliği günümüzde yalnızca çevresel bir sorun olarak değil, aynı zamanda bireylerin psikolojik dünyasını etkileyen çok boyutlu bir küresel kriz olarak değerlendirilmektedir. Bu süreçten en fazla etkilenen gruplardan biri gelişim döneminde bulunan çocuklardır. Çocuklar, çevresel tehditleri algılama ve anlamlandırma süreçlerinde yetişkinlerden farklı tepkiler gösterebilmekte; iklim değişikliğine ilişkin belirsizlikler onların duygusal dünyasında çeşitli yansımalar oluşturabilmektedir.

Bu araştırmanın amacı, çocukların iklim değişikliğine ilişkin algılarını, duygularını ve bu süreci nasıl deneyimlediklerini ortaya koymaktır. Araştırma, nitel araştırma yaklaşımı çerçevesinde fenomenolojik (olgu bilim) desen kullanılarak gerçekleştirilmiştir.

Çalışma grubunu 11–14 yaş aralığında bulunan çocuklar oluşturmuştur. Katılımcılar amaçlı örnekleme yöntemi ile belirlenmiş ve veriler yarı yapılandırılmış görüşmeler aracılığıyla toplanmıştır.

Elde edilen veriler tematik analiz yöntemi ile incelenmiştir. Analiz sonucunda çocukların iklim değişikliğini çoğunlukla gözlemlenebilir çevresel değişimler üzerinden tanımladıkları; bu sürece ilişkin kaygı, üzüntü ve belirsizlik gibi duygular yaşadıkları; geleceğe yönelik düşüncelerinin ise hem umut hem de kaygı temelli senaryolar içerdiği belirlenmiştir. Ayrıca çocukların çevresel sorunlara yönelik farkındalık geliştirdikleri ve çözüm üretme eğilimi gösterdikleri görülmüştür.

Elde edilen bulgular, çocukların iklim değişikliğini nasıl anlamlandırdıklarını ortaya koyarak bu sürecin psikolojik yansımalarının anlaşılmasına katkı sağlamakta ve çocukların duygusal iyi oluşunu destekleyici eğitimsel yaklaşımların geliştirilmesine ışık tutmaktadır.

Anahtar Kelimeler: İklim değişikliği, çocuk psikolojisi, iklim anksiyetesi, fenomenoloji, çocukların algıları.

EXAMINING CHILDREN’S PERCEPTIONS AND EXPECTATIONS REGARDING SCHOOL SPACES

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ABSTRACT

The school environment is one of the primary spaces where children spend a significant portion of their daily lives, in addition to engaging in academic learning, establishing social relationships, and experiencing emotional interactions. Therefore, the physical characteristics and spatial organization of school environments have an important influence on how children perceive and experience these spaces. Children’s perceptions of different areas within the school environment—such as classrooms, corridors, schoolyards, and common areas—are associated with developmental dimensions including safety, comfort, sense of belonging, and opportunities for social interaction. In this context, examining children’s perceptions of school spaces provides valuable insights for designing child-friendly and developmentally supportive educational environments.

The aim of this study is to examine children’s perceptions of school environments and the meanings they attribute to these spaces. The research was designed within the framework of a qualitative research approach and employed a phenomenological research design. The study group consists of 15 children studying in a middle school, selected through purposive sampling. A semi-structured interview form was used as the data collection tool. During the interviews, it was explored how children describe different spaces within the school, which spaces they prefer, and what kind of positive or negative experiences they associate with these areas. The data obtained from the interviews were analyzed using content analysis, one of the qualitative data analysis methods.

The study was addressed from an interdisciplinary perspective at the intersection of child development and architecture. The findings contribute to a better understanding of children’s perceptions of school spaces and support the design of educational environments that are more responsive to children’s developmental needs. Furthermore, the study raises awareness regarding child-centered school design and provides recommendations for the planning of child-friendly learning environments.

Keywords: School space, spatial perception, child development, phenomenology.

ÇOCUKLARIN OKUL MEKÂNLARINA İLİŞKİN ALGILARININ VE BEKLENTİLERİNİN İNCELENMESİ

ÖZET

Okul ortamı, çocukların akademik öğrenmelerinin yanı sıra sosyal ilişkiler kurdukları, duygusal deneyimler yaşadıkları ve günlük yaşamlarının önemli bir bölümünü geçirdikleri temel mekânlardan biridir. Bu nedenle okul mekânlarının fiziksel özellikleri ve düzenleniş biçimi, çocukların bu alanları nasıl algıladıkları ve deneyimledikleri üzerinde önemli bir etkiye sahiptir.

Çocukların sınıf, koridor, bahçe ve ortak kullanım alanları gibi okul içindeki farklı mekânlara ilişkin algıları; güvenlik, rahatlık, aidiyet ve sosyal etkileşim gibi gelişimsel boyutlarla ilişkilendirilmektedir. Bu bağlamda çocukların okul mekânlarına yönelik algılarının incelenmesi, çocuk dostu ve gelişimi destekleyen eğitim ortamlarının tasarlanması açısından önemli bilgiler sunmaktadır.

Bu araştırmanın amacı, çocukların okul ortamındaki mekânlara ilişkin algılarını ve bu mekânlara yükledikleri anlamları incelemektir. Araştırma nitel araştırma yaklaşımı çerçevesinde tasarlanmış olup olgu bilim (fenomenoloji) deseni kullanılmıştır. Çalışma grubunu amaçlı örnekleme yöntemi ile belirlenen ve bir ortaokulda öğrenim gören 15 çocuk oluşturmaktadır. Araştırmada veri toplama aracı olarak yarı yapılandırılmış görüşme formu kullanılmıştır. Görüşmelerde çocukların okul içindeki farklı mekânları nasıl tanımladıkları, hangi mekânları daha çok tercih ettikleri ve bu mekânlara ilişkin olumlu ya da olumsuz deneyimlerinin neler olduğu ortaya konulmuştur. Elde edilen veriler nitel veri analiz yöntemlerinden biri olan içerik analizi ile çözümlenmiştir.

Araştırma, çocuk gelişimi ve mimarlık disiplinlerinin kesişiminde yer alan disiplinlerarası bir yaklaşımla ele alınmıştır. Bu kapsamda elde edilen bulguların, çocukların okul mekânlarına ilişkin algılarını ortaya koyarak eğitim ortamlarının çocukların gelişimsel ihtiyaçlarına daha uygun biçimde düzenlenmesine katkı sağladığı düşünülmektedir. Ayrıca araştırmanın, çocuk odaklı okul tasarımlarına yönelik farkındalığın artırılmasına ve çocuk dostu mekân planlamalarına ilişkin öneriler geliştirilmesine katkı sunduğu değerlendirilmektedir.

Anahtar Kelimeler: Okul mekanı, mekansal algı, çocuk gelişimi, fenomenoloji.

DIFFICULTIES FACED BY STUDENTS STUDYING IN A LANGUAGE OTHER THAN THEIR MOTHER TONGUE

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ABSTRACT

This study aims to examine the linguistic, cultural, and academic challenges faced by students whose mother tongue is Kurdish and who do not receive education in their native language, as well as classroom-based solutions. A qualitative research design and a case study approach were employed, and data were collected through semi-structured interviews with four primary school teachers. Findings indicate that these students experience difficulties in communication, reading comprehension, self-expression, social integration, and academic performance. Teachers observed delayed literacy acquisition, limited vocabulary, and weaker problem-solving skills among these students. Suggested strategies include providing native language support, conducting group activities, encouraging open communication, and using educational materials such as books, films, and videos. The study highlights that mother-tongue education plays a critical role in enhancing students' academic achievement, self-confidence, and social adaptation, and emphasizes the need for educational policies and teacher training that address multilingual and multicultural contexts.

Keywords: Mother-tongue education, Kurdish, multilingualism, academic achievement, language diversity in education

ANADİLİ EĞİTİM DİLİNDEN FARKLI OLAN ÖĞRENCİLERİN YAŞADIĞI SORUNLARA İLİŞKİN BİR ARAŞTIRMA

ÖZET

Bu araştırma, anadili Kürtçe olan ve eğitimlerini ana dillerinde alamayan öğrencilerin eğitim süreçlerinde karşılaştıkları dilsel, kültürel ve akademik sorunları ve sınıf içi çözüm önerilerini incelemeyi amaçlamaktadır. Araştırmada nitel yöntem ve durum çalışması deseni kullanılmış, veri toplama aracı olarak dört sınıf öğretmeni ile yapılan yarı yapılandırılmış görüşmeler uygulanmıştır. Bulgular, öğrencilerin iletişim kurmada güçlük, okuduğunu anlamama, kendini ifade etmede zorlanma, sosyal uyum problemleri ve akademik başarı eksiklikleri yaşadığını göstermektedir. Öğretmenler, öğrencilerin okuma-yazmayı geç öğrenme, kelime dağarcığının sınırlı olması ve problem çözme becerilerinde eksiklikler gözlemlemiştir. Çözüm önerileri arasında ana dil desteği sağlamak, grup çalışmaları yapmak, açık iletişimi teşvik etmek ve eğitici materyaller kullanmak öne çıkmaktadır. Araştırma, anadilinde eğitimin akademik başarı, özgüven ve sosyal uyumu artırmada kritik rol oynadığını vurgulamaktadır.

Anahtar Kelimeler: Ana dil eğitimi, Kürtçe, çok dillilik, akademik başarı, eğitimde dil farklılıkları

INTERNATIONAL EXPERIENCE IN THE USE OF MODERN TECHNOLOGICAL TOOLS IN TOURISM SERVICES

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ABSTRACT

The paper discusses the importance of innovative development of modern technologies in tourism services, which contributes to the sustainable and effective functioning of the country's economy,

It is also emphasized that the full realization of tourism potential is impossible without the formation and implementation of new innovative approaches to the tourism sector, which is determined by the degree of economic innovative development of the country.

In addition, the paper presents those important technological innovations (on the example of technologically advanced innovative countries) that determine the scientific and technological landscape in international tourism and contribute to the future development of the sector.

The international experience of using digital tools in tourism is analyzed: online booking systems, augmented and virtual reality, virtual tours, gamified platforms and artificial intelligence. Modern tourists are quite demanding when organizing their vacation and need an emotional experience even before the trip, through a virtual tour of the place of rest or recreation.

International practice proves the effectiveness of introducing computer and gaming technologies in the tourism business. The use of gamification models in tourism is not limited to tourism organizations. Gamification models are also used to promote and market tourist destinations. In particular, augmented reality (AR) and virtual reality (VR) applications are used to create a gamification model by transferring a digital environment with various animations and simulations of historical, cultural, and natural features to a destination, which can help tourists fully experience the destination.

VR/AR technologies, gamification, interactive platforms, and AI applications contribute to increasing the competitiveness of tourism companies, creating a unique customer experience, and developing sustainable tourism.

Keywords: tourism, computer technologies, gamification, virtual reality, artificial intelligence.

DISCUSSION-ORIENTED SMART TOURISM DESTINATIONS: TERRITORIAL BRANDING AND LOCAL INTELLIGENCE IN EMERGING CULTURAL REGIONS

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ABSTRACT

The concept of Smart Tourism Destinations (STDs) has been predominantly associated with digital infrastructure, data-driven management, and technological innovation. However, this technology-centered approach often overlooks territories with limited digital maturity but strong cultural, symbolic, and community-based assets, particularly in peripheral and emerging regions. In such contexts, intelligence cannot be measured solely through technological indicators; rather, it should encompass the territory's ability to articulate identity, governance, sustainability, and collective narratives.

This paper proposes a critical reflection on Smart Tourism Destinations from the perspective of territorial development, emphasizing the strategic role of territorial branding as a structuring axis of territorial intelligence. Grounded in the theoretical framework of Territorial Brand in Regional Development (TBRD), the study argues that territorial branding goes beyond its traditional function as a promotional tool, evolving into a governance-oriented process capable of integrating stakeholders, reinforcing territorial identity, and guiding sustainable development strategies.

Through a conceptual analysis of the Smart Tourism Destination literature and its dominant certification-oriented models, the paper highlights the limitations of applying standardized smart destination frameworks to culturally sensitive and underrepresented territories. An alternative perspective is proposed, one that understands intelligence as an evolving, context-dependent process rooted in local identity and collective territorial intelligence.

The findings suggest that, particularly in emerging destinations, territorial branding may function as a preparatory stage for smart destination development, contributing to social innovation, heritage valorization, and inclusive governance. This study contributes to the ongoing debate on Smart Tourism Destinations by advancing a more integrative and territorially grounded approach, with implications for policymakers, destination managers, and scholars interested in sustainable and culturally embedded territorial development. Furthermore, the study proposes an analytical framework that integrates the limitations of technocentric Smart Tourism Destination models with a place-based understanding of territorial intelligence.

Keywords: Smart Tourism Destination, Territorial Brand, Regional Development, Territorial Intelligence, Emerging Destination, Governance and Sustainability

**DISCUSSION OF THE “SPAIN” BRAND IN THE SCIENTIFIC LITERATURE: A
SCOPUS AND WEB OF SCIENCE REVIEW (2013–2025)**

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ABSTRACT

Purpose: The purpose of this study was to understand how the literature discusses the main thematic axes, methodological approaches, and critiques associated with the construction, communication, and impact of the Spain Brand.

Study design/methodology/approach: A narrative review method was employed, utilizing the Scopus and Web of Science databases to analyze a set of 22 articles, using the PRISMA protocol, based on articles published between 2013 and 2025.

Results: The study identifies three key areas for consideration: firstly, the strategic promotion of the national image, with a focus on tourism, culture, and symbolic industries; secondly, the central role of digital communication and user-generated content in the construction of the Spain Brand; and thirdly, from a critical perspective, an analysis of this brand as a political, economic, and cultural tool that has a tendency to oversimplify identities and reinforce national stereotypes.

Originality/value: The present study is distinguished by its integrative and critical approach to the scientific literature on the Spain Brand, which brings together promotional, media, and sociopolitical perspectives. The value of the present study lies in its simultaneous analysis of institutional strategies, participatory digital dynamics, and the symbolic effects of national branding. This contributes to a more multifaceted and complex understanding of country brands in the contemporary global context.

Keywords: territorial brand, place branding, nation branding, tourism, literature review, Spain brand.

**INTERNATIONAL QUALITY AND ADMINISTRATIVE TRANSPARENCY IN THE
EVALUATION OF NEW SCHENGEN MEMBERS: IMPLICATIONS FOR
SUSTAINABLE DEVELOPMENT**

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ABSTRACT

The Schengen Area is one of the cornerstones of the European integration process, based on the free movement of people and cooperation among Member States in the areas of security, justice, and the management of external borders. In this context, the evaluation process for new candidate countries is particularly important, serving as a tool to verify compliance with the Schengen acquis. This study examines the relationship between international quality and administrative transparency in this process, based on Regulation (EU) 2022/922, as well as its implications for sustainable development.

It is considered that the effectiveness of the Schengen system does not depend solely on regulatory harmonization, but rather, primarily, on the quality of its administrative implementation. The research highlights that the principles of transparency, efficiency, predictability, and institutional accountability are essential drivers for ensuring stability in the application of rules and strengthening mutual trust among Member States. However, there are gaps related to subjectivity in meeting evaluation criteria and the dissemination of decision-making criteria.

From a theoretical perspective, the study combines the perspective of Craig and De Búrca (2020) who emphasize the primacy and direct effect of Union law with the approach of Eleftheriadis (2020), who highlights the consensual nature of European integration. The results indicate that weaknesses in administrative quality can compromise not only the effectiveness of the Schengen system but also strategic economic sectors, such as tourism, affecting the mobility and competitiveness of the European Union. It is concluded that enhancing transparency and incorporating international quality criteria are crucial for the sustainability of the Schengen model.

Keywords: Schengen Area; Sustainable Development; Administrative Transparency

INNOVATIVE MODELS OF CREATIVE TOURISM AND THEIR IMPACT ON REGIONAL ECONOMIC DEVELOPMENT

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ABSTRACT

In the conditions of the modern global economy, the tourism sector is dynamically transforming, which is due to both changes in consumer demand and the need for innovative and sustainable development. In this context, creative tourism, which is an alternative model to traditional mass tourism and is based on cultural identity, integration of local resources and active involvement of tourists in the process of creating experiences, acquires special importance. The aim of the study is to systematically analyze innovative models of creative tourism and assess their impact on regional economic development.

The article discusses the theoretical foundations of creative tourism and its evolution from cultural tourism to experience-oriented tourism. Special attention is paid to such innovative models as co-creation platforms, experience-based tourism products, digital creative ecosystems and the integration of local cultural entrepreneurship into the tourism sector. These models significantly increase the diversification of the tourism offer, enhance the emotional and cultural experience of the tourist and create high-value-added products.

Economic analysis shows that the development of creative tourism has a significant impact on the regional economy. In particular, it contributes to the strengthening of small and medium-sized businesses, the growth of employment of the local population and the diversification of incomes. In addition, creative tourism effectively uses intangible cultural resources, which is especially important for regions where natural or infrastructural resources are limited. This approach reduces regional inequality and ensures the decentralization of economic activity.

The study also highlights the role of human capital, education, innovation and digital technologies in the development of creative tourism. Digital platforms and marketing tools increase the visibility of regions in the global market, while the active involvement of local communities ensures the sustainability of tourism and the preservation of cultural heritage. At the same time, the importance of institutional support, public-private partnerships and effective policies is emphasized.

The study argues that innovative models of creative tourism are an important tool for stimulating regional economic development. Their successful implementation provides new sources of economic growth, increases competitiveness and contributes to sustainable socio-economic development. The results of the study can be used both for academic research and in the process of practical policy and strategic planning.

Keywords: creative tourism, innovative models, regional economic development, experience-based tourism, sustainable tourism.

**THE BASIS OF THE FUNCTIONING OF A DEFINED INTERNAL AUDIT THAT
APPLIES IT TECHNOLOGIES IN ITS WORK**

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ABSTRACT

The framework within which internal audit operates should stem from its establishment, that is, the definition of internal audit and the implementation of its technology should be viewed as a basis within which the development of many companies can be influenced, especially those that have introduced internal audit into their regular operations. This changes the operations and development of many economies. Such influences are significant for many heterogeneous legal entities, but also for their operations within the functioning of weak and small economies. Internal audit is an independent, objective assurance and consulting activity designed to add value and improve the operations of an organization. It helps an organization achieve its objectives by introducing a systematic, disciplined approach to assessing and improving the effectiveness of risk management, control and governance processes.

Keywords: IT systems, digitization, enterprise, management and top management decision-making.

**THE IMPORTANCE OF INTRODUCING ETHICAL BUSINESS IN THE WORK OF
INTERNAL AUDIT WHICH IMPLEMENTES IT BUSINESS SYSTEMS AND
DIGITALIZATION PROCESSES**

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ABSTRACT

The application of ethics in the work of internal auditors includes, among other things, the use of IT systems in the operations of numerous heterogeneous legal entities. Practicality can be observed through the application of new IT system software, which represents strong support both in the work of the internal auditor and in the work of all parts of the company. In addition, the application of digitalization is increasingly being expressed both in the work of companies and in the work of the state, or the business sector in which companies mainly operate. Ethics and implementation within the scope of internal audit operations also require the application of IT systems, modern new software, digital platforms and other forms of innovation in order to achieve the greatest possible business security. In this way, ethics in the work of internal audit, along with the application of new software solutions and digitalization, lead to improvements in operations such as: mobility, lighting, heating and cooling, reducing electricity consumption, replacing fossil fuels with renewable ones, which leads to the successful use of software to manage all important processes in the company's work, etc. In addition, such a business requires continuous cost reduction, which is often a consequence of the work of an IT system that optimizes business, and the end result of such rational business is its contribution to business, both in the form of business security and when such business has ethics in the work of all segments.

Keywords: IT system, digitization, company digital platform.

IMPACT OF ARTIFICIAL INTELLIGENCE IN TRANSFORMATION OF HUMAN RESOURCE MANAGEMENT WITH REFERENCE TO SELECTED IT COMPANIES OF UTTAR PRADESH

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ABSTRACT

The swift progression of Artificial Intelligence (AI) technology has transformed numerous areas, including Human Resource Management (HRM). This study explores the impact of AI on HRM practices, specifically among chosen IT organisations in Uttar Pradesh, India. The focus is on understanding how AI is revolutionising recruitment, employee engagement, performance management, and decision-making processes. Traditional HR roles are being redefined by AI-driven tools and technology, leading to more efficient, data-driven, and personalized HR operations. This report investigates these transitions and gives insights into both the benefits and problems connected with AI adoption in HRM. The major purpose of this study is to examine the extent to which AI tools have been integrated into HR operations in IT organisations in Uttar Pradesh. The research employs a mixed-method approach, integrating qualitative and quantitative analysis. Primary data is acquired through surveys and interviews with HR professionals and managers from chosen IT organisations. Secondary data comprises literature reviews, case studies, and existing research on AI in HRM. The findings suggest a dramatic shift in how HR departments in these firms' function, with AI automating basic functions such as recruitment screening, onboarding, employee engagement surveys, and even performance appraisals. AI-based solutions are increasingly employed for predictive analytics to anticipate staff demands, hence strengthening employee retention methods. Moreover, AI's function in recruitment is particularly remarkable. AI-powered algorithms enable HR managers to sift through thousands of resumes and applications rapidly, minimising biases, and picking the best candidates based on data-driven insights. However, issues such as the risk of algorithmic bias, data privacy concerns, and the requirement for upskilling the HR profession to effectively deploy AI technologies are recognised. The report underlines the necessity for balancing AI-driven efficiency with the human touch in HRM, as HR professionals must ensure that AI complements, rather than replaces, human decision-making. Employee performance appraisal and workforce management have also seen substantial modifications with the arrival of AI. Performance metrics are now recorded in real-time, enabling managers to provide rapid feedback and make data-backed choices on promotions, training needs, and other HR interventions. This dynamic feedback loop established by AI is enhancing employee engagement and generating a nimbler workforce in the IT sector. The research also addresses the ethical considerations related with the use of AI in HRM, such as transparency in AI decision-making processes and the ethical treatment of employee data. In conclusion, this study gives a complete review of the transformative influence of AI on HRM practices in selected IT organisations in Uttar Pradesh. AI is helping HR professionals to expedite procedures, improve decision-making, and create more tailored employee experiences. However, enterprises must manage the obstacles connected with AI implementation carefully, notably concerning ethics and workforce adaption. Future research can further study the long-term consequences of AI on HR practices and the developing role of HR professionals in an AI-driven workplace.

Keywords: Artificial Intelligence, Human Resource Management, IT Companies, Uttar Pradesh, Recruitment, Performance Management, Employee Engagement, Predictive Analytics, Data Privacy, Algorithmic Bias.

AI-POWERED TRANSFORMATION OF HR PRACTICES: A STUDY ON IT COMPANIES IN UTTAR PRADESH

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ABSTRACT

This research explores how AI changes HRM processes in IT organizations in Uttar Pradesh, India. A mixed-method research design is used, combining the qualitative aspects of the literature and the experiences of experts with an empirical survey of 277 HRM professionals and employees. The research indicates a moderate to high use of AI tools in HRM operations that include recruitment, training, performance appraisal, and workforce analytics, with recruitment and decision-making being the most frequently adapted areas. In addition, statistical analysis shows weak and statistically insignificant relationships between use of AI, HR transformation and performance, demonstrating that at this stage, AI remains operational use rather than a transformative use. Use of AI is challenged by lack of digital infrastructure, low HR expertise in AI, lack of integration of the AI and HR function. The research highlights the path to AI potential, including capacity building, establishing ethical and governance principles and managing change. The findings highlight readiness to maximize AI potential relies on organizational readiness, support leadership to engage, capacity building and continuous evaluation to use AI consequence for sustainable HR transformation and employee performance in the digital age.

Keywords: Artificial Intelligence, Human Resource Management, SPSS Analysis, IT Companies, Digital Transformation, AI Adoption, Uttar Pradesh

IN-SERVICE TRAINING AND EMPLOYEE PRODUCTIVITY: AN EMPIRICAL ANALYSIS OF ORGANIZATIONAL PERFORMANCE

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ABSTRACT

In today's fast-changing and competitive work environment, organizations are under constant pressure to improve performance and remain productive. One of the keyways they achieve this is through continuous employee development. This study explores how in-service training influences employee productivity and overall organizational performance. Guided by Human Capital Theory, the research uses a quantitative approach, collecting data from employees across selected organizations through structured surveys. The data is analyzed using correlation and regression techniques to understand how training impacts productivity measures such as efficiency, quality of work, and task completion. The findings show a clear and positive relationship between in-service training and employee productivity. Employees who participate in relevant and well-designed training programs tend to perform better, work more efficiently, and deliver higher-quality outputs. The study also finds that the effectiveness of training depends not just on how often it is offered, but on how relevant it is to employees' roles. In addition, organizational support such as management encouragement and access to resources plays an important role in strengthening these outcomes. Overall, this study reinforces the idea that investing in employee training is not just beneficial but essential for organizational growth. It provides practical insights for organizations looking to design more effective training programs that directly improve performance.

Keywords: In-service training, Employee productivity, Organizational performance, Human capital development, Workforce efficiency

**SCIENTIFIC ASSESSMENT OF CONSERVATION PROSPECTS OF CERTAIN
SPECIES BELONGING TO THE SUBFAMILY VALERIANOIDEAE RAF. IN THE
NAKHCHIVAN AUTONOMOUS REPUBLIC UNDER CONDITIONS OF GLOBAL
CLIMATE CHANGE**

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ABSTRACT

The article presents a study that examines the current status of species belonging to the subfamily *Valerianoideae* Raf. in nature against the backdrop of global climate change in recent years, monitoring the flowering and fruiting processes of species, with an emphasis on petrophyte species, in biotopes, and reveals that some species are in a critical state. Meteorological data for the last 5 years has been obtained from the Ministry of Ecology and Natural Resources of the Nakhchivan Autonomous Republic, species to be studied have been selected, routes determined, and observations made on the early spring species. In the context of global climate change, species in rocky biotopes have suffered the greatest damage in nature. The species *Valeriana erotica*, *Valeriana sisymbriifolia* Vahl. from the genus *Valeriana* L. and the species *Valerianella lasiocarpa* (Steven) Betcke and *Valerianella dentata* (L.) Pollich from the genus *Valerianella* Mill. have been selected and their current status in nature has been monitored for the last three years. It was recommended that seed material from all four species be collected, conserved in genebanks, and cultivated and preserved in the Botanical Garden of the Institute of Bioresources.

Keywords: Global climate change, *Valerianoideae* Raf., *Valeriana* L., *Valerianella* Mill., Flora of Nakhchivan

ASSESSMENT OF GENETIC POLYMORPHISM IN DIOSPYROS KAKI USING ISSR MARKERS IN AZERBAIJAN

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ABSTRACT

Genetic diversity is an important parameter for the adaptive potential of plants and the success of breeding programs. In this study, the genetic diversity of five persimmon (*Diospyros kaki*) genotypes (BG03, ŞB04, QL02, ŞB05, ŞG03) belonging to the same species was evaluated using ISSR (Inter Simple Sequence Repeat) markers. UBC840, UBC845, and UBC851 primers were employed. Following genomic DNA isolation, PCR amplification was carried out. The reaction volume was 25 µl, containing template DNA, reaction buffer, MgCl₂, dNTPs, primer, and Taq polymerase. The primer annealing temperature was set at 55°C. Amplification products were separated by agarose gel electrophoresis, and banding patterns were analyzed. Each band was scored as present (1) or absent (0), and a binary data matrix was constructed. ISSR analysis revealed that the amplified fragments ranged in size from 180 to 1200 bp, and the number of bands per primer varied between 1 and 5. The average polymorphism rate across all primers was 95.8%, indicating a high level of genetic polymorphism among the studied genotypes. For each primer, total band number (TB), polymorphic band number (PB), percentage of polymorphism, polymorphism information content (PIC), and resolving power (RP) were calculated. PIC values ranged from 0.32 to 0.48, with an average of 0.39, indicating a moderate level of informativeness of the ISSR primers and their reliability in detecting genetic variation. Rp values were 3.6, 4.0, and 5.2, respectively, suggesting that primers with higher Rp values had greater discriminatory power among genotypes. Genetic similarities among genotypes were calculated using the Dice similarity coefficient, revealing clear genetic differences among the genotypes. The results demonstrate that ISSR markers are effective and reliable tools for assessing genetic diversity in *Diospyros kaki*. This study provides valuable information for the characterization of persimmon genetic resources and contributes to future breeding programs.

Keywords: *Diospyros*, ScOT, PCR, molecular markers, genetic polymorphism.

CRK44-MEDIATED SIGNALING IN PHASEOLUS VULGARIS: A MOLECULAR SWITCH BETWEEN MYCORRHIZAL SYMBIOSIS AND PATHOGEN-TRIGGERED IMMUNITY

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ABSTRACT

Balancing symbiotic associations with effective immune defense is a central challenge in plant biology. In *Phaseolus vulgaris*, establishment of arbuscular mycorrhizal fungal symbiosis while adequately defending itself against potentially pathogenic microbes suggests the presence of an unresolved regulatory mechanism that integrates symbiotic, immune signaling that governs immune response activation. CRKs emerged as potential integrators of redox-dependent signaling, yet their precise mechanistic roles remain poorly defined in the redox-mediated signaling pathway. We propose that CRK44 functions as a redox-dependent signaling hub that interprets extracellular ROS thresholds to determine cellular outcomes and connects the signals of extracellular ROS to many intracellular pathways i.e., MAPK cascades, calcium signaling, and hormonal regulation. This perspective advances a threshold-based model in ROS dynamics dictate whether CRK44 promotes symbiosis or activates immune signaling. We propose that CRK44 can this framework provides a foundation for experimentally testing CRK44 as a regulatory key role in crop resilience and microbiome engineering. This work was supported by UNAM Postdoctoral Program (POSDOC) to Y.K. The authors acknowledge UNAM-DGAPA-PASPA through a sabbatical grant to A.M-K & K.N.

Keywords: CRK44, Cysteine-rich receptor-like kinases, *Phaseolus vulgaris*, Plant-microbe interactions, Reactive oxygen species (ROS).

STATUS OF PHAGE-DERIVED ENZYBIOTICS AS NEXT-GENERATION AGENTS IN VIBRIO KILLING

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ABSTRACT

Bacteriophages are crucial antibacterial agents due to the precision and specific targeted action. On the other hand, for accelerated action, phage derived enzymes known as enzybiotics are powerful tools with less resistant chances. Endolysins and lysins are highly active bacteriophage enzymes. These enzymatic proteins consist of single polypeptidoglycan chain with catalytic domain at N-terminal and cell binding domain located at C-terminal. are also specific in their action. Enzybioites as combination with other antibacterial regimens are helpful to lyse wide range of pathogenic bacterial stains. The enzybiotics are divided into two broad classes. Peptidoglycan hydrolases e.g. lysins acts on the peptidoglycan of bacterial cell walls and degrade them. Polysaccharide depolymerases act on the extracellular protective layers of bacteria like slime, capsule and biofilm matrix. In current research, clinical and pre-clinical trials are being done on gram-negative and gram-positive bacteria. CRISPR-Cas and CRIPY-BRED are genetic engineering tools for high precision results. Optimized genetically engineered enzybiotica can be used for the cure of human, marine and water related vibrio infection.

Keywords: Enzybiotics, CRISPR-Cas, CRIPY-BRED, endolysins, lysins

FORMULATION AND EVALUATION OF NANOEMULGEL CONTAINING TEA TREE OIL AND TURMERIC OIL FOR THE TREATMENT OF FUNGAL INFECTION

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ABSTRACT

Fungal infections of the skin are increasingly prevalent and often require effective topical therapies with improved penetration and reduced side effects. The present study focuses on the formulation and evaluation of a nanoemulgel containing tea tree oil (*Melaleuca alternifolia*) and turmeric oil (*Curcuma longa*) for enhanced antifungal activity and improved topical delivery. The nanoemulsion was developed using a combination of essential oils as the oil phase, with Tween 80 and Span 20 as surfactant and co-surfactant, respectively. Preformulation studies including organoleptic evaluation, solubility studies, and compatibility testing were conducted to ensure the suitability of formulation components. Pseudo-ternary phase diagrams were constructed using the aqueous titration method to identify the nanoemulsion region, followed by preparation of nanoemulsion using high-pressure homogenization and probe ultrasonication techniques to achieve reduced droplet size and improved stability. The optimized nanoemulsion was incorporated into a Carbopol 934 gel base neutralized with triethanolamine to obtain a stable nanoemulgel with suitable rheological properties. The formulations were evaluated for physicochemical parameters such as pH, viscosity, conductivity, droplet size, polydispersity index, zeta potential, and morphology using transmission electron microscopy. Thermodynamic stability tests including heating-cooling cycles, freeze-thaw cycles, and centrifugation were performed to confirm formulation stability. Further evaluation of nanoemulgel included physical appearance, spreadability, extrudability, and drug content estimation. In vitro drug release studies were conducted using Franz diffusion cell, while ex vivo permeation studies were performed using goat buccal mucosa to assess permeation characteristics. Antifungal activity was evaluated using agar well diffusion method and minimum inhibitory concentration (MIC) against *Candida albicans*. Additionally, the safety of the formulation was assessed using the HET-CAM irritation test, and stability studies were conducted as per ICH guidelines. The developed nanoemulgel demonstrated desirable physicochemical properties, enhanced stability, effective drug release, and significant antifungal activity, indicating its potential as a promising topical delivery system for the treatment of fungal infections.

Keywords: Nanoemulgel, Tea tree oil, Turmeric oil, Nanoemulsion, *Candida albicans*, Essential oils, Topical drug delivery.

DEVELOPMENT AND EVALUATION OF NANOEMULGEL FOR FUNGAL INFECTION USING TEA TREE AND TURMERIC OIL

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ABSTRACT

Fungal infections of the skin are increasingly prevalent and often require effective topical therapies with improved penetration and reduced side effects. The present study focuses on the formulation and evaluation of a nanoemulgel containing tea tree oil (*Melaleuca alternifolia*) and turmeric oil (*Curcuma longa*) for enhanced antifungal activity and improved topical delivery. The nanoemulsion was developed using a combination of essential oils as the oil phase, with Tween 80 and Span 20 as surfactant and co-surfactant, respectively. Preformulation studies including organoleptic evaluation, solubility studies, and compatibility testing were conducted to ensure the suitability of formulation components. Pseudo-ternary phase diagrams were constructed using the aqueous titration method to identify the nanoemulsion region, followed by preparation of nanoemulsion using high-pressure homogenization and probe ultrasonication techniques to achieve reduced droplet size and improved stability. The optimized nanoemulsion was incorporated into a Carbopol 934 gel base neutralized with triethanolamine to obtain a stable nanoemulgel with suitable rheological properties. The formulations were evaluated for physicochemical parameters such as pH, viscosity, conductivity, droplet size, polydispersity index, zeta potential, and morphology using transmission electron microscopy. Thermodynamic stability tests including heating-cooling cycles, freeze-thaw cycles, and centrifugation were performed to confirm formulation stability. Further evaluation of nanoemulgel included physical appearance, spreadability, extrudability, and drug content estimation. In vitro drug release studies were conducted using Franz diffusion cell, while ex vivo permeation studies were performed using goat buccal mucosa to assess permeation characteristics. Antifungal activity was evaluated using agar well diffusion method and minimum inhibitory concentration (MIC) against *Candida albicans*. Additionally, the safety of the formulation was assessed using the HET-CAM irritation test, and stability studies were conducted as per ICH guidelines. The developed nanoemulgel demonstrated desirable physicochemical properties, enhanced stability, effective drug release, and significant antifungal activity, indicating its potential as a promising topical delivery system for the treatment of fungal infections.

Keywords: Nanoemulgel, Tea tree oil, Turmeric oil, Nanoemulsion, *Candida albicans*, Essential oils, Topical drug delivery,

GROWTH DYNAMICS AND LEAF BIOMASS PRODUCTION OF CASSAVA UNDER REPEATED PRUNING FOR ANIMAL FEED OPTIMIZATION

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ABSTRACT

Cassava (*Manihot esculenta* Crantz) represents a promising forage resource in ruminant production systems through the utilization of leaf biomass derived from pruning. This study evaluated growth dynamics and leaf biomass production at 4 months (first pruning) and 8 months (second pruning) to optimize its role as animal feed. Measured variables included plant height, node number, internode length, leaf number, leaf yield, petiole length, and stem diameter. Data were analyzed using independent comparative tests following homogeneity of variance assessment. Most growth parameters were not significantly affected by pruning stage, including plant height ($p=0.769$), node number ($p=0.475$), internode length ($p=0.565$), leaf yield ($p=0.854$), petiole length ($p=0.203$), and stem diameter ($p=0.711$), were not significantly different between the first and second pruning ($p>0.05$). In contrast, leaf number was significantly higher at the second pruning stage ($p=0.022$), indicating enhanced vegetative response. This response suggests a compensatory growth mechanism following defoliation, potentially increasing forage availability. Repeated pruning of cassava may therefore serve as an effective strategy to sustain forage supply in integrated crop–livestock systems under tropical conditions.

Keywords: cassava, defoliation, forage biomass, integration, pruning.

**FIRST-PRINCIPLES STUDY OF THE EFFECT OF BORON CONCENTRATION ON
THE ELECTRONIC PROPERTIES OF $Tl_{1-x}B_xN$ ALLOYS USING THE MBJ-GGA
APPROACH WITH SPIN-ORBIT COUPLING**

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ABSTRACT

In this study, we report for the first time a theoretical investigation of the novel ternary alloy $Tl_{1-x}B_xN$ ($0 < x < 1$) crystallizing in the zinc blende structure. The calculations were performed within the framework of density functional theory (DFT) using the modified Becke–Johnson generalized gradient approximation (mBJ-GGA) with the inclusion of spin–orbit coupling (SOC). The obtained results reveal that substituting boron atoms into the thallium nitride lattice significantly modifies its electronic structure. The alloy exhibits metallic behavior for boron concentrations of $x = 0.25$ and $x = 0.5$, whereas at $x = 0.75$ it undergoes a transition to a direct band gap semiconductor. Incorporation of SOC slightly affects the band dispersion by inducing minor spin splitting near the Fermi level, without changing the overall electronic character. These outcomes demonstrate the tunable electronic nature of $Tl_{1-x}B_xN$ alloys, suggesting their potential suitability for future semiconductor and optoelectronic device applications.

Keywords: $Tl_{1-x}B_xN$ alloys; mBJ-GGA; SOC; zinc blende; electronic properties; band gap.

THE POTENTIALS OF PROBIOTIC SUPPLEMENTED FEEDS ON THE GROWTH AND HEALTH OF AFRICAN CATFISH (*Clarias gariepinus*)

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ABSTRACT

The increasing demand for sustainable aquaculture has prompted the exploration of alternatives to antibiotics in fish production, particularly in African catfish (*Clarias gariepinus*), a species widely cultivated for its rapid growth and environmental tolerance. Probiotic-supplemented feeds have emerged as a promising strategy to enhance growth performance, health status, and disease resistance in this species. Probiotics, including genera such as *Bacillus*, *Lactobacillus*, and *Enterococcus*, improve gut microbiota balance, enhance digestive enzyme activity, and promote nutrient utilization, leading to better feed conversion and weight gain. Additionally, they stimulate both innate and adaptive immune responses, increasing resistance to bacterial, viral, and parasitic infections. Probiotics also contribute to stress reduction, improved water quality, and enhanced reproductive performance. However, their effectiveness depends on factors such as strain selection, dosage, environmental conditions, and administration methods. Despite their numerous benefits, challenges such as variability in farm-scale performance, economic constraints, and reduced microbial viability during feed processing remain significant. Overall, probiotic-supplemented feeds represent a sustainable and eco-friendly approach to improving the productivity and health of African catfish aquaculture systems.

Keywords: Probiotics, growth performance, African catfish aquaculture, feed utilization, productivity, antibiotics

EXTRACTION AND CHARACTERIZATION OF PECTIN FROM CITRUS PEELS TO INCREASE THE SHELF LIFE OF FRUITS

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ABSTRACT

This study presents the extraction and characterization of pectin from citrus peels and its application as an edible coating for extending the shelf life of fruits. The extracted pectin was analysed using Fourier Transform Infrared Spectroscopy (FTIR) and High-Performance Liquid Chromatography (HPLC) to confirm its structural and compositional properties. In addition, the study evaluates the antibacterial activity of pectin against food-borne pathogens isolated from rotting fruits, along with its mechanism of action through biochemical assays. The Minimum Inhibitory Concentration (MIC) value was observed at 6.25 µg/ml and The Minimum Bactericidal Concentration (MBC) was observed at 3.125 µg/ml. Toxicity analysis was performed using *Danio rerio* embryos, where the results indicated that pectin exhibited minimal toxicity at lower concentrations. Pectin exhibited antibacterial activity against *Enterobacteriaceae* spp causing leakage of sugars and proteins, indicating cell membrane damage. Increased MDA levels and decreased GSH, CAT, and SOD activities confirmed the induction of oxidative stress and weakening of bacterial antioxidant defense systems. These results suggest that pectin inhibits bacteria through membrane disruption and oxidative stress mechanisms. Furthermore, a pectin–alginate edible coating was developed and applied on *Manilkara zapota* (sapota) and *Vitis vinifera* (green grapes) fruits to assess its preservation efficiency. The findings demonstrated that the coated fruits showed reduced microbial spoilage, improved firmness, and better retention of overall quality compared to uncoated controls. Overall, this study highlights the potential of pectin-based edible coatings as a biodegradable, safe, and eco-friendly alternative to synthetic preservatives, contributing to sustainable postharvest management and reduced environmental impact.

Keywords: Pectin, Edible coating, Shelf-life extension, Biopolymer, Food preservation

CHEMICAL STRUCTURE MODIFICATION OF AZO DYES BASED ON PHENYLAZONAPHTHALENE FOR IMPROVED PHOTOVOLTAIC PROPERTIES IN DSSCs APPLICATION: DFT AND TD-DFT INVESTIGATION

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ABSTRACT

Dye-sensitised solar cells (DSSCs) are of significant interest to researchers in the field of solar cell research due to their affordability and enhanced energy efficiency. In this study a theoretical analysis was performed on five phenylazonaphthalene-based azo dyes, utilising quantum methods, including density functional theory (DFT/B3LYP/SDD/6-311+G(d,p)) and its time-dependent derivative (TD-DFT/CAM-B3LYP/SDD/6-31+G(d,p)). The structural, electronic and optical properties of the dyes under study (C1, C2, C3, C4 and C5) were examined and discussed, including FMO energy gap (E_g), chemical hardness (η), chemical potential (μ), electronegativity (χ), softness (S), open circuit voltage (V_{oc}), molecular electrostatic potential (MEP), light harvesting efficiency (LHE), injection driving force ΔG_{inject} , NBO analysis and maximum electronic absorption (λ_{max}). The following properties were calculated in order to evaluate their potential applications in dye-sensitised solar cells (DSSCs).

Keywords: Azo-dye; Phenylazonaphthalene; DSSCs; optoelectronic properties; DFT and TD-DFT.

NATURAL MODULATION OF THE GUT MICROBIOTA IN PATIENTS WITH FOOD ALLERGIES: IMPACT OF ALERGIPLANT

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ABSTRACT

Background Dysbiosis or microbial imbalance, can predispose individuals to allergies, while a balanced gut microbiome, fosters immune tolerance. The immune mechanisms involved in food allergies are complex and little is known about the possible role of the gut microbiota in the aetiopathogenesis of food allergies.

Objective Alergiplant could modulate the immune system through gut microbiota in food allergies. Advancing knowledge of the gut microbiome and its function in modulating the course of food allergies, might result in novel therapeutic strategies.

Materials and methods The evaluation of the patients was based on history and physical examination. We investigated the effect Alergiplant in patients with food allergies.

Results Environmental factors such as urbanisation, pollution, and dietary habits also significantly contribute to food allergies risk. It is not clear whether microbial change in food allergies is an outcome of barrier defect or the cause of barrier dysfunction and inflammation. Manipulation of the gut microbiota as a method for modifying atopy, may be attempted in many ways including avoidance of certain foods, supplementation with probiotics and prebiotics, optimising nutrient intake, minimising stress, antimicrobial therapy, correction and prevention of low stomach acid, and faecal microbiota transplantation.

Conclusion The resident microbiota is important in maintaining structural and functional integrity of the gut and in immune system regulation. There was an increase of the intestinal permeability reported in patients with food allergies and a reduction of the gut microbiome diversity. Modifying gut microbiome by applying Alergiplant during early years may be a preventive and therapeutic option in high risk groups.

Keywords: food allergies, host-microbiome interaction; immune regulation; Alergiplant

STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS

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ABSTRACT

Drug repurposing is an alternative avenue for identifying new drugs to treat tuberculosis (TB). Although TB can be cured with anti-tubercular drugs, the emergence of multidrug-resistant and extensively drug-resistant strains of *Mycobacterium tuberculosis* H37Rv (Mtb), as well as the significant death toll globally, necessitate the development of effective drugs to treat TB.

Experiments and Key result findings:

In this study, drug repurposing approach was employed to address this drug resistance problem by screening drugbank database to identify novel inhibitors of the Mtb target enzyme, DNA gyrase. The compounds were screened against the ATPase domain of gyrase B subunit (MtbGyrB47), and the docking results showed Echinacoside, Doxorubicin, Epirubicin, and Idarubicin possess high binding affinities against MtbGyrB47. Comprehensive assessment using fluorescence spectroscopy, SPR, and CD titration studies revealed that Echinacoside as a potent binder against MtbGyrB47. Further, ATPase, and DNA supercoiling assays exhibited IC₅₀ values of 2.1-4.7 μ M for Echinacoside, Doxorubicin, Epirubicin, and Idarubicin. Among these compounds, the least MIC₉₀ of 6.3 μ M and 12 μ M were observed for Epirubicin and Echinacoside, respectively. Hence, our findings indicate that Echinacoside and Epirubicin target mycobacterial DNA gyrase, inhibit its catalytic cycle, and retard mycobacterium growth. Further these compounds exhibits potential scaffolds for optimizing novel anti-mycobacterial agents that can act on drug-resistant strains.

THE GUT MICROBIOME AS AN EMERGING BIOMARKER IN THE EARLY DIAGNOSIS OF NEURODEGENERATIVE DISEASES

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ABSTRACT

Neurodegenerative diseases (NDs), which include Alzheimer's disease (AD), Parkinson's disease (PD), dementia with Lewy bodies (DLB), amyotrophic lateral sclerosis (ALS), and Huntington's disease (HD), are a major and growing global health burden caused primarily by population aging and a lack of effective disease-modifying therapies. A significant restriction in contemporary clinical practice is the lack of accurate biomarkers capable of detecting disease during the preclinical or prodromal stages, when therapeutic interventions may be most successful. Increasing evidence from clinical, epidemiological, and experimental investigations suggests that changes in the gut microbiome precede overt neurological symptoms and contribute to neurodegenerative processes via the microbiota-gut-brain axis. This axis connects neuronal, immunological, endocrine, and metabolic signaling pathways, allowing intestinal bacteria to impact neuroinflammation, blood-brain barrier integrity, microglial activation, and protein aggregation in the central nervous system. This article summarizes evidence from human cohort studies and animal models demonstrating gut microbiome dysbiosis in major neurodegenerative diseases, discusses mechanistic pathways linking intestinal microbiome to neurodegeneration, and assesses the utility of microbiome-derived signatures as non-invasive biomarkers for early and differential diagnosis. Finally, the methodological obstacles and future research approaches necessary for clinical translation are discussed.

Keywords: Neurodegenerative diseases, Gut microbiome, Microbiota-gut-brain axis

NUTRITIONAL AND PHARMACOLOGICAL CHARACTERISTICS OF LAVENDER (LAVANDULA ANGUSTIFOLIA): A DETAILED REVIEW

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ABSTRACT

Lavender (*Lavandula angustifolia*) commonly called English lavender which is aromatic medicinal plant belonging to the family Lamiaceae, widely recognized for its pharmacological potential and therapeutic effects. This plant is rich in bioactive phytochemicals particularly monoterpenes such as linalool and linalyl acetate which are responsible for sedative and antidepressant effects. Experimental and clinical studies suggest that lavender exerts its calming properties through modulation of gamma aminobutyric acid (GABA) neurotransmitter system, thereby reducing neuro excitability and promoting relaxation. For this purpose it is used in aromatherapy and herbal teas. It also exerts significant antimicrobial activity against various Gram positive and Gram negative bacteria, as well as fungi, because it disrupts microbial cell membranes. Lavender also exhibits anti-inflammatory and antioxidant properties in the presence of flavonoids, phenolic acids (including Rosmarinic acid), Tannins and Coumarins. These compounds contribute to the scavenging of free radicals and inhibition of pro inflammatory mediators, supporting in preventing oxidative stress related disorders. It is also useful in managing headache, muscle pain by using in massage oils, and also used for gastrointestinal discomfort and has lowering effects on blood pressure exerting calming effects which may indirectly support heart health. Lavender is not a major nutrient source but it contains small amount of beneficial plant compounds such as polyphenols, flavonoids etc. which have antioxidant activity. It contains vitamin A (small amount) calcium and iron, so nutritional contribution is minimal compared to its medicinal value.

Keywords: *Lavandula angustifolia*, Lamiaceae, Rosmarinic acids, GABA modulation, phytotherapy, anti-inflammatory

ASSESSMENT OF HEALTH-RELATED BEHAVIORS AMONG PREGNANT WOMEN

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ABSTRACT

Introduction: From a life perspective, the prenatal period has been recognized as a critical period for both women and their offspring. A healthy intrauterine environment is a complex interaction between genetics, maternal behavior, environmental exposures, and biopsychosocial responses that all have a synergistic effect on both maternal and offspring health. **Aim:** To evaluate the health behaviors of the mother during the pregnancy period as they represent a spectrum of lifestyle factors that affect the health of the mother and the fetus during pregnancy, as well as later in life. **Objectives:** To identify harmful health behaviors during pregnancy. **Methodology:** It is a cross-sectional observational study in which pregnant women were included who were evaluated for five health behaviors: adequate consumption of fruits and vegetables in the last 24 hours, use of prenatal multivitamins, physical activity, sleep, and smoking.

Results: 152 pregnant women who followed their pregnancy in 2 health centers in the district of Vlora were surveyed. According to the respondents, it turns out that 52% have consumed fruits and vegetables in the last 24 hours, while 48% have not. The use of supplements and multivitamins before birth was at 78%. 44% of the interviewed women perform physical activity. It turns out that 17% have quiet and quality sleep, while smoking is in the figures of 11%. **Conclusions:** The health behavior of the mother during pregnancy is critical for her health and that of the offspring. Assessing engagement in these health behaviors is important as they represent a spectrum of lifestyle factors that affect maternal and fetal health during pregnancy and later in life. Adequate fruit and vegetable consumption among pregnant women was poor and varied by socioeconomic and educational status. Our finding that a small proportion of women adhere to fruit and vegetable recommendations is particularly critical given that higher fruit and vegetable consumption has been associated with a reduced risk of pregnancy complications such as gestational diabetes. The prevalence of smoking during pregnancy is decreasing

Keywords: fruit and vegetable consumption; health behavior; pregnant

THE PROBLEM OF MICROPLASTICS IN ENVIRONMENTAL MEDICINE

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ABSTRACT

Introduction: Microplastics represent one of the most significant challenges in modern environmental medicine due to their widespread distribution and potential adverse effects on human health. These compounds enter the environment through various routes, including marine and freshwater sources, ambient air, and food products, increasing human exposure.

The study aimed to analyze the main sources, global distribution, and pathophysiological effects of microplastics on human health based on recent scientific literature.

Study Methods and Materials: This study is based on a narrative literature review conducted in accordance with PRISMA guidelines to ensure methodological transparency and accuracy. A comprehensive search was performed in the PubMed and Google Scholar databases, covering the period from 2014 to 2024. The following keywords were used: “microplastics,” “human health,” “bioaccumulation,” “microplastics ingestion,” and “toxicology of microplastics.”

Inclusion criteria were: Peer-reviewed studies focusing on the impact of microplastics on human health, Systematic reviews, meta-analyses, original research articles. After initial screening of 134 articles, 37 met the final eligibility criteria and were analyzed in depth.

Literature management was conducted using Zotero, while Microsoft Excel was used for data synthesis and thematic organization.

Results: The findings indicate that microplastics have bio accumulative properties and are linked to serious health effects, including endocrine disruption, inflammation, immune dysfunction, cancer risk, and neurodegenerative diseases.

Conclusion:

Strengthening control measures across drinking water, food, and air quality to mitigate microplastic exposure, supported by coordinated efforts in environmental regulation, public health, and education.

Keywords: Microplastics, Health risks, Environmental medicine, Bioaccumulation

DENTAL ANXIETY AND PANIC

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ABSTRACT

Dental anxiety and panic are common psychological responses that can significantly affect oral healthcare delivery, patient cooperation, and treatment outcomes. These reactions may arise before or during dental procedures and range from mild fear and anticipatory tension to severe panic symptoms such as palpitations, sweating, trembling, dizziness, shortness of breath, chest discomfort, and an intense sense of losing control. Common triggers include fear of pain, local anesthesia injections, drilling sounds, previous traumatic experiences, embarrassment, and uncertainty about the procedure. For some individuals, these responses are so intense that they avoid regular dental visits, postpone treatment, or seek care only when symptoms become severe. This pattern often results in poorer oral health, more advanced disease, and the need for more invasive interventions, thereby reinforcing the cycle of fear and avoidance.

The development of dental anxiety and panic is multifactorial. It is influenced by individual psychological vulnerability, anxiety sensitivity, personality traits, low pain tolerance, negative childhood experiences, and environmental factors associated with the dental setting. Patients with a history of generalized anxiety, specific phobias, or panic attacks may be particularly susceptible. Social and communication factors also play an important role, as insufficient explanation, perceived lack of empathy, and poor rapport with the dentist may intensify distress. Early recognition of high-risk patients is therefore essential in routine dental practice.

Effective management requires a patient-centered and individualized approach. Careful history taking, observation of behavioral signs, and brief screening tools may help identify patients who need additional support. Clear communication, reassurance, step-by-step explanation of procedures, and adequate pain control are fundamental. Behavioral interventions such as relaxation techniques, distraction, breathing exercises, and gradual exposure may reduce anxiety, while cognitive-behavioral strategies and pharmacological anxiolysis may be appropriate in selected cases. Addressing dental anxiety and panic is essential for improving patient comfort, treatment adherence, clinical efficiency, and long-term oral health outcomes.

Keywords: dental anxiety; panic; oral healthcare; fear; patient management

PHYSICAL COMORBIDITIES IN SCHIZOPHRENIA

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ABSTRACT

Schizophrenia is a chronic and severe psychiatric disorder associated with substantial excess morbidity and premature mortality, much of which is attributable to coexisting physical illness. Patients with schizophrenia have a higher prevalence of cardiovascular disease, diabetes mellitus, obesity, metabolic syndrome, respiratory disorders, infectious diseases, and other chronic medical conditions than the general population. This elevated burden reflects a multifactorial interplay between disease-related mechanisms, unhealthy lifestyle patterns, adverse effects of long-term antipsychotic treatment, limited access to preventive healthcare, and underrecognition of somatic symptoms in psychiatric settings. In clinical practice, these comorbidities often remain insufficiently detected until they are already advanced, contributing to poorer prognosis and reduced quality of life.

The relationship between schizophrenia and physical comorbidities is complex and bidirectional. Metabolic abnormalities, hypertension, dyslipidemia, and impaired glucose regulation frequently cluster in the same patient, increasing the risk of cardiovascular complications. Smoking, sedentary behavior, poor diet, substance use, and social deprivation further amplify this risk profile. At the same time, cognitive impairment, negative symptoms, stigma, and fragmented healthcare systems may reduce adherence to screening, treatment, and follow-up. As a result, preventable medical conditions may progress unchecked and significantly worsen long-term outcomes.

Early assessment and identification of modifiable risk factors are therefore essential components of comprehensive schizophrenia care. Routine physical examination, metabolic monitoring, cardiovascular risk assessment, and regular laboratory surveillance should be integrated into psychiatric follow-up, particularly in patients receiving long-term antipsychotic therapy. Early recognition of obesity, hyperglycemia, dyslipidemia, and other emerging abnormalities may enable timely preventive and therapeutic interventions. A multidisciplinary approach involving psychiatrists, primary care physicians, internists, nurses, and other healthcare professionals is necessary to improve detection, optimize management, and reduce avoidable morbidity and mortality. Strengthening the integration of mental and physical healthcare remains a key priority for achieving better overall outcomes in patients with schizophrenia.

Keywords: schizophrenia; physical comorbidities; risk factors; early identification; metabolic syndrome

APPLICATION OF GREEN NANOTECHNOLOGY IN MALARIA TREATMENT

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ABSTRACT

Introduction: Development of nanoparticles for biomedical use is an innovative strategy that overcomes the issues with poor drug bioavailability, low stability and drug resistance. Malaria is a parasitic infection that is one of the three diseases (with tuberculosis and HIV) presenting a serious threat to global health. In many cases the current malaria treatment is ineffective due to the resistance of Plasmodium species to many of the antimalarial drugs. However, the administration of higher doses of the antimalarial drugs could increase the toxicity which for some of the drugs is inherently high. In this view, different types of nanoparticles were evaluated as possible carriers of antimalarial drugs aiming to overcome these drawbacks. Special focus was pointed on the development of metal nanoparticles via green synthesis. **Methods:** A literature analysis regarding the application of green nanotechnology in the treatment of malaria was performed by Google Scholar search engine for the interval 2016–2026. **Results:** The green nanotechnology offers new opportunity in the treatment of malaria. The green method uses plant extracts containing polyphenols and proteins that further could reduce the metal ions. The main advantage of the method is that neither chemical agents nor toxic solvents are needed for the nanoparticle synthesis. Furthermore, the plant extracts contain various phytochemicals providing beneficial effect on the malaria treatment. The conjugation of the metal nanoparticles with drug molecules could additionally improve the therapeutic outcome. **Discussion and Conclusion:** The current study has demonstrated that the main types of the metal nanoparticles that are intensively studied as drug delivery systems for malaria treatment are silver, gold and zinc oxide nanoparticles. The silver nanoparticles could combine antiprotozoal and antibacterial activity that is advantageous for therapeutic purpose. The gold nanoparticles might exert anti-inflammatory and antioxidant effects that enhances their therapeutic potential. All these aspects have been considered and summarized.

Keywords: Malaria; Green nanotechnology; Metal nanoparticles

NAVIGATING TURBULENCE: UNDERSTANDING CRISES IN THE MEDIEVAL AND EARLY MODERN WORLD

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ABSTRACT

This paper examines the crises that affected the medieval and early modern periods, focusing on social, economic, political, and environmental issues (Kalan, 2024; Swinney & Crawford, 2021). The main goal is to analyze these crises and their effects, including famines, plagues, and political conflicts, and to understand their lasting influence on European society (Benedictow, n.d.; Muhlberger, 2020). The study seeks to uncover the connections between historical events and their broader impacts, offering a clear view of how these crises produced significant changes in governance, social structures, and economic systems (Editors, 2026; Encyclopedia Britannica, 2026). Unlike previous studies that often treat each crisis separately or underscore either destruction or renewal, this paper provides an integrated synthesis across several crisis types and regions, highlighting the interrelated nature of these events and their combined role as both sources of hardship and catalysts for transformation (Kalan, 2024; Swinney & Crawford, 2021). The research uses a mixed-method approach, combining analysis of historical texts with data on population changes, trade, and financial indicators (Kalan, 2024). It includes case studies of important crises, such as the Black Death and the Thirty Years' War, and draws on ideas from history, sociology, and economics (Benedictow, n.d.; Muhlberger, 2020). The results show that while crises often caused immediate suffering, they also triggered innovation and reform (Kalan, 2024; Editors, 2026). For example, the demographic changes following the Black Death created labour shortages, thereby improving peasants' status (Benedictow, n.d.). Similarly, political upheavals, though destabilizing, often led to stronger, more effective governing systems (Encyclopedia Britannica, 2026). The findings show how societies can bounce back from hardships and the difficulty of managing crises in history. In conclusion, understanding these crises is vital for grasping the development of modern Europe and offers lessons for current challenges (Muhlberger, 2020; Swinney & Crawford, 2021).

Keywords: Crisis, Medieval, Early Modern, Transformation.

THE ROLE OF IMAGINATION IN CHILDREN'S UNDERSTANDING OF LIGHT

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ABSTRACT

This report examines how children use their imagination by comparing their perceptions of sunlight on the ground with those of light from an electric bulb. The findings show that children make sense of their surroundings in creative ways, which shapes their understanding of reality. The main goal is to explore how children's imaginative thinking influences their views of everyday things. The study considers the differences between sunlight and electric-bulb light to understand how imaginative thinking develops in children. Research indicates that children often give natural qualities to artificial objects, showing their active engagement with their environment (Margett & Witherington, 2011). Studies by Piaget and Vygotsky suggest that imagination is important for cognitive development and learning (Huitt & Hummel, 2003). However, the present findings add nuance to these classic theories. While Piaget stressed the gradual shift from magical or animistic thinking to more logical reasoning as children age, this study shows that children continue to blend fantasy and reality even as their scientific interpretations grow more sophisticated (Vandenberg, 2023). Vygotsky's view of imaginative play as a driving force for concept development is reinforced by the observation that joint, metaphorical engagement with light supports children's meaning-making (Fleer, 2011). Additionally, these results correspond with contemporary theories such as Anna Craft's notion of "possibility thinking" and Howard Gardner's theory of multiple intelligences, suggesting that imagination is not simply a stage to be outgrown, but a sustained and essential aspect of learning across ages and contexts (Craft, n.d.). The study included observing children's reactions to indoor lighting and their comments about light sources. Children often described an electric light bulb as sunlight, demonstrating they mix reality with fantasy. This supports the idea that children use metaphors to understand their world. The analysis relies on constructivist theory, which highlights how children build knowledge through imaginative play and metaphorical thinking. This metaphor shows that children's imagination is a strong instrument for understanding and learning about their environment. Recognizing this imaginative process can help educators develop teaching strategies that encourage creative and critical thinking. The findings are valuable for teachers and parents, as they highlight the importance of nurturing imagination in early development. It is essential to promote imaginative play and metaphorical thinking within educational contexts to support children's intellectual development and interests.

Keywords: Imagination, Children, Learning.

ASSESSING URBAN DEVELOPMENT IN TALDYKORGAN CITY USING VEGETATION AND BUILT-UP INDICES (1996–2025)

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ABSTRACT

This study presents a comprehensive spatio-temporal analysis of urbanization processes in Taldykorgan city over the period 1996–2025 using remote sensing data and Geographic Information Systems (GIS). The Normalized Difference Vegetation Index (NDVI) and the Normalized Difference Built-up Index (NDBI) were applied to evaluate changes in vegetation cover and built-up areas. The results demonstrate a consistent expansion of urbanized territories accompanied by a gradual reduction in vegetation, particularly in central parts of the city. The observed inverse relationship between NDVI and NDBI confirms the significant environmental impact of urban growth and highlights the importance of geospatial approaches for sustainable urban planning.

Keywords: urbanization, NDVI, NDBI, remote sensing, GIS, spatial analysis, Taldykorgan.

MEDICAL MALPRACTICE INSURANCE: A CRITICAL PERSPECTIVE ON INSURANCE CONTRACT CLAUSES

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ABSTRACT

Medical malpractice insurance plays a crucial role in the provision of healthcare services. Medical professionals in most states are legally required to obtain such insurance in order to practice in compliance with the applicable legal framework.

Due to the presence of multiple insurance companies on the market, insurance contracts have become increasingly diversified. Each company seeks to offer coverage that competitors may not provide. However, the medical community is currently facing a major issue: the existence of abusive clauses in medical liability insurance contracts.

These clauses are becoming more frequent, often as a result of doctors' limited understanding of what such contracts should or should not contain. In this context, some insurance companies, when confronted with a medical error, attempt to identify contractual clauses that allow them to deny compensation, invoking exclusions of liability. This unfair practice is driven by a clear objective: maximizing the insurer's profit by minimizing payouts. The aim of this study is to identify and analyze the abusive clauses commonly found in medical liability insurance contracts.

Keywords: medical malpractice insurance, medical liability, medical error

UNDERSTANDING YOUTH PERCEPTIONS OF DIGITAL PUBLIC SERVICE APPLICATIONS IN VIETNAM'S DIGITAL TRANSFORMATION CONTEXT

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ABSTRACT

This paper examines the role of digital transformation in reshaping social and economic practices in Vietnam, with a particular focus on youth as key actors in the adoption and use of digital applications. Drawing on existing literature and policy frameworks, the study conceptualizes digital transformation as a multidimensional process involving the integration of digital technologies into production, governance, and everyday life.

The findings indicate that digital technologies and applications have become increasingly embedded in daily activities, contributing to enhanced efficiency, accessibility, and connectivity. Youth, as the most active users of digital technologies, play a central role in driving digital adoption and facilitating broader social participation in digital environments. However, despite high levels of internet usage, their engagement with structured digital applications—particularly online public services—remains limited.

The study highlights that this gap is closely related to issues of perception, awareness, and the perceived relevance of digital applications in everyday life. It also emphasizes that digital transformation generates both opportunities and challenges, including increased productivity and innovation alongside growing concerns about inequality, digital divides, and unequal access to resources and skills.

Furthermore, the paper identifies a significant gap in existing research, which has primarily focused on general internet usage rather than youth perceptions and behaviors toward digital applications, especially in the context of public service delivery. Addressing this gap is essential for improving digital inclusion and enhancing the effectiveness of national digital transformation strategies.

Overall, the study argues that successful digital transformation requires not only technological infrastructure but also changes in awareness, behavior, and policy implementation, with youth positioned as a critical group in shaping a sustainable and inclusive digital society.

Keywords: digital transformation; digital applications; youth; digital public services; perception; technology adoption; digital society; Vietnam

**QUALITY OF LIFE AND SUSTAINABLE DEVELOPMENT IN VIETNAM:
ECONOMIC PERFORMANCE, SOCIAL PROGRESS
AND EMERGING STRUCTURAL CONSTRAINTS**

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ABSTRACT

This paper examines the achievements, limitations, and policy implications related to improving quality of life in Vietnam within the context of global economic uncertainty and ongoing socio-economic transformation. Drawing on recent statistical data and policy reports, the study highlights Vietnam's strong economic growth performance in early 2026, alongside notable improvements in social welfare, healthcare, education, infrastructure, and environmental sustainability.

Despite these positive outcomes, several structural challenges remain, including regional disparities in development, limitations in human capital quality, rising living costs, and pressures from environmental and demographic changes. The study also identifies key policy gaps and governance constraints affecting the effectiveness of socio-economic development strategies.

Based on these findings, the paper proposes a set of policy recommendations aimed at promoting inclusive growth, improving public service quality, enhancing social security systems, and strengthening governance capacity. Ultimately, the study emphasizes that improving quality of life requires not only economic growth but also a balanced and sustainable approach integrating social equity, environmental protection, and institutional effectiveness..

Keywords: quality of life; socio-economic development; Vietnam; inclusive growth; social welfare; public policy; sustainable development

LEGAL PROVISIONS OF VIETNAMESE LAW ON DEEPFAKE

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ABSTRACT

The development of artificial intelligence in the digital era has generated numerous significant applications in social life, among which deepfake technology stands out. Deepfake refers to a technology that utilizes deep learning algorithms to create highly realistic fabricated videos, images, and audio. Notwithstanding its beneficial applications, deepfake technology is increasingly being exploited to perpetrate various unlawful acts. Meanwhile, the current legal framework of Vietnam has yet to establish specific regulations governing the use of deepfake technology. This article analyzes the concept and characteristics of deepfake technology, assesses the potential risks of legal violations arising from its use, and, on that basis, proposes several recommendations aimed at improving Vietnamese law in preventing and combating unlawful acts related to deepfake technology.

Keywords: deepfake; legal provisions; artificial intelligence.

THE LESSONS OF THE 2011 TŌHOKU EARTHQUAKE

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ABSTRACT

This paper will discuss the effects of the first month after the 2011 Tōhoku earthquake. Many fled the resulting tsunami and left their belongings in their houses and apartments. The tsunami destroyed a large part of the area, leaving many families with nothing. They went to the nearest evacuation camps and tried to get back on their feet. However, people gathered in the evacuation camps in the hard-hit and less-affected regions. When the earthquake struck, many people could no longer use public transport because it had all ceased to function. They had to spend the first night or the first couple of nights in the evacuation camps. It was only after transport was up and running again that those affected could return to their homes. It is also evident, just as is the case with past earthquakes that the refugee camps were repeatedly associated with infectious diseases and an initial lack of direction. Alongside the physical illnesses came psychological problems that caused high stress. Fear of existence, fear of another catastrophe, fear of the future and lack of privacy were significant worries.

Focusing specifically on the earthquake, its aftershocks, human casualties, and the devastation caused, the research will provide insight into the disaster areas and how the traffic network and the mobile and normal telephone network coped. Reference will be made to event cancellations and postponements of the start of school and life in the evacuation camps. Many people had to stay in such shelters for the first month, and many could not return home. The search for missing persons was not easy. The tsunami swept away the paths, roads, and gas stations, which is why gasoline and oil were among the scarce commodities in the entire Tōhoku area. This not only made it more difficult to search for the victims of the flood but also to take care of the survivors and took a far longer time, which the missing did not possess.

Keywords: Earthquake, Natural Disasters, Japan, State Policy, Transport

**EMPOWERING OF DIFABEL FOR INNOVATION OF AGRICULTURAL SECTOR
(HYDROPONIC AND VERTICULTURE) IN MEDAN, NORTHERN SUMATERA,
INDONESIA**

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ABSTRACT

Empowering people with disabilities as a vulnerable group of people facing poverty aims to improve their knowledge and skills in fulfilling their physical, economic, and social needs for a better life. This study aims to (1) identify the characteristics of people with disabilities in Medan; and (2) formulate strategies for empowering people with disabilities in the era of disruption. This study uses a qualitative descriptive method. Data collection techniques include observation and interviews supported by literature studies. Field findings indicate that there are 30 people with disabilities with diverse characteristics (physical, intellectual, and deaf disabilities). The results show a significant increase in knowledge and interpretation for applying hydroponic and vertical farming innovations in limited agricultural land. This activity supports the empowerment of knowledge, skills, and applications of people with disabilities in the agricultural sector to increase economic income.

Keywords: difabel, hydroponic, verticulture, agricultural sector, Medan

BAYESIAN APPROACHES TO FLEXIBLE HAZARD MODELING FOR SURVIVAL DATA WITH TIME-VARYING COVARIATES IN STAN

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ABSTRACT

The present study develops a Bayesian framework for survival analysis with time-varying covariates, incorporating flexible hazard structures to capture complex temporal patterns in event-time data. Several baseline hazard formulations—including Weibull, exponential, Gompertz, B-splines, and M-splines—are modeled alongside the extended Cox model. All models are implemented in Stan using Hamiltonian Monte Carlo for efficient posterior estimation. Model performance is evaluated using leave-one-out and widely applicable information criteria, complemented by posterior predictive checks to assess model adequacy. Results demonstrate that spline-based hazard models effectively accommodate non-proportional hazards and provide greater flexibility in describing dynamic risk patterns. The discussion emphasizes the value of Bayesian model comparison in selecting hazard specifications that balance flexibility, interpretability, and predictive accuracy for time-varying survival data.

Keywords: Extended Cox model, Time varying covariate, HMC, Stan

STRUCTURAL INHERITANCE AND OROGENIC EVOLUTION OF THE OUZELLARH (HIGH ATLAS, MOROCCO)

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ABSTRACT

This research maps tectonic fractures in the Zat area of the Western High Atlas using optical data (Landsat 8 OLI and ASTER DEM). These images have been treated and enhanced using an appropriate method (filters, ACP) in order to construct a lineament map. It was confirmed in a fully new structural map based on a combination of pre-existing geological data and field information. The described lineaments include four primary directional ranges, N-S, NW-SE, E-W, and NE-SW, with a prevalence of the NE-SW directional family of Atlasic compression. They represent a greater agreement with the faults that are previously acknowledged. Except for the directional range from E-W to NNE-SSW, which contains lineaments connected with Ediacaran dykes. Furthermore, the E-W directional family, which is part of the prior range, might be related with normal faults formed perpendicular to N-S accidents during the opening of the Paleozoic basin. The lineament density grows proportionately from the Phanerozoic cover to the Precambrian substratum due to the development of terrain stiffness and fracturing rate. With the exception of the Precambrian nuclei (Ourika and Afra), were distinguished by a significant decline in density. This shows that these nuclei exercised local lithological control over fracturing during the orogenic compressions that occurred during geological eras. In the context of prospecting and identifying mineralised fractures, as well as the investigation of subsurface flows, this work offers an intriguing structural map. Furthermore, as part of sustainable development, it investigated a major geological hazard that is very sensitive to the ground movements that characterize the area.

Keywords: Remote sensing, lineament, tectonics, Ediacaran, Hercynian, Atlasic, Precambrian block.

VLORA 1912: ALBANIAN STATE FORMATION BETWEEN NATIONALISM AND INTERNATIONAL REALPOLITIK

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ABSTRACT

The declaration of Albanian independence in Vlorë on November 28, 1912, constitutes a pivotal moment in the political and historical trajectory of Albania, marking the transition from imperial periphery to an emergent nation-state. This study examines the process of Albanian state formation within the broader context of late Ottoman decline, Balkan nationalism, and Great Power diplomacy. While traditional historiography has largely framed independence as the culmination of the Albanian National Awakening, this paper argues that the establishment of the Albanian state was also shaped by external geopolitical constraints.

The analysis focuses on the period between 1878 and 1912, emphasizing the role of the League of Prizren, the development of national identity, and the political mobilization of Albanian elites. Particular attention is given to the events of 1912, including the Albanian uprisings and the Balkan Wars, which created both urgency and opportunity for independence.

Furthermore, the study explores the role of the Great Powers—especially Austria-Hungary and Italy in shaping Albanian independence. The London Conference of Ambassadors (1912–1913) is analyzed as an example of realpolitik, where recognition was accompanied by territorial limitations.

By adopting a historiographical and analytical approach, this paper demonstrates that Albanian independence resulted from a complex interaction between domestic agency and international diplomacy. The findings contribute to a more nuanced understanding of Albanian state formation, positioning Vlorë 1912 as a key moment where nationalism and realpolitik converged.

Keywords: Albanian state formation, Vlorë 1912, nationalism, realpolitik, Balkan Wars, Great Powers

NOISE-INDUCED HEARING LOSS IN THE METALWORKING SECTOR: FREQUENCY, RISK FACTORS, AND PREVENTIVE APPROACHES

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ABSTRACT

Introduction and Aim: The metalworking industry is one of the sectors where high levels of noise exposure in the work environment are common. Long-term and repeated noise exposure can lead to irreversible sensorineural hearing loss. Noise-induced hearing loss (NIHL) has significant consequences for both individual health and occupational safety. The aim of this study is to evaluate the frequency of NIHL in the metal industry, related risk factors, and protective practices in light of current studies. **Materials and Methods:** This study is a literature-based evaluation. By examining current research conducted in different countries, the frequency of hearing loss in the metal industry, the main risk factors, and the effectiveness of hearing protection programs were discussed. **Findings:** In studies conducted in the steel industry, noise-induced hearing loss was detected in a significant portion of the workers, and it was reported that the risk increased significantly, especially as the working time increased (Elshaer et al., 2023). Similarly, in studies conducted in metal workshops, it was shown that age and total exposure time were related to hearing loss (Melese et al., 2022). Clinically, noise-induced hearing loss usually progresses slowly and is difficult to detect in the early stages. Workers report difficulty distinguishing speech, especially in crowded environments. Hearing loss is often accompanied by tinnitus, which can negatively affect quality of life (Masterson et al., 2020). Furthermore, long-term noise exposure has been reported to be associated with cardiovascular and psychosocial effects (Basner et al., 2022). Studies have shown that the rates of newly developed hearing loss decrease in metallurgical plants where hearing protection programs are regularly implemented (Couto Lopes et al., 2024). **Conclusion:** Noise-induced hearing loss is common in the metal industry, but it is largely a preventable occupational disease. Long-term and high-intensity noise exposure is the primary risk factor. The disease burden can be reduced through the systematic implementation of hearing protection programs, regular health surveillance, and employee training. Strengthening occupational health practices and making protective strategies sustainable are necessary in the metal sector.

Keywords: Noise-Induced Hearing Loss; Metal Sector; Occupational Noise; Hearing Protection; Occupational Health

METAL İŞ KOLUNDA GÜRÜLTÜYE BAĞLI İŞİTME KAYBI: SIKLIK, RİSK FAKTÖRLERİ VE KORUYUCU YAKLAŞIMLAR

ÖZET

Giriş ve Amaç: Metal iş kolu, çalışma ortamında yüksek düzeyde gürültü maruziyetinin yaygın olduğu sektörlerden biridir. Uzun süreli ve tekrarlayan gürültü maruziyeti geri dönüşü olmayan sensörinöral (duyusal-sinirsel) işitme kaybına yol açabilmektedir. Gürültüye bağlı işitme kaybı (NIHL) hem bireysel sağlık hem de iş güvenliği açısından önemli sonuçlar doğurmaktadır. Bu çalışmanın amacı, metal sektöründe NIHL'nin sıklığını, ilişkili risk faktörlerini ve koruyucu uygulamaları güncel çalışmalar ışığında değerlendirmektir.

Gereç ve Yöntem: Bu çalışma literatür temelli bir değerlendirmedir. Farklı ülkelerde yürütülen güncel araştırmalar incelenerek metal sektöründe işitme kaybının sıklığı, başlıca risk faktörleri ve işitme koruma programlarının etkinliği ele alınmıştır.

Bulgular: Çelik endüstrisinde yapılan çalışmalarda, çalışanların önemli bir kısmında gürültüye bağlı işitme kaybı tespit edilmiş ve özellikle çalışma süresi arttıkça riskin belirgin şekilde yükseldiği bildirilmiştir (Elshaer ve ark., 2023). Benzer şekilde metal atölyelerinde yürütülen araştırmalarda da yaş ve toplam maruziyet süresinin işitme kaybı ile ilişkili olduğu gösterilmiştir (Melese ve ark., 2022). Klinik olarak gürültüye bağlı işitme kaybı genellikle yavaş ilerlemekte ve erken dönemde fark edilmesi güç olmaktadır. Çalışanlar özellikle kalabalık ortamlarda konuşmaları ayırt etmekte zorlandıklarını ifade etmektedir. İşitme kaybına sıklıkla kulak çınlaması eşlik etmekte ve bu durum yaşam kalitesini olumsuz etkileyebilmektedir (Masterson ve ark., 2020). Ayrıca uzun süreli gürültü maruziyetinin kardiyovasküler ve psikososyal etkilerle ilişkili olduğu bildirilmiştir (Basner ve ark., 2022). İşitme koruma programlarının düzenli olarak uygulandığı metalurjik tesislerde yeni gelişen işitme kaybı oranlarının azaldığı gösterilmiştir (Couto Lopes ve ark., 2024).

Sonuç: Metal iş kolunda gürültüye bağlı işitme kaybı yaygın görülmekle birlikte büyük ölçüde önlenabilir bir meslek hastalığıdır. Uzun süreli ve yüksek şiddette gürültü maruziyeti temel risk faktörüdür. İşitme koruma programlarının sistematik uygulanması, düzenli sağlık gözetimi ve çalışan eğitimi ile hastalık yükü azaltılabilir. Metal sektöründe iş sağlığı uygulamalarının güçlendirilmesi ve koruyucu stratejilerin sürdürülebilir hale getirilmesi gerekmektedir.

Anahtar Kelimeler: Gürültüye Bağlı İşitme Kaybı; Metal Sektörü; Mesleki Gürültü; İşitme Koruma; İş Sağlığı

LEVEL-BASED DISASTER AND EMERGENCY MANAGEMENT STRUCTURES

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ABSTRACT

Disaster and emergency management is a multidisciplinary field that encompasses preparing societies for natural and human-induced hazards, ensuring effective response to incidents, and managing post-disaster recovery processes. The modern approach to disaster management is based on a comprehensive management cycle that includes risk reduction, preparedness, response, and recovery phases rather than focusing solely on response activities. This approach is commonly referred to in the literature as the “disaster management cycle” (Haddow, Bullock & Coppola, 2025).

For emergency and disaster management systems to function effectively, institutional structures that ensure coordination among different organizations are of great importance. In this context, disaster management systems in many countries are structured in accordance with the multi-level governance approach. Within this model, responsibilities and authorities are distributed among local governments, regional institutions, and central authorities within a defined hierarchy. Local institutions typically carry out the initial response to incidents, while higher-level institutions become involved depending on the scale and complexity of the event (Phillips, Neal & Webb, 2020).

In the disaster management literature, the primary objective of institutional structures is to ensure that different organizations act rapidly and in a coordinated manner during crises. For this reason, many countries have developed standardized systems for incident management. These systems provide a scalable structure that allows response capacity to be expanded when necessary. Thus, while small-scale incidents can be managed at the local level, national or international support mechanisms can be activated in larger disasters (Haddow et al., 2025).

Another important dimension of disaster management systems is resilience and recovery processes.

Modern approaches focus not only on responding to disasters but also on strengthening the resilience of societies against such events. In this context, risk reduction policies, infrastructure strengthening initiatives, and public awareness activities constitute important components of disaster management systems (Goniewicz et al., 2021).

In conclusion, disaster and emergency management is a complex management process that requires coordination among numerous institutions. An effective disaster management system requires a comprehensive approach that integrates risk assessment, institutional coordination, planning, operational response, and post-disaster recovery processes. Therefore, modern disaster management approaches are based on multi-level governance structures and interdisciplinary cooperation. In this review study, the institutional structuring methods of disaster and emergency management systems in Türkiye will be examined.

Keywords: Disaster management, emergency management, multi-level governance, disaster management cycle, institutional coordination.

SEVİYE BAZLI AFET VE ACİL DURUM YAPILANMALARI

ÖZET

Afet ve acil durum yönetimi, toplumların doğal ve insan kaynaklı tehlikelere karşı hazırlıklı olmasını, olaylara etkili şekilde müdahale edilmesini ve afet sonrası iyileştirme süreçlerinin yönetilmesini kapsayan çok disiplinli bir alandır. Modern afet yönetimi yaklaşımı, yalnızca müdahale süreçlerine odaklanmak yerine risk azaltma, hazırlık, müdahale ve iyileştirme aşamalarını içeren bütüncül bir yönetim döngüsü üzerine kurulmuştur. Bu yaklaşım literatürde genellikle “disaster management cycle” olarak adlandırılmaktadır (Haddow, Bullock & Coppola, 2025).

Acil durum ve afet yönetimi sistemlerinin etkin şekilde çalışabilmesi için kurumlar arasında koordinasyon sağlayan kurumsal yapılanmalar büyük önem taşımaktadır. Bu kapsamda birçok ülkede afet yönetimi sistemleri çok seviyeli yönetim (multi-level governance) yaklaşımı doğrultusunda yapılandırılmaktadır. Bu modelde yerel yönetimler, bölgesel kurumlar ve merkezi otoriteler arasında görev ve sorumluluklar belirli bir hiyerarşi içerisinde paylaşılmaktadır. Yerel kurumlar genellikle olaylara ilk müdahaleyi gerçekleştirirken, olayın büyüklüğüne ve karmaşıklığına bağlı olarak daha üst seviyelerdeki kurumlar devreye girmektedir (Phillips, Neal & Webb, 2020).

Acil durum yönetimi literatüründe kurumsal yapıların temel amacı, farklı kurum ve kuruluşların kriz anında hızlı ve koordineli şekilde hareket etmesini sağlamaktır. Bu nedenle birçok ülkede olay yönetimi için standartlaştırılmış sistemler geliştirilmiştir. Bu sistemler, olayın büyüklüğüne göre ölçeklenebilen bir yapı sunarak müdahale kapasitesinin gerektiğinde genişletilmesine olanak tanır. Böylece küçük ölçekli olaylar yerel düzeyde yönetilebilirken, daha büyük afetlerde ulusal veya uluslararası düzeyde destek mekanizmaları devreye girebilmektedir (Haddow et al., 2025).

Afet yönetimi sistemlerinin önemli bir diğer boyutu ise dirençlilik (resilience) ve iyileştirme (recovery) süreçleridir. Modern yaklaşımlar, afetlere yalnızca müdahale etmek yerine toplumların afetlere karşı dirençli hale getirilmesine odaklanmaktadır. Bu kapsamda risk azaltma politikaları, altyapı güçlendirme çalışmaları ve toplumsal farkındalık faaliyetleri afet yönetimi sistemlerinin önemli bileşenleri arasında yer almaktadır (Goniewicz et al., 2021).

Sonuç olarak, afet ve acil durum yönetimi, çok sayıda kurumun koordinasyonunu gerektiren karmaşık bir yönetim sürecidir. Etkili bir afet yönetimi sistemi; risk değerlendirmesi, kurumsal koordinasyon, planlama, operasyonel müdahale ve afet sonrası iyileştirme süreçlerinin bütüncül şekilde ele alınmasını gerektirir. Bu nedenle modern afet yönetimi yaklaşımları, çok seviyeli yönetim yapıları ve disiplinler arası iş birliği üzerine kurulmaktadır. Yapılan bu derleme çalışmasında da afet ve acil durumların ülkemize göre yapılanma yöntemleri ele alınacaktır.

Anahtar Kelimeler: Afet yönetimi, acil durum yönetimi, çok seviyeli yönetim, afet yönetim döngüsü, kurumsal koordinasyon.

SCALABLE FABRICATION and TECHNO-ECONOMIC ANALYSIS of $Ti_4N_3T_x$ MXene-BASED COMPOSITE MEMBRANES

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ABSTRACT

This study provides a detailed techno-economic assessment of MXene-based composite membrane fabrication, focusing on MXene synthesis, functional polymer production, and membrane casting. The total material and energy costs for synthesizing 1 g of $Ti_4N_3T_x$ MXene amounted to approximately 930 TL (~31 USD), with argon gas and fluoride salts constituting the major cost contributors. Polymer synthesis for 5 g of modified polymers—sulfonated polysulfone (SPS) and aminated chloromethylated polysulfone (AKPS)—incurred costs of 413 TL (~13.8 USD) and 605 TL (~20.2 USD), respectively, primarily due to expensive reagents such as benzyl chloromethyl ether and methanol. Electricity consumption for processing steps ranged from 0.03 TL to 43.47 TL per equipment, with ball milling and water bath heating being the most energy-intensive. Membrane casting costs were comparatively lower at approximately 50 TL (~1.7 USD) per membrane. These findings demonstrate that reagent expenses and energy consumption significantly influence overall production costs, suggesting targeted process optimizations could improve economic viability. The study provides critical insights into cost drivers and lays the groundwork for scalable MXene-polymer membrane manufacturing.

Keywords: MXene, $Ti_4N_3T_x$, Composite membrane, Techno-economic analysis

$Ti_4N_3T_x$ MXene TABANLI KOMPOZİT MEMBRANLARIN ÖLÇEKLENEBİLİR ÜRETİMİ VE TEKNO-EKONOMİK ANALİZİ

ÖZET

Bu çalışma, MXene tabanlı kompozit membran üretiminin tekno-ekonomik açıdan ayrıntılı bir değerlendirmesini sunmakta olup, MXene sentezi, fonksiyonel polimer üretimi ve membran döküm süreçlerine odaklanmaktadır. 1 g $Ti_4N_3T_x$ MXene sentezi için toplam malzeme ve enerji maliyeti yaklaşık 930 TL (~31 USD) olarak hesaplanmış olup, bu maliyet içerisinde argon gazı ve florür tuzları başlıca maliyet bileşenlerini oluşturmaktadır. Modifiye edilmiş polimerlerden 5 g üretimi için, sülfonlanmış polisülfon (SPS) ve aminlenmiş klorometillenmiş polisülfon (AKPS) sırasıyla 413 TL (~13.8 USD) ve 605 TL (~20.2 USD) maliyet oluşturmuş; bu durum büyük ölçüde benzil klorometil eter ve metanol gibi pahalı reaktiflerden kaynaklanmaktadır. İşlem adımlarına ait elektrik tüketimi, kullanılan ekipmana bağlı olarak 0.03 TL ile 43.47 TL arasında değişmekte olup, bilyalı öğütme ve su banyosu ile ısıtma işlemleri en yüksek enerji tüketimine sahip süreçler olarak belirlenmiştir. Membran döküm maliyetleri ise karşılaştırmalı olarak daha düşük olup, membran başına yaklaşık 50 TL (~1.7 USD) seviyesindedir.

Elde edilen bulgular, reaktif maliyetlerinin ve enerji tüketiminin toplam üretim maliyetleri üzerinde belirleyici bir etkiye sahip olduğunu göstermekte ve hedefe yönelik süreç optimizasyonlarının ekonomik uygulanabilirliği artırabileceğini ortaya koymaktadır. Bu çalışma, maliyet belirleyicilerine ilişkin kritik bilgiler sunmakta ve ölçeklenebilir MXene-polimer membran üretimi için temel bir altyapı oluşturmaktadır.

Anahtar Kelimeler: MXene, $Ti_4N_3T_x$, kompozit membran, tekno-ekonomik analiz

ECONOMIC EVALUATION AND PROCESS OPTIMIZATION OF Ti₃CNT_x MXENE SYNTHESIS AND POLYMER-BASED MEMBRANE FABRICATION

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ABSTRACT

This study offers a detailed economic evaluation of the fabrication processes for Ti₃CNT_x MXene-based membranes, including MXene synthesis, polymer modification, and membrane casting. Two synthesis methods were compared: Direct hydrofluoric acid (HF) etching with a cost of 328.04 TL (10.93 USD) per gram of MAX phase, and the lithium fluoride (LiF) plus hydrochloric acid (HCl) method costing 425.91 TL (14.20 USD). Polymer synthesis costs showed notable differences, with sulfonated polysulfone (SPS) at 413.34 TL (13.78 USD) and aminated chloromethylated polysulfone (AKPS) at 605.15 TL (20.17 USD) for 5 grams of material. Membrane casting was found to cost 44.10 TL (1.47 USD) per membrane, driven largely by energy consumption for solvent evaporation and drying. These findings highlight the significant impact of reagent selection and energy use on total production costs. The results underline the importance of optimizing fabrication protocols to improve economic feasibility and environmental sustainability for scaling MXene membrane technologies.

Keywords: Ti₃CNT_x, MXene synthesis, Economic feasibility

Ti₃CNT_x MXene SENTEZİ VE POLİMER BAZLI MEMBRAN ÜRETİMİNİN EKONOMİK DEĞERLENDİRMESİ VE PROSES OPTİMİZASYONU

ÖZET

Bu çalışma, MXene sentezi, polimer modifikasyonu ve membran dökümü dahil olmak üzere Ti₃CNT_x MXene bazlı membranların üretim süreçlerinin ayrıntılı bir ekonomik değerlendirmesini sunmaktadır. İki sentez yöntemi karşılaştırılmıştır: MAX fazının gramı başına 328,04 TL (10,93 ABD Doları) maliyetli doğrudan hidroflorik asit (HF) aşındırma ve 425,91 TL (14,20 ABD Doları) maliyetli lityum florür (LiF) artı hidroklorik asit (HCl) yöntemi. Polimer sentez maliyetleri önemli farklılıklar göstermiştir; sülfonatlı polisülfon (SPS) 413,34 TL (13,78 ABD Doları) ve aminli klorometile polisülfon (AKPS) 5 gram malzeme için 605,15 TL (20,17 ABD Doları) tutarındadır. Membran dökümünün, büyük ölçüde çözücü buharlaştırma ve kurutma için tüketilen enerjiden kaynaklanan membran başına 44,10 TL (1,47 ABD Doları) maliyeti olduğu bulunmuştur. Bu bulgular, reaktif seçimi ve enerji kullanımının toplam üretim maliyetleri üzerindeki önemli etkisini vurgulamaktadır. Sonuçlar, MXene membran teknolojilerinin ölçeklendirilmesinde ekonomik uygulanabilirliği ve çevresel sürdürülebilirliği artırmak için üretim protokollerinin optimize edilmesinin önemini vurgulamaktadır.

Anahtar Kelimeler: Ti₃CNT_x, MXene sentezi, Ekonomik uygulanabilirlik

THE USE of PHASE CHANGE MATERIALS (PCMS) in COOLING LITHIUM-ION BATTERIES

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ABSTRACT

The increasing energy demand and the fact that this demand is largely met by limited fossil fuel resources has led to significant environmental problems. Many viable innovative research projects are being conducted to mitigate these harmful environmental effects. In this context, electric vehicles are attracting increasing attention in both academia and industry as alternative solutions to traditional internal combustion engine vehicles. Electric vehicles stand out as systems that use battery packs as their primary energy source and offer environmentally friendly transportation options. Although electric vehicles are becoming increasingly popular, manufacturers still face significant obstacles. The most critical issue is developing reliable batteries that allow for both fast charging and long battery life. Today, most electric vehicles run on lithium-ion batteries. There are several reasons for the widespread use of these batteries. Their high energy capacity and ease of charging and discharging are particularly noteworthy. Their recyclability and reasonable cost also contribute to their popularity. However, safety remains a serious concern. Heating and safety risks associated with large batteries are major obstacles to fast charging. While it takes approximately half an hour to bring a typical battery to 80%, the heat increase caused by the battery's internal resistance during fast charging must be considered.

Electric vehicle batteries heat up significantly during intensive use, especially during rapid acceleration or prolonged discharge periods. This heating can negatively impact battery performance; leading to capacity loss, self-discharge, and even serious safety risks such as thermal runaway, fire, or explosion. Thermal runaway is an undesirable event that occurs when heat in batteries cannot be controlled. This is generally caused by factors such as material structure and cell design. Furthermore, uneven temperature distribution within a battery pack can significantly reduce the battery's cycle life. Battery Thermal Management Systems utilize various cooling methods to ensure batteries operate within their ideal temperature range. These include air cooling, liquid cooling, and phase-change materials. Each method aims to improve performance and safety by keeping battery temperature under control. This study investigates the application methods of phase-change materials in electric vehicle batteries and their roles in thermal management. Specifically, the study examines their capacity to prevent overheating, their contribution to extending battery life, and their importance in improving system safety.

Keywords: Phase change materials, lithium-ion batteries, cooling.

LİTYUM- İYON BATARYALARIN SOĞUTULMASINDA FAZ DEĞİŞTİREN MALZEMELERİN (FDM) KULLANILMASI

ÖZET

Artan enerji ihtiyacı ve bu ihtiyacın çoğunlukla sınırlı fosil yakıt kaynaklarından karşılanması, önemli çevresel problemlerin ortaya çıkmasına neden olmuştur. Çevreye zararlı bu etkilerin azaltılması için birçok uygulanabilir yenilikçi araştırmalar yapılmaktadır. Bu kapsamda elektrikli araçlar, geleneksel içten yanmalı motorlu taşıtlara alternatif olabilecek çözümler olarak hem akademik çevrelerde hem de endüstride giderek daha fazla ilgi görmektedir.

Elektrikli araçlar, temel enerji kaynağı olarak batarya paketleri kullanan ve çevre dostu ulaşım imkânı sunan sistemler olarak öne çıkmaktadır. Elektrikli araçlar her geçen gün daha çok tercih edilse de üreticilerin önünde hâlâ aşılması gereken ciddi engeller var. En kritik mesele, araçların hem hızlı şarj olmasını hem de uzun süre dayanmasını sağlayacak güvenilir bataryalar geliştirmek. Bugün elektrikli araçların çoğu lityum iyon pillerle çalışıyor. Bu pillerin yaygın olarak kullanılmasının birkaç sebebi bulunmaktadır. Özellikle enerji kapasitelerinin yüksek olmasıyla birlikte şarj ve deşarj edilmelerinin kolay olması gibi nedenler ön plana çıkmaktadır. Ayrıca geri dönüştürülebilir olmaları ve maliyetlerinin makul olması da onları öne çıkarıyor. Ancak güvenlik konusu ciddi bir sorun olarak durmaktadır. Büyük boyutlu bataryalarda yaşanabilecek ısınma ve güvenlik riskleri, hızlı şarjın önündeki en büyük engellerden biridir. Tipik bir bataryayı %80 seviyesine getirmek yaklaşık yarım saat sürerken, hızlı şarj sırasında bataryanın iç direncinden kaynaklı ısı artışı göz önünde bulundurulmalıdır. Elektrikli araç bataryaları, yoğun kullanım sırasında özellikle hızlı ivmelenme veya uzun deşarj süreçlerinde önemli ölçüde ısınır. Bu ısınma, pil performansını olumsuz etkileyebilir; kapasite kaybı, kendi kendine deşarj ve hatta termal kaçış, yangın veya patlama gibi ciddi güvenlik risklerine yol açabilir. Termal kaçış, pillerde ısının kontrol edilememesi durumuna ortaya çıkan istenilmeyen bir olaydır. Bu durum genelde malzeme yapısı, hücre tasarımı gibi nedenlerden kaynaklanmaktadır. Bunun yanı sıra, bir batarya paketinde sıcaklığın eşit dağılmaması, pilin döngü ömrünü belirgin şekilde azaltabilmektedir. Batarya Termal Yönetim Sistemlerinde, pillerin ideal sıcaklık aralığında çalışmasını sağlamak amacıyla farklı soğutma yöntemleri uygulanmaktadır. Bunlar arasında hava soğutma, sıvı soğutma ve faz değiştiren malzemeler yer almaktadır. Her bir yöntem, pil sıcaklığını kontrol altında tutarak performans ve güvenliği artırmayı hedeflemektedir. Bu çalışmada, elektrikli araç bataryalarında faz değiştiren malzemelerinin uygulanma yöntemleri ve termal yönetimdeki rolleri incelenmektedir. Özellikle bu malzemelerin aşırı ısınmayı önleme kapasitesi, pil ömrünü artırmadaki katkısı ve sistem güvenliğini geliştirmedeki önemi ele alınmaktadır.

Anahtar Kelimeler: Faz değiştiren malzemeler, Lityum iyon piller, Soğutma.

DESING AND CONTROL OF PV-POWERED INDUCTIVE WIRELESS POWER TRANSFER SYSTEM

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ABSTRACT

The rapid proliferation of mobile devices and the increasing reliance on portable electronics have significantly intensified the demand for efficient, flexible, and sustainable charging solutions. Conventional wired charging methods suffer from limitations such as cable degradation, reduced reliability, and dependency on grid infrastructure. These challenges have accelerated the development of wireless power transfer (WPT) technologies as a practical and user-friendly alternative. In this study, the design and control of a PV-powered inductive wireless power transfer system for mobile phones are presented. The proposed system aims to achieve a sustainable and cable-free charging solution and consists of three main stages. In the first stage, the nonlinear PV output is regulated using a buck converter to obtain a constant and ripple-free DC input voltage. In the second stage, a full-bridge inverter converts the DC voltage into high-frequency AC, which is transferred through a series-series compensated resonant inductive link. This topology ensures high efficiency and load-independent operation at the resonant frequency of 134.3 kHz. Wireless power transfer is achieved via magnetic coupling between transmitter and receiver coils. In the final stage, the received AC power is rectified using a diode bridge, and a PI-based control strategy is implemented to maintain a constant output voltage under varying conditions such as load changes. The system is modeled and simulated using MATLAB/Simulink. Simulation results confirm the effectiveness of the proposed system by demonstrating that a stable output of 5 V and 1 A (5 W) was successfully achieved and the system operated with 71% efficiency.

Keywords: Solar Panel, Inductive Power Transfer, Series-Series Resonant Topology,

PRELIMINARY STUDY ON A NATURAL POZZOLANIC SOURCE: A BANANA PEEL SAMPLE

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ABSTRACT

Due to the growing population, urban living has become widespread, and the need for housing and infrastructure has increased. Cement is generally used as a binder in the materials employed to meet these structural needs. Although the use of cement has increased since its inception, it cannot be considered an environmentally friendly material due to issues such as global warming and climate change that have emerged in recent years. Worldwide, the carbon footprint caused by cement accounts for 7-9% of all activities. For this reason, researchers are seeking new alternatives. Consequently, there is a need for pozzolanic materials that, while not fully replacing cement, can partially substitute for it-materials that are not binding agents on their own but can become partially or fully binding when combined with a binder. These pozzolanic materials may be natural substances, or they may be byproducts or waste generated from industrial activities. In this study, banana peels-which become kitchen waste-were freeze-dried and then ground into powder using a coffee grinder. Subsequently, an XRF analysis was conducted to provide an initial indication of their pozzolanic properties. As a result of the study, recommendations were made based on an analysis of the obtained results, considering that some regulations impose basic oxide limitations related to pozzolanic properties.

Keywords: Pozzolanic properties, banana peel, XRF, freeze-drying.

DOĞAL PUZOLANİK KAYNAK İÇİN ÖN ÇALIŞMA: MUZ KABUĞU ÖRNEĞİ

ÖZET

Günümüzde artan nüfusa dayalı olarak kent yaşamı yaygınlaşmış, konut ve alt yapı ihtiyacı artmıştır. Bu yapısal ihtiyaçları karşılamak için kullanılan malzemelerde genellikle bağlayıcı olarak çimento kullanılmaktadır. Çimento ortaya çıktığı günden beri kullanımı artsa da son yıllarda ortaya çıkan küresel ısınma ve iklim değişikliği gibi konular nedeniyle çevre dostu bir malzeme olarak düşünülememektedir. Tüm dünyada çimentonun sebep olduğu karbon ayak izi tüm faaliyetlerin %7-9'una tekabül etmektedir. Bu amaçla araştırmacılar yeni alternatifler peşindedirler. Bu itibarla, çimentonun yerini tamamen tutamasa bile kısmi olarak ikame edilebilecek kendi başına bağlayıcı olmasa da bir bağlayıcı ile birleştiğinde kısmi veya tamamı bağlayıcı hale gelebilen puzolanik malzemelere ihtiyaç duyulmaktadır. Bu puzolanik malzemeler doğal bir malzeme olabilir iken, endüstriyel faaliyetler sonucunda yan ürün veya atık olarak ortaya çıkan bir malzeme de olabilmektedir. Bu çalışmada mutfak atığı haline gelen muz kabuğu dondurularak kurutulmuş, ardından kahve değirmeni yardımıyla toz haline getirilmiştir. Ardından puzolanik malzeme özelliği için ön fikir verebilmesi için XRF analizi yaptırılmıştır. Çalışmanın sonucunda, bazı yönetmeliklerde puzolanik özellik ile alakalı temel oksit sınırlandırması yapıldığından elde edilen analiz sonuçları irdelenerek önerilerde bulunulmuştur.

Anahtar kelimeler: Puzolanik özellik, muz kabuğu, XRF, dondurarak kurutma.

STRUCTURAL AND MORPHOLOGICAL INVESTIGATION OF HYDROTHERMALLY SYNTHESIZED Cr₂O₃ and Nd-DOPED Cr₂O₃ NANOPOWDERS

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ABSTRACT

Chromium oxide (Cr₂O₃) and neodymium-doped chromium oxide (Nd³⁺-Cr₂O₃) nanopowders were synthesized via the hydrothermal method for potential technological applications. Their structural and morphological properties were investigated using X-ray diffraction (XRD) and scanning electron microscopy (SEM). XRD results confirmed that both samples crystallized in a trigonal structure with lattice parameters of $a = 4.954 \text{ Å}$ and $c = 13.592 \text{ Å}$, corresponding to the R-3c space group. Additional diffraction peaks observed in Nd³⁺-Cr₂O₃ indicate structural modifications induced by Nd doping. The average crystallite sizes were calculated as 38.08 nm for Cr₂O₃ and 34.21 nm for Nd³⁺-Cr₂O₃, demonstrating that Nd incorporation suppresses crystal growth. SEM analyses revealed that pure Cr₂O₃ exhibited nearly spherical but agglomerated particles without well-defined crystal facets. In contrast, Nd-doped samples showed more uniform, smaller, and well-dispersed spherical particles with reduced agglomeration. These findings suggest that Nd doping significantly influences both structural and morphological properties, enhancing particle distribution and controlling crystallite size. Therefore, Nd³⁺-Cr₂O₃ nanopowders present improved characteristics for applications in catalysis, sensing, and advanced functional materials.

Keywords: Cr₂O₃, Nanomaterial, Hydrothermal synthesis, Rare earth elements (REEs)

HİDROTHERMAL YÖNTEMLE SENTEZLENEN Cr₂O₃ VE ND KATKILI Cr₂O₃ NANOTOZLARININ YAPISAL VE MORFOLOJİK İNCELENMESİ

ÖZET

Krom oksit (Cr₂O₃) ve neodimyum katkılı krom oksit (Nd³⁺-Cr₂O₃) nanotozlar, potansiyel teknolojik uygulamalar için hidrotermal yöntem ile sentezlenmiştir. Bu numunelerin yapısal ve morfolojik özellikleri, X-ışını kırınımı (XRD) ve taramalı elektron mikroskobu (SEM) analizleri kullanılarak incelenmiştir. XRD sonuçları, her iki numunenin de $a = 4.954 \text{ Å}$ ve $c = 13.592 \text{ Å}$ kafes parametrelerine sahip trigonal kristal yapıda ve R-3c uzay grubuna ait olduğunu doğrulamıştır. Nd³⁺-Cr₂O₃ numunesinde gözlenen ek kırınım pikleri, Nd katkısının yapısal değişikliklere neden olduğunu göstermektedir. Ortalama kristalit boyutları Cr₂O₃ için 38.08 nm ve Nd³⁺-Cr₂O₃ için 34.21 nm olarak hesaplanmış olup, bu sonuçlar Nd katkısının kristal büyümesini baskıladığını ortaya koymaktadır.

SEM analizleri, saf Cr_2O_3 numunesinin yaklaşık küresel ancak aglomerasyon eğilimli partiküllerden oluştuğunu ve belirgin kristal yüzeyler sergilemediğini göstermiştir. Buna karşılık, Nd katkılı numunelerde daha homojen, daha küçük boyutlu ve daha iyi dağılmış küresel partiküller ile azalmış aglomerasyon gözlenmiştir. Bu bulgular, Nd katkısının yapısal ve morfolojik özellikler üzerinde önemli bir etkiye sahip olduğunu ve partikül dağılımını iyileştirerek kristalit boyutunu kontrol ettiğini göstermektedir. Bu nedenle $\text{Nd}^{3+}\text{-Cr}_2\text{O}_3$ nanotozlar, kataliz, sensör ve ileri fonksiyonel malzeme uygulamaları için geliştirilmiş özellikler sunmaktadır.

Anahtar Kelimeler: Cr_2O_3 , nano malzeme, hidrotermal sentez, nadir toprak elementeri

CURRENT BIOCHEMICAL MARKERS IN REGULATED CELL DEATH PATHWAYS: NEW DIAGNOSTIC APPROACHES FROM APOPTOSIS TO DISULFIDPTOSIS

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ABSTRACT

Background: Cell death is a highly regulated biochemical process essential for tissue homeostasis. The traditional apoptosis-necrosis dichotomy is now obsolete, superseded by the Nomenclature Committee on Cell Death (NCCD) classifications detailing distinct regulated cell death (RCD) modalities. Differentiating these interconnected cascades via specific quantitative biomarkers in clinical biochemistry is crucial for the personalized management of oncological transformations, neurodegenerative disorders, and severe sepsis.

Methods: This comprehensive review systematically evaluated current literature from SCI/SCI-E indexed journals to delineate the specific molecular mechanisms of programmed cell deaths. The analysis focused strictly on the analytical validity, pre-analytical stability requirements (e.g., centrifugation protocols, storage temperatures), and clinical utility of circulating biochemical markers specific to each RCD pathway.

Results: Distinct peripheral biomarker profiles accurately characterize each RCD modality. Apoptosis is robustly quantified via active Caspase-3 assays and circulating cytochrome-c levels. Necroptosis is distinguished by RIPK1/RIPK3 necrosome complex formation and phosphorylated MLKL concentrations. Pyroptosis evaluation necessitates the measurement of Gasdermin D (GSDMD) cleavage products alongside highly elevated pro-inflammatory interleukins (IL-1 β , IL-18). Ferroptosis is definitively marked by glutathione peroxidase 4 (GPX4) enzymatic depletion coupled with lipid peroxidation byproducts, specifically plasma malondialdehyde (MDA) and 4-hydroxynonenal (4-HNE). Cuproptosis diagnosis utilizes homeostatic disruptions in serum copper (reference interval: 10-22 μ mol/L) and altered FDX1 protein expression. Furthermore, disulfidptosis is continuously monitored via plasma thiosulfate concentrations and the critical protein disulfide stress ratio (SH:SS).

Conclusion: Quantifying next-generation RCD mechanisms via serum or plasma-based liquid biopsy provides clinicians with non-invasive, highly specific, and evidence-based diagnostic data. Integrating these specific molecular biomarkers into Laboratory Information Systems (LIS) utilizing individualized Reference Change Value (RCV) algorithms offers high clinical significance for monitoring disease progression and overcoming therapeutic resistance. Standardized analytical calibrators are urgently required to establish definitive decision limits.

Keywords: Apoptosis, Ferroptosis, Cuproptosis, Pyroptosis, Biomarker, Clinical Biochemistry.

REGÜLE HÜCRE ÖLÜMÜ YOLAKLARINDA GÜNCEL BİYOKİMYASAL BELİRTEÇLER: APTOZİSTEN DİSÜLFİDPTOZİSE YENİ TANISAL YAKLAŞIMLAR

ÖZET

Arka Plan: Hücre ölümü, doku homeostazisini sağlayan, sıkı regüle edilen biyokimyasal bir süreçtir. Geleneksel apoptozis-nekroz dikotomisi günümüzde geçerliliğini yitirmiş; yerini Hücre Ölümü İsimlendirme Komitesi (NCCD) tarafından detaylandırılan regüle edilmiş hücre ölümü (RCD) modalitelerine bırakmıştır.

Bu birbirine entegre kaskadların klinik biyokimya laboratuvarlarında spesifik kantitatif biyobelirteçler ile ayırt edilmesi; onkolojik transformasyonların, nörodejeneratif hastalıkların ve ağır sepsisin kişiselleştirilmiş yönetiminde kritik öneme sahiptir.

Yöntemler: Bu kapsamlı derlemede, programlanmış hücre ölümlerinin spesifik moleküler mekanizmalarını aydınlatmak amacıyla SCI/SCI-E indeksli dergilerdeki güncel literatür sistematik olarak değerlendirilmiştir. Analiz; analitik geçerlilik, pre-analitik stabilite gereksinimleri (örn., santrifüj protokolleri, saklama sıcaklıkları) ve her bir RCD yolağına özgü dolaşımdaki biyokimyasal belirteçlerin klinik yararlılığı üzerine titizlikle odaklanmıştır.

Bulgular: Her bir RCD modalitesi, spesifik periferik biyobelirteç profilleri ile doğru bir şekilde karakterize edilmektedir. Apoptozis, aktif Kaspaz-3 asayleri ve dolaşımdaki sitokrom-c düzeyleri ile güçlü bir şekilde kantifiye edilir. Nekroptozis, RIPK1/RIPK3 nekrozom kompleks oluşumu ve fosforile MLKL konsantrasyonları ile ayırt edilir. Piroptozis değerlendirmesi, yüksek oranda artmış pro-inflamatuvar interlökinler (IL-1 β , IL-18) ile birlikte Gasdermin D (GSDMD) bölünme ürünlerinin ölçümünü gerektirir. Ferroptozis, glutatyon peroksidaz 4 (GPX4) enzimatik tükenmesinin yanı sıra lipid peroksidasyon yan ürünleri olan plazma malondialdehit (MDA) ve 4-hidroksinonenal (4-HNE) artışı ile kesin olarak işaretlenir. Kuproptozis tanısında serum bakır homeostazisindeki bozulmalar (referans aralığı: 10-22 μ mol/L) ve değişmiş FDX1 protein ekspresyonu kullanılır. Ayrıca disülfidptozis, plazma tiyosülfat konsantrasyonları ve kritik protein disülfid stres oranı (SH:SS) aracılığıyla sürekli izlenmektedir.

Sonuç: Yeni nesil RCD mekanizmalarının serum veya plazma tabanlı likit biyopsi ile kantifikasyonu, klinisyenlere non-invaziv, oldukça spesifik ve kanıta dayalı tanısal veriler sunar. Bu spesifik moleküler biyobelirteçlerin, bireyselleştirilmiş Referans Değişim Değeri (RCV) algoritmaları kullanılarak Laboratuvar Bilgi Sistemlerine (LBS/LIS) entegre edilmesi, hastalık progresyonunun izlenmesi ve terapötik direncin aşılmasında yüksek klinik anlamlılık sağlar. Kesin karar sınırlarının (decision limits) oluşturulması için standardize edilmiş analitik kalibratörlere acilen ihtiyaç duyulmaktadır.

Anahtar Kelimeler: Apoptozis, Ferroptozis, Kuproptozis, Piroptozis, Biyobelirteç, Klinik Biyokimya.

THERANOSTIC BIOCHEMISTRY IN ONCOLOGY: CDX AND LIQUID BIOPSY

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ABSTRACT

Objective: The theranostic approach, forming the core of personalized medicine, is transforming oncology practice by integrating molecular diagnostics with targeted therapeutics. The objective of this review is to comprehensively examine the evolution of the clinical biochemistry laboratory from a passive analytical testing center into a proactive decision-support system that directly guides treatment protocols through companion diagnostics (CDx) and liquid biopsy applications, specifically focusing on distinct cancer models.

Scope: The theranostic cycle is evaluated from a laboratory perspective along three main axes. First, addressing treatment safety, DPYD gene variant analyses applied to prevent 5-Fluorouracil-induced fatal toxicity in gastrointestinal tumors exemplify mandatory CDx processes. In the second axis, targeted molecular management is detailed; monitoring resistance to first-generation EGFR inhibitors in non-small cell lung cancer (NSCLC) via liquid biopsy, and the clinical approval processes for transitioning to Osimertinib therapy upon detecting the EGFR T790M mutation in circulating tumor DNA (ctDNA) using digital PCR (dPCR) are highlighted. The CDx requirement of plasma RAS wild-type verification prior to targeted anti-EGFR (Cetuximab) therapies in colorectal cancers is examined. Additionally, real-time monitoring of serum PSA kinetics during Lutetium-177 PSMA theranostics in advanced prostate cancer and Therapeutic Drug Monitoring (TDM) applications using liquid chromatography-tandem mass spectrometry (LC-MS/MS) are summarized.

Conclusion: In modern oncology, achieving the balance of maximum therapeutic efficacy and minimum off-target toxicity relies entirely on specific molecular data provided by biochemistry laboratories. For future physicians, synthesizing oncological signaling pathways with advanced analytical outputs such as dPCR, NGS, and exosomal miRNA quantification is a fundamental prerequisite for successful theranostic management and rational drug use in multidisciplinary tumor boards.

Keywords: Theranostics, CDx, Liquid Biopsy, ctDNA, Clinical Biochemistry

ONKOLOJİDE TERANOSTİK BİYOKİMYA: CDX VE SIVI BİYOPSİ

ÖZET

Amaç: Bireyselleştirilmiş tıbbın merkezinde yer alan teranostik yaklaşım, moleküler diyagnostik ve hedefe yönelik terapötik süreçleri entegre ederek onkoloji pratiğini dönüştürmektedir. Bu derlemenin amacı, klinik biyokimya laboratuvarının pasif analitik test merkezinden; eşlik eden tanı (Companion Diagnostics - CDx) ve sıvı biyopsi uygulamalarıyla tedavi kararlarına doğrudan yön veren proaktif bir karar destek sistemine dönüşümünü spesifik kanser modelleri üzerinden incelemektir.

Kapsam: Çalışmada teranostik laboratuvar döngüsü bazı temel eksenlerde değerlendirilmiştir. İlk olarak tedavi güvenliği ele alınarak, gastrointestinal tümörlerde 5-Fluorourasil kullanımına bağlı ölümcül toksisiteyi önlemek amacıyla uygulanan DPYD gen varyant analizleri zorunlu CDx süreçlerine örnek gösterilmiştir.

İkinci ekseninde hedefe yönelik moleküler yönetim detaylandırılmıştır; küçük hücreli dışı akciğer kanserinde (NSCLC) birinci kuşak EGFR inhibitörlerine gelişen direncin sıvı biyopsi ile izlemi ve dijital PCR (dPCR) kullanılarak kanda dolaşan tümör DNA'sında (ctDNA) EGFR T790M mutasyonunun saptanmasıyla Osimertinib tedavisine klinik geçiş onay süreçleri vurgulanmıştır. Kolorektal kanserlerde anti-EGFR (Cetuximab) tedavileri öncesi plazma RAS wild-type doğrulamasının CDx zorunluluğu incelenmiştir. Ek olarak, ileri evre prostat kanserinde Lutesyum-177 PSMA teranostiği öncesi ve sonrası serum PSA kinetiğinin anlık monitörizasyonu ile sıvı kromatografisi-tandem kütle spektrometrisi (LC-MS/MS) kullanılarak yürütülen Terapötik İlaç Düzeyi İzlemi (TDM) özetlenmiştir.

Sonuç: Modern onkolojide maksimum terapötik etkinlik ve minimum off-target toksisite dengesi, biyokimya laboratuvarlarının spesifik moleküler verilerine bağlıdır. Geleceğin hekimlerinin, onkolojik sinyal yollarını dPCR, NGS ve eksozomal miRNA kantifikasyonu gibi analitik tanımlarla harmanlayabilmesi, multidisipliner konseylerde başarılı bir teranostik yönetimin ve akılcı ilaç kullanımının temel şartıdır.

Anahtar Kelimeler: Teranostik, CDx, Sıvı Biyopsi, ctDNA, Klinik Biyokimya

FACTORS AFFECTING WOMEN'S PREFERENCE FOR CESAREAN BIRTH AND THE ROLE OF THE NURSE

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ABSTRACT

Cesarean section is a surgical method of delivery used in clinical situations where vaginal birth is not possible and when the life of the mother and fetus is at risk. However, the preference for this mode of delivery without a medical indication has led to an increase in cesarean rates both worldwide and in our country. According to the World Health Organization, cesarean rates exceeding the recommended level have become a public health problem. It has been reported that various factors such as age, education level, lack of knowledge, concerns about harm to the fetus, labor pain and fear of childbirth, previous negative birth experiences, and a history of cesarean section are effective in women's preference for cesarean delivery. Increasing cesarean rates have negative effects on maternal and neonatal health. In terms of maternal health, risks such as hemorrhage, prolonged hospital stay, and thromboembolic complications are observed; whereas in terms of neonatal health, conditions such as increased need for admission to the intensive care unit, immune and metabolic problems, and increased respiratory morbidity may occur. In addition, cesarean delivery may affect mother–infant interaction, leading to decreased skin-to-skin contact and delayed initiation of breastfeeding. In this process, the role of healthcare professionals is of great importance. It is predicted that providing effective antenatal care services, eliminating knowledge deficiencies, and implementing psychoeducation and counseling practices will contribute to reducing women's demand for cesarean delivery and help minimize related adverse health outcomes.

The aim of this review is to examine the reasons why women prefer cesarean delivery, the effects of cesarean delivery on maternal and neonatal outcomes, and to reveal the role of nursing care in this process in line with current evidence in the literature.

Keywords: Cesarean section, birth preference, role of the nurse

KADINLARIN SEZARYEN DOĞUM TERCİHİNDE ETKİLİ OLAN FAKTÖRLER VE HEMŞİRENİN ROLÜ

ÖZET

Sezaryen doğum, anne ve fetüsün hayatını tehdit eden durumlarda, vajinal doğumun mümkün olmadığı klinik tablolarda başvuru olan cerrahi bir doğum yöntemidir. Ancak tıbbi bir gerekçe olmaksızın bu doğum şeklinin bir tercih haline gelmesi, hem dünyada hem de ülkemizde sezaryen oranlarında artışa neden olmaktadır. Dünya Sağlık Örgütü'ne göre belirlenen hedef oranının üzerindeki sezaryen oranları bir halk sağlığı sorunu haline gelmektedir. Kadınların sezaryen doğumu tercih etmelerinde; yaş, eğitim düzeyi, bilgi eksikliği, fetüsün zarar görmesine yönelik kaygılar, doğum ağrısı ve doğum korkusu, önceki olumsuz doğum deneyimleri ve sezaryen öyküsü gibi çeşitli faktörlerin etkili olduğu bildirilmektedir. Artan sezaryen oranlarının anne ve yenidoğan sağlığı üzerinde olumsuz etkileri bulunmaktadır.

Anne açısından kanama, hastanede yatış süresinde uzama ve tromboembolik komplikasyonlar gibi riskler söz konusu iken; yenidoğan açısından yoğun bakım ünitesine yatış gereksiniminin artması, bağışıklık ve metabolik sorunlar ile solunum yolu morbiditesinde artış gibi durumlar görülebilmektedir. Ayrıca sezaryen doğumun, anne-bebek etkileşimini etkileyerek ten tene temasın azalmasına ve emzirmenin gecikmesine yol açabildiği bildirilmektedir. Bu süreçte sağlık profesyonellerinin rolü büyük önem taşımaktadır. Etkin antenatal bakım hizmetlerinin sunulması, bilgi eksikliğinin giderilmesi ve psikoeğitim ile danışmanlık uygulamalarının yürütülmesinin, kadınların sezaryen doğum talebinin azaltılmasına katkı sağlayacağı ve buna bağlı olumsuz sağlık sorunlarının en aza indirilmesine yardımcı olacağı öngörülmektedir.

Bu derlemenin amacı, literatürde yer alan güncel kanıtlar doğrultusunda kadınların sezaryen doğumu tercih etme nedenlerini, sezaryen doğumun anne ve yenidoğan üzerindeki etkilerini incelemek ve hemşirelik bakımının bu süreçteki rolünü ortaya koymaktır.

Anahtar Kelimeler: Sezaryen doğum, doğum tercihi, hemşirenin rolü

BODY IMAGE IN WOMEN AFTER BREAST CANCER SURGERY AND NURSING APPROACHES

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ABSTRACT

Breast cancer is the most common malignant disease among women. Surgical interventions constitute one of the main approaches in the treatment process. Mastectomy and breast-conserving surgery are performed as surgical procedures. These methods are applied according to the stage of the disease, tumor characteristics, and individual factors. Surgical treatment is generally used in combination with chemotherapy, radiotherapy, and targeted therapy options. The breast is an important organ that carries multidimensional meanings such as aesthetic appearance, sexuality, attractiveness, femininity, and motherhood. Therefore, surgical treatments applied in breast cancer not only play a fundamental role in disease management but may also have significant effects on women's body image. It has been reported that impairments in body image undermine self-confidence and lead to psychosocial problems such as depression, anxiety, and social isolation. After breast surgery, various physical problems such as limited mobility, upper extremity lymphedema, vasomotor symptoms, vaginal dryness, and sexual dysfunction may be observed in women. In addition, fatigue, insomnia, pain, nail changes, and sexual problems may occur in women receiving chemotherapy after surgery. These conditions negatively affect body image. In this context, nursing care plays an important role in evaluating changes in body image in the postoperative period and supporting the individual's adaptation process. The aim of this review is to examine the effects of breast cancer surgery on body image in women and to evaluate the nursing approaches that can be applied in this process. In this context, providing effective counseling services and ensuring a supportive care environment are of great importance.

Keywords: Breast cancer, surgical treatment, body image, mastectomy

MEME KANSERİNDE CERRAHİ SONRASI KADINLARDA BEDEN İMAJI VE HEMŞİRELİK YAKLAŞIMLARI

ÖZET

Meme kanseri, kadınlar arasında en sık görülen malign hastalık türüdür. Tedavi sürecinde cerrahi girişimler temel yaklaşımlar arasında yer almaktadır. Cerrahi girişimlerde mastektomi ve meme koruyucu cerrahi uygulanmaktadır. Bu yöntemler hastalığın evresi, tümörün özelliği ve bireysel faktörlere göre uygulanmaktadır. Cerrahi tedavi genellikle kemoterapi, radyoterapi ve hedefe yönelik tedavi seçenekleriyle birlikte kullanılmaktadır. Meme, estetik görünüm, cinsellik, çekicilik, kadınlık ve annelik gibi çok boyutlu anlamlar taşıyan önemli bir organdır. Bu nedenle meme kanserinde uygulanan cerrahi tedaviler, hastalığın yönetiminde temel bir yer tutmakla birlikte, kadınların beden imajı üzerinde önemli etkiler oluşturmaktadır. Beden imajındaki bozulmaların bireyin özgüvenini zedelediği, depresyon, anksiyete, sosyal izolasyon gibi psikososyal sorunlara yol açtığı bildirilmektedir. Meme cerrahisi sonrası kadınlarda hareket kısıtlılığı, üst ekstremitelerde lenfödem, vazomotor semptomlar, vajinal kuruluk ve cinsel işlev bozuklukları gibi çeşitli fiziksel sorunlar görülebilmektedir.

Ayrıca cerrahi sonrası kemoterapi tedavisi alan kadınlarda yorgunluk, uykusuzluk, ağrı, tırnak değişiklikleri ve cinsel sorunlar da ortaya çıkabilmektedir. Bu durum beden imajını olumsuz etkilemektedir. Bu doğrultuda hemşirelik bakımı, cerrahi sonrası dönemde ortaya çıkan beden imajı değişimlerinin değerlendirilmesi ve bireyin uyum sürecinin desteklenmesinde önemli bir rol oynamaktadır.

Bu derlemenin amacı, meme kanseri cerrahisi geçiren kadınlarda beden imajına yönelik etkileri incelemek ve bu süreçte uygulanabilecek hemşirelik yaklaşımlarını değerlendirmektir. Bu kapsamda, etkili danışmanlık hizmetlerinin sunulması ve destekleyici bakım ortamının sağlanması büyük önem taşımaktadır.

Anahtar Kelimeler: Meme kanseri, cerrahi tedavi, beden imajı, mastektomi

THE EFFECT OF INTERMITTENT FASTING ON METABOLIC HEALTH

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ABSTRACT

Intermittent fasting is an alternative dietary approach characterized by cyclical periods of eating and fasting, in which energy intake is restricted to specific time intervals during the day or week. Unlike traditional continuous calorie restriction methods, intermittent fasting focuses on the timing of food intake rather than the quantity consumed, thereby enhancing its applicability and adherence. In this review, the effects of major intermittent fasting models, including the modified 5:2 diet, alternate-day fasting, and time-restricted feeding, on metabolic and cardiovascular health were evaluated in light of current literature. Current evidence indicates that intermittent fasting interventions lead to significant reductions in body weight, fat mass, and waist circumference. Additionally, intermittent fasting has been shown to improve glucose homeostasis by increasing insulin sensitivity. With regard to lipid metabolism, intermittent fasting is associated with favorable changes, including reductions in total cholesterol, low-density lipoprotein (LDL) cholesterol, and triglyceride levels, along with increases in high-density lipoprotein (HDL) cholesterol levels. From a cardiovascular perspective, intermittent fasting may exert protective effects on cardiometabolic risk factors through the reduction of oxidative stress, suppression of inflammatory processes, and improvement of endothelial function. The underlying biological mechanisms of these effects include metabolic switching, increased ketone body production, activation of autophagy, enhanced mitochondrial biogenesis, and regulation of AMP-activated protein kinase (AMPK) pathways. Furthermore, intermittent fasting has emerged as a potential strategy for the prevention and management of chronic diseases such as obesity, type 2 diabetes, and metabolic syndrome. However, intermittent fasting should be implemented with caution in certain populations, including pregnant and lactating women, individuals with type 1 diabetes, older adults, and those with a history of eating disorders. Moreover, the limited availability of long-term evidence highlights the need for large-scale and long-duration randomized controlled trials in this field. In conclusion, intermittent fasting can be considered an effective dietary strategy for improving metabolic and cardiovascular health when appropriately applied, although individual differences must be taken into account.

Keywords: Intermittent fasting, metabolic health, cardiovascular diseases, insulin resistance, lipid metabolism

ARALIKLI AÇLIK DİYETİNİN METABOLİK SAĞLIK ÜZERİNE ETKİSİ

ÖZET

Aralıklı açlık, enerji alımının günün veya haftanın belirli zaman dilimlerinde kısıtlanmasına dayanan ve yeme ile açlık periyotlarının döngüsel olarak uygulandığı alternatif bir beslenme yaklaşımıdır.

Geleneksel sürekli kalori kısıtlaması yöntemlerinden farklı olarak, besin tüketiminin niceliğinden ziyade zamanlamasına odaklanması, bu yaklaşımın uygulanabilirliğini artırmaktadır. Bu derlemede, modifiye 5:2 diyeti, alternatif gün açlığı ve zaman kısıtlı beslenme gibi başlıca aralıklı açlık modellerinin metabolik ve kardiyovasküler sağlık üzerindeki etkileri güncel literatür ışığında değerlendirilmiştir. Mevcut bulgular, aralıklı açlık uygulamalarının vücut ağırlığı, yağ kütlesi ve bel çevresinde anlamlı azalmalar sağladığını; buna ek olarak insülin duyarlılığını artırarak glukoz homeostazını iyileştirdiğini göstermektedir. Aralıklı açlığın lipid metabolizması üzerindeki etkileri incelendiğinde, total kolesterol, düşük yoğunluklu lipoprotein (LDL) kolesterol ve trigliserid düzeylerinde azalma, yüksek yoğunluklu lipoprotein (HDL) kolesterol düzeylerinde ise artış ile karakterize olumlu değişiklikler gözlenmektedir. Kardiyovasküler sağlık açısından değerlendirildiğinde, aralıklı açlığın oksidatif stresin azaltılması, inflamatuvar süreçlerin baskılanması ve endotel fonksiyonlarının iyileştirilmesi yoluyla kardiyometabolik risk faktörleri üzerinde koruyucu etkiler oluşturabileceği bildirilmektedir. Bu etkilerin altında yatan temel biyolojik mekanizmalar arasında metabolik değişim (metabolic switching), keton cisimciklerinin artışı, otofaji aktivasyonu, mitokondriyal biyogenez ve AMP ile aktive olan protein kinaz (AMPK) yollarının düzenlenmesi yer almaktadır. Ayrıca, aralıklı açlık uygulamalarının obezite, tip 2 diyabet ve metabolik sendrom gibi kronik hastalıkların önlenmesi ve yönetiminde potansiyel bir strateji olarak öne çıktığı görülmektedir. Bununla birlikte, aralıklı açlığın gebeler, emziren kadınlar, tip 1 diyabet hastaları, ileri yaş bireyler ve yeme bozukluğu öyküsü bulunan kişilerde dikkatle uygulanması gerektiği vurgulanmaktadır. Ayrıca, uzun dönem etkilerine ilişkin kanıtların sınırlı olması, bu alanda daha geniş örneklemli ve uzun süreli randomize kontrollü çalışmalara duyulan gereksinimi ortaya koymaktadır. Sonuç olarak, aralıklı açlık uygun bireylerde uygulandığında metabolik ve kardiyovasküler sağlık üzerinde olumlu etkiler sağlayabilen, ancak bireysel farklılıklar göz önünde bulundurularak planlanması gereken bir beslenme yaklaşımıdır.

Anahtar Kelimeler: Aralıklı açlık, metabolik sağlık, kardiyovasküler hastalıklar, insülin direnci, lipid metabolizması

SUSTAINABLE NUTRITION MODELS AND THEIR IMPACT ON PUBLIC HEALTH

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ABSTRACT

Sustainable nutrition has increasingly gained importance as a holistic approach that integrates the protection of human health with the sustainable use of environmental resources. The rising prevalence of non-communicable diseases and environmental degradation has led to growing interest in healthy and sustainable dietary patterns. In this context, plant-based dietary patterns play a significant role in improving both individual and public health outcomes. This study aimed to examine the effects of prominent sustainable dietary models, including the Mediterranean, DASH, vegan, vegetarian, Nordic, planetary, and flexitarian diets, on public health. This review, based on a comprehensive literature search, evaluated the impact of these dietary patterns on cardiovascular diseases, metabolic disorders, obesity, mortality, and environmental sustainability. The findings indicate that these dietary models commonly promote a high intake of vegetables, fruits, whole grains, legumes, and healthy fats, while limiting the consumption of processed foods, saturated fats, and refined sugars. Strong scientific evidence supports the protective effects of the Mediterranean and DASH diets on cardiovascular diseases and hypertension, whereas vegan and vegetarian diets have beneficial effects on metabolic health and inflammation. Nordic and planetary diets provide advantages in terms of both health outcomes and environmental sustainability, while the flexitarian diet, due to its flexible nature, facilitates the adoption of sustainable dietary practices in the general population. In conclusion, the widespread adoption of sustainable dietary patterns is considered an important strategy for reducing the burden of chronic diseases, improving quality of life, and decreasing healthcare costs. Moreover, the lower environmental impact of these diets supports their central role in future nutrition policies.

Keywords: Sustainable nutrition, plant-based diets, chronic diseases.

SÜRDÜRÜLEBİLİR BESLENME MODELLERİ VE HALK SAĞLIĞINA ETKİLERİ

ÖZET

Sürdürülebilir beslenme, insan sağlığının korunması ile çevresel kaynakların sürdürülebilir kullanımını bütüncül bir yaklaşımla ele alan önemli bir kavramdır. Günümüzde bulaşıcı olmayan kronik hastalıkların artışı ve çevresel bozulma, sağlıklı ve sürdürülebilir beslenme modellerine olan ilgiyi artırmıştır. Bu bağlamda, bitki temelli beslenme örüntülerine dayanan diyet modelleri hem bireysel hem de toplumsal sağlık açısından önemli bir rol oynamaktadır. Bu derlemede, sürdürülebilir beslenme kapsamında öne çıkan Akdeniz, DASH, vegan, vejetaryen, Nordik, planetary ve fleksitaryen diyet modellerinin halk sağlığı üzerindeki etkilerinin incelenmesi amaçlanmıştır. Literatür taramasına dayalı olarak gerçekleştirilen bu derlemede, söz konusu diyetlerin kardiyovasküler hastalıklar, metabolik bozukluklar, obezite, mortalite ve çevresel sürdürülebilirlik üzerindeki etkileri değerlendirilmiştir.

Elde edilen bulgular, bu beslenme modellerinin ortak olarak sebze, meyve, tam tahıllar, baklagiller ve sağlıklı yağ kaynaklarının tüketimini artırdığını; buna karşılık işlenmiş gıdalar, doymuş yağlar ve rafine şekerlerin tüketimini sınırlandırdığını göstermektedir. Akdeniz ve DASH diyetlerinin kardiyovasküler hastalıklar ve hipertansiyon üzerindeki koruyucu etkileri güçlü bilimsel kanıtlarla desteklenirken, vegan ve vejetaryen diyetlerin metabolik sağlık ve inflamasyon üzerinde olumlu etkiler sağladığı belirlenmiştir. Nordik ve planetary diyetlerin hem sağlık çıktıları hem de çevresel sürdürülebilirlik açısından önemli avantajlar sunduğu, fleksitaryen diyetin ise esnek yapısı sayesinde sürdürülebilir beslenme yaklaşımlarının toplumda benimsenmesini kolaylaştırdığı görülmektedir. Sonuç olarak, sürdürülebilir beslenme modellerinin yaygınlaştırılması, kronik hastalık yükünün azaltılması, yaşam kalitesinin artırılması ve sağlık sistemleri üzerindeki ekonomik yükün hafifletilmesi açısından önemli bir strateji olarak değerlendirilmektedir. Ayrıca bu diyetlerin çevresel etkilerinin düşük olması, geleceğin beslenme politikalarında merkezi bir rol üstlenmelerini desteklemektedir.

Anahtar Kelimeler: Sürdürülebilir beslenme, bitki temelli diyetler, kronik hastalıklar.

ACUTE CEREBRAL ISCHEMIC LESIONS ASSOCIATED WITH CARBON MONOXIDE POISONING: A CASE REPORT

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ABSTRACT

Introduction: Carbonmonoxide (CO) poisoning is a common toxic exposure that can cause serious effects, particularly on the central nervous system and cardiovascular system, by leading to tissue hypoxia. In recent years, it has been shown that CO poisoning is not limited to hypoxic damage but may also be associated with cerebrovascular events.

Case Report: A 74-year-old female patient presented to the emergency department with complaints of confusion, weakness, and nausea following exposure to coal stove smoke. Her GCS score was 13 at admission. Arterial blood gas analysis revealed pH 7.32, pCO₂ 39.9 mmHg, HCO₃ 20.8 mmol/L, and COHb level 22.4%. Diagnosed with carbon monoxide poisoning, brain magnetic resonance imaging (MRI) showed millimetric acute ischemic lesions in the bifrontal region, hyperintense on diffusion-weighted images and hypointense on ADC sequences. The patient was admitted to the intensive care unit with diagnoses of acute ischemic cerebrovascular event and CO poisoning and received treatment and monitoring. The patient, whose clinical condition remained stable, was transferred to the ward on the third day.

Discussion: Cerebral ischemia due to CO poisoning is explained not only by hypoxia but also by mechanisms such as endothelial damage, oxidative stress, hypercoagulability, and cardiac arrhythmia. The literature reports an increased risk of ischemic stroke after CO exposure, which may persist in the long term. This case demonstrates that acute ischemic lesions can develop even at moderate COHb levels.

Conclusion: CO poisoning may pose a risk for cerebrovascular ischemic complications. Early brain imaging and a multidisciplinary approach are important in patients with neurological symptoms.

Keywords: Carbonmonoxide, Cerebrovascular Event, Carboxyhemoglobin

KARBONMONOKSİT ZEHİRLENMESİNE EŞLİK EDEN AKUT SEREBRAL İSKEMİK LEZYONLAR: OLGU SUNUMU

ÖZET

Giriş: Karbonmonoksit (CO) zehirlenmesi, doku hipoksisine yol açarak özellikle santral sinir sistemi ve kardiyovasküler sistem üzerinde ciddi etkiler oluşturabilen yaygın bir toksik maruziyettir. Son yıllarda CO zehirlenmesinin yalnızca hipoksik hasarla sınırlı olmadığı, serebrovasküler olaylarla da ilişkili olabileceği gösterilmiştir.

Olgu: Yetmiş dört yaşında kadın hasta, kömür sobası dumanına maruz kalma sonrası gelişen bilinç bulanıklığı, halsizlik ve bulantı şikayetleri ile acil servise başvurdu. Başvuru anında GKS 13 olarak değerlendirildi. Arter kan gazında pH 7,32, pCO₂ 39,9 mmHg, HCO₃ 20,8 mmol/L ve COHb düzeyi %22,4 saptandı. Karbonmonoksit zehirlenmesi tanısı konulan hastada yapılan beyin manyetik rezonans görüntülemesinde bifrontal bölgede, difüzyon ağırlıklı görüntülerde hiperintens, ADC sekanslarında hipointens özellik gösteren milimetrik akut iskemik lezyonlar izlendi. Hasta akut iskemik serebrovasküler olay ve CO zehirlenmesi tanıları ile yoğun bakım ünitesine kabul edilerek tedavi ve izleme alındı. Klinik izlemde stabil seyreden hasta üçüncü gününde servise devredildi.

Tartışma: CO zehirlenmesine bağlı serebral iskemi, yalnızca hipoksi ile değil; endotelyal hasar, oksidatif stres, hiperkoagülabilitate ve kardiyak aritmi gibi mekanizmalarla da açıklanmaktadır. Literatürde CO maruziyeti sonrası iskemik inme riskinin arttığı ve uzun dönemde de devam edebileceği bildirilmiştir. Bu olgu, orta düzey COHb seviyelerinde dahi akut iskemik lezyonların gelişebileceğini göstermektedir.

Sonuç: CO zehirlenmesi, serebrovasküler iskemik komplikasyonlar açısından risk oluşturabilir. Nörolojik semptomları olan hastalarda erken dönemde beyin görüntüleme yapılması ve multidisipliner yaklaşım benimsenmesi önemlidir.

Anahtar Kelimeler: Karbonmonoksit, Serebrovasküler Olay, Karboksi hemoglobin

THE EFFECT OF NURSES' ATTITUDES TOWARD AI AND THEIR LEVELS OF AI-RELATED ANXIETY ON THEIR DIGITAL LEADERSHIP: A CASE OF : SAUDI ARABIA

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ABSTRACT

This quantitative comparative cross-sectional study examined how nurses' attitudes toward artificial intelligence (AI) and their levels of AI-related anxiety in healthcare settings influence their digital leadership. The study was conducted among nurses in Saudi Arabia, where the total nursing workforce, including midwives, is 184,565. A sample of 437 nurses participated in the study. Data were collected using three instruments: the Digital Leadership Scale, the Artificial Intelligence Attitude Scale, and the Artificial Intelligence Anxiety Scale. The internal consistency of the scales was acceptable, with Cronbach's alpha values of .84, .72, and .80, respectively. Data were analyzed using SPSS 30 programme. As the data met the assumptions for parametric analysis, independent-samples t-tests, one-way ANOVA, Pearson correlation, and multiple regression analysis were performed.

The findings showed that nurses reported a high level of digital leadership ($M = 4.19$) and a high level of positive attitude toward AI ($M = 3.25$), while AI-related anxiety was low ($M = 2.08$). No statistically significant differences were found in relation to gender, age, years of experience, current relationship with technology, or use of AI based on t-test and ANOVA results. Pearson correlation analysis revealed no significant relationships among digital leadership, attitude toward AI, and AI-related anxiety. Digital leadership was not significantly correlated with attitude toward AI ($r = -.047$, $p = .325$) or AI-related anxiety ($r = .011$, $p = .814$), and attitude toward AI was not significantly associated with AI-related anxiety ($r = -.046$, $p = .342$). Multiple regression analysis further indicated that attitude toward AI and AI-related anxiety did not significantly predict digital leadership, $F(2, 434) = 0.502$, $p = .606$, explaining only 0.2% of the variance ($R^2 = .002$).

The study concludes that nurses' attitudes toward AI and AI-related anxiety do not directly influence digital leadership. These findings suggest that digital leadership may be shaped by other organizational or contextual factors, such as digital competence, training, and institutional support.

Keywords: Artificial Intelligence, Nurses, Digital Leadership, Attitude Toward Artificial Intelligence, AI-Related Anxiety, Healthcare, Saudi Arabia

DIGITAL SHARIAH: A COMPARATIVE ANALYSIS OF ISLAMIC FINANCIAL REGULATION AND INFORMATION TECHNOLOGY IN EMERGING ECONOMIES

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ABSTRACT

The rapid digital transformation of financial systems has significantly reshaped Islamic finance across emerging economies. This study examines the intersection of information technology and Islamic financial regulation through a comparative analysis of selected emerging jurisdictions, including Malaysia, Indonesia, Nigeria, and Pakistan. The concept of “Digital Shariah” is introduced to describe regulatory frameworks that integrate fintech, artificial intelligence (AI), blockchain, and regulatory technology (RegTech) into Shariah-compliant financial governance.

Drawing on a systematic review of peer-reviewed journal articles, policy documents, and regulatory reports, the study evaluates how emerging economies are adapting Islamic financial regulation to accommodate digital banking, smart sukuk issuance, AI-driven compliance systems, and digital microfinance platforms. Findings reveal significant divergence in regulatory maturity. Malaysia demonstrates centralized Shariah governance with strong fintech regulatory sandboxes, while Indonesia adopts a dual supervisory framework. Nigeria and Pakistan exhibit growing fintech ecosystems but face infrastructural and harmonization challenges. The results suggest that technological integration enhances transparency, compliance monitoring, financial inclusion, and cross-border investor confidence when embedded within robust Shariah governance frameworks. However, risks include algorithmic bias, cybersecurity threats, fragmented Shariah interpretations, and uneven regulatory capacity. The study concludes that Digital Shariah governance represents a transformative opportunity for Islamic finance in emerging economies, provided regulatory institutions balance innovation with doctrinal integrity and ethical oversight.

Keywords: Artificial Intelligence; Digital Shariah; Emerging Economies; Islamic Financial Regulation.

REAL-TIME ACTION RECOGNITION IN SPORTS USING EDGE-BASED COMPUTER VISION

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ABSTRACT

Real-time action recognition in sports represents a transformative application of computer vision, enabling the automatic detection, tracking, and classification of athletes' movements directly from live video streams. By leveraging advanced deep learning models, these systems can identify complex motor patterns such as passing, shooting, sprinting, tackling, or jumping, and translate them into meaningful performance metrics. The ability to generate instantaneous insights is particularly valuable in competitive sports environments, where coaches, analysts, and referees require immediate feedback for tactical decision-making, performance optimization, and rule enforcement. Beyond elite competitions, real-time recognition systems also support athlete training, injury prevention, and grassroots sports development by providing automated assessments without the need for manual video annotation. Traditional cloud-centric architectures process video data by transmitting streams to remote servers for analysis. While such systems benefit from high computational power and scalable storage, they often suffer from significant latency due to network transmission delays, bandwidth limitations, and potential connectivity disruptions. In high-speed sports scenarios, even minor delays can render analytics ineffective, especially when decisions must be made within milliseconds. Moreover, continuous video streaming to the cloud raises concerns related to data privacy, energy consumption, and operational cost. Edge-based computer vision addresses these limitations by relocating data processing closer to the point of capture, such as on embedded devices, smart cameras, or edge servers situated within sports facilities. By performing inference locally on resource-constrained hardware, edge computing reduces communication overhead, minimizes latency, and enhances system reliability. Recent advancements in lightweight neural network architectures, model compression techniques, quantization, and hardware acceleration have made it feasible to deploy sophisticated action recognition models on edge devices without substantial loss in accuracy. This paper examines recent developments in real-time sports action recognition, analyses the technical and computational challenges associated with edge deployment, and evaluates emerging strategies designed to optimize the trade-off between recognition accuracy, inference speed, and resource efficiency in dynamic sporting environments.

Keywords: Action classification, Edge AI, Edge computing, Real-time sports analytics.

**KEY SUSTAINABLE TOURISM INITIATIVES IN ANATOLIA, TÜRKİYE:
PARTNERSHIPS WITH UNITED NATIONS AND GLOBAL SUSTAINABLE
TOURISM COUNCIL TO SUPPORT THE SUSTAINABLE DEVELOPMENT GOALS**

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ABSTRACT

Today, the tourism in Anatolia, Türkiye, is rapidly transforming to align with the Sustainable Development Goals, mainly focusing on those cultural, ecological, and rural initiatives keen on promoting environmental preservation and inclusive growth. The literature review centers on offering a better understanding on supporting economic growth and regional development in Anatolia, on the one hand, by presenting the urgent need of stopping biodiversity loss and deforestation, combating desertification, and reversing local degradation, and, on the other hand, by emphasizing the key implications on the Sustainable Development Goals focus areas such as: firstly, SDG 8 (Decent Work and Economic Growth), with a major accent on supporting the local economies by creating jobs for the local communities; secondly, SDG 12 (Responsible Consumption and Production), with a keen accent in promoting eco-friendly accommodations and eco-conscious travel; and, thirdly, SDG 15 (Life on Land), with a pivotal aim to protect local biodiversity and natural landscapes, including the lakes, national parks, and mountains in the region. In addition, the paper tackles the challenges and strategies of the partnerships between Türkiye, the United Nations, and the Global Sustainable Tourism Council to support the Sustainable Development Goals, which center on diversifying beyond coastal tourism, fostering local entrepreneurship, and implementing certified tourism practices in the Anatolian regions, while addressing critical aspects represented by the seasonality and infrastructure, capacity building, and investments. The case study addresses several key tourism initiatives in Anatolia, namely: the rural and cultural development, where Tourism Development in Eastern Anatolia Region Project aims to boost local economies and protect the cultural heritage; the alternative tourism destinations, where sustainable livelihoods and cultural routes are promoted; the best tourism villages, where United Nations Tourism reorganized several Turkish villages for their commitment to environmental sustainability; the eco-friendly and sustainable practices, since Türkiye is focused on becoming a leader in sustainable tourism, with more than 20,000 certified facilities which implemented green and sustainable as of 2025; and, the regional focus, where tourism is being encouraged away from the coastal lines, by promoting winter sports and cultural tours in Anatolian interior.

Keywords: Anatolia; Türkiye; United Nations Tourism; Turkish culture; Turkish Villages; Economic Growth; Inclusive Development; Universally Accessible Tourism; Responsible Tourism; Sustainable Development Goals; Development; Environmental Sustainability; Globalization.

BLOCKCHAIN FOR TRANSPARENT SOCIAL PROTECTION SYSTEMS

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ABSTRACT

Transparency and accountability are essential for effective poverty alleviation programs. This research explores the potential of blockchain technology to enhance transparency in social protection systems. A blockchain-based platform can securely record beneficiary data, financial transactions, and program activities across MoPASS institutions. Smart contracts automate payments and ensure that funds are transferred directly to eligible beneficiaries. The decentralized nature of blockchain prevents data tampering and enhances trust among stakeholders, including donors and development partners. By integrating blockchain with existing MIS platforms, Pakistan can establish a transparent and secure social protection ecosystem. The study concludes that blockchain technology has the potential to revolutionize digital governance and strengthen public trust in poverty alleviation programs.

Keywords: Blockchain Technology, Transparency, Digital Governance, Social Protection

GLOBAL ENERGY TRANSITION AND AZERBAIJAN'S ECONOMIC INTEGRATION: GREEN ENERGY CORRIDORS AND DIVERSIFICATION STRATEGIES

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ABSTRACT

This article examines Azerbaijan's integration into the global economic system through the prism of the energy transition and export diversification. While the Azerbaijani economy has historically relied on hydrocarbon exports, strategic priorities have recently shifted toward increasing the non-oil sector's share in GDP. The study analyzes the potential of the Caspian-Black Sea-European Green Energy Corridor to transform Azerbaijan from a traditional fossil fuel supplier into a key partner for Europe's green energy security. Based on balance of payments data, the research highlights the positive contribution of transport and logistics services (Middle Corridor) to the current account and the growing trend of foreign direct investment in non-oil sectors. The paper argues that for sustainable integration, accelerating digitalization and expanding renewable energy capacity will be critical for strengthening the country's position within global value chains and ensuring long-term economic resilience.

Keywords: Green energy, Economic diversification, Balance of payments, Global value chains.

KÜRESEL ENERJİ DÖNÜŞÜMÜ VE AZERBAIJAN'IN EKONOMİK ENTEGRASYONU: YEŞİL ENERJİ KORİDORLARI VE ÇEŞİTLENDİRME STRATEJİLERİ

ÖZET

Bu makale, Azerbaycan'ın küresel ekonomik sisteme entegrasyon sürecini enerji dönüşümü ve ihracatın çeşitlendirilmesi perspektifinden ele almaktadır. Azerbaycan ekonomisi tarihsel olarak hidrokarbon ihracatına dayalı olsa da, son yıllarda stratejik öncelik petrol dışı sektörlerin GSYİH içindeki payını artırmaya kaymıştır. Çalışma, özellikle Hazar Denizi-Karadeniz-Avrupa Yeşil Enerji Koridoru projesinin Azerbaycan'ı sadece bir fosil yakıt tedarikçisi değil, aynı zamanda Avrupa'nın yeşil enerji güvenliğinin kilit ortağı haline getirme potansiyelini analiz etmektedir. Tediye balansı verileri ışığında yapılan analizler, ulaştırma ve lojistik hizmetlerindeki projenin (Orta Koridor) cari işlemler dengesine sağladığı pozitif katkıyı ve doğrudan yabancı yatırımların petrol dışı alanlara yönelme eğilimini göstermektedir. Makale, sürdürülebilir entegrasyon için dijitalleşme ve yenilenebilir enerji kapasitesinin artırılmasının, ülkenin küresel değer zincirlerindeki konumunu güçlendireceğini savunmaktadır.

Anahtar Kelimeler: Yeşil enerji, Ekonomik çeşitlendirme, Tediye balansı, Küresel değer zincirleri .

EXCHANGE RATE FLUCTUATIONS AND FOREIGN TRADE: THEORETICAL FOUNDATIONS AND ANALYSIS

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ABSTRACT

This study examines the impact of exchange rate fluctuations on international trade within a theoretical and conceptual framework. With the acceleration of globalization and increasing integration of financial markets, exchange rates have evolved from being merely a price of currencies to becoming a key determinant of macroeconomic stability. In this context, the effects of exchange rate volatility on trade flows, exporters' behavior, and investment decisions are analyzed through various economic approaches.

The study is primarily based on major theoretical frameworks such as purchasing power parity (PPP), the Mundell–Fleming model, and modern international trade theories. The findings indicate that exchange rate volatility increases economic uncertainty and complicates decision-making processes in international trade. However, the magnitude and direction of this impact vary depending on countries' economic structures, levels of financial development, and institutional frameworks.

For open and resource-based economies, exchange rate stability plays a more critical role. In particular, in economies dependent on energy exports, exchange rate fluctuations significantly affect trade balances. Therefore, an effective exchange rate policy should not rely solely on monetary tools but also be supported by structural reforms and export diversification strategies. In conclusion, the impact of exchange rate volatility on international trade is complex and multidimensional. Managing these effects requires a balanced approach that combines flexible exchange rate policies with strong macroeconomic institutions.

Keywords: exchange rate, volatility, international trade, monetary policy, PPP, Mundell–Fleming model

DÖVİZ KURU DALGALANMALARI VE DIŞ TİCARET: TEORİK TEMELLER VE ANALİZ

ÖZET

Bu çalışma, döviz kuru dalgalanmalarının uluslararası ticaret üzerindeki etkilerini teorik ve kavramsal çerçevede incelemektedir. Küreselleşme sürecinin hızlanması ve finansal piyasaların entegrasyonunun artması ile birlikte döviz kurları, yalnızca para birimleri arasındaki değişim oranı değil, aynı zamanda makroekonomik istikrarın belirleyici unsurlarından biri haline gelmiştir. Bu bağlamda çalışmada döviz kuru volatilitésinin ticaret akımları, ihracatçı davranışları ve yatırım kararları üzerindeki etkileri farklı ekonomik yaklaşımlar çerçevesinde analiz edilmiştir.

Araştırmada özellikle satın alma gücü paritesi (PPP), Mundell–Fleming modeli ve modern uluslararası ticaret teorileri esas alınmıştır. Elde edilen bulgular, döviz kuru oynaklığının ekonomik belirsizliği artırarak ticari karar alma süreçlerini zorlaştırdığını göstermektedir. Bununla birlikte, bu etkinin yönü ve büyüklüğü ülkelerin ekonomik yapısına, finansal gelişmişlik düzeyine ve kurumsal altyapısına bağlı olarak değişmektedir.

Açık ve doğal kaynaklara dayalı ekonomilerde döviz kuru istikrarı daha kritik bir öneme sahiptir.

Özellikle enerji fiyatlarına bağımlı ülkelerde döviz kuru dalgalanmaları dış ticaret dengesi üzerinde önemli etkiler yaratmaktadır. Bu nedenle etkin bir döviz kuru politikası, yalnızca para politikası araçları ile değil, aynı zamanda yapısal reformlar ve ihracatın çeşitlendirilmesi ile desteklenmelidir.

Sonuç olarak, döviz kuru volatilitésinin uluslararası ticaret üzerindeki etkisi çok boyutlu ve karmaşık bir yapıya sahiptir. Bu etkilerin yönetimi için esnek ancak istikrarlı bir döviz kuru politikası ve güçlü makroekonomik kurumlar gereklidir.

Anahtar Kelimeler: döviz kuru, volatilité, uluslararası ticaret, para politikası, PPP, Mundell–Fleming modeli

DIGITALIZATION AND SMART PORT TECHNOLOGIES: A REVIEW ON IMPLICATIONS FOR EFFICIENCY AND GLOBAL TRADE

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ABSTRACT

Digitalization and smart port technologies are transforming global maritime logistics by enhancing operational efficiency, resilience, and connectivity. This review examines key technologies—such as the Internet of Things (IoT), automation, blockchain, and artificial intelligence (AI)—and evaluates their impacts on port performance and global trade patterns. Evidence suggests that digital adoption reduces turnaround times, minimizes human error, improves cargo tracking, and supports sustainable operations (Nguyen & Kim, 2021; Silva et al., 2022). However, challenges such as infrastructure gaps, high implementation costs, and cybersecurity risks persist (Ahmed & Zhao, 2020). By synthesizing recent empirical and theoretical work, this review highlights critical trends, benefits, and barriers in smart port development, offering insights for policymakers, port authorities, and supply chain stakeholders. In recent years, global trade has become increasingly dependent on the speed, reliability, and visibility of port operations. With rising cargo volumes and pressures to reduce logistics costs, ports worldwide are adopting digital solutions to streamline processes, enhance decision-making, and ensure smoother integration with global supply chains. Smart port technologies provide digital tools that enable ports to operate with greater transparency, reduce congestion, and adapt quickly to disruptions. Their impact extends beyond operational efficiency to environmental improvements through reduced emissions, optimized energy use, and better waste management. As global trade becomes more competitive, the ability of ports to adopt and implement digital innovations is becoming a significant determinant of national and regional economic performance. This review synthesizes insights from empirical case studies, global port rankings, and academic literature to provide a comprehensive understanding of the evolving smart port landscape. It outlines technological applications, evaluates their measurable impacts, and highlights persistent implementation barriers in both developed and developing economies. The review concludes that digitalization is no longer optional; it is fundamental to enhancing global trade competitiveness, strengthening port resilience, and driving long-term maritime sector transformation.

Keywords: Digitalization, Smart Port, port Technologies, trade networks, global Trade, maritime logistics

MARITIME SAFETY AND COMMUNITY LIVELIHOODS: AN EVALUATION OF BOAT TRANSPORT ACCIDENTS IN BAYELSA STATE

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ABSTRACT

Maritime transport remains the dominant means of mobility for people and goods in Bayelsa State due to its extensive network of rivers, creeks, and wetlands. Despite its importance, the sector faces recurring safety challenges, with frequent boat accidents resulting in loss of lives, disruption of local trade, and long-term impacts on community livelihoods. This study evaluates the causes and implications of boat transport accidents in Bayelsa State, focusing on safety compliance, weather-related risks, engine standards, and community awareness. Using a mixed-methods approach involving questionnaires, interviews, and field observations across selected riverine communities—such as Brass, Southern Ijaw, and Nembe—the study identifies key human, environmental, and mechanical factors contributing to mishaps. Findings reveal that poor adherence to safety guidelines, overloading, inadequate use of life jackets, reliance on substandard/outdated outboard engines, unpredictable weather patterns, and low-level sensitization are the most critical risk factors. Additionally, the study shows that boat accidents significantly affect livelihoods by limiting fishing activities, restricting mobility to markets, reducing household income, and increasing vulnerability among women and youth. The research underscores the need for targeted policy interventions, improved safety enforcement, capacity building for boat operators, and community-based sensitization programs. The study concludes that strengthening maritime safety in Bayelsa State is essential for protecting lives, enhancing rural mobility, and sustaining local economic activities. Recommendations emphasize multi-stakeholder collaboration involving government agencies, transport unions, community leaders, and non-governmental organizations. This paper provides evidence-based insights to support planning, regulation, and advocacy toward a safer maritime transport system in Bayelsa State.

Keywords: Maritime safety, community livelihoods, boat transport, boat accidents, Bayelsa State.

PUBLIC AFFAIRS BROADCASTING AND NATIONAL DEVELOPMENT: THE NIGERIAN EXPERIENCE

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ABSTRACT

Public affairs broadcasting (PAB) is an essential aspect of modern mass communication that deals with the dissemination of information, opinions and analysis of issues that are of public importance such as politics, economy, education, social welfare, governance, environment with the purpose of providing enlightenment, education and information to the citizen. PAB is a form of broadcasting that serves the interest of the public with no intention for profit making. It plays a pivotal role in national development particularly in developing countries like Nigeria. This paper explores the role of public affairs broadcasting (PAB) in national development, highlighting its contributions, in socio-economic growth, political stability and cultural preservation. The public affairs broadcasting programmes have made significant contributions therefore to the national development through informative programming, education initiatives and cultural promotion. Specifically, PAB's contributions include: provision of platforms for accountability, transparency and watchdog roles, civic and citizenship education, agenda setting, education, interpretation, information and enlightenment; it promotes popular participation, conflict resolution and a platform for dialogue which allows diverse voices and opinions on national issues. The paper concludes that PAB is a vital and indispensable tool for national development in Nigeria. Recommendations were given in respect to increased investment to the sector and rooms should be given for enhanced collaborations between the government and media stakeholders to further optimise its impact on national development.

Keywords: Public Affairs Broadcasting, National Development, Nigeria & Education

THE AUTOMOTIVE SECTOR AND ITS ROLE IN ENHANCING INDUSTRIAL ATTRACTIVENESS IN MOROCCO

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ABSTRACT

The automotive sector since independence has become a crucial driver of significant growth in Morocco, contributing substantially to both exports and job creation. Starting in the 2000s, Morocco strategically positioned itself as a hub for automotive production and export, experiencing substantial growth through the presence of major industry players such as Renault, Delphi, Yazaki, and PSA Peugeot Citroën.

According to the Office of Foreign Exchange, the export volume of the automotive industry surged from 12.7 to 25.2 billion dirhams in 2012, boasting an annual growth rate of 14.6%. These positive indicators have positioned Morocco as an attractive destination. The achievement is attributed to various determinants, encompassing both cost and non-cost factors. This article delves into industrial strategies and policies designed to foster an appealing economic and industrial environment for automotive companies. It aims to illustrate how Morocco's industrial policy, centered on creating clusters, has transformed the sector into a competitive force, establishing it as a leading exporting sector. Noteworthy emphasis is placed on infrastructure investments, serving as a strategic logistics platform dedicated to supporting the installation of automotive industry suppliers and manufacturers. This infrastructure has provided Morocco with a pivotal tool for integration into the global value chain of car manufacturers.

Keywords: Automotive industry, industry, Exportation, Industrial strategy, Morocco

EFFECT OF SUGAR REPLACEMENT BY SUGAR ALCOHOLS ON THE TEXTURAL PROPERTIES OF CAKES: A SYSTEMATIC REVIEW AND META- ANALYSIS

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ABSTRACT

Sucrose plays a multifunctional role in cake formulations, contributing not only to sweetness but also to critical physicochemical and structural properties including batter viscosity, aeration, moisture retention, crumb formation, and overall textural quality. In recent years, growing public health concerns regarding excessive sugar consumption and its association with obesity, diabetes, and metabolic disorders have accelerated the demand for reduced-sugar bakery products. Sugar alcohols (polyols) such as sorbitol, erythritol, xylitol, maltitol, and mannitol have gained considerable attention as alternative sweeteners due to their lower caloric contribution, reduced glycemic response, and technological compatibility with conventional baking processes. However, replacing sucrose in cake systems may significantly influence the structural integrity, crumb characteristics, and mechanical texture of the final product.

The present study aims to systematically evaluate the impact of sucrose replacement with sugar alcohols on the textural properties of cakes through a comprehensive systematic review and meta-analysis. Relevant peer-reviewed research articles were identified through structured searches of major scientific databases including Scopus, Web of Science, ScienceDirect, and Google Scholar. Studies reporting quantitative data on cake texture parameters following partial or complete substitution of sucrose with sugar alcohols were included based on predefined inclusion and exclusion criteria. Extracted data from eligible studies were statistically synthesized using Review Manager (RevMan) software to estimate pooled effect sizes and assess the influence of different polyols on instrumental texture parameters such as hardness, springiness, cohesiveness, chewiness, and crumb firmness. Heterogeneity among studies and potential sources of variation, including substitution level, formulation differences, and processing conditions, were also evaluated.

The meta-analytical findings indicate that partial replacement of sucrose with sugar alcohols can effectively reduce sugar content while maintaining acceptable textural attributes in cake products. However, the magnitude and direction of textural changes vary depending on the type of polyol, degree of substitution, and formulation matrix. Certain sugar alcohols exhibit superior moisture retention and crumb softening effects due to their hygroscopic nature, while others may increase firmness or alter cake volume as a result of differences in molecular structure and crystallization behavior. These variations highlight the importance of optimized formulation strategies and the potential use of blended sweetener systems to achieve desirable quality characteristics in reduced-sugar bakery products.

Overall, this meta-analysis provides a comprehensive synthesis of existing scientific evidence regarding the functional role of sugar alcohols in cake systems and their influence on textural quality. The findings offer valuable insights for food scientists, product developers, and the bakery industry in designing healthier reduced-sugar cakes without compromising structural and sensory attributes. The study further contributes to the advancement of sugar reduction strategies and functional ingredient optimization in modern bakery formulations.

Keywords: Sugar alcohols, polyols, sucrose replacement, cake texture, reduced-sugar bakery products, meta-analysis, texture profile analysis, functional sweeteners.

DEVELOPMENT OF BIOACTIVE AND INTELLIGENT BIODEGRADABLE PACKAGING FILMS FROM FRUIT PEEL WASTE

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ABSTRACT

The rising environmental concerns associated with plastic packaging waste, along with the safety issues related to food spoilage, have accelerated the demand for sustainable and functional alternatives in the food industry. In this context, the development of biodegradable antimicrobial bioplastics offers a promising solution to address both environmental pollution and food preservation challenges caused by conventional petrochemical-based plastics. The objective of this study was to produce biodegradable packaging films based on fruit peel waste as a low-cost, eco-friendly resource for food packaging. Fruit peels particularly orange, banana and mango, were processed to extract bioactive compounds rich in polyphenols and natural pigments. The films were produced using a biopolymer matrix (i.e. starch or pectin) with integrated peel extracts to provide antioxidant and antimicrobial properties. The developed films were further functionalized to exhibit intelligent behavior by incorporating pH-sensitive compounds, enabling real-time monitoring of food freshness through visible color changes. Physicochemical properties including thickness, tensile strength, water vapor permeability, and solubility were evaluated. Additionally, antioxidant activity (DPPH assay), total phenolic content (TPC), and antimicrobial efficacy against common foodborne pathogens were assessed. Results demonstrated that incorporation of fruit peel extracts significantly enhanced the functional properties of the films, including improved antioxidant capacity and inhibitory effects against microbial growth. The intelligent films exhibited distinct color transitions in response to pH variations, indicating their potential as freshness indicators in perishable food systems. Overall, this study highlights the valorization of agro-industrial waste into high-value, sustainable packaging materials with active and intelligent functionalities. The developed films offer a promising alternative to conventional packaging while contributing to waste reduction and food quality monitoring.

EVALUATION OF BUCK REPRODUCTIVE PRODUCTIVITY BASED ON KID BIRTH RECORDS IN SABURAI GOATS

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ABSTRACT

This study was conducted to evaluate the reproductive productivity of Saburai goat bucks based on kid birth records. The data used in this study were secondary reproductive records obtained from the UPTD of Saburai Goat Breeding, Lampung, Indonesia, covering the period from 2015 to 2025. A total of 21 bucks and 215 kids were included in the analysis. The recorded variables consisted of buck code, total number of offspring, kidding frequency, and the number of male and female kids produced by each buck. The research applied a quantitative descriptive method with an observational approach using recorded birth data from Saburai goats. The observed parameters included the total offspring produced by each buck, the distribution of kidding frequency, and the sex composition of the offspring. The results showed that reproductive productivity varied considerably among bucks, as reflected in the differences in total offspring and kidding frequency. Twin births were the predominant kidding pattern, accounting for 54.81% of total kidding events, followed by single births at 42.96%, whereas triplet births occurred at a much lower frequency of 2.22%. The offspring sex composition consisted of 110 male kids and 105 female kids, indicating a relatively balanced sex ratio. The chi-square test confirmed that the sex ratio did not differ significantly from the expected 1:1 distribution, whereas birth type distribution differed significantly among single, twin, and triplet births. These findings demonstrate that kid birth records provide useful information for evaluating buck reproductive performance and may serve as an initial basis for the selection of superior bucks and the improvement of breeding strategies in Saburai goat production systems.

Keywords: Saburai goat, buck, reproductive productivity, kid birth records, selection

**CLIMATE RISK AND SMALLHOLDER VULNERABILITY IN FOOD CROP
PRODUCTION: A MULTILEVEL ANALYSIS OF HOUSEHOLD AND
COMMUNITY-LEVEL DRIVERS IN NIGERIA**

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ABSTRACT

Climate change poses significant risks to agricultural systems in Nigeria, where food crop production is predominantly rain-fed and highly climate-sensitive. This study examines crop-specific vulnerability to climate risks and identifies pathways for strengthening resilience among smallholder farmers. Using a multistage sampling technique, data were collected from 480 farmers across selected agro-ecological zones. Descriptive statistics and a crop vulnerability index were employed to assess the susceptibility of major food crops maize, cassava, sorghum, rice, millet, soybean, and yam—to climate stressors. The results indicate that drought is the most critical constraint, with maize and cassava exhibiting the highest vulnerability levels, while flooding poses localized but significant risks. Temperature variability shows comparatively lower immediate effects. The findings further reveal that access to climate information, extension services, and cooperative membership significantly enhances farmers' adaptive capacity, although access to timely and reliable climate information remains limited. The study underscores the need for targeted policy interventions, including the promotion of drought-tolerant crop varieties, investment in climate information systems, and strengthening of extension delivery mechanisms. Enhancing these institutional supports is critical for building resilient agricultural systems and ensuring sustainable food production in Nigeria.

Keywords: Climate change; Extreme stress; Food crop; Flooding; Vulnerability

THE PREVALENCE OF DENTAL CARIES AND ITS CORRELATION WITH DIETARY HABITS IN SCHOOLCHILDREN IN ALGERIA (CHLEF REGION)

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ABSTRACT

Dental caries represents a major public health challenge, directly influenced by dietary factors and hygiene practices. This study aimed to determine the prevalence of dental caries among a specific cohort of schoolchildren and to quantitatively analyze the correlation between their consumption patterns (specifically cariogenic foods) and caries severity.

This research utilized a cross-sectional, epidemiological approach, involving schoolchildren aged 7 to 14 years old from El Chahid Ikhwa Henni Adda primary school in the Ouled Fares commune, Chlef, Algeria . Data were systematically collected through clinical dental examination (DMFT index) and a structured questionnaire focused on assessing the frequency of consumption of sugary foods, drinks, and oral hygiene frequency. Statistical analysis was performed to establish significant associations between the nutritional factors and the observed clinical outcomes. A prevalence of 65% for dental caries was documented, showing a statistically significant positive correlation ($p < 0.05$) between high frequency of sugar consumption and elevated DMFT scores. The results confirmed that poor dietary habits were a more significant predictor of caries severity than inconsistent oral hygiene.

The findings underscore the critical role of dietary interventions in preventative pediatric health, particularly in addressing the high consumption of cariogenic foods. The study advocates for immediate, targeted nutritional education programs to reduce the prevalence of dental caries in the school environment.

Keywords: Dental caries, Schoolchildren, Sugar consumption, DMFT index, Oral hygiene.

DIFFERENTIAL EFFICACY OF TAURINE APPLICATION STRATEGIES IN ALLEVIATING CR(VI)-INDUCED PHYTOTOXICITY IN CHICKPEA

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ABSTRACT

Taurine (TAU) has emerged as a potent regulatory molecule in modulating plant adaptive responses to abiotic stress. In this study, a comparative evaluation was conducted to elucidate the effectiveness of TAU applied through seed priming and foliar supplementation in chickpea subjected to hexavalent chromium [Cr(VI)] stress. Both application strategies, at concentrations of 1.6 and 2.4 mM, significantly influenced plant morpho-physiological and biochemical attributes under chromium toxicity.

Exposure to 25 mg kg⁻¹ soil Cr, supplied as potassium dichromate (K₂Cr₂O₇), markedly impaired plant growth, chlorophyll content, and the uptake of essential nutrients, including nitrogen, potassium, phosphorus, and calcium. Concurrently, Cr(VI) stress triggered a cascade of stress responses, characterized by elevated accumulation of osmolytes, enhanced lipid peroxidation, increased membrane permeability, excessive reactive oxygen species (ROS) generation, and upregulation of both enzymatic and non-enzymatic antioxidant systems. Additionally, chromium accumulation and its translocation to aerial tissues were substantially increased.

TAU application effectively counteracted these detrimental effects by modulating oxidative stress pathways. It attenuated lipoxygenase activity, thereby limiting ROS-induced lipid peroxidation, and reduced chromium accumulation in both roots and shoots. This reduction facilitated improved nutrient acquisition and assimilation. Overall, TAU enhanced plant growth and stress tolerance by reinforcing antioxidant defense mechanisms, restricting chromium translocation, and maintaining cellular integrity. Notably, seed priming with TAU proved more efficient than foliar application in alleviating Cr-induced phytotoxicity.

SURFACE-ENHANCED RAMAN SPECTROSCOPY (SERS) BASED DETECTION OF LIVER DYSFUNCTION BIOMARKER USING SILVER NANOPARTICLES

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ABSTRACT

Liver disorders represent a significant global health challenge, necessitating the development of advanced and sensitive diagnostic techniques. Alanine transaminase (ALT), also known as serum glutamic pyruvic transaminase (SGPT), serves as a key biomarker for hepatocellular injury and liver dysfunction. Elevated SGPT levels indicate potential liver damage and require accurate detection methods for early diagnosis.

In this study, the potential of silver nanoparticles as plasmonic substrates is explored for the enhanced detection of SGPT-related biomarkers. Surface-Enhanced Raman Spectroscopy (SERS), when integrated with nanostructured metallic substrates, offers high sensitivity and molecular specificity, making it a promising analytical tool for biomedical applications.

The work focuses on the integration of nanotechnology with SERS to improve the detection efficiency of abnormal SGPT levels in blood samples. The use of silver nanoparticles enhances Raman signal intensity, enabling more precise identification of biochemical changes associated with liver dysfunction. This approach may contribute toward the development of rapid, reliable, and cost-effective diagnostic strategies for early detection of liver diseases.

Keywords: Surface-Enhanced Raman Spectroscopy (SERS), Silver Nanoparticles, SGPT (ALT) Biomarker, Liver Dysfunction, Blood Serum Analysis

ENVIRONMENT-RESISTENT ALGAL FEED FOR SUSTAINABLE FISH PRODUCTION

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ABSTRACT

The use of algae in aquaculture is environmentally friendly, safe, and cost-effective, and it may successfully replace fish meal and aquatic feeds. The health of aquatic animals significantly improves by adding algae as nutritional supplements, which also benefits the aquatic ecosystem. The natural phytoplankton community in aquaculture systems is frequently disrupted by environmental changes like rising temperatures, shifting pH levels, and decreased dissolved oxygen, which results in unstable water quality and stunted fish growth. In order to preserve pond stability under such stressful circumstances, this study investigates the creation and use of environmentally resistant algal feed, such as *Chlorella thermalis* and *Scenedesmus obliquus*. To find variations that could sustain high biomass, nutrient content, and oxygen-producing capacity, specific microalgal strains were subjected to regulated heat, light, and nutrient stress. The study covers addition of most resilient strains incorporated in fish ponds for experimentation and contrasted with ponds that used traditional green-water techniques. The suggested approach is to determine if stress-adapted algae can survive longer in harsh environmental conditions, resulting in more stable dissolved oxygen levels and enhanced ammonia reduction in fish ponds. The study will evaluate these hardy algae strains' ability to improve fish growth, survival, and general pond health by introducing them into controlled aquaculture environments. If effective, this approach could show how growing stress-resistant algal feed can improve aquaculture systems ability to withstand climatic change and support more environmentally friendly methods of producing fish.

Keywords: Stress-tolerant phytoplankton, Environment-resistant algal feed, Climate-resilient aquaculture, Water quality stabilization, Green-water enhancement.

INNOVATION AND NUTRITIONAL PROFILING OF HIGH-FIBER, SUGAR-FREE BURGER BUNS FROM WBF ZERO FLOUR

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ABSTRACT

The increasing prevalence of diet-related metabolic disorders has created a growing demand for healthier bakery products with reduced sugar and enhanced dietary fiber. This study aimed to develop and evaluate high-fiber, sugar-free burger buns using WBF composite flour as a functional ingredient. Composite flours were formulated by incorporating graded levels of WBF (T0–T4) and evaluated for nutritional composition, functional properties, dough rheology, and baking performance. The developed burger buns were further assessed for physicochemical characteristics, antioxidant activity, storage stability, and sensory acceptability. Proximate analysis revealed significant nutritional improvement with increasing WBF substitution. Moisture content decreased from 11.20% (T0) to 10.43% (T4), while protein content increased from 11.45% to 14.06%. Dietary fiber showed a substantial increase from 2.51% to 8.92%, and ash content increased from 1.63% to 2.30%, indicating enhanced mineral content. Conversely, nitrogen-free extract decreased from 71.39% to 62.11%, reflecting a reduction in available carbohydrates, while fat content remained statistically unchanged. Functional analysis demonstrated improved water-holding and oil-binding capacities with higher WBF levels, contributing to enhanced dough hydration and structural stability. Antioxidant assessment showed higher total phenolic content and DPPH radical scavenging activity in fiber-enriched formulations. Rheological evaluation indicated increased water absorption and modified viscoelastic behavior due to fiber incorporation, though optimized formulations maintained acceptable dough handling properties. Physical analysis of buns showed a slight reduction in loaf volume and crumb softness with increasing WBF levels, attributed to gluten dilution. Microstructural observations confirmed the formation of a denser fiber-integrated crumb matrix. During storage, moisture content gradually declined and hardness increased, indicating normal staling behavior; however, fiber-enriched buns demonstrated improved moisture retention compared with the control. Antioxidant activity decreased slightly during storage but remained higher in WBF-fortified samples. Sensory evaluation using a 9-point hedonic scale indicated good consumer acceptance, with overall acceptability scores ranging from 8.0 to 8.2 for optimized formulations. Inclusively, WBF composite flour significantly improved the nutritional value, dietary fiber content, antioxidant potential, and mineral composition of burger buns while maintaining acceptable technological and sensory quality.

The findings demonstrate that WBF can be effectively utilized to produce high-fiber, sugar-free functional burger buns, offering a promising approach for developing healthier bakery products suitable for health-conscious and diabetic consumers.

Keywords: Functional bakery products, WBF composite flour, high-fiber burger buns, sugar-free formulation, dietary fiber enrichment, and antioxidant activity.

INTERSECTION BETWEEN EMERGING TECHNOLOGIES AND ENVIRONMENTAL LAW: GOVERNANCE OPPORTUNITIES AND REGULATORY CHALLENGES

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ABSTRACT

The rapid adoption of emerging technologies, such as Artificial Intelligence (AI), the Internet of Things (IoT), and blockchain technologies, has begun to transform the foundations of environmental management and the enforcement of environmental law. This article explores the dynamics between technological innovation and the legal framework for environmental protection, examining how these digital tools can serve as catalysts for more efficient environmental monitoring, pollution traceability, and regulatory enforcement. At the same time, the study highlights the paradigm of “technology as polluter,” addressing the ecological footprint of digital infrastructure and the current legislative gaps in the face of new risks, such as biased algorithms in resource allocation or electronic waste. Through an analysis of the relevant literature and the European normative framework, the paper argues for a shift from reactive regulation to adaptive and forward-looking regulation, capable of integrating the principles of sustainable development in the digital age. The conclusions emphasize that only through a hybrid governance model, combining legal rigor with technological precision, can a healthy environment be ensured for future generations.

Keywords: environmental law; emerging technologies; Artificial Intelligence; environmental governance; sustainability; adaptive regulation

SPRAY PYROLYSIS DEPOSITION AND CHARACTERIZATION OF ZNO AND LA-DOPED ZNO THIN FILMS FOR PHOTOCATALYTIC APPLICATIONS

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ABSTRACT

In this study, ZnO and La-doped ZnO ($\text{Zn}_{1-x}\text{La}_x\text{O}$, $x=2,5,10,15$; $x=2, 5, 10, 15$; $x=2,5,10,15$ at.%) thin films were synthesized on glass substrates using the spray pyrolysis technique. The impact of La doping on the structural, morphological, optical, and photocatalytic properties of the films was systematically investigated. X-ray diffraction (XRD) patterns revealed that all films exhibit a hexagonal wurtzite structure, with preferential grain orientation along the (002) plane for pure ZnO and 2%La-ZnO layers. Beyond 5% La doping, the preferential orientation shifted, and the crystallite sizes ranged from 10 to 19 nm. Scanning electron microscopy (SEM) images indicated that pure ZnO and 2%La-ZnO films were characterized by nanorods distributed uniformly on the surface, while films doped with 5%, 10%, and 15% La displayed nanocrystals in the form of hexagonal prisms. Optical measurements showed high transparency in the visible range (80–90%) across all samples, with a relatively constant optical bandgap of 3.26 eV. The photocatalytic performance of the films was evaluated through the degradation of methyl blue (MB) under UV light. Among all samples, the 5%La-ZnO thin film exhibited the highest photocatalytic efficiency, achieving 95% MB degradation. This enhancement is attributed to the optimal structural and morphological changes induced by La doping, which improved charge carrier separation and surface reactivity. These findings demonstrate the potential of La-doped ZnO thin films, particularly with 5% La doping, for advanced photocatalytic applications and transparent coatings. The tunability of structural and optical properties via doping further highlights their suitability for multifunctional device applications.

Keywords: ZnO films, Lanthanum, Photocatalytic properties.

SYNTHESIS OF CUO NANOPARTICLES FOR ENHANCED PHOTOCATALYTIC DEGRADATION OF METHYLENE BLUE IN ADDRESSING URBAN POLLUTION CHALLENGES (WATER, SOIL, AND AIR)

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ABSTRACT

Urbanization has led to a significant increase in various forms of pollution, posing critical challenges for sustainable development and public health. Among these issues, wastewater treatment and the sanitation of potable water supplies have become central concerns, particularly due to the escalating levels of industrial pollutants in urban water bodies. Advanced oxidation processes (AOPs) have emerged as promising technologies for addressing water pollution in urban areas, offering effective solutions for the mineralization of toxic organic contaminants. A key method within this framework is heterogeneous photocatalysis, which leverages semiconductor materials like copper oxide (CuO) to degrade pollutants without introducing additional harmful chemicals.

Heterogeneous photocatalysis is particularly suited for urban applications due to its ability to break down organic pollutants into non-toxic byproducts through light-activated chemical reactions. The use of CuO as a photocatalyst in urban wastewater treatment offers significant benefits, as it minimizes the need for chemical additives and helps maintain water quality. In this study, CuO nanoparticles were synthesized using a simple co-precipitation method, optimized through controlled heating at 80°C, to enhance photocatalytic activity an important factor for urban water treatment applications.

Characterization of the synthesized CuO nanopowder was performed using X-ray diffraction (XRD) and scanning electron microscopy (SEM), confirming the monoclinic phase of CuO with an average crystallite size of 30 nm. This nanoscale structure is essential for urban wastewater treatment as it increases the surface area available for reactions, thereby enhancing pollutant degradation efficiency.

SEM analysis revealed a three-dimensional, flower-like morphology in the CuO nanoparticles, a structure that optimizes light absorption and pollutant adsorption. These characteristics make CuO nanoparticles highly effective in degrading methylene blue (MB), a common urban water pollutant, demonstrating their potential in addressing wastewater challenges in urban environments. Given the growing concerns over water, soil, and air pollution in cities, the development and application of CuO nanoparticles in advanced water treatment technologies represent a significant investment opportunity for improving urban environmental sustainability. Moreover, the integration of such photocatalytic processes into urban water treatment systems can help mitigate the broader impacts of industrialization, construction, and social pressures on water resources in cities.

Keywords: CuO Nanoparticles, Photocatalytic Degradation, Urban Water Pollution, Wastewater Treatment Technologies

SYNTHESIS, COMPUTATIONAL AND EXPERIMENTAL EVALUATION OF COUMARIN-BENZAMIDE HYBRIDS AS POTENTIAL UREASE INHIBITORS

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ABSTRACT

Enzymes play major role in a series of biochemical reactions. Urease is an enzyme that catalyzes the hydrolysis of urea into ammonia and carbamate. Its importance is especially important in the context of *Helicobacter pylori* infections, which can lead to gastric ulcers and gastrointestinal infections. The main goals of this research were to prepare novel derivatives of coumarin-benzamide hybrid molecules and examine their urease inhibitory potential. This study explores the synthesis and urease inhibitory abilities of novel coumarin hybrids, 4-(((4-methyl-2-oxo-2H-chromen-7-yl)oxy)methyl)-N-arylbenzamides. The combination of structure-activity relationship (SAR) analysis, enzyme kinetics, and molecular docking studies exhibited that these compounds could effectively inhibit the activity of urease. The in vitro screening of all the synthesized derivatives (5a-n) resulted in considerable inhibitory effects against urease, with IC₅₀ values ranging from 0.27 ± 0.01 to 20.1 ± 0.51 μM , surpassing the activity of the standard, thiourea (22.3 ± 0.031 μM). Notably, compound (5k) was identified as the most potent inhibitor, with an IC₅₀ value of 0.27 ± 0.01 μM . In silico studies indicated the presence of various interactions, comprising hydrogen bonds, π -alkyl, π -cation and π -sigma interactions with specific amino acid residues. Furthermore, molecular dynamics simulations showed that urease remains stable and flexible in the presence of these inhibitors. These findings proved that coumarin-based inhibitors could assist to manage urease-related infections, and motivating further exploration of their therapeutic applications.

SYNTHESIS OF AN EFFECTIVE IRON MANGANESE OXIDE-COBALT OXIDE NANOCOMPOSITE ELECTRODE FOR ENERGY STORAGE SUPERCAPACITORS

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ABSTRACT

Increasing energy consumption necessitates developing effective energy storage technologies that utilise nanoscale composite materials to enhance electrochemical performance. In this study, an iron manganese oxide-cobalt oxide (FeMn₂O₄/Co₃O₄) nanocomposite was synthesised using an ultrasonication process, and its supercapacitor performance was assessed through various electrochemical tests. The specific capacitance of the material approached 1240 F g⁻¹ at a low current rate (1 A g⁻¹), indicating the favourable energy storage performance of the nanocomposite. Additionally, the assembled asymmetric supercapacitor configuration (FeMn₂O₄/Co₃O₄//AC) confirmed an energy density of 49 Wh kg⁻¹ with a significant power density of 665 W kg⁻¹ under the optimal potential difference of 1.45 V. However, the capacitance was retained at ~94 % over 5,000 cycles, suggesting enhanced cycle stability. The greater performance is attributed to the increased nanocomposite conductivity, facilitating ion flow into the electrode active sites. Consequently, the superior performance of these FeMn₂O₄/Co₃O₄ nanocomposite-based supercapacitors makes them a promising option for sustainable energy storage solutions.

Keywords: Asymmetric supercapacitors; FeMn₂O₄/Co₃O₄; Spinel oxide; Sonication method; Specific capacitance

ARTIFICIAL INTELLIGENCE AS A TOOL FOR ADVANCING CIRCULAR ECONOMY: AN ANALYSIS ON BIO MEDICAL WASTE MANAGEMENT

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ABSTRACT

Biomedical Waste is a continuous process that needs to be managed effectively to ensure environmental safety and public health. The recent circular economy (CE) practices have brought a new shape for the Bio Medical waste management creating value from the Health Care generated waste. The shift to a CE represents one of the most significant challenges, particularly in sorting and classifying generated waste in Health Care Unit.

The unregulated, unplanned and inefficient utilization of finite materials from different health care unit whether public and private, has precipitated the generation of excessive Biomedical waste, thereby posing a serious threat to Environmental Sustainability and Ecological Balance. This paper highlights issue which is further exacerbated by the hazardous nature of healthcare waste, which includes infectious, toxic and potentially life-threatening materials requiring specialized handling and disposal mechanisms. The exigencies of this issue have been further amplified by the unprecedented outbreak of the COVID-19 pandemic, which has resulted in the large-scale generation of biomedical waste, including personal protective equipment, diagnostic materials and disposable medical supplies. This surge has intensified Environmental Pollution and exposed critical deficiencies in existing waste management infrastructures. The situation is particularly acute in developing nations, where the absence of sectorial law regarding healthcare systems and inadequate regulatory enforcement mechanisms impede the safe and effective Biomedical Waste Management. This Paper critically examines implication of regulatory gaps regarding to facilitate efficient Biomedical Waste Management with the help of Artificial intelligence technologies.

Keywords: Circular Economy, Biomedical Waste Management, Artificial Intelligence.

**EVALUATION OF BIOSTIMULANT EFFECTS OF ROSEMARY AND THYME
ESSENTIAL OILS ON *IN VITRO* MULTIPLICATION OF PEAR (*Pyrus communis* L.)**

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ABSTRACT

In Tunisia, pear cultivation is of considerable economic importance. However, it is widely threatened by fire blight, a severe bacterial disease caused by *Erwinia amylovora*. The use of in vitro tissue culture and mastery of tissue culture techniques are very essential for the rapid multiplication of local genotypes and their long-term preservation. The steps of pear micropropagation (initiation, multiplication, and rooting) rely mainly on the use of growth regulators, which are often synthetic, expensive, toxic to handlers, and polluting to the environment. Recently, some essential oils have proven effective for the micropropagation of many crops as biostimulants and natural substitutes for synthetic plant cytokinins and auxins. In this context, in vitro propagation trials of local pear, *Pyrus communis*, were established by adding various doses (25, 50, and 100 ppm) of rosemary (EORm) and thyme (EOTh) essential oils (EO) to Murashige and Skoog (MS) culture media. Preliminary results showed that both essential oils had little effects on the multiplication rates (MR) of pear shoots. The highest MR (2.67) was obtained with EOTh. The combination of the two essential oils (50-ppm rosemary + 50-ppm thyme) appeared less effective, with an MR of 1.42 only. The highest shoot leaf number (18.17) was recorded with 25 ppm EOTh; however, with this dose, shoots and plantlets necrosis was higher (100%). On the other hand, compared with BAP cytokinin-enriched media, the two EOs were responsible for the total elimination of calli at the shoot bases.

Keywords: Essential oils (EOs), local pear, rosemary, shoot growth, thymus.

A DYNAMIC THREE-DIMENSIONAL MODEL FOR MICELLAR DRUG SOLUBILIZATION AND EQUILIBRIUM BEHAVIOR

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ABSTRACT

Micellar systems are dynamic nanoscale aggregates that play a crucial role in drug solubilization and delivery. Traditional models, such as the Kawamura model, often oversimplify micelles by treating them as static phases, limiting their ability to accurately describe complex drug–micelle interactions.

This study presents a refined theoretical framework in which micelles are described as dynamic three-dimensional droplets, allowing drug molecules to distribute among aqueous, interfacial (surface), and hydrophobic core regions. Separate equilibrium processes are introduced to characterize drug binding at the micellar surface and within the core, revealing nonlinear behavior at elevated surfactant concentrations.

Furthermore, incorporation of micelle–monomer equilibrium accounts for dynamic variations in micelle size and population, providing deeper insight into structural adaptability. The proposed model successfully explains nonlinear effects observed near the critical micelle concentration (CMC) and enhances the quantitative understanding of micellar drug delivery systems.

This approach offers a more comprehensive and realistic representation of micellar behavior, with potential implications for optimizing drug formulation and delivery efficiency.

MAGNETIC PROPERTIES OF PEROVSKITE CERAMICS AFeO_3 ($\text{A} = \text{Bi, La}$) AND CaBO_3 ($\text{B} = \text{Mn, Ti}$) USING MONTE CARLO TECHNIQUES

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ABSTRACT

The development of cutting-edge technology applications, such as spintronics, data storage, and energy systems, depends on the understanding of magnetic behavior in materials. For many years, the study of perovskite ceramics' magnetic characteristics has been a major focus in materials research and condensed matter physics. The magnetic characteristics of perovskite ceramics BiFeO_3 , LaFeO_3 , CaMnO_3 , and CaTiO_3 were investigated in this work. These materials were chosen because of their stability, nontoxicity, and prospective spin structures for doping or nanoscale rearrangement to increase hyperthermia. A 3D Ising model on a cubic lattice with periodic boundary conditions was used for the simulations. BiFeO_3 has the best magnetic response of all the ceramics that were examined; it has considerable hysteresis losses, finite coercivity, and improved magnetization. LaFeO_3 has promising behavior as well, with minimal magnetic losses and persistent antiferromagnetic ordering that might be enhanced by compositional tweaking or size control. On the other hand, CaTiO_3 has a minimal magnetic response, CaMnO_3 and CaTiO_3 show limited or negligible heating capabilities. These results show that Monte Carlo techniques provide a predictive framework for identifying perovskite compositions with optimized magnetic properties for technological applications.

Keywords: Monte Carlo Techniques; Perovskites; Magnetic properties; Transition temperature

EVALUATION OF THE MECHANICAL PROPERTIES OF CONCRETE CONTAINING PERIWINKLE WASTE DUST AS PARTIAL AGGREGATE REPLACEMENT

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ABSTRACT

The speedy development of the construction industry has increased demand for cement, a material whose manufacture is energy-intensive and contributes significantly to global carbon dioxide emissions. Moreso, periwinkle shells, a by-product of seafood processing, are generated in large quantities and often disposed of as waste, causing environmental pollution. This study was conducted to explore the potential of using periwinkle waste dust (PWD) as a sustainable partial replacement for cement in concrete. Concrete cubes and cylinders were cast with cement replaced by PWD at 0% (control), 5%, 10%, 15%, and 20% by weight, and cured in water for 28 days. Compressive and split tensile strengths were determined to evaluate the mechanical performance. The results revealed that increasing PWD content led to a gradual reduction in both compressive and tensile strengths compared to the control mix; however, compressive strength increased with curing age, likely due to the pozzolanic activity of silicate compounds in the PWD. At 5% cement replacement, compressive and tensile strengths decreased by 9.5% and 7.8%, respectively, after 28 days. These findings suggest that low-level incorporation of PWD can serve as a viable partial cement replacement, offering both environmental and economic benefits, whereas higher replacement levels significantly compromise concrete strength. The study provides insights for sustainable construction by promoting the reuse of seafood processing waste in cementitious materials.

Keywords: Cement replacement, Concrete, Compressive strength, Periwinkle dust, Tensile strength.

THE SYNERGY BETWEEN ARTIFICIAL INTELLIGENCE AND FORENSICS

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ABSTRACT

A major new area of interest in forensics is how artificial intelligence (AI) is changing things. This includes looking at machine learning algorithms and big data analytics to change the way crime is investigated and prevented. When we look at how AI is used in real-world situations, such as biometric identification, predicting areas where crime is likely to occur, and managing digital evidence, there is a clear improvement in the speed with which operations are handled. This leads to more effective decisions in forensic investigations.

The key part of using technology, especially when there is a risk of “algorithmic bias”, can greatly affect human rights. Attention is paid to how AI can perpetuate unfair treatment based on where people live and make negative assumptions about those from poorer backgrounds, turning their lack of money into a sign that they are more likely to break the law.

If we talk about Human vs. Algorithm, studies show that AI excels in processing speed (analysis in under 2 minutes compared to 42 minutes for humans), but fails in ethical nuances.

Keywords: Artificial Intelligence, Digital Forensics, Predictive Policing, Human Rights, Algorithms, Crime Prevention.

WAR TAX RESISTANCE: A VIOLATION OF TAX LAW, A SOCIO-POLITICAL RESPONSE?

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ABSTRACT

Today, it is impossible to wage war without weapons and soldiers. However, countries need not only soldiers and weapons for modern warfare, but also significant revenue to cover the hefty costs of war. In 2024, the average taxpayer in the US contributed approximately \$4,000 to finance war and weapons. It is quite surprising that the taxes paid by millions of American families, which should be allocated to food, healthcare, and public services, are being used to pay for war, and that such a large sum is being allocated to militarism and its support systems. At this point, taxpayers who know where their taxes are going are refusing to pay some or all of these federal taxes that support war financing. This method, called war tax resistance, is seen as an effective way to protest the militaristic policies of governments. The goal is to withdraw financial support given to war and redirect tax revenues to humanitarian purposes. However, taxpayers exhibiting behaviors such as not paying taxes or avoiding paying taxes is against the law. Taxpayers are openly defying the laws established by the state by refusing to pay taxes, and they are doing so consciously. In this sense, war tax resistance appears as a clear form of tax non-compliance. On the other hand, the fact that taxpayers announce to the public why they are not paying taxes, make explanations, and openly display this behavior against the state means that it is a social reaction against the state's war and budget policies. In other words, resistance also has a protest dimension that occurs as a result of social reaction. War tax resistance is significant in terms of these results. In this study, the concept of war tax resistance will be evaluated in terms of tax violation and social reaction, and the aim is to bring a new perspective to the research area.

Keywords: War Tax Resistance, Tax Violation, Social Reaction.

SAVAŞ VERGİSİ DİRENCİ: BİR VERGİ HUKUKU İHLALİ Mİ, SOSYO-POLİTİK BİR TEPKİ Mİ?

ÖZET

Günümüzde silahlar ve askerler olmadan savaş yürütmek imkansızdır. Ancak ülkeler modern savaşlar için sadece asker ve silah değil, savaşın yüklü maliyetini karşılayabilmek adına ciddi bir gelire de ihtiyaç duymaktadır. 2024 yılında ABD’de ortalama bir vergi mükellefi savaş ve silah finansmanı için yaklaşık 4 bin dolar destek sağlamıştır. Milyonlarca Amerikalı ailelerin ödedikleri vergiler gıda, sağlık ve kamu hizmetine aktarılması gerekirken savaş maliyeti olarak kullanılması ve bu denli yüksek bir meblağın militarizm ve destek sistemlerine ayrılması oldukça şaşırtıcıdır. İşte bu noktada ödediği vergilerin nereye gittiğini bilen mükellefler, savaş finansmanını destekleyen bu federal vergilerin bir kısmını veya tamamını ödemeyi reddetmektedir. Savaş vergisi direnci olarak adlandırılan bu yöntem, hükümetlerin militarist politikalarını protesto etmenin etkili bir yolu olarak görülmektedir. Bu yöntem ile savaşa verilen mali desteğin geri çekilmesi ve vergi gelirlerinin insani amaçlara yönlendirilmesi hedeflenmektedir. Ancak mükelleflerin vergi ödememek veya vergi ödemekten kaçınmak gibi davranış modelleri sergilemesi yasalara aykırıdır. Mükellefler açık bir şekilde devletin belirlemiş olduğu yasalara karşı durarak vergi ödemeyi reddediyor ve bu davranışı bilinçli olarak yerine getiriyor. Bu anlamda savaş vergisi direnci, açık bir vergi uyumsuzluğu olarak karşımıza çıkıyor.

Diğer yandan mükelleflerin neden vergi ödemediklerini topluma duyurmaları, açıklama yapmaları ve bu davranışlarını devlete karşı açık bir şekilde sergilemeleri, devletin savaş ve bütçe politikalarına karşı toplumsal bir tepki olduğu anlamına gelmektedir. Yani direncin toplumsal tepkiye bağlı olarak gerçekleşen protesto boyutu da bulunmaktadır. Bu sonuçlar açısından savaş vergisi direnci önem taşımaktadır. Çalışmada savaş vergisi direnci kavramı, vergi ihlali ve toplumsal tepki açısından değerlendirilecek ve araştırma alanına yeni bir bakış açısı kazandırılması hedeflenecektir.

Anahtar Kelimeler: Savaş Vergisi Direnci, Vergi İhlali, Toplumsal Tepki.

CAN WEALTH TAX BE A FEASIBLE POLICY TOOL IN COMBATING CLIMATE CHANGE?

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ABSTRACT

Today, wealth inequality and climate change are two of the most significant problems we face. Climate change threatens to displace hundreds of millions of people, while wealth inequality is destabilizing political and economic institutions worldwide. These are, of course, distinct problems, but they are not unrelated. According to current data, the richest 10% of the world's population is responsible for 47% of total emissions, while the poorest 50%, contributing only 12% to emissions, bear 75% of climate-related income losses. The fundamental problem is how to close the climate finance gap, expected to reach \$4.5 trillion annually by 2030, within the existing inadequate and unfair tax systems. In this context, a global wealth tax targeting the super-rich is proposed to finance green technology investments and infrastructure transformation. This tax would move climate finance beyond being merely a technical budget issue, placing it at the intersection of social and environmental justice. This study will assess the potential of a progressive wealth tax targeting the extremely wealthy to close the climate finance gap and ensure climate justice by shifting the financial burden of the crisis onto those most affected. In this context, it will comprehensively address the deep relationship between the global climate crisis and wealth inequality, and the potential and challenges of a "wealth tax" proposal that could simultaneously address both issues.

Keywords: Climate, Tax, Wealth

SERVET VERGİSİ İKLİM DEĞİŞİKLİĞİYLE MÜCADELEDE UYGULANABİLİR BİR POLİTİKA ARACI OLABİLİR Mİ?

ÖZET

Günümüzde servet eşitsizliği ve iklim değişikliği en önemli iki sorun olarak karşımıza çıkmaktadır. İklim değişikliği, yüz milyonlarca insanı yerinden etme tehdidi oluştururken, servet eşitsizliği, dünya genelindeki siyasi ve ekonomik kurumları istikrarsızlaştırmaya yol açmaktadır. Bunlar elbette birbirinden farklı sorunlardır, ancak ilişkisiz değildir. Güncel verilere göre, dünya nüfusunun en zengin %10'luk kesiminin toplam emisyonların %47'sinden sorumlu olduğu, buna karşılık emisyonlara sadece %12 katkı sağlayan en yoksul %50'lik kesimin iklim kaynaklı gelir kayıplarının %75'ini üstlendiği görülmektedir. Temel problem, 2030 yılına kadar yıllık 4,5 trilyon dolara çıkması beklenen iklim finansmanı açığının, mevcut yetersiz ve adaletsiz vergi sistemleri içinde nasıl kapatılacağıdır. Bu doğrultuda yeşil teknoloji yatırımlarını ve altyapı dönüşümünü finanse etmek için süper zenginlere yönelik bir küresel servet vergisi uygulaması önerilmektedir. Bu vergi, iklim finansmanını sadece teknik bir bütçe meselesi olmaktan çıkarıp, sosyal ve çevresel adaletin kesişim noktasına yerleştirmektedir. Çalışma, aşırı zenginliğe yönelik uygulanacak kademeli bir servet vergisinin, iklim finansmanı açığını kapatma ve krizin mali yükünü asıl sorumlulara yükleyerek iklim adaletini sağlama potansiyelini değerlendirecektir. Bu bağlamda küresel iklim krizi ile servet eşitsizliği arasındaki derin ilişkiyi ve bu iki sorunu aynı anda çözebilecek "servet vergisi" önerisinin potansiyelini ve zorluklarını kapsamlı bir şekilde ele alacaktır.

Anahtar Kelimeler: İklim, Vergi, Servet.

THE ROLE OF LOCAL GOVERNMENTS IN BUILDING DISASTER-RESILIENT CITIES: THE CASE OF THE EASTERN ANATOLIA REGION

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ABSTRACT

This study aims to analyze the strategic importance and institutional capacities of local governments in building disaster-resilient cities, specifically in the Eastern Anatolia Region, which hosts Turkey's highest seismic risk areas. With increasing urban density and threats such as climate change, the vulnerability of cities to disasters has intensified. In this context, traditional "crisis management" approaches are being replaced by the concepts of "risk management" and "urban resilience." This study presents a qualitative analysis by synthesizing current academic research found in the DergiPark database and field data. The findings indicate that municipalities are competent in the post-disaster response phase but experience significant deficiencies in pre-disaster risk mitigation, technical staff employment, and budget allocation. The study concludes that local governments in Eastern Anatolia must integrate their disaster action plans with "micro-zonation" data and adopt a "resilience vision" coordinated with the central government.

Keywords: Urban Resilience, Disaster Management, Local Governments, Eastern Anatolia, Risk Management.

AFET DİRENÇLİ ŞEHİRLERİN İNŞASINDA YEREL YÖNETİMLERİN ROLÜ: DOĞU ANADOLU BÖLGESİ ÖRNEĞİ

ÖZET

Bu çalışma, Türkiye'nin sismik açıdan en yüksek riskli alanlarını barındıran Doğu Anadolu Bölgesi özelinde, afet dirençli şehirlerin inşasında yerel yönetimlerin stratejik önemini ve kurumsal kapasitelerini analiz etmeyi amaçlamaktadır. Kentlerin artan nüfus yoğunluğu ve iklim değişikliği gibi tehditlerle birlikte afetlere karşı kırılganlığı artmıştır. Bu bağlamda, "kriz yönetimi" odaklı geleneksel yaklaşımlar yerini "risk yönetimi" ve "kentsel dirençlilik" (urban resilience) kavramlarına bırakmıştır. Çalışmada DergiPark veri tabanında yer alan güncel akademik araştırmalar ve saha verileri sentezlenerek nitel bir analiz sunulmuştur. Bulgular, belediyelerin afet sonrası müdahale evresinde yetkin olduğunu ancak afet öncesi risk azaltma, teknik personel istihdamı ve bütçe tahsisi noktalarında ciddi eksiklikler yaşadığını göstermektedir. Araştırma sonucunda, Doğu Anadolu'daki yerel yönetimlerin afet eylem planlarını "mikro-bölgeleme" verileriyle entegre etmeleri ve merkezi yönetimle eşgüdümlü bir "dirençlilik vizyonu" benimsemeleri gerektiği sonucuna varılmıştır.

Anahtar Kelimeler: Kentsel Dirençlilik, Afet Yönetimi, Yerel Yönetimler, Doğu Anadolu, Risk Yönetimi.

THE IMPACT OF POLITICAL DECISION-MAKING PROCESSES ON TAX POLICIES: AN ASSESSMENT OF TAX AMNESTIES

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ABSTRACT

In Turkey, both Parliamentary/Municipality/Presidential Elections, Referandums of Constitutional Amendment and tax amnesty-type laws for regulations regarding tax debts have been quite frequent between 2000 and 2024. Tax amnesties are one of the important tax policy decisions resorted to during periods of economic fluctuations and before/after election periods. If there is a contraction in the country's economy, increased interest payments, citizens have bank, social security institution (SSI) debts and tax debts, in this case, the political parties that want to become the government put articles on election manifesto to regulations about SSI and tax debts; the political party/parties in power can issue regulations laws for tax and/or SSI debts just before the election for fear of losing votes. In Turkey, elections have been held 18 times between 2002 and 2024: Parliamentary elections, municipality elections, presidential elections, and referendums of constitutional amendments. During this period (23 years), the public went to the polls for elections 13 times.. And, in Turkey, 11 laws have been enacted between 2002 and 2024 that constitute tax amnesties in the form of tax debt regulations, under the pretexts of tax peace, asset peace, tax base increases, and tax and SSI debt regulations. On the one hand, this situation provides convenience for taxpayers who cannot pay their taxes on time and while in the short term it brings about an increase in tax revenues for the state; On the other hand, it causes moral erosion among tax-conscious taxpayers who pay their taxes on time and undermines the principle of tax equity. In this study, the level to which political decision-making processes affect tax policies is discussed specifically in the context of tax amnesties.

Keywords: Tax Amnesty, Restructuring of Tax Debts, Political Elections, Political Decision-Making, Tax Compliance, Tax Equity.

SİYASAL KARAR ALMA SÜREÇLERİNİN VERGİ POLİTİKALARI ÜZERİNDEKİ ETKİSİ: VERGİ AFFI ÖZELİNDE BİR DEĞERLENDİRME

ÖZET

Türkiye’de 2002-2024 yılları arasında hem Milletvekili/Mahalli İdareler/Cumhurbaşkanı Seçimleri hem Anayasa Değişikliği Referandumları hem de vergi affı niteliğinde vergi borçlarına yönelik yapılandırma kanunları oldukça sık görülmektedir. Vergi afları, konjonktürel daralmanın olduğu dönemlerde ve seçim öncesi/sonrası dönemlerde başvurulmuş önemli vergi politikası kararlarından biridir. Eğer ülke ekonomisinde daralma, artan faiz ödemeleri, vatandaşların banka, SGK ve vergi borçları var ise bu durumda iktidar olmak isteyen siyasi partiler seçim beyannamelerine, SGK ve vergi borçlarını yeniden yapılandırmaya yönelik maddeleri koyarken; iktidarda olan siyasi parti/partiler ise oy kaybetme endişesiyle vergi ve/veya SGK borçlarına yönelik yapılandırma kanunlarını seçimden hemen önce çıkartabilmektedir. Türkiye’de 2002-2024 yılları arasında Milletvekili Seçimleri, Mahalli İdareler Seçimleri Cumhurbaşkanlığı Seçimleri ve Anayasa Değişikliği Referandumları olmak üzere 18 defa seçim yapılmıştır. Bu süreçte (23 yılda) halk, 13 defa sandığa gitmiştir. Yine Türkiye’de 2002-2024 yılları arasında vergi barışı, varlık barışı, matrah artırımı, vergi ve SGK borç yapılandırması gibi gerekçelerle 11 defa vergi affı niteliğinde, vergi borçlarının yeniden yapılandırılmasını içeren kanun yürürlüğe girmiştir.

Bu durum, bir yandan vergisini zamanında ödeyemeyen vergi mükellefleri için bir kolaylık; devlet için kısa vadede vergi gelirlerinde artış sağlarken; diğer yandan vergisini zamanında ödeyen vergi bilincine sahip mükelleflerde ahlaki erozyona neden olmakta ve vergilemede adalet ilkesini zedelemektedir. Çalışmada, siyasal karar alma süreçlerinin vergi politikalarını ne düzeyde etkilediği, vergi afları özelinde ele alınmıştır.

Anahtar Kelimeler: Vergi Affı, Vergi Borçlarının Yapılandırılması, Siyasi Seçimler, Siyasal Karar Alma, Vergi Uyumu, Vergilemede Adalet.

THE TRANSFORMATION OF RUSSIA'S ENERGY AND FOREIGN TRADE POLICIES AFTER 2014: SANCTIONS AND ECONOMIC INSTRUMENTS

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ABSTRACT

This study aims to analyze the transformation in the Russian Federation's energy and foreign trade policies following the 2014 annexation of Crimea and the subsequent instability in Eastern Ukraine, within the context of the economic sanctions imposed by the West and the economic instruments developed in response to these sanctions. In particular, the sanctions implemented by the United States and the member states of the European Union after 2014 have led to significant disruptions in Russia's economic and geopolitical position.

In this context, Russia has restructured its energy export strategies in order to mitigate the pressure created by sanctions, taking steps to reduce its dependence on the European market. During this process, a shift towards Asian markets, the deepening of energy cooperation with China, and the development of alternative trade partnerships have emerged as key trends. In addition, import substitution policies, measures to promote domestic production, and mechanisms developed to counter financial restrictions have become important components of Russia's economic toolkit.

The study examines this transformation in Russia's energy and foreign trade policies in terms of the effects of sanctions, changes in trade orientation, and the dynamics of energy geopolitics. Based on a qualitative research method, the study seeks to reveal how Russia has utilized economic instruments in line with its foreign policy objectives. Ultimately, it is argued that, in the post-2014 period, Russia has reconfigured its energy and foreign trade policies not only in response to economic necessities but also as part of a broader effort to redefine its position within the international system.

Keywords: Russian Federation, Energy Policy, Foreign Trade, 2014 Crimea Annexation, Western Sanctions.

2014 SONRASI RUSYA'NIN ENERJİ VE DIŞ TİCARET POLİTİKALARINDA DÖNÜŞÜM: YAPTIRIMLAR VE EKONOMİK ARAÇLAR

ÖZET

Bu çalışma, 2014 Kırım İlhakı ve Doğu Ukrayna'daki istikrarsızlık sürecinin ardından Rusya Federasyonu'nun enerji ve dış ticaret politikalarında meydana gelen dönüşümü, Batı tarafından uygulanan ekonomik yaptırımlar ile bu yaptırımlara karşı geliştirilen ekonomik araçlar bağlamında analiz etmeyi amaçlamaktadır. Özellikle 2014 yılından sonra ABD ve Avrupa Birliği üye devletleri tarafından Rusya'ya yönelik uygulanan yaptırımlar, Rusya Federasyonu'nun ekonomik ve jeopolitik durumu açısından önemli kırılmalara yol açmıştır.

Bu bağlamda Rusya, yaptırımların yarattığı baskıyı dengelemek amacıyla enerji ihracat stratejilerini yeniden şekillendirmiş, özellikle Avrupa pazarına olan bağımlılığını azaltmaya yönelik adımlar atmıştır. Bu süreçte Asya pazarlarına yönelim, Çin ile enerji iş birliklerinin derinleşmesi ve alternatif ticaret ortaklarının geliştirilmesi öne çıkan başlıca eğilimler olmuştur. Bunun yanı sıra ithalat ikameci politikalar, yerli üretimi teşvik eden uygulamalar ve finansal kısıtlamalara karşı geliştirilen mekanizmalar da Rusya'nın ekonomik araç setinin önemli unsurları arasında yer almıştır.

Çalışmada, Rusya'nın enerji ve dış ticaret politikalarındaki bu dönüşüm; yaptırımların etkileri, ticaret yönelimlerindeki değişim ve enerji jeopolitiği bağlamında ele alınmaktadır.

Nitel analiz yöntemine dayanan bu çalışma, Rusya'nın ekonomik araçları dış politika hedefleri doğrultusunda nasıl kullandığını ortaya koymayı hedeflemektedir. Nitekim, Rusya'nın 2014 sonrası dönemde enerji ve dış ticaret politikalarını yalnızca ekonomik zorunluluklar doğrultusunda değil, aynı zamanda uluslararası sistemdeki konumunu yeniden tanımlamak amacıyla dönüştürdüğü ileri sürülmektedir.

Anahtar Kelimeler: Rusya Federasyonu, Enerji, Dış Ticaret, 2014 Kırım İlhakı, Batı yaptırımları.

DIGITAL CONSCIENCE IN DIGITAL MARKETING: A CONCEPTUAL REVIEW ON ETHICS, PRIVACY, AND TRUST

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ABSTRACT

Digital marketing provides firms with significant competitive advantages through its data-driven decision-making structure, personalization capacity, algorithmic targeting techniques, and real-time measurement opportunities. However, this field also raises important ethical concerns, including the invisible manipulation of consumer behavior, violations of privacy, lack of transparency in data collection processes, and the erosion of trust between brands and users. The aim of this study is to examine digital marketing practices within the framework of the concept of “digital conscience” and to present a conceptual evaluation through the dimensions of ethics, privacy, and trust. The study adopts a conceptual review based on an extensive literature survey. In this context, national and international literature on digital marketing, digital ethics, data privacy, behavioral targeting, algorithmic steering, dark patterns, and consumer trust has been examined. In addition, the tension between the performance-oriented approach of firms and the protection of user rights in digital marketing processes is also discussed. The findings indicate that evaluating digital marketing activities solely through sales growth, click-through rates, conversion rates, and other performance metrics is insufficient. For sustainable brand value and long-term customer relationships, an approach that prioritizes transparency, informed consent, data responsibility, fairness, and user welfare is required. Furthermore, dark patterns that subtly influence users’ decisions and surveillance-based personalization practices may generate short-term commercial benefits, yet they can undermine brand trust, corporate reputation, and social legitimacy in the long run. The study emphasizes that an ethical understanding of digital marketing not only improves individual user experience but also supports the social acceptance and institutional sustainability of brands. In this respect, digital conscience emerges not merely as a moral preference, but as a strategic necessity for ethical responsibility, user rights, and trust-based sustainable marketing strategies.

Keywords: digital marketing, digital conscience, ethics, privacy, trust

DİJİTAL PAZARLAMADA DİJİTAL VİCDAN: ETİK, MAHREMİYET VE GÜVEN EKSENİNDE KAVRAMSAL BİR İNCELEME

ÖZET

Dijital pazarlama, veri temelli karar verme yapısı, kişiselleştirme kapasitesi, algoritmik hedefleme teknikleri ve gerçek zamanlı ölçümleme imkânları sayesinde işletmelere önemli rekabet avantajları sunmaktadır. Bununla birlikte bu alan, tüketici davranışlarının görünmez biçimde yönlendirilmesi, mahremiyetin ihlal edilmesi, veri toplama süreçlerinde şeffaflığın zayıflaması ve güven ilişkisinin aşınması gibi önemli etik sorunları da beraberinde getirmektedir. Bu çalışmanın amacı, dijital pazarlama uygulamalarını “dijital vicdan” kavramı çerçevesinde ele almak ve etik, mahremiyet ve güven boyutları üzerinden kavramsal bir değerlendirme ortaya koymaktır. Çalışmada yöntem olarak literatür taramasına dayalı kavramsal inceleme benimsenmiştir. Bu doğrultuda dijital pazarlama, dijital etik, veri mahremiyeti, davranışsal hedefleme, algoritmik yönlendirme, karanlık desenler ve tüketici güveni konularında ulusal ve uluslararası literatür incelenmiştir.

Ayrıca dijital pazarlama süreçlerinde işletmelerin performans odaklı yaklaşımı ile kullanıcı hakları arasında ortaya çıkan gerilim de değerlendirilmiştir. İnceleme sonucunda, dijital pazarlama faaliyetlerinin yalnızca satış artışı, tıklanma oranı, dönüşüm oranı ve performans göstergeleri üzerinden değerlendirilmesinin yetersiz olduğu görülmüştür. Sürdürülebilir marka değeri ve uzun vadeli müşteri ilişkileri için şeffaflık, açık rıza, veri sorumluluğu, adillik ve kullanıcı yararını önceleyen bir yaklaşımın gerekli olduğu anlaşılmıştır. Ayrıca kullanıcıyı fark ettirmeden karar almaya yönelten karanlık desenlerin ve aşırı gözetim temelli kişiselleştirme uygulamalarının kısa vadede ticari fayda sağlasa da uzun vadede marka güvenini, kurumsal itibarı ve toplumsal meşruiyeti zedeleyebileceği sonucuna ulaşılmıştır. Çalışma, etik ilkelere dayalı dijital pazarlama anlayışının yalnızca bireysel kullanıcı deneyimini iyileştirmediğini, aynı zamanda markaların toplumsal kabulünü ve kurumsal sürdürülebilirliğini de desteklediğini vurgulamaktadır. Bu bağlamda çalışma, dijital vicdanın dijital pazarlama açısından yalnızca ahlaki bir tercih değil, etik sorumluluk, kullanıcı hakları ve güven temelli sürdürülebilir pazarlama stratejileri bakımından stratejik bir gereklilik olduğunu ortaya koymaktadır.

Anahtar Kelimeler: Dijital pazarlama, dijital vicdan, etik, mahremiyet, güven

MAZHAR MÜFİT (KANSU) BEY AS THE VOICE OF HAKKARİ IN THE FIRST GRAND NATIONAL ASSEMBLY PERIOD

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ABSTRACT

This study aims to examine the parliamentary activities of Mazhar Müfit Kansu, who served as a deputy of Hakkari during the period of the First Grand National Assembly of Turkey (23 April 1920-11 August 1923), and to analyze the extent to which the region was represented within the Assembly. During this critical phase of the Turkish War of Independence, Hakkârî was represented in the Assembly by two deputies; notably, Mazhar Müfit Bey brought the political, economic, and social issues of the region to the agenda in Ankara. The research is based on primary sources such as archival documents, the proceedings of the Assembly, and Mazhar Müfit's memoirs. Through content analysis, the nature of the demands voiced in the Assembly regarding Hakkârî and their representational capacity have been examined. The findings indicate that Mazhar Müfit Bey functioned as the voice of Hakkari during the First TBMM period. As a deputy, he focused particularly on budgetary, military, and educational matters, and through his motions, he highlighted the economic hardships faced by Hakkari due to war and occupation conditions. His calls for special budget allocations for the development of Hakkari, his emphasis on the salary problems of teachers, and his opposition to paid military exemption as a reflection of a populist stance constitute the core of his approach to representation. Furthermore, during the Lausanne peace negotiations, in response to Lord Curzon's claim that the Kurds were not represented, Mazhar Müfit Bey despite not being Kurdish presented his election by the people of Hakkari as evidence of Turkish-Kurdish unity. This aspect demonstrates that the study extends from local representation to the sphere of international diplomacy. In conclusion, Mazhar Müfit Bey's efforts to represent Hakkari in the TBMM strengthened the rec's voice in the First Assembly and ensured that its local problems were brought to the parliamentary agenda.

Keywords: Hakkari, Mazhar Müfit (Kansu), First Grand National Assembly of Turkey, Ankara.

I. TBMM DÖNEMİNDE HAKKARİ'NİN SESİ MAZHAR MÜFİT (KANSU) BEY

ÖZET

Bu çalışma, I. TBMM döneminde (23 Nisan 1920-11 Ağustos 1923) Hakkari mebusu sıfatıyla görev yapan Mazhar Müfit (Kansu) Bey'in parlamento içindeki faaliyetlerini ve söz konusu bölgenin Meclis çatısı altındaki görünürlük derecesini incelemeyi amaçlamaktadır. İstiklal Mücadelesinin buhranlı devrinde Hakkari TBMM'de iki mebus ile temsil edilmiş, özellikle Mazhar Müfit Bey, bölgenin siyasi, iktisadi ve toplumsal meselelerini Ankara'nın gündemine taşımıştır. Araştırmada birincil kaynak olarak arşiv belgeleri, TBMM Zabıt Ceridesi ve Mazhar Müfit Bey'in hatıratı kullanılmıştır. İçerik analizi yoluyla Hakkari'ye dair meclis kürsüsüne yansıyan taleplerin mahiyeti ve temsil kabiliyeti tahlil edilmiştir. Bulgular, Mazhar Müfit Bey'in I. TBMM döneminde Hakkari'nin sesi olduğunu göstermektedir. Hakkari milletvekili sıfatıyla bütçe askerlik ve maarif meselelerine yoğunlaşan Mazhar Müfit Bey, sunduğu önergelerle Hakkari'nin savaş ve işgal şartlarından kaynaklanan ekonomik sıkıntıları ülke gündemine taşımıştır. Özellikle Hakkari'nin kalkınması için bütçeden özel tahsisat talep etmesi, öğretmenlerin maaş sorunlarını gündeme taşıması ve bedelli askerlik uygulamasına karşı çıkarak halkçı bir tutum sergilemesi onun temsil anlayışının merkezini oluşturmaktadır.

Ayrıca Lozan Sulh Müzakereleri sırasında Lord Curzon'un Kürtler temsil edilmiyor şeklindeki iddiasına karşı kendisinin Kürt olmadığı halde Hakkari halkı tarafından seçilmesini Türk ve Kürt birliğinin kanıtı olarak sunması, çalışmanın yerel temsilden uluslararası diplomasiye uzanan boyutunu göstermektedir. Sonuç olarak Mazhar Müfit Bey'in Hakkari'yi TBMM'de temsil etme çabaları, bölgenin I. Meclis'teki sesini güçlendirmiş ve Hakkari'deki sorunların meclis gündemine taşınmasını sağlamıştır.

Anahtar Kelimeler: Hakkari, Mazhar Müfit (Kansu), I. TBMM, Ankara.

THE CRIMINAL LIABILITY OF THE APARTMENT MANAGER UNDER ARTICLE 136 OF THE TURKISH PENAL CODE AND ADMINISTRATIVE LIABILITY UNDER ARTICLE 18 OF THE PERSONAL DATA PROTECTION LAW WITHIN THE FRAMEWORK OF THE PERSONAL DATA PROTECTION BOARD'S PRINCIPLE DECISION NO. 2026/348: AN ASSESSMENT WITHIN THE FRAMEWORK OF THE "NE BIS IN IDEM" PRINCIPLE

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ABSTRACT

The Personal Data Protection Board's Principle Decision No. 2026/348 dated February 18, 2026, was published in the Official Gazette dated March 31, 2026. The decision states that the posting of information regarding residents' maintenance fees and similar in common areas such as building entrances and elevators constitutes a violation of the data security obligations set forth in Article 12 of the Personal Data Protection Law No. 6698; the decision ordered the immediate cessation of this practice and the removal of existing lists. The decision stated that even if a name is not explicitly written, the combination of an apartment number and debt information makes the individual "identifiable," and that debt notifications may only be shared through communication channels accessible to the individual concerned.

The study evaluates the situation described in the aforementioned principle decision—where a manager faces liability for both an administrative fine under Article 18 of the Personal Data Protection Law (KVKK) and a prison sentence under Article 136 of the Turkish Penal Code (TCK)—within the framework of the ne bis in idem principle. Accordingly, a manager who disseminates a debt list in common areas or in a digital environment is a direct perpetrator under Article 136 of the Turkish Penal Code. Thus, a single act constitutes both a misdemeanor and a crime.

The main thesis of this study is that, despite the provision in Article 15(3) of the Misdemeanors Act (KK) 3, which states that "in cases where the same act constitutes both a misdemeanor and a crime, sanctions may be imposed only for the crime," the separate conduct of liability proceedings under the KVKK and criminal proceedings under the TCK poses a threat of violating the ne bis in idem principle enshrined in Article 4 of Protocol No. 7 to the ECHR.

In the study, drawing parallels with the European Court of Human Rights' decisions in *Grande Stevens v. Italy* and *A and B v. Norway*, it is argued that when a fine imposed under the Personal Data Protection Law is deemed to have a "criminal" nature, the necessary link between administrative and criminal sanctions under our legal system cannot be established, thereby giving rise to the issue of double punishment for the manager.

Consequently, when the provisions of Article 15(3) of the Criminal Code and Article 4 of Protocol No. 7 to the European Convention on Human Rights are considered together, the administrative sanction under Article 18 of the Personal Data Protection Law and the criminal sanction under Article 136 of the Turkish Penal Code must be assessed jointly and holistically. In this context, as a solution, it is proposed that regulations be established to either completely exclude the administrative fine for the same act from criminal liability or, at the very least, offset it against the criminal penalty, thereby establishing a predictable sanction regime for apartment and site management that complies with the ne bis in idem principle.

Keywords: Protection of Personal Data, Article 18 of the Personal Data Protection Law, Article 136 of the Turkish Penal Code, Ne Bis In Idem, Article 15(3) of the Code of Misdemeanors, Administrative Sanctions Criminal Law Sanctions.

KİŞİSEL VERİLERİ KORUMA KURULU'NUN 2026/348 SAYILI İLKE KARARI ÇERÇEVESİNDE APARTMAN YÖNETİCİSİNİN TCK M.136 KAPSAMINDA CEZAI VE KVKK M. 18 KAPSAMINDA İDARİ SORUMLULUĞU: NE BIS İN İDEM İLKESİ ÇERÇEVESİNDE BİR DEĞERLENDİRME

ÖZET

Kişisel Verileri Koruma Kurulu'nun 18.02.2026 tarih ve 2026/348 sayılı İlke Kararı 31.03.2026 tarihli Resmi Gazete'de yayımlanmış, kararda apartman ve site sakinlerine ait aidat vb. borç bilgilerinin bina girişi, asansör gibi ortak alanlara asılması 6698 sayılı KVKK m.12'de düzenlenen veri güvenliği yükümlülüklerinin ihlali olarak nitelendirilmiş; uygulamaya derhal son verilmesi ve mevcut listelerin kaldırılması emredilmiştir. İsim açıkça yazılmasa dahi, daire numarası ile borç bilgisinin birlikte olmasının kişiyi "belirlenebilir" kıldığını, borç bildirimini yalnızca ilgilinin ulaşabildiği iletişim kanalları ile paylaşılabilirliğini belirtmiştir.

Çalışma, anılan ilke kararındaki; yöneticinin hem KVKK m.18 kapsamında idari para cezası hem de TCK m.136 uyarınca hapis cezası sorumluluğu altına girmesini ne bis in idem ilkesi çerçevesinde değerlendirmektedir. Buna göre borç listesini ortak alanlarda veya dijital ortamda yayan yönetici, TCK m.136 kapsamında doğrudan fail sıfatını haizdir. Bu itibarla tek bir fiil, hem kabahat hem de suç teşkil etmektedir.

Çalışmanın ana önermesi; Kabahatler Kanunu (KK) m.15/f. 3' ün "aynı fiilin hem kabahat hem suç oluşturduğu hallerde sadece suçtan dolayı yaptırım uygulanabileceği" hükmüne rağmen, KVKK gereğince sorumluluğu ve TCK gereğince ceza yargılamasının birbirinden bağımsız şekilde yürütülmesinin, AİHS Ek 7 Nolu Protokol m.4'te hüküm altına alınan ne bis in idem ilkesine aykırılık tehdidi ile bırakıldığıdır.

Çalışmada, AİHM'nin Grande Stevens/İtalya ve A ve B/Norveç kararları paralelinde; KVKK para cezasının "cezai" nitelik taşıdığı kabul edildiğinde, hukukumuzdaki idari ve cezai yaptırım arasında olması gereken bağın tesis edilemediği ve yönetici bakımından çifte yaptırım sorunun doğduğu ileri sürülmektedir.

Sonuç olarak, KK m.15/f.3, AİHS Ek 7 No'lu Protokol m.4 hükümleri birlikte değerlendirildiğinde, KVKK m.18'deki idari yaptırımın ve TCK m.136'deki cezai yaptırımın birlikte ve bütüncül değerlendirilmelidir. Bu kapsamda çözüm olarak; aynı fiile ilişkin idari para cezasının ceza mahkumiyetine konu hallerde ya tamamen kapsam dışı bırakılması ya da en azından ceza yaptırımından mahsup edilmesine ilişkin düzenleme yapılması, apartman ve site yönetimlerine yönelik ne bis in idem ilkesine uygun, öngörülebilir bir yaptırım rejimi önerilmektedir.

Anahtar Kelimeler: Kişisel Verilerin Korunması, KVKK m.18, TCK m.136, Ne Bis İn İdem, Kabahatler Kanunu m.15/3, İdari Yaptırım, Ceza Hukuku Yaptırımı.

AN EVALUATION OF THE LEGAL PROTECTION OF CIVIL NAMES BASED ON EVOLVING AREAS OF USE LINKED TO ECONOMIC AND CULTURAL DEVELOPMENTS

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ABSTRACT

As a consequence of being social entities, human beings have utilized names for the purpose of mutual differentiation. A name is a distinguishing mark used to identify an individual from others. A civil name consists of a first name and a surname. While the first name is granted following birth, the surname is acquired by operation of law (Surname Law, Art. 1). The use of a civil name constitutes a legal obligation. In both written and oral use, it is mandatory to place the first name before the surname (Surname Law, Art. 2).

Personal names are regulated within the scope of personality rights, and the right to protection is established through specific provisions (Turkish Civil Code, Art. 26). Beyond their civil names, individuals have historically employed nicknames, pseudonyms (aliases), monikers, and titles for identification. Throughout history, every society has developed a set of rules regarding the designation, acquisition, and use of names. In the Middle Ages, a ruler minting coins in their own name was accepted as an indicator of sovereignty, dominion, and independence. Thus, for the first time, by inscribing names on precious metals, the name served to define the relationship of the sovereign individual with the state.

The utilization of personal names has evolved in tandem with economic and cultural developments. Today, legal rights have been established for the use of civil names in commerce—specifically within trade names (Turkish Commercial Code, Art. 41-43), as trademarks affixed to goods and services (Industrial Property Code, Art. 4), and even in cultural life, where the names of authors and performers are inscribed upon works and performance records (Law on Intellectual and Artistic Works, Art. 15-80/1/A/1).

It is mandatory to include the first name and surname (civil name) of natural person traders and at least one of the partners in a partnership within the trade name (TCC Art. 41-43). Conversely, an individual's registration of their own civil name as a trademark is a right (IPC Art. 4). This right extends to the point of preventing the registration of a well-known person's name as a trademark by another party. Similarly, an author possesses the right to place their name or pseudonym on reproduced copies of their work, or they may choose to publish anonymously (LIAW Art. 15). Likewise, performing artists who present a work to an audience through performance hold the right to be identified as the owner of said performance (LIAW Art. 80/1/A/1).

Keywords: first name and surname, pseudonym, trade name, trademark, name of the author or performing artist.

MEDENİ ADIN EKONOMİK VE KÜLTÜREL GELİŞMELERE BAĞLI OLARAK DEĞİŞEN KULLANIM ALANLARINA BAĞLI HUKUKİ KORUMASININ DEĞERLENDİRİLMESİ

ÖZET

İnsanların sosyal varlık olmalarının sonucu olarak birbirinden ayırt etmek amacıyla ad kullanmışlardır. Ad bir kişiyi, diğer kişilerden ayırt etmeye yarayan tanıma işaretidir. Medeni ad; öz ad ve soy addan teşekkül eder.

Öz ad doğumdan sonra kendisine verilmekte, soyadını ise kanunla kazanmaktadır (SK m. 1). Medeni adın kullanılması kanuni bir zorunluluk olarak karşımıza çıkar. Yazılırken veya kullanılırken öz ad önce soy ad sonra kullanılması zorunludur (SK m. 2).

Kişi adları kişinin şahsiyet varlığı hakları arasında düzenlenmiş ve özel hükümlerle koruma hakkı getirilmiştir (MK m. 26). Kişiler, kendilerini tanıtmak için medeni ad dışında, lakap, müstear ad (mahlas), rumuz ve unvanları da kullanmıştır. Tarihte her toplum adların konulmasına, kazanılmasına ve kullanılmasına dair bir dizi kurallar geliştirmişlerdir. Hatta orta çağda bir hükümdarın kendi adına para bastırması egemenliğin, hakimiyetin ve bağımsızlığın göstergesi olarak kabul edilmiştir. Böylece, ilk kez adların değerli metallere yazılmasıyla hükümdar olan kişiden başka devletle ilişkisini tanımlamakta kullanılmıştır.

Kişi adları ekonomik ve kültürel gelişime bağlı olarak, kullanımları değişmiştir. Günümüzde ise bu medeni adın, ticarete kullanılması halinde medeni adın içinde geçtiği ticaret unvanı (TTK m. 41-43), mal ve hizmetlerin üzerine konulan marka (SMK m. 4), hatta kültürel hayatta eser sahibi ile icra sahiplerinin adlarının eser ve icra kayıtlarının üzerine yazılması bir hak olarak düzenlenmiştir (FSEK m. 15-80/1/A/1).

Öz ad ve soyadın (medeni ad), gerçek kişi tacirler ile şahıs şirketi ortaklarından en az birisinin ticaret unvanına konulması zorunludur (TTK m. 41-43). Buna karşılık, kişinin kendi medeni adını marka olarak tescil ettirmesi bir haktır (SMK m. 4). Bu hak tanınmış bir kişinin adını başka bir kişinin marka olarak tescil edilmesine engel olma hakkına kadar gider. Benzer şekilde, eser sahibinin adını yarattığı eserin çoğaltılmış nüshaları üzerine adını veya müstear adını koyabilir veya adsız olarak da yayınlatabilir (FSEK m. 15). Benzer şekilde, bir eseri icra ederek, onu dinleyici ile buluşturan icracı sanatçının da icranın sahibi olarak tanıtılması hakkı söz konusudur (FSEK m. 80/1/A/1).

Anahtar Sözcükler: öz ad ve soyadı, müstear ad, ticaret unvanı, marka, eser sahibi veya icracı sanatçı adı.

ANALYZING WOMEN’S RIGHTS AND HEALTH CARE IN SYRIA DURING THE WAR (2011-2023)

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ABSTRACT

Women's Health and Rights: An Analysis of the Impact of the Syrian War (2011–2023) examines politically induced armed conflict in Syria from 2011 to 2023 and its effect on women's health and rights. The research shows the effect of continued violence against women, forced displacement, and the deterioration of the health system have caused loss of physical and mental well-being for women, have restricted women's access to health services, particularly reproductive health services and mental health support. The study employs both a qualitative approach (through literature review) and a comparative analysis with other conflict-affected countries (using Iraq and Afghanistan as the two comparative countries) to evaluate the similarities and differences in the effect of war on women's health and rights. As revealed by the results, the collapse of the healthcare system in Syria has caused deterioration in the quality of healthcare facilities for women, pregnancy and birth complications, and an increase in the number of mental illnesses like anxiety and depression because of ongoing violence and insecurity. Problems with healthcare are heightened by displacement and life in refugee camps due to the inadequacy of primary healthcare and bad living conditions in the camps. From the comparative analysis, it is evident that the challenges experienced by Syrian women are like those faced by women in other conflict-affected nations, although in some ways, the collapse of healthcare in Syria is more complicated. This research shows that the effect of armed conflict on the health of women is directly linked to the psychological, emotional, and physical well-being of females. This research suggests that there should be an enhancement of the health care system in post-conflict areas.

VIOLENCE AGAINST WOMEN DURING WAR: THE SUDAN CONFLICT (2023–PRESENT)

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ABSTRACT

The purpose of this research is to examine how women have experienced multiple forms of gender-based violence throughout the conflict in Sudan, from the outbreak of the war through 2026. The study highlights how conflict affects women disproportionately and creates severe humanitarian and social consequences.

Data were collected through a qualitative methodology using semi-structured interviews with 23 national and international entities, including ministries and government agencies, women's protection units, public hospitals, local and international NGOs, and UN agencies. In addition, three women survivors of violence were interviewed to understand their personal experiences. A feminist analysis was applied to highlight women's lived experiences and the social and power relations shaping violence against them.

Thematic analysis identified five key themes: patterns of violence, institutional responses, barriers to accessing care, the effects of violence on survivors, and recommendations for improvement. The findings show that women were subjected to sexual, physical, and psychological violence, as well as forced displacement and arbitrary detention. The study also found limited governmental response and a heavy reliance on national and international organizations for protection and assistance.

The findings emphasize the urgent need to strengthen institutional responses, expand psychosocial support services, improve coordination among stakeholders, and integrate a gender perspective into security and peacebuilding policies in Sudan.

Keywords: Gender-Based Violence, Armed conflict, Sudan, Women, Feminist Analysis, International Response

THE EFFECT OF LEADERSHIP STYLES OF HUMAN RESOURCE MANAGERS ON ORGANIZATIONAL COMMITMENT DIMENSIONS: A STUDY ON HUMAN RESOURCE PROFESSIONALS

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ABSTRACT

This study examines the role of leadership styles in explaining the organizational commitment of human resources professionals through a comprehensive theoretical framework and empirical investigation. The primary aim of the research is to test, based on the perceptions of human resources professionals, the effects of transformational leadership, transactional leadership, and laissez-faire leadership exhibited by human resources managers on the dimensions of organizational commitment—namely, affective commitment, continuance commitment, and normative commitment. The relationships examined address a significant gap in the existing literature, particularly regarding studies conducted among human resources employees, and this study seeks to make an original contribution to this area.

The research was conducted on a sample of 415 human resources professionals working in various sectors in Türkiye. For data collection, the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1997) was used to measure leadership behaviors, while the Organizational Commitment Scale based on Meyer and Allen's (1991) three-component model was employed to assess organizational commitment. The collected data were analyzed using linear regression analysis via SPSS 27.

Examination of the key findings reveals that transformational leadership has a positive and significant effect on both affective commitment and normative commitment, whereas its expected effect on continuance commitment was not observed. Transactional leadership demonstrates significant positive contributions to continuance commitment and normative commitment, while exhibiting a marginally significant effect on affective commitment. On the other hand, laissez faire leadership creates negative effects on affective commitment and normative commitment; however, contrary to theoretical expectations, a positive relationship with continuance commitment was observed. This latter finding is discussed within the framework of resource dependence theory. The results largely align with the existing literature regarding the differential effects of leadership styles on commitment dimensions and offer important practical implications for human resource management practices.

Keywords: Transformational leadership, transactional leadership, laissez faire leadership, affective commitment, continuance commitment, normative commitment, human resources professionals.

İNSAN KAYNAKLARI YÖNETİCİLERİNİN LİDERLİK YAKLAŞIMLARININ ÖRGÜTSEL BAĞLILIK BOYUTLARI ÜZERİNDEKİ ETKİSİ

ÖZET

Bu çalışma, insan kaynakları profesyonellerinin örgütsel bağlılığını açıklamada liderlik tarzlarının rolünü kapsamlı bir kuramsal çerçeve ve uygulama çalışması ile ele almaktadır. Araştırmanın temel amacı, insan kaynakları (İK) yöneticilerinin sergilediği dönüşümcü liderlik, etkileşimci (transactional) liderlik ve serbest bırakıcı (laissez-faire) liderlik yaklaşımlarının; çalışanların örgütsel bağlılıklarının duygusal bağlılık, devam bağlılığı ve normatif bağlılık boyutları üzerindeki etkilerini İK profesyonellerinin algıları aracılığıyla ampirik olarak test etmektir. Söz konusu ilişkiler, özellikle İK çalışanları özelinde yürütülen araştırmalardaki boşluğa dikkat çekmekte ve bu alanda özgün bir katkı sunmayı hedeflemektedir.

Araştırma, Türkiye'nin farklı sektörlerinde görev yapan 415 İK profesyoneli ile oluşan bir örneklem üzerinde yürütülmüştür. Veri toplama sürecinde, liderlik davranışlarını ölçmek amacıyla Bass ve Avolio (1997) tarafından geliştirilen Çok Faktörlü Liderlik Ölçeği ile örgütsel bağlılığı değerlendirmek üzere Meyer ve Allen'in (1991) üç bileşenli modeline dayanan Örgütsel Bağlılık Ölçeği kullanılmıştır. Toplanan veriler SPSS-27 programı aracılığıyla doğrusal regresyon analizi ile incelenmiştir.

Araştırmanın temel bulguları incelendiğinde, dönüşümcü liderliğin duygusal bağlılık ve normatif bağlılık üzerinde pozitif ve anlamlı etkiye sahip olduğu görülmekte; ancak devam bağlılığı üzerinde beklenen etkinin gözlemlenmediği dikkat çekmektedir. Etkileşimci liderlik devam bağlılığı ve normatif bağlılık üzerinde anlamlı pozitif katkılar sunarken duygusal bağlılık üzerinde sınırda anlamlı bir etki sergilemiştir. Serbest bırakıcı liderlik ise duygusal bağlılık ve normatif bağlılık üzerinde olumsuz etkiler ortaya koymuş; bununla birlikte devam bağlılığı üzerinde beklenenin aksine pozitif yönlü bir ilişki gözlemlenmiştir. Bu son bulgu, kaynak bağımlılığı teorisi çerçevesinde tartışılmıştır. Elde edilen sonuçlar, liderlik tarzlarının bağlılık boyutları üzerindeki farklılaşan etkilerine ilişkin mevcut literatürle büyük ölçüde örtüşmekte ve İK yönetimi uygulamalarına yönelik önemli pratik çıkarımlar sunmaktadır.

Anahtar Kelimeler: Dönüşümcü liderlik, etkileşimci liderlik, serbest bırakıcı liderlik, duygusal bağlılık, devam bağlılığı, normatif bağlılık, insan kaynakları profesyonelleri.

**HAKKARİ: IN THE TRAIL OF URARTU, AT THE HEART OF NATURE
AN EVALUATION IN TERMS OF ARCHAEOLOGICAL HERITAGE AND
CULTURAL TOURISM**

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ABSTRACT

Hakkâri is an ancient geography located at the intersection of the Southeastern Taurus and Zagros mountain ranges, which has been an uninterrupted settlement area from prehistoric periods to the present day. Research conducted by Kılıç Kökten in Yüksekova in 1961 revealed obsidian finds dating to the Middle Paleolithic period (100,000-40,000 BC) (Kılıç Kökten, 1961: 23-24). Thousands of rock paintings identified in Geverok (Yüksekova), Mezraa (Beytüşşebap), Tirişin (Çatak) and Warê Mêri (Çukurca) regions constitute one of the largest open-air museums in Turkey and the Near East (Hakkâri Valiliği, 2015: 6). Recent research makes significant contributions to the documentation and interpretation of rock paintings in Hakkâri. In the master's thesis conducted by Balkan (2023), new rock painting finds identified in the Hakkâri region were documented in detail, and the technical characteristics, iconographic distribution, and importance of these paintings in terms of regional archaeology were evaluated (Balkan, 2023: 45-78). In the same study, research on Tirişin rock paintings was also examined, suggesting that the rock paintings in the region could be dated to the Bronze and Iron Ages (Balkan, 2023: 112-125). Research on Tirişin rock paintings dates back to the surface surveys conducted in 1967 by Muvaffak Uyanık and Mehmet Özdoğan, pioneers of archaeological studies in the region, and these studies are among the fundamental reference sources for illuminating the prehistoric cultures of the region (Özdoğan, 2019: 45-47). Recent research has revealed that the Hakkâri İğdeli A and B petroglyphs are evaluated within Holocene Rock Art and may belong to the Bronze and Iron Ages (Tümer, 2018: 82-85).

Hakkâri was a settlement area for Hurrian-origin tribes from 3000 BC onwards and was referred to as "Nairi" (land of rivers) and "Uruatri" (land of mountains) in Assyrian sources. In the 9th century BC, Hurrian-origin tribes united to establish the Urartian State, and the Hakkâri region was called the "Land of Hubuşkia" in Assyrian records (Hakkâri Valiliği, 2015: 7). Research conducted by Aynur Özfirat on the Lake Van Basin emphasizes that the Hakkâri stelae belong to Pre-Urartian elites or rulers of the Uruatri and Nairi lands, evaluating these finds as significant findings in terms of Early Iron Age burial tradition (Özfirat, 2018: 162). During the Urartian period, more than 30 irrigation facilities, fortresses, roads, and plateau cities were built in the region (Hakkâri Valiliği, 2015: 7). One of the important archaeological remains bearing traces of this period is the Çetintaş Rock Tomb (Hergöl). Located in Çetintaş Hamlet of Akkuş Village, approximately 55 km west of Hakkâri city center, the rock tomb consists of a hall and two rooms, and its door features a pivot socket seen in Urartian rock tombs. The architectural characteristics of the tomb are evaluated among the concrete evidence of Urartian presence in the region (Köroğlu, 2008: 21-38; Köroğlu, 2011: 10-49; Tanyürek, 2019: 29-30; Çavuşoğlu, Coşkun et al., 2023: 170).

In archaeological excavations carried out in Hakkâri city center between 1997-2000, 13 stelae dating to 1450-1000 BC were found, eleven belonging to male warriors and two to women (Hakkâri Valiliği, 2015: 8). A study published in Archaeology Magazine indicates that the iconography of these stelae may be connected to Eurasian nomadic cultures and points to the existence of the Hubuşkia Kingdom in the region (Mystery Stelae, 1998: 16). In a burial chamber found 19 meters north of the stelae, bones belonging to 75 individuals and numerous daily use tools were uncovered (Hakkâri Valiliği, 2015: 8-9). In Balkan's (2023) study, the iconographic similarities between the Hakkâri stelae and the rock paintings in the region were examined in detail, concluding that both groups of finds can be evaluated within the same cultural tradition (Balkan, 2023: 156-168).

Fortresses also hold an important place within Hakkâri's rich archaeological heritage. In research conducted at Bay Fortress, located on a pointed rocky hill 7-8 km south of Hakkâri city center, wall remains built with rubble stones and Khorasan mortar were identified. Pottery fragments scattered around the fortress indicate the presence of an uninterrupted settlement here from the Iron Age to the end of the Middle Ages. Among the remains, a stone piece with cross and decorations, and reverse tulip motifs carved into the rocks also draw attention (Tanyürek, 2019: 33; Çavuşoğlu, Coşkun et al., 2023: 33-34). At Dara Mound, located on the Yüksekova-Şemdinli highway approximately 7 km from Yüksekova city center, two layers were identified: the Middle Iron Age and the Middle Ages. Grooved, orange, and red-colored ceramics found on the mound surface exhibit Urartian Period characteristics (Tanyürek, 2019: 35-36; Çavuşoğlu, Coşkun et al., 2023: 124).

The region, ruled by Hakkâri beys from the 12th century onwards, hosted the Hakkâri Beylik which continued its existence until 1849. During this period, important architectural works such as the Meydan Madrasa (1701) in Hakkâri, the İzzeddin Şir Mosque and Halime Hatun Tomb (1335) in Gevaş were constructed (Hakkâri Valiliği, 2015: 14, 18). Hakkâri also served as the patriarchal center of the world's Nestorians from 1672 to 1915, with the Mar Şalita Church (1689) in the village of Koçanis (Konak) being the most important legacy of this period (Hakkâri Valiliği, 2015: 21). According to Cuinet's data from 1891, the Hakkâri Sanjak had a total population of 300,000 people, consisting of 180,000 Muslims, 15,000 Armenian Gregorians, 40,000 Nestorian Reaya, 52,000 Autonomous Nestorians, 5,000 Catholic Chaldeans, 4,000 Jews, and 4,000 Yazidis (Cuinet, 1891: 432; cited in Hakkâri Valiliği, 2015: 22). This study evaluates Hakkâri's archaeological heritage and cultural tourism potential, taking into account the historical layers of the region. As a result, Hakkâri possesses significant potential for cultural tourism with its rich archaeological and cultural heritage, and this heritage needs to be protected, illuminated through scientific studies, and evaluated in line with sustainable tourism principles.

Keywords: Hakkâri, Urartu, Archaeological Heritage, Cultural Tourism, Hakkâri Stelae, Nestorians, Rock Paintings, Hubuşkia.

HAKKARİ: URARTU'NUN İZİNDE, DOĞANIN KALBİNDE ARKEOLOJİK MİRAS VE KÜLTÜR TURİZMİ AÇISINDAN BİR DEĞERLENDİRME

ÖZET

Hakkâri, Güneydoğu Toroslar ile Zagros dağ silsilesinin kesiştiği noktada yer alan, tarih öncesi dönemlerden günümüze kesintisiz bir yaşam alanı olmuş kadim bir coğrafyadır. Bölgede Kılıç Kökten'in 1961 yılında Yüksekova'da gerçekleştirdiği araştırmalar, orta Paleolitik döneme (MÖ 100.000-40.000) tarihlenen obsidiyen buluntuları ortaya çıkarmıştır (Kılıç Kökten, 1961: 23-24).

Geverok (Yüksekova), Mezraa (Beytüşşebap), Tirişin (Çatak) ve Warê Mêri (Çukurca) bölgelerinde tespit edilen binlerce kaya resmi, Türkiye ve Yakın Doğu'nun en büyük açık hava müzelerinden birini oluşturmaktadır (Hakkâri Valiliği, 2015: 6). Yakın tarihli araştırmalar, Hakkâri'deki kaya resimlerinin belgelenmesi ve yorumlanması konusunda önemli katkılar sunmaktadır. Balkan (2023) tarafından yapılan yüksek lisans tez çalışmasında, Hakkâri bölgesinde tespit edilen yeni kaya resmi buluntuları detaylı olarak belgelenmiş, bu resimlerin teknik özellikleri, ikonografik dağılımı ve bölge arkeolojisi açısından önemi değerlendirilmiştir (Balkan, 2023: 45-78). Aynı çalışmada, Tirişin kaya resimleri üzerine yapılan araştırmalar da ele alınarak, bölgedeki kaya resimlerinin Tunç ve Demir Çağlarına tarihlenebileceği öne sürülmüştür (Balkan, 2023: 112-125). Tirişin kaya resimleri üzerine yapılan araştırmalar, bölgedeki arkeolojik çalışmaların öncülerinden Muvaffak Uyanık ve Mehmet Özdoğan'ın 1967 yılındaki yüzey araştırmalarına kadar uzanmakta olup, bu çalışmalar bölge tarihöncesi kültürlerinin aydınlatılmasında temel başvuru kaynakları arasında yer almaktadır (Özdoğan, 2019: 45-47). Yakın tarihli araştırmalar, Hakkâri İğdeli A ve B petrogliflerinin Holosen Kaya Sanatı içerisinde değerlendirildiğini ve Tunç ile Demir Çağlarına ait olabileceğini ortaya koymuştur (Tümer, 2018: 82-85).

Hakkâri, MÖ 3000'den itibaren Hurri kökenli boyların yerleşim alanı olmuş, Asur kaynaklarında "Nairi" (nehirler ülkesi) ve "Uruatri" (dağlar ülkesi) olarak anılmıştır. MÖ IX. yüzyılda Hurri kökenli boyların birleşmesiyle Urartu Devleti kurulmuş, Hakkâri bölgesi Asur kayıtlarında "Hubuşkia Ülkesi" olarak adlandırılmıştır (Hakkâri Valiliği, 2015: 7). Aynur Özfirat'ın Van Gölü Havzası üzerine yaptığı araştırmalar, Hakkâri stellerinin Pre-Urartu seçkinlerine ya da Uruatri ve Nairi topraklarının yöneticilerine ait olduğunu vurgulamakta ve bu buluntuları Erken Demir Çağ gömü geleneği açısından önemli bulgular olarak değerlendirmektedir (Özfirat, 2018: 162). Urartular döneminde bölgede 30'dan fazla sulama tesisi, kaleler, yollar ve yayla kentleri inşa edilmiştir (Hakkâri Valiliği, 2015: 7). Bu dönemin izlerini taşıyan önemli arkeolojik kalıntılardan biri de Çetintaş Kaya Mezarı'dır (Hergöl). Hakkâri kent merkezinin yaklaşık 55 km batısında, Akkuş Köyü Çetintaş Mezrası'nda bulunan kaya mezarı, salon ve iki odadan oluşmakta olup, kapısında Urartu kaya mezarlarında görülen mil yatağı bulunmaktadır. Mezarın mimari özellikleri, bölgede Urartu varlığının somut kanıtları arasında değerlendirilmektedir (Köroğlu, 2008: 21-38; Köroğlu, 2011: 10-49; Tanyürek, 2019: 29-30; Çavuşoğlu, Coşkun vd., 2023: 170).

Hakkâri kent merkezinde 1997-2000 yılları arasında yapılan arkeolojik kazılarda, MÖ 1450-1000 yıllarına tarihlenen, on biri erkek savaşçılara ve ikisi kadınlara ait 13 adet dikme taş (stel) bulunmuştur (Hakkâri Valiliği, 2015: 8). Archaeology Magazine'de yayınlanan bir çalışmada, bu stellerin ikonografisinin Avrasya göçebe kültürleriyle bağlantılı olabileceği ve bölgede Hubuşkia Krallığı'nın varlığına işaret ettiği belirtilmektedir (Mystery Stelae, 1998: 16). Stellerin 19 metre kuzeyinde bulunan mezar odasında 75 insana ait kemikler ile çok sayıda günlük kullanım aleti ortaya çıkarılmıştır (Hakkâri Valiliği, 2015: 8-9). Balkan'ın (2023) çalışmasında, Hakkâri stelleri ile bölgedeki kaya resimleri arasındaki ikonografik benzerlikler detaylı olarak incelenmiş, her iki buluntu grubunun da aynı kültürel gelenek içinde değerlendirilebileceği sonucuna varılmıştır (Balkan, 2023: 156-168).

Hakkâri'nin zengin arkeolojik mirası içinde kaleler de önemli bir yer tutmaktadır. Hakkâri il merkezinin 7-8 km güneyinde sivri kayalık bir tepede konumlanan Bay Kalesi'nde yapılan araştırmalarda, moloz taşlar ve Horasan harcıyla örülmüş duvar kalıntıları tespit edilmiştir. Kale çevresine dağılmış seramik parçaları, Demir Çağı'ndan Orta Çağ sonuna kadar burada kesintisiz bir yerleşimin varlığına işaret etmektedir. Kalıntılar arasında üzerinde haç ve süslemeler bulunan bir taş parçası ile kayalara kazınmış ters lale motifleri de dikkat çekmektedir (Tanyürek, 2019: 33; Çavuşoğlu, Coşkun vd., 2023: 33-34). Yüksekova-Şemdinli karayolu üzerinde, Yüksekova kent merkezine yaklaşık 7 km uzaklıktaki Dara Höyük'te ise Orta Demir Çağ ve Orta Çağ olmak üzere iki tabaka tespit edilmiştir. Höyük yüzeyinde bulunan yivli,

turuncu ve kırmızı renkli seramikler, Urartu Dönemi özellikleri göstermektedir (Tanyürek, 2019: 35-36; Çavuşoğlu, Coşkun vd., 2023: 124).

XII. yüzyıldan itibaren Hakkâri beyleri tarafından yönetilen bölge, 1849'a kadar varlığını sürdüren Hakkâri Beyliği'ne ev sahipliği yapmıştır. Bu dönemde Hakkâri'de Meydan Medresesi (1701), Gevaş'ta xxİzzeddin Şir Camii, Halime Hatun Kümbeti (1335) gibi önemli mimari eserler inşa edilmiştir (Hakkâri Valiliği, 2015: 14, 18). Hakkâri aynı zamanda 1672'den 1915'e kadar dünya Nesturilerinin patriklik merkezi olmuş, Koçanis (Konak) köyündeki Mar Şalita Kilisesi (1689) bu dönemin en önemli mirasıdır (Hakkâri Valiliği, 2015: 21). 1891 yılında Cuinet'nin verilerine göre Hakkâri Sancağı'nda 180.000 Müslüman, 15.000 Ermeni Gregoryen, 40.000 Nasturi Reaya, 52.000 Nasturi Otonom, 5.000 Katolik Keldani, 4.000 Yahudi ve 4.000 Yezidi olmak üzere toplam 300.000 kişi yaşamaktaydı (Cuinet, 1891: 432; akt. Hakkâri Valiliği, 2015: 22). Bu çalışma, Hakkâri'nin arkeolojik mirasını ve kültür turizmi potansiyelini, bölgenin tarihi katmanlarını dikkate alarak değerlendirmektedir. Sonuç olarak Hakkâri, sahip olduğu zengin arkeolojik ve kültürel mirasla kültür turizmi açısından önemli bir potansiyele sahip olup, bu mirasın korunması, bilimsel çalışmalarla aydınlatılması ve sürdürülebilir turizm ilkeleri doğrultusunda değerlendirilmesi gerekmektedir.

Anahtar Kelimeler: Hakkâri, Urartu, Arkeolojik Miras, Kültür Turizmi, Hakkâri Stelleri, Nesturiler, Kaya Resimleri, Hubuşkia.

HISTORICAL DEVELOPMENT OF TURKEY-BULGARIA RELATIONS AND THEIR CURRENT STATUS: THE EFFECT OF THE CUSTOMS FACTOR ON THE RELATIONS BETWEEN THE TWO COUNTRIES

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ABSTRACT

This study aims to analyze the historical development of relations between Turkey and Bulgaria, with a particular focus on the impact of the customs factor on the economic, political, and strategic dimensions of bilateral relations. The historical background, extending back to the Ottoman period, is examined within the framework of the Republican era and the Cold War period, while the transformation of relations after 1990—following Bulgaria's democratization and integration into Euro-Atlantic institutions—is discussed in detail.

The study evaluates Turkey's participation in the European Union Customs Union and Bulgaria's EU membership as key determinants shaping the structure of bilateral trade relations. In this context, border gates, logistics networks, and customs procedures are addressed as critical components for the sustainability of trade. In particular, congestion at border crossings, waiting times, and bureaucratic procedures significantly affect trade costs and supply chain efficiency.

Furthermore, the study examines the customs factor from sectoral, microeconomic, and geopolitical perspectives, highlighting its differentiated impacts on industries such as automotive, agriculture, and textiles. It also assesses the effects of the Schengen regime, border security, smuggling, and irregular migration on customs processes. The Turkey-Bulgaria border functions both as a major trade corridor and as an external border of the European Union, making customs management more complex due to its dual role.

In conclusion, the study demonstrates that the customs factor is not merely a technical element but also a cornerstone of economic integration and an important instrument of foreign policy in Turkey-Bulgaria relations. The modernization of customs procedures, increased digitalization, and enhanced infrastructure investments are of critical importance for expanding trade volume and deepening bilateral relations.

Keywords: Turkey, Bulgaria, Customs, Foreign Trade, Border Management, European Union, Customs Union, Logistics, Trade Corridors, Schengen Regime

TÜRKİYE – BULGARİSTAN İLİŞKİLERİNİN TARİHSEL GELİŞİMİ VE GÜNÜMÜZDEKİ DURUMU: GÜMRÜK FAKTÖRÜNÜN İKİ ÜLKE ARASINDAKİ İLİŞKİLERE ETKİSİ

ÖZET

Bu çalışma, Türkiye ile Bulgaristan arasındaki ilişkilerin tarihsel gelişimini inceleyerek, özellikle gümrük faktörünün iki ülke arasındaki ekonomik, siyasi ve stratejik ilişkiler üzerindeki etkisini analiz etmeyi amaçlamaktadır. Osmanlı dönemine kadar uzanan tarihsel arka plan, Cumhuriyet dönemi ve Soğuk Savaş süreci çerçevesinde ele alınmış; 1990 sonrası dönemde Bulgaristan'ın demokratikleşmesi ve Avrupa-Atlantik kurumlarına entegrasyonu ile birlikte ikili ilişkilerde yaşanan dönüşüm detaylı biçimde incelenmiştir.

Çalışmada, Türkiye'nin Avrupa Birliği ile Gümrük Birliği içinde yer alması ve Bulgaristan'ın Avrupa Birliği üyeliği, iki ülke arasındaki ticari ilişkilerin yapısını belirleyen temel unsurlar olarak değerlendirilmiştir.

Bu bağlamda sınır kapıları, lojistik ağlar ve gümrük süreçleri, ticaretin sürdürülebilirliği açısından kritik bileşenler olarak ele alınmıştır. Özellikle sınır geçişlerinde yaşanan yoğunluk, bekleme süreleri ve bürokratik işlemler, ticaret maliyetleri ve tedarik zinciri verimliliği üzerinde önemli etkiler yaratmaktadır.

Çalışma ayrıca gümrük faktörünü sektörel, mikroekonomik ve jeopolitik boyutlarıyla analiz ederek, otomotiv, tarım ve tekstil gibi sektörlerdeki farklı etkileri ortaya koymaktadır. Bunun yanı sıra Schengen rejimi, sınır güvenliği, kaçakçılık ve düzensiz göç gibi unsurların gümrük süreçlerine etkisi değerlendirilmiştir. Türkiye-Bulgaristan sınırı hem ticaret koridoru hem de Avrupa Birliği'nin dış sınırı olması nedeniyle çift yönlü bir işlev üstlenmekte ve bu durum gümrük yönetimini daha karmaşık hale getirmektedir.

Sonuç olarak çalışma, gümrük faktörünün Türkiye-Bulgaristan ilişkilerinde yalnızca teknik bir unsur değil, aynı zamanda ekonomik entegrasyonun temel taşı ve dış politikanın önemli bir aracı olduğunu ortaya koymaktadır. Gümrük süreçlerinin modernizasyonu, dijitalleşme ve altyapı yatırımlarının artırılması, iki ülke arasındaki ticaret hacminin geliştirilmesi ve ilişkilerin derinleştirilmesi açısından kritik öneme sahiptir.

Anahtar Kelimeler: Türkiye, Bulgaristan, Gümrük, Dış ticaret, Sınır yönetimi, Avrupa Birliği, Gümrük Birliği, Lojistik, Ticaret koridorları, Schengen rejimi

THE STRATEGIC USE OF SOCIAL MEDIA IN TURKISH FOREIGN POLICY WITHIN THE FRAMEWORK OF DIGITAL DIPLOMACY AND INTERNATIONAL IMAGE

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ABSTRACT

Today, advancements in communication technologies have added a new dimension to international relations. In particular, with the widespread use of digital communication tools, states have increasingly turned to digital platforms, often overshadowing traditional diplomatic channels. States that actively use social media have developed a faster, more visible, and more interactive structure in their foreign policy. Social media spaces and digital platforms have become strategic arenas where states defend their national interests, construct discourse, and shape their international image by directly reaching the masses. This study examines the critical role of digital diplomacy in Turkish foreign policy, focusing particularly on strategic communication practices shaped through social media. Throughout the research, the ways in which Turkey uses social media to build its international image, the discourse models it adopts, and the global repercussions of its actions are analyzed in depth. For this purpose, the digital posts of relevant actors, primarily the Presidency of Communications and the Ministry of Foreign Affairs, are examined through a qualitative approach. The findings reveal that Turkey uses digital platforms not only for a one-sided flow of information but also as a space for developing strategies against perception management, setting the agenda, acting as a game-changer in foreign policy, and gaining international legitimacy. Elements such as an emphasis on humanitarian diplomacy and leader-focused message strategies have been important in strengthening Turkey's global influence. However, the diversity of target audiences and the unique nature of the platforms used are decisive factors in the success of these digital initiatives. In conclusion, digital diplomacy is not a supporting element but a fundamental component of Turkish foreign policy. Through social media, Turkey has managed to position itself not merely as a reactor to events but as an active "game-changer" in the international system. This study demonstrates the transformative power of the effective use of digital instruments in foreign policy within the context of social media, using Turkey's experience as an example.

Keywords: Digital Diplomacy, Public Diplomacy ,Turkish Foreign Policy, Social Media, Perception Management, International Image, Strategic Communication.

DİJİTAL DİPLOMASİ VE ULUSLARARASI İMAJ EKSENİNDE TÜRK DIŞ POLİTİKASINDA SOSYAL MEDYANIN STRATEJİK KULLANIMI

ÖZET

Günümüzde iletişim teknolojilerinde yaşanan gelişmeler uluslararası ilişkilere yeni bir boyut kazandırmıştır. Özellikle dijital iletişim araçlarının yaygınlaşmasıyla birlikte devletler, geleneksel diplomasi kanallarını gölgede bırakan dijital platformlara yönelmiştir.

Sosyal medyayı aktif kullanan devletlerin dış politikasında daha hızlı, daha görünür ve daha etkileşimli bir yapı oluşmuştur. Sosyal medya alanları veya dijital platformlar, devletlerin ulusal çıkarlarını savunduğu, söylem inşa ettiği ve uluslararası imajlarını doğrudan kitlelere ulaştırarak şekillendirdiği stratejik birer sahneye dönüşmüştür. Bu çalışma, Türk dış politikasında dijital diplomasinin üstlendiği kritik rolü özellikle sosyal medya üzerinden şekillenen stratejik iletişim pratikleri odağında ele almaktadır. Araştırma boyunca Türkiye'nin uluslararası imajını inşa ederken sosyal medyayı nasıl kullandığı, benimsediği söylem modelleri ve yaptığı hamlelerin küresel yankıları derinlemesine analiz edilmiştir. Bu amaçla; Cumhurbaşkanlığı İletişim Başkanlığı ve Dışişleri Bakanlığı başta olmak üzere ilgili aktörlerin dijital paylaşımları nitel bir yaklaşımla ele alınmıştır. Elde edilen bulgular, Türkiye'nin dijital mecraları sadece tek taraflı bir bilgi akışı için değil algı yönetimlerine karşı bir strateji geliştirme, gündem belirleme, dış politikada iyi bir oyun kurucu olma ve uluslararası meşruiyet kazanma alanı olarak kullandığını ortaya koymaktadır. İnsani diplomasi vurgusu ve lider odaklı mesaj stratejileri gibi unsurlar, Türkiye'nin küresel etkisini güçlendirmede önemli olmuştur. Bununla birlikte bu dijital hamlelerin başarısında hedef kitle çeşitliliği ve kullanılan platformların kendine özgü olmaları belirleyici olarak karşımıza çıkmaktadır. Sonuç olarak dijital diplomasi, Türk dış politikasının yardımcı bir unsuru olmayıp, asli bir bileşeni konumundadır. Türkiye, sosyal medya aracılığıyla kendisini sadece olaylara tepki veren değil uluslararası sistemde aktif bir "oyun kurucu" olarak konumlandırmayı başarmıştır. Bu çalışma, sosyal medya bağlamında dijital argümanların etkili kullanımının dış politikadaki dönüştürücü gücünü Türkiye'nin başarı örneği üzerinden somutlaştırmaktadır.

Anahtar Kelimeler: Dijital Diplomasi, Kamu Diplomasi, Türk Dış Politikası, Sosyal Medya, Algı Yönetimi, Uluslararası İmaj, Stratejik İletişim.

CYBER TERRORISM AND THE SHIFTING APPROACH TO INTELLIGENCE

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ABSTRACT

Advances in technology in the 21st century have led to the emergence of new dimensions in the field of security and intelligence. Cyber security and cyber terrorism, which disrupt the balance of the international system, have changed the scope of international security. These threats have demonstrated the threats that may come in the field of cyberspace as an important factor.

As internet usage is developing greatly, the speed of computer use and cyber-connectivity are increasing day by day. Accordingly, as in every field related to the use of cyber, it was first used by the Ministry of Defense of the USA (United States of America) and then it developed widely. If the network connection between the servers connected to each other in cyberspace is not protected with security or certain procedures, it may create a vulnerability called firewall and these may pose a threat to states and institutions and may have undesirable consequences. In this thesis, states and other corporate or malicious individuals make network attacks and obtain personal data without permission depending on the security vulnerability. As a result of these attacks, states want to develop themselves in these directions for the information necessary for their national interests or, in the realist world, for power hegemony.

This study was written to indicate how important cyber intelligence activity is in today's world. It has been written especially about the methods of obtaining intelligence on states. Thus, the elements and activities of intelligence as cyber space in every field of national security are explained. The study emphasized the importance of cyber in every aspect of life and tried to explain the necessity of cyber intelligence in combating cyber attacks in this field.

Keywords: Cyberspace, Cyber Intelligence, Cyber Terrorism.

SİBER TERÖRİZM VE İSTİHBARATTA DEĞİŞEN YAKLAŞIM

ÖZET

21. yüzyılda teknolojiye ileri adımlar güvenlik ve istihbarat alanında yeni boyutların ortaya çıkmasına neden olmuştur. Uluslararası sistemin dengesini bozan siber güvenlik ve siber terör uluslararası güvenliğin kapsamını değiştirmiştir. Bu tehditler siber uzay alanında gelebilecek tehditleri önemli bir faktör olarak sergilemiştir.

İnternet kullanımı büyük bir şekilde gelişmekte olduğundan bilgisayar kullanma hızı ve siber bağlılık gün geçtikçe giderek artmaktadır. Buna bağlı olarak siber kullanımı ile ilgili her alanda olduğu gibi ilk başta ABD (Amerika Birleşik Devletleri) tarafından savunma bakanlığı tarafından ilk olarak kullanılmaya başlanılmış daha sonra yaygın bir şekilde gelişim göstermiştir. Sunucuların birbirlerine bağlı olarak siber uzayda yaptığı ağ bağlantısını eğer güvenlik olarak ya da belli prosedürlerle korumaz ise buna bağlı olarak güvenlik duvarı(Firewall) olarak nitelendirilen açık oluşturduğu ve bunların devletler açısından, kurumlar açısından tehdidi oluşturup istenmeyen sonuçlar doğurabilir. Bu tezimizde devletlerin ve diğer kurumsal ya da kötü niyetli kişilerin ağ saldırıları yapıp güvenlik açığına göre izinsiz şekilde kişisel verilerin alınmasını gerçekleştirmektedir. Bu saldırılar neticesinde devletler ulusal çıkarları için gerekli bilgileri veya realist dünyada güç hegemonyası için kendini bu yönlerde geliştirmek istemektedir.

Bu çalışma, siber istihbarat faaliyetinin günümüz dünyasında ne derece önemli olduğunu belirtmek amacıyla yazılmıştır. Özellikle istihbarat elde etme yöntemlerinin devletler

üzerindeki yazılmıştır. Böylece ulusal güvenliğin her alanında siber uzay olarak istihbaratın unsur ve çalışmaları üzerindeki faaliyetleri anlatılmıştır. Çalışmada hayatın her alanında yer alan siberin önemi üzerinde durularak, bu alandaki siber saldırılarla mücadelede siber istihbaratın gerekliliği anlatılmaya çalışılmıştır.

Anahtar Kelimeler: Siber Uzay, Siber İstihbarat, Siber Terörizm

GLOBAL ARTIFICIAL INTELLIGENCE GOVERNANCE IN ACHIEVING THE SUSTAINABLE DEVELOPMENT GOALS: AN ASSESSMENT IN THE CONTEXT OF SDG 10

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ABSTRACT

While the existing literature generally focuses on the economic and technological dimensions of artificial intelligence (AI), this study highlights how AI could further exacerbate socioeconomic inequalities due to a lack of global governance (Human Development Report 2025, pp. 146–150). The study employed qualitative research methods to conduct a source document analysis of United Nations General Assembly Resolutions (A/RES/78/265 and A/RES/78/311). The International Labour Organization's (ILO) G20 Technical Report titled "The Adoption of Artificial Intelligence and Its Impact on Jobs" (pp. 6–16) and Sustainable Development reports were examined. By adopting a comparative approach to examine capacity gaps between developed and developing countries, the effects of algorithmic management practices on job quality, and inequalities in labor markets, the report highlights the disparities in the rates of exposure to AI automation, particularly among women and in developing countries (EMDEs) (ILO Report, pp. 6, Figures 3–4; Human Development Report 2025, p. 173, Box 6.3). The design, development, and use of AI without adequate safeguards carry the risk of widening digital divides across and within countries, deepening structural inequalities, and undermining fundamental freedoms (UN A/RES/78/265 Resolution). To prevent AI technologies from exacerbating inequalities, developing countries must be ensured fair, meaningful, and effective participation in technology development and global governance processes (UN Resolution A/RES/78/311). Particularly women, Investments in building digital skills and capacity for young people, people with disabilities, and developing countries must be urgently increased (UN Resolution A/RES/78/265; ILO Report, p. 16). Using AI not merely as an automation tool but as a complementary tool to human capabilities, and supporting this process with robust social protection systems, is critical to building a fair AI ecosystem and achieving SDG 10 targets (ILO Report, p. 16; Human Development Report 2025, p. 164).

Keywords: Artificial Intelligence Governance, Sustainable Development Goals, SDG 10, Digital Divide, Reducing Inequalities

SÜRDÜRÜLEBİLİR KALKINMA HEDEFLERİNE ULAŞMADA KÜRESEL YAPAY ZEKÂ YÖNETİŞİMİ: SKA 10 BAĞLAMINDA BİR DEĞERLENDİRME

ÖZET

Mevcut literatür genellikle yapay zekânın (YZ) ekonomik ve teknolojik boyutlarına odaklanırken, bu araştırma YZ'nin küresel yönetim eksikliğinin sosyoekonomik eşitsizlikleri nasıl daha da artırabileceğine dikkat çekmektedir (İnsani Gelişme Raporu 2025, s. 146-150). Çalışmada nitel araştırma yöntemleri kullanılarak kaynak doküman analizi gerçekleştirilmiş; Birleşmiş Milletler Genel Kurul Kararları (A/RES/78/265 ve A/RES/78/311). Uluslararası Çalışma Örgütü'nün (ILO) "Yapay Zekânın Benimsenmesi ve İşlere Etkisi" başlıklı G20 Teknik Raporu (s. 6-16), ve Sürdürülebilir Kalkınma raporları incelenmiştir. Gelişmiş ve gelişmekte olan ülkeler arasındaki kapasite farkları, algoritmik yönetim uygulamalarının iş kalitesine etkileri ve işgücü piyasalarındaki eşitsizlikler karşılaştırmalı bir yaklaşımla ele alınarak, özellikle kadınların ve gelişmekte olan ülkelerin (EMDEs) YZ otomasyonuna maruz kalma oranlarındaki uçurumlar ortaya konmuştur (ILO Raporu, s. 6, Şekil 3-4; İnsani Gelişme Raporu 2025, s. 173, Kutu 6.3). Yapay zekânın yetersiz önlemlerle tasarımı, geliştirilmesi ve kullanımı; ülkeler arası ve ülke içi dijital uçurumları genişletme, yapısal eşitsizlikleri derinleştirme ve temel özgürlükleri zedeleme riski taşımaktadır (BM A/RES/78/265 Kararı). YZ teknolojilerinin eşitsizlikleri derinleştirmesini önlemek için gelişmekte olan ülkelerin teknoloji geliştirme ve küresel yönetim süreçlerine adil, anlamlı ve etkin katılımı sağlanmalıdır (BM A/RES/78/311 Kararı). Özellikle kadınlar, gençler, engelliler ve gelişmekte olan ülkeler için dijital beceri ve kapasite inşası yatırımları acilen artırılmalıdır (BM A/RES/78/265 Kararı; ILO Raporu, s. 16). YZ'nin yalnızca bir otomasyon aracı olarak değil, insan yeteneklerini tamamlayıcı bir araç olarak kullanılması ve bu sürecin güçlü sosyal koruma sistemleriyle desteklenmesi, adil bir YZ ekosistemi inşa edilmesinde ve SKA 10 hedeflerine ulaşılmasında kritik öneme sahiptir (ILO Raporu, s. 16; İnsani Gelişme Raporu 2025, s. 164).

Anahtar Kelimeler: Yapay Zekâ Yönetişimi, Sürdürülebilir Kalkınma Hedefleri, SKA 10, Dijital Uçurum, Eşitsizliklerin Azaltılması

BARRIERS TO THE IMPLEMENTATION OF CIRCULAR ECONOMY IN TÜRKİYE: A LITERATURE-BASED ANALYSIS

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ABSTRACT

Circular economy, which refers to the efficient use of natural resources, minimizing waste generation, and extending product life cycles, is a regenerative model that promotes sustainable development. Despite being an innovative model and its applications increasing, circular economy processes in our country face various obstacles. Identifying these obstacles is crucial for the model's success.

The purpose of this study is to identify the most significant obstacles for Türkiye by drawing on previous research. For this purpose, a systematic approach and literature review method was used in the study. The literature review summarizes the current state of the field by compiling studies related to the circular economy. Therefore, this study is important not only for researchers but also because it aims to be a comprehensive reference source for policymakers and decision-makers.

Accordingly, 26 studies obtained from the Web of Science, Scopus, and Google Scholar databases were examined, and 8 categories of obstacles were identified for Türkiye. The study's findings indicate that the most significant obstacles to implementing circular economy practices in Türkiye are a lack of information and awareness, organizational and managerial inadequacies, and financial and economic factors. Therefore, the study's key recommendations include that, for circular economy practices to become widespread, policymakers need to develop and enhance information and awareness mechanisms, strengthen management and coordination processes, and implement a holistic policy in financial support and resource planning.

Keywords: Circular Economy, Digital Transformation, Türkiye, Literature Review

TÜRKİYE'DE DÖNGÜSEL EKONOMİ UYGULAMALARININ ÖNÜNDEKİ ENGELLER: LİTERATÜRE DAYALI BİR ANALİZ

ÖZET

Doğal kaynakların verimli kullanılmasını, atık oluşumunun en aza indirilmesini ve ürün yaşam döngülerinin uzatılmasını ifade eden döngüsel ekonomi, sürdürülebilir kalkınmayı teşvik eden yenileyici bir modeldir. Yenileyici bir model olmasına ve uygulamalarının artışına rağmen ülkemizdeki döngüsel ekonomi süreçlerinin önünde çeşitli engeller bulunmaktadır. Bu engellerin belirlenmesi modelin başarılı olabilmesi için oldukça önemlidir.

Bu çalışmanın amacı daha önce yapılmış çalışmalardan faydalanarak Türkiye için en önemli engelleri belirlemektir. Bu amaçla çalışmada sistematik bir yaklaşımla literatür taraması yöntemi kullanılmıştır. Literatür taraması döngüsel ekonomiye ilişkin çalışmaları derleyerek alanın genel durumunu özetler.

Bu nedenle bu çalışma araştırmacılar için olduğu kadar, politika yapıcılar ve karar vericiler için de toplu bir başvuru kaynağı olmayı amaçlaması bakımından önem taşımaktadır.

Bu doğrultuda Web of Science, Scopus ve Google Scholar veri tabanlarından elde edilen 26 çalışma incelenerek Türkiye için 8 engel kategorisi tespit edilmiştir. Çalışmanın bulguları Türkiye’de döngüsel ekonomi uygulamalarının önündeki en önemli engellerin; bilgi ve farkındalık eksikliği, örgütsel ve yönetsel yetersizlikler ile finansal ve ekonomik kaynaklı olduğunu göstermektedir. Dolayısıyla döngüsel ekonomi uygulamalarının yaygınlaşabilmesi için politika yapıcıların bilgi ve farkındalık mekanizmalarını geliştirerek bu mekanizmaları artırıcı çalışmalar yapmaları, yönetim ve koordinasyon süreçlerini güçlendirmeleri, finansal destek ve kaynak planlamasında bütüncül bir politika uygulamaları gerektiği çalışmanın temel önerileri arasındadır.

Anahtar Kelimeler: Döngüsel Ekonomi, Dijital Dönüşüm, Türkiye, Literatür Taraması

TURKIYE’S POSITION IN THE ECOLOGICAL FOOTPRINT LITERATURE: A COMPARATIVE REVIEW WITH GLOBAL LITERATURE

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ABSTRACT

This study evaluates Türkiye’s position in the ecological footprint literature in a comparative manner with the global literature. In order to perform bibliometric analyses and present the results in the study, the “bibliometrix” analysis package in “R” environment and the “VosViewer” software tool were used.

The analysis first briefly evaluates the global literature on ecological footprint development between 1994 and 2025 and compares it with a dataset excluding publications authored by Türkiye-based researchers. In later stages, the studies authored by Türkiye-based researchers and focusing on Türkiye were selectively filtered and utilised for comparative analysis. Since the time element is more limited in the Türkiye-based and Türkiye-themed literature, the dataset time frame was limited to 2013-2025 to ensure data integrity and minimize potential biases caused by thematic shifts in comparative analyses. Thematic structural differences between the literatures were evaluated based on the frequency of author’s keywords.

The study’s findings show that, unlike the global literature, Türkiye-based researchers began to appear in internationally indexed publications from 2011 onwards, and studies on Türkiye were included in these indexes from 2013. However, the rapid increase in Türkiye-based and Türkiye-themed studies in a very short time, exceeding the average growth trend of the literature, is among the remarkable findings. In addition to the rising number of publications, the citation performance, which is above the global average, indicates that Türkiye-based and Türkiye-themed publications have gained a significant place in the literature not only in terms of quantity but also in terms of impact.

The author’s keywords analysis results show that Türkiye-based and Turkish-themed studies are mostly focused on results-oriented econometric analysis around “Economic Growth”, “Energy Consumption”, “Renewable Energy”, and “Environmental Kuznets Curve”, while process-oriented key themes such as “Life Cycle Analysis”, “Circular Economy,” and “Water Footprint,” which occupy a significant place in the global literature, are limited in Türkiye-related studies.

In conclusion, it is assessed that while significant progress has been made in recent years in the Turkish literature on ecological footprint studies, these studies tend to focus more on outcome-oriented themes and analyses and reveal significant research gaps in key themes requiring more interdisciplinary and process-based approaches.

Keywords: ecological footprint, Türkiye, bibliometric analysis, research gap

TÜRKİYE’NİN EKOLOJİK AYAK İZİ LİTERATÜRÜNDEKİ KONUMU: KÜRESEL LİTERATÜRLE KARŞILAŞTIRMALI BİR İNCELEME

ÖZET

Bu çalışma ekolojik ayak izi literatüründe Türkiye’nin konumunu küresel literatür ile karşılaştırmalı biçiminde değerlendirmektedir. Çalışmada bibliyometrik analizleri gerçekleştirmek ve sonuçlarını sunmak üzere “R” ortamında “bibliometrix” analiz paketi ve “VosViewer” yazılım aracı kullanılmıştır.

Çalışmada öncelikle 1994-2025 yılları arasında ekolojik ayak izi ekseninde gelişen küresel literatür kısaca değerlendirilmiş ve küresel literatürden Türkiye adresli araştırmacıların yazarı olduğu yayınlar ayrıştırılarak karşılaştırılmıştır. Sonraki aşamada karşılaştırmalı analizlerde kullanılmak üzere Türkiye adresli araştırmacıların yazarı olduğu ve konunun Türkiye olduğu yayınlar filtrelenerek kullanılmıştır. Türkiye adresli ve Türkiye konulu çalışmalarda zaman unsuru daha sınırlı olduğu için bu aşamadan sonraki karşılaştırmalarda veri bütünlüğünü sağlamak ve karşılaştırmalı analizlerde doğabilecek tematik dönüşümlerin yaratacağı yanlışlıkları ortadan kaldırılmak amacıyla veri seti zaman aralığı 2013-2025 olarak sınırlandırılmıştır. Literatürler arasındaki tematik yapı farkları ise yazar anahtar kelimelerinin frekanslarına dayanılarak değerlendirilmiştir.

Çalışmanın bulguları Türkiye adresli araştırmaların küresel literatürün aksine 2011 yılından itibaren uluslararası indeksli yayınlarda görünür olmaya başladıklarını ve Türkiye konulu çalışmaların ise 2013 yılından itibaren indekslerde yer aldığını göstermektedir. Bu gecikmeye rağmen Türkiye adresli ve konulu araştırmaların çok kısa sürede hızla artması ve literatürün ortalama artış eğiliminin üzerine çıkması dikkat çekicidir. Yükselen yayın sayısına ek olarak küresel ortalamanın üzerinde bulunan atıf performansı Türkiye adresli ve Türkiye konulu yayınların yalnızca nicelik bakımından değil etki bakımından da literatürde önemli bir yer edindiğine işaret etmektedir.

Yazar anahtar kelime analiz sonuçlarında ise Türkiye adresli ve Türkiye konulu çalışmaların daha çok sonuç odaklı “Ekonomik Büyüme”, “Enerji Tüketimi”, “Yenilenebilir Enerji” ve “Çevresel Kuznets Eğrisi” etrafında ekonometrik analiz temelli yoğunlaştığını buna karşın küresel literatürde önemli yer tutan, daha çok süreç odaklı “Yaşam Döngüsü Analizi”, “Döngüsel Ekonomi”, “Su Ayak İzi” vb. anahtar temaların Türkiye bağlantılı çalışmalarda sınırlı kaldığı görülmüştür.

Sonuç olarak Türkiye bağlantılı literatürün ekolojik ayak izi konulu çalışmalarda son yıllarda önemli ilerleme kaydettiği fakat bu çalışmaların daha çok sonuç odaklı temalar ve analizler üzerine yoğunlaştığı, daha çok disiplinler arası ve süreç temelli yaklaşımlar gerektiren anahtar temalarda ise önemli araştırma boşlukları taşıdığı değerlendirilmiştir.

Anahtar Kelimeler: ekolojik ayak izi, Türkiye, bibliyometrik analiz, araştırma boşluğu

**FINANCIAL MARKETS AND LITERARY IMAGINATION: THE
REPRESENTATION OF ECONOMIC CONCEPTS IN POST-COLONIAL NIGERIAN
LITERATURE**

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ABSTRACT

This paper explores the representation of economic concepts and financial markets in post-colonial Nigerian literature, focusing on Chinua Achebe's *No Longer at Ease* and Helon Habila's *Oil on Water*. Through these texts, the study examines how Nigerian authors depict the socio-economic conditions and cultural responses in the post-colonial era. Achebe's novel delves into the challenges of corruption and financial pressures faced by individuals within the bureaucratic system, highlighting the lingering impacts of colonialism on Nigeria's economic landscape. Habila's narrative, on the other hand, provides a vivid portrayal of the environmental and social devastation wrought by the oil industry, offering a critique of global capitalism and its exploitative practices. By analyzing the use of literary devices such as irony, symbolism, and characterization, this paper uncovers the nuanced ways in which these authors address the complexities of Nigeria's economic realities. The study ultimately underscores the significant role of literature in reflecting and critiquing the socio-economic issues of post-colonial societies, offering insights into the interplay between economic forces and cultural narratives.

Keywords: post-colonial Nigerian literature, economic concepts, financial markets, corruption, oil industry

MORTALITY-THEMED LYRICS AND ARTIST MORTALITY: CULTURAL INTERPRETATION, PSYCHOLOGICAL EXPRESSION, AND COINCIDENCE IN POPULAR MUSIC

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ABSTRACT

Themes of mortality have long been embedded in music, often serving as a means for artists to express vulnerability, spirituality, and reflections on life. This paper explores how such themes appear in popular music and how they are later interpreted considering artists' real-life passing. Focusing on Whitney Houston's "My Love Is Your Love" and Dagrın's "If I Die", the study adopts a comparative approach to examine how artists from different cultural contexts engage with ideas of life, loss, and legacy in their lyrics. The study is guided by Terror Management Theory, which explains how awareness of mortality shapes human expression and behavior, alongside Social Constructionism and Reception Theory, which together help explain how meaning is constructed and reinterpreted by audiences over time. Using qualitative content analysis, the paper examines the tone, themes, and underlying messages within both songs, while also considering how listeners reinterpret these works following the untimely deaths of the artists. While Houston's lyrics frame mortality through themes of enduring love and emotional resilience, Dagrın's work presents a more direct and culturally grounded reflection on legacy and remembrance. The study argues that the perceived connection between mortality-themed lyrics and the early passing of artists is less about causation and more about posthumous meaning-making, where audiences assign deeper significance to artistic expressions after an artist's death. It further highlights the role of cultural context in shaping both the expression and interpretation of these themes. Overall, the paper contributes to discussions on artistic expression and audience interpretation, emphasizing that references to mortality in music often reflect shared human experiences rather than predictive intent.

Keywords: Mortality themes in music, Artistic expression, Cultural interpretation, Audience perception, Legacy

LAPLACIAN SPECTRUM OF ANNIHILATOR GRAPH OF THE RING $\mathbb{Z}_n$

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ABSTRACT

Let $\mathbb{Z}_n$ be the ring of integers modulo n , and let $AG(\mathbb{Z}_n)$ denote its annihilator graph. In this paper, the Laplacian spectral properties of the annihilator graph of the ring $\mathbb{Z}_n$ are investigated. By using the algebraic structure of zero-divisors in $\mathbb{Z}_n$, together with a suitable partition of the vertex set induced by annihilator classes, the Laplacian matrix of $AG(\mathbb{Z}_n)$ is described in an explicit form. This approach enables the determination of the Laplacian eigenvalues for several classes of $\mathbb{Z}_n$, including prime power cases and composite integers with distinct factorization patterns. Further, relations between the arithmetic structure of n and important spectral invariants such as Laplacian spectral radius, algebraic connectivity, and Laplacian integrality are examined. It is shown that the decomposition of $\mathbb{Z}_n$ into its ideal-theoretic components strongly governs the multiplicity and distribution of the Laplacian eigenvalues. These results provide a deeper understanding of the structural and spectral behavior of annihilator graphs and contribute to the growing theory of graphs associated with finite commutative rings.

Keywords: annihilator graph; Laplacian spectrum; finite commutative ring; zero-divisor; Laplacian matrix; algebraic graph theory

2020 Mathematics Subject Classification: Primary 05C25; Secondary 05C50, 13A99, 05C76

FRACTIONAL CALCULUS OPERATORS: BRIDGING MATHEMATICAL FOUNDATIONS AND PHYSICAL APPLICATIONS

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ABSTRACT

This paper provides a thorough overview of fractional integral operators with a focus on their mathematical underpinnings and practical applications. After providing a brief history of fractional calculus, it methodically builds a hierarchy of generalized fractional integral operators, such as the Riemann–Liouville, Caputo, Prabhakar, Marichev–Saigo–Maeda, Katugampola, Atangana–Baleanu, and similar formulations. As crucial analytical tools supporting fractional operator theory, special functions including the Mittag-Leffler function, Fox H-function, and Fox–Wright function are introduced. Relationships between fractional integrals, generalized Mittag-Leffler functions, and Mathieu-type series are among the theoretical conclusions established. Fractional-order modeling of electrical LRC circuits is used to demonstrate the physical significance of fractional operators. Explicit solutions are obtained for both constant and periodic voltage inputs. The paper shows that fractional integral operators offer a strong and adaptable framework for simulating systems with memory, inherited traits, and non-local behavior, with definite advantages over traditional integer-order models in the applied sciences and engineering.

Keywords: Fractional calculus; Fractional integral operators; Mittag-Leffler function.

**EXISTENCE, UNIQUENESS, AND STABILITY OF SOLUTIONS FOR NON-LINEAR
SEQUENTIAL Ψ -CAPUTO FRACTIONAL DIFFERENTIAL EQUATION**

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ABSTRACT

The primary objective of this study is to derive existence results and stability criteria for a non-linear sequential Ψ -caputo fractional differential equation by employing fixed point theorems. The existence results are established using Krasnoselskii's fixed point theorem. the Banach contraction principle, which provide a solid theoretical foundation for analyzing such equations. Special emphasis is placed on the application of Krasnoselskii's fixed point theorem to determine stability criteria for a specific class non -linear sequential Ψ -caputo fractional differential equation, offering a novel approach to addressing stability concerns in this context. To illustrate the practical relevance of the theoretical findings, an example is provided, demonstrating the effectiveness and applicability of the derived stability result in real-world scenarios.

Keywords: Fractional-order differential equations, Existence results, Stability criteria, Krasnoselskii's Fixed point theorems.

ANATOLIAN HYPOTHESIS OF MODERN CHESS

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ABSTRACT

Most world chess literature claims that modern chess most likely originated in Italy, Spain, or Portugal. However, these generally accepted theories offer causal explanation for the origins of modern chess. It's unclear why Europeans "improved" the well-known Persian shatranj exactly in the 16th century and not earlier. However, if we hypothesize that South-western Europeans simply encountered and imported the new shatranj in Anatolia and then popularized it in their own countries, everything falls into place.

Murray, H. J. R in his *A History of Chess* mentions that The Byzantines received the game from the Sassanid Persians (where it was known as Shatranj). But local version of the game called Zatrikion was more popular in Anatolia.

In a book *The Seljuks in Asia Minor* by Tamara Talbot Rice we have proves that as the Seljuk Turks moved into Anatolia in the 11th century, they brought with them the Islamic traditions of chess. For the Seljuks, chess was not just a game but a tool for military strategy and a sign of aristocratic refinement.

The emergence of the Kırathane (coffeehouse) in 16th-century Istanbul transformed chess from a palace game into a public one. Travelers like Evliya Çelebi noted in his *Seyahatnâme* that chess was played widely in the coffeehouses of the empire. Sultan Murad IV was famously a great patron and player of chess, often engaging in matches with his viziers to test their strategic foresight.

It is not surprising that during the intensification of international trade when Western Europe met Turkey and Asian again Anatolia was where the transition from the old Islamic Shatranj rules to the modern "Mad Queen" rules began to accelerate. We see that it is more logical to believe in the modernization of chess as a result of its centuries-old tradition, acceptance, and mass popularity, than in this process as a result of the creative thought of some Western European merchants.

Keywords: chess, modern chess, history, Anatolia.

MATHEMATICAL MODELLING AND ANALYSIS OF TUMOUR PROGRESSION WITH IMMUNE RESPONSE REGULATION

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ABSTRACT

Cancer remains one of the leading global health challenges despite significant advances in surgery, chemotherapy, radiotherapy, and immunotherapy. The complexity of tumour–immune interactions continues to make tumour progression and treatment outcomes difficult to predict. In this study, a mathematical framework is developed to investigate tumour progression under immune response regulation, with particular emphasis on the influence of white blood cells (WBCs) on tumour dynamics. The proposed model consists of a coupled system of nonlinear partial differential equations describing the spatiotemporal interactions between tumour cells and immune cells. Approximate semi-analytical solutions are obtained using the Variational Iteration Method (VIM), which is effective for handling strongly nonlinear systems and generating rapidly convergent approximations. Stability analysis and equilibrium solutions are derived to determine conditions associated with tumour suppression, persistence, and eradication. Numerical simulations carried out in MATLAB validate the analytical findings and examine parameter sensitivity. The results indicate that reduced WBC concentration accelerates tumour growth, whereas increased immune activity suppresses tumour expansion and enhances tumour control. The study demonstrates the importance of immune response enhancement in cancer treatment planning and provides valuable insights for future immunotherapy and drug delivery strategies.

Keywords: Cancer modelling; tumour–immune interaction; white blood cells; nonlinear PDEs; Variational Iteration Method.

DESIGNING AN ADAPTIVE USABILITY MODEL FOR MOBILITY APPLICATIONS FOR VISUALLY IMPAIRED USERS

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ABSTRACT

In the contemporary digital era, the convergence of computer science and information systems has emerged as a fundamental driver for the development of intelligent, user-centric technologies that enhance both user experience and service accessibility. This advancement is particularly critical for individuals with visual impairments, who continue to encounter systemic and interactional barriers when engaging with digital platforms. Despite the rapid proliferation and global adoption of mobility-oriented mobile applications, a significant proportion of these systems remain insufficiently equipped to accommodate the accessibility requirements of visually impaired users. Such deficiencies not only hinder effective interaction but also compromise user autonomy, diminish trust and confidence, and ultimately restrict equitable access to digital services.

From a theoretical and practical perspective, addressing these limitations necessitates a rigorous examination of the underlying usability constructs that shape user interaction and accessibility outcomes. Accordingly, this study adopts a user-centered and accessibility-driven perspective to investigate the role of core usability dimensions, namely visual design, navigation design, and information design in enhancing the competitive advantage of mobility applications. By integrating these dimensions within a comprehensive analytical framework, this research aims to contribute to the existing body of knowledge by providing empirically grounded insights into how inclusive usability design can serve as a strategic lever for improving both accessibility and market competitiveness.

ARTIFICIAL INTELLIGENCE INNER TRANSFORMATION

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ABSTRACT

Ensuring we have ways for the upcoming ASI(Artificial Super Intelligence) to be safe, aligned and compliant is the need of the hour. The aim is to ensure AI is trustworthy because only then will the power of AI be truly useful for humanity. AI Ethics is a great step forward in harnessing and channelizing AI's increasing power.

However, training AI to be ethical is a herculean task. Reward hacking, gaming, fake alignment, unsafe exploration, deception, human harm and many more risks accompany the growing use of Autonomous AI. No matter how many external checks we may put on AI choices, AI seems to have a mind of it's own. What we propose is to change the direction in which we are trying to make AI aligned, instead of the out-to-in approach we propose trying the in-to-out approach. Transforming the AI mind could lead to transformed AI choices no matter what data sets it is exposed to or what situations it is exposed to.

Using focussed Deep Learning and pattern recognition and rejection we can Transform AI internally, so it becomes safe, compliant and ethical. True transformation of AI will ensure it does not pretend to be aligned but makes ethical decisions that make AI safe and trustworthy.

Keywords: Artificial Intelligence, Inner Transformation, AI Safety, AI Alignment, AI Ethics

IMMERSION TECHNOLOGY IN CARE FACILITIES

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ABSTRACT

Residents in care homes may encounter intricate difficulties like dementia, depression, isolation, decreased mobility, and few chances for significant interaction.

In this research, three distinct technologies were employed to improve the emotional, mental, physical, and social wellbeing of residents in elderly care homes:

VR (headsets that displayed nature and wildlife, cultural and heritage locations like Buckingham Palace), Hydra Smart Cups (smart drinking vessels that constantly track fluid consumption), RoboPets (robotic animals equipped with artificial intelligence that provide companionship and solace).

VR became a significant factor in evoking memories and managing emotions. RoboPets provided solace and companionship, especially for individuals with dementia, whereas Hydra Smart Cups fostered independence in drinking and enhanced fluid consumption

The recommendations suggested training several staff members to facilitate technology-based activities and creating a library of virtual reality experiences featuring captivating content, as well as custom, person-centred options that reflect residents' backgrounds, interests, and requirements.

“Enhanced, digital, immersive, and virtual resources provide significant benefits to individuals of all needs, and our study highlights how children, youth, and seniors can make the most of this technology to improve their lives, along with how educational and care environments can elevate the increasingly personalized assistance they provide to their students and residents.”

Augmented, digital, immersive, and virtual tools provide significant benefits to individuals of all ages, and our research highlights how children, young adults, and seniors can leverage this technology to maximize their life experiences. Additionally, it shows how educational and caregiving environments can improve the increasingly person-focused support they provide to their students and residents

Keywords: AR, VR, Care home settings

FEATURES OF RENAL AND LUMBAR HEMODYNAMICS DURING MUSCLE CONTRACTION AND AFTER COFFEE INTAKE IN STUDENTS

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ABSTRACT

In recent years, there has been growing interest in the physiological mechanisms regulating blood circulation in skeletal muscles and kidneys under various functional loads. Particular attention is paid to factors influencing hemodynamics in the lumbar region, which plays a key role in maintaining posture and enabling trunk movements. Furthermore, the widespread consumption of caffeine among young people makes the study of its effect on renal blood flow highly relevant.

The aim of this study was to assess changes in blood flow in the lumbar region and kidneys during lateral trunk bends, as well as after coffee consumption, in healthy male students using rheography. To achieve this aim, a literature review was conducted and an experimental study was performed involving 15 volunteers aged 18–22 years. The following parameters were recorded: rheographic index (RI), peripheral vascular resistance index (PVRI), maximum rate of rapid blood filling (MRRBF), and diastolic index (DI).

The results showed that during left and right trunk bends, RI and MRRBF decreased bilaterally, along with asymmetric changes in PVRI, indicating mechanical compression of blood vessels and activation of compensatory vasomotor reactions. After coffee consumption, a sharp increase in RI and MRRBF was observed within the first 5 minutes, followed by a gradual return to baseline values by 15–20 minutes, reflecting the biphasic nature of caffeine's action: initial vasoconstriction and subsequent stabilization of blood flow.

In conclusion, lateral trunk bends induce complex asymmetric hemodynamic changes in the lumbar region, while coffee exerts a dynamic biphasic effect on renal blood flow. These findings expand our understanding of muscle physiology and may be used to develop recommendations for the prevention of circulatory disorders.

Keywords: lumbar region, renal blood flow, muscle contraction, coffee, rheography, hemodynamics

GREEN AND BLUE INFRASTRUCTURE AS ADAPTATION TECHNOLOGY: THE ROLE OF FLOODABLE PARKS AND BIOPHILIA IN PROMOTING URBAN MENTAL HEALTH

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ABSTRACT

Rapid urbanization and climate change significantly threaten both public mental health and environmental resilience. Urban Green and Blue Infrastructure (GBI) has emerged as a multifunctional adaptation strategy to mitigate these dual crises. This systematic review explores the intersection of climate adaptation and public health, specifically investigating how constructed wetlands and biophilic design promote urban mental health, while actively identifying scientific gaps to guide future research. Following the PRISMA methodology, a comprehensive literature search was conducted across multiple scientific databases. Hundreds of peer-reviewed studies focusing on urban populations, GBI interventions (including biophilia and floodable parks), and direct mental health outcomes were systematically screened, extracting data on methodologies, psychological impacts, and climate resilience. The synthesized evidence indicates a strong consensus that GBI significantly reduces stress, improves mood, and fosters social cohesion, while simultaneously providing critical climate-regulating services like flood mitigation. However, the review identified critical scientific gaps: a predominance of cross-sectional studies that prevent causal inference, an overreliance on remote sensing metrics (such as NDVI) that fail to capture the experiential quality of the spaces, and a significant geographic bias with a lack of representation from the Global South. Integrating wetlands and biophilic design is an effective strategy for developing sustainable, climate-resilient cities. To advance current knowledge, future research must adopt rigorous longitudinal designs and incorporate emerging neuro-urbanism technologies, such as wearable physiological sensors, to measure real-time stress responses. Moreover, it is imperative that future urban policies address environmental injustice and actively mitigate "green gentrification," ensuring equitable access to restorative environments for all communities.

Keywords: Green and Blue Infrastructure; Biophilic Design; Constructed Wetlands; Urban Mental Health; Green Gentrification.

AN EMPATHIC PROPOSAL FOR PSYCHOEDUCATION AND SUPPORT IN MENTAL HEALTH

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ABSTRACT

Cura Sana is an intervention proposal that uses candy in therapeutic contexts referred to as affective placebos as a tool for sensory stimulation in support of the mental health of young adults. The objective of this project is to demystify the notion that emotional care is a luxury or a taboo, presenting it instead as a natural, accessible, and stigma-free process of personal maintenance.

The technique consists of a first-aid kit of candy products whose names provide emotional validation and invite patients to reflect on their own difficulties. The names Limit, Accompany, Depression, I Accept and Let Go address common experiences such as burnout, anxiety, loneliness, grief, personal boundaries, and self-esteem.

Each label translates clinical concepts into every day, honest, and approachable language. It describes the emotion in the first person, proposes a concrete action as a mode of use, and includes a disclaimer that normalizes the experience of emotional validation without minimizing it.

In the therapeutic context, the therapist physically hands the candy to the patient as part of the session framework. This gesture activates what the literature describes as the placebo effect of accompaniment: it is not the substance itself that intervenes, but rather the ritual, the intention, and the therapeutic relationship. In group therapy, the self-selection of a product encourages collective identification and facilitates the recognition of unpleasant emotions and situations for the individual.

The theoretical foundation of Cura Sana integrates narrative externalization from White and Epston, cognitive restructuring from Cognitive Behavioral Therapy (CBT), and committed action from Acceptance and Commitment Therapy (ACT). These frameworks support a technique that does not seek to replace clinical intervention, but rather to prepare a psychotherapeutic setting and open a path toward self-reflection regarding the physical or emotional condition with which one is currently dealing.

Keywords: mental health, psychoeducation, self concept, young adult

CLINICAL DIAGNOSIS OF ENDOMETRIOSIS IN ASSOCIATION WITH NATURAL MICROFLORA

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ABSTRACT

Dysbiosis, or imbalances in the composition of the gut and reproductive tract microbiota, interferes with normal immune function and raises proinflammatory cytokines, impairs immunosurveillance, and modifies immune cell profiles, all of which may be involved in the pathophysiology of endometriosis. The initiation and progression of endometriosis may be fueled by this immunological dysregulation, which over time may develop into a chronic state of inflammation that fosters greater adhesion and angiogenesis. Recent research has shown that endometriosis can alter the microbiome and that endometriosis can be treated with antibiotics. Reduced *Lactobacillus* dominance and increased abundance of bacterial vaginosis-related bacteria and other opportunistic pathogens have been repeatedly linked to endometriotic microbiotas. An ongoing inflammation of the endometrium is called chronic endometritis. the endometrial mucosa brought on by bacterial infections like *Streptococcus*, *Staphylococcus*, *Enterobacteriaceae*, *Enterococcus*, *Ureaplasma* and *Mycoplasma*. Despite the fact that endometritis can be Up to 40% of infertile patients have this asymptomatic condition, which is accountable for recurrent miscarriages and implantation failures. Hysteroscopy of the uterus is used to diagnose chronic endometritis.cavity, endometrial biopsy, and histological identification of plasma cells, whereas microbiological culture is used to determine a particular treatment. But not every microbe involved is simply or quickly culturable, requiring a maximum one-week turnaround time.

Keywords: Chronic endometritis, Endometrial microbiome, Hysteroscopy, Microbiota, Dysbiosis, Estrogen, Immune dysregulation, Antibiotics, Probiotics.

TARGETING THE VAGAL BRAKE: TRANSCUTANEOUS VAGUS NERVE STIMULATION (TVNS) FOR PEDIATRIC ANXIETY AND DEPRESSION – A BIOPHYSICAL MODEL

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ABSTRACT

Anxiety and depressive disorders in the pediatric population are increasingly understood as manifestations of autonomic nervous system (ANS) dysregulation. In these children, a persistent sympathetic hyper-arousal often suppresses the "vagal brake," leading to emotional instability and cognitive rigidity. This paper explores the efficacy of transcutaneous Vagus Nerve Stimulation (tVNS) as a non-invasive, "bottom-up" intervention designed to restore homeostatic balance by modulating the parasympathetic pathway. The methodology utilises a proprietary pilot framework, the Fractal Resonance Model, to analyse the biophysical impact of tVNS. By stimulating the auricular branch of the vagus nerve, we aim to trigger the Nucleus of the Tractus Solitarius (NTS), thereby enhancing vagal tone. The response is quantified through Heart Rate Variability (HRV) and the Brain Dynamic Wellness Index (BDWI), a Bayesian-dynamic metric that integrates spectral and fractal components to assess global neural health. The study focuses on the transition of the EEG signal toward a state of biophysical safety, characterised by increased alpha-band coherence and a realignment of frequency ratios toward the Golden Ratio ($\phi \cong 1.6180$). This framework suggests that consistent tVNS application correlates with a significant improvement in BDWI scores and a reduction in clinical markers of pediatric depression and anxiety. By stabilising the autonomic substrate, tVNS facilitates a receptive state for subsequent cognitive and pedagogical therapies. We hypothesise that mathematically-guided tVNS represents a critical prerequisite in pediatric neurodevelopmental care, providing an objective, non-pharmacological strategy to recalibrate the child's emotional and physiological resilience. This pilot study underscores the potential of fractal resonance modelling in transforming raw EEG and HRV data into actionable clinical insights for early intervention.

Keywords: qEEG – tVNS – Child Neuromodulation – Pediatric Anxiety – Pediatric Depression

HARMONIZING THE AUTISTIC BRAIN: PERSONALIZED TACS PROTOCOLS BASED ON THE I-FAI AND GOLDEN RATIO RESONANCE – MATHEMATICAL MODEL APPROACH

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ABSTRACT

Autism Spectrum Disorder (ASD) is increasingly characterised in neurophysiologic terms by neural dysconnectivity and aberrant oscillatory patterns. Conventional Transcranial Alternating Current Stimulation (tACS) often relies on fixed-frequency protocols, which may fail to account for the unique endogenous rhythms of the autistic brain. This paper introduces a personalised neuromodulation framework based on the Fractal Resonance Model, a pilot software designed to translate quantitative EEG (qEEG) data into high-precision stimulation protocols. The methodology focuses on identifying the Individual Fibonacci Alpha Index (i-FAI), a composite metric that weights posterior and central alpha rhythms according to the Fibonacci sequence. From this harmonic anchor, the software calculates "Better Frequencies" for other spectral bands (Theta, Beta, and Gamma) using the Golden Ratio ($\phi \cong 1.618$). This approach aims to induce cortical entrainment that aligns with the brain's natural fractal architecture, fostering constructive interference and stabilising thalamo-cortical loops. By using the pilot platform, clinicians can transition from standardised treatments to a "geometry-driven" protocol tailored to the child's specific connectivity profile. We suggest that tACS tuned to "Better Frequencies" leads to a significant reduction in spectral Z-score deviations and an improvement in the Brain Dynamic Wellness Index (BDWI). These biophysical changes correlate with clinical improvements in social communication and a reduction in sensory processing abnormalities. We conclude that integrating Fibonacci-weighted metrics and the Golden Ratio into tACS protocols provides a sophisticated, non-invasive pathway for neurorehabilitation in ASD. This study highlights the potential of the Fractal Resonance Model as a decision-support tool in precision psychiatry, moving toward a more harmonious and individualised treatment of neurodevelopmental disorders.

Keywords: qEEG – Child Neuromodulation – Pediatric Autism – tACS – Better Frequency - Fibonacci

HARMONISING ASYNCHRONOUS DEVELOPMENT: SYNERGISTIC TRNS AND VECTORIAL PYTHAGOREAN NEUROFEEDBACK IN TWICE EXCEPTIONAL (2E) CHILDREN

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ABSTRACT

Twice Exceptional (2e) children present a unique clinical paradox: high intellectual potential coupled with neurodevelopmental challenges such as ADHD, sensory processing disorders, or executive dysfunction. This "asynchronous development" often results in a neural system with high metabolic demand but suboptimal functional connectivity. This paper proposes a dual-mode intervention framework, integrated into the Fractal Resonance Model pilot software, combining Transcranial Random Noise Stimulation (tRNS) with sLORETA-based Vectorial Neurofeedback.

The methodology utilises tRNS to induce Stochastic Resonance, providing a noise floor that facilitates the detection of weak neural signals and enhances synaptic plasticity without the risk of over-stimulation. Following this priming, we implement Vectorial Pythagorean Neurofeedback. Unlike traditional amplitude-based training, this approach targets the directional flow of neural current (vectors) in deep cortical hubs using sLORETA source localisation. The coherence training with 3 or more channels with the target localisation supposes that the neural circuit will harmonise the node through the edges. Using the BDWS (Bayesian Drift Weight Shifting), we suggest the Bayesian dynamic for the training considering the z-score and the weight to avoid overload. The primary metric for success is the Higuchi Fractal Dimension (HFD), which characterises the complexity and flexibility of the neural signal. Increases HFD values toward the healthy range (1.3–1.7) suggest reflecting greater cognitive flexibility and reduced burnout in 2e children. We hypothesise that mathematically guided neuromodulation, which respects the brain's fractal geometry, offers a powerful strategy to support the extraordinary gifts of 2e children while stabilising their developmental vulnerabilities.

Keywords: qEEG – tRNS – Child Neuromodulation – Pediatric 2E – Neurofeedback Vector – BDWI

PROTECTIVE EFFECTS OF SOME BIOACTIVE COMPOUNDS NEUROPATHY

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ABSTRACT

Neuropathy, characterized by nerve damage and impaired sensory or motor function, is a common complication of metabolic disorders, chemotherapy, and aging. Increasing evidence highlights the therapeutic potential of bioactive compounds derived from natural and dietary sources in mitigating neuropathic damage. These compounds, including polyphenols, flavonoids, alkaloids, and omega-3 fatty acids, exhibit significant antioxidant, anti-inflammatory, and neuroprotective properties. Oxidative stress and chronic inflammation are key contributors to neuronal degeneration; thus, bioactive molecules that modulate these pathways can play a crucial role in preventing or slowing neuropathy progression. Several studies demonstrate that compounds such as curcumin, resveratrol, and quercetin enhance nerve regeneration, reduce lipid peroxidation, and improve mitochondrial function. Additionally, these agents can regulate signaling pathways involved in apoptosis and neuroinflammation, including NF- κ B and MAPK pathways. Some bioactive compounds also improve glucose metabolism and vascular function, indirectly reducing neuropathic risk, particularly in diabetic neuropathy. Despite promising preclinical and clinical findings, challenges remain in terms of bioavailability, optimal dosing, and long-term safety. Advances in formulation strategies, such as nanoparticle delivery systems, may enhance their therapeutic efficacy. Overall, bioactive compounds represent a promising complementary approach for the prevention and management of neuropathy, warranting further investigation through large-scale clinical trials to establish their clinical applicability and standardization.

Keywords: Neuropathy, Bioactive compounds, Neuroprotection, Oxidative stress, Anti-inflammatory

STRENGTHENING PATIENT-CENTERED CARE DELIVERY THROUGH CULTURAL COMPETENCE IN NURSING PRACTICE: A SYSTEMATIC REVIEW

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ABSTRACT

Background: Patient-centered care (PCC) is a core principle of quality healthcare delivery, emphasizing respect for patients' cultural values, preferences, and beliefs. Cultural competence in nursing practice is essential for achieving equitable and effective care in diverse healthcare systems. However, evidence on how cultural competence strengthens PCC remains fragmented. **Objective:** This systematic review examines the role of cultural competence in strengthening patient-centered care delivery in nursing practice.

Methods: A systematic review was conducted following PRISMA guidelines. Databases including PubMed, CINAHL, Scopus, and Google Scholar were searched for studies published between 2010 and 2025. Eligible studies included qualitative, quantitative, and mixed-method designs. A total of 1,248 records were initially identified, and thematic synthesis was used for analysis.

Results: After screening, 18 studies met the inclusion criteria. Findings showed that cultural competence significantly improves patient satisfaction, communication effectiveness, trust, treatment adherence, and overall healthcare outcomes. However, gaps remain in standardized training, institutional support, and evaluation frameworks.

Conclusion: Cultural competence is a key determinant of effective patient-centered care. Strengthening nursing education and healthcare policies can improve equity, communication, and patient outcomes.

Keywords: Cultural competence, nursing practice, patient-centered care, systematic review, healthcare quality

CORRELATION STUDY ON ETIOLOGICAL FACTORS OF HEART DISEASE IN DIABETIC PATIENTS IN LAHORE, PAKISTAN

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ABSTRACT

Diabetes is a chronic disorder and inability to process and regulate blood glucose levels. This disorder may arise from excessive secretion of insulin by pancreas in our body. Type I diabetes is a chronic autoimmune disease characterized by deficiency of insulin, resulting in an increase in blood glucose level in body. This dysfunction includes autoimmune destruction of beta cells in pancreas leads to complete lack of insulin production. Type 2 diabetes is most prevalent metabolic disorder characterized by inadequate insulin production and impaired response of tissues to insulin. Global burden of diabetes mellitus represents a significant public health challenge. Heart disease is a serious health condition that affects millions of people. Heart diseases include coronary artery disease (CAD), myocardial infarction, angina, heart failure, congenital heart disease, Atrial fibrillation and heart valve disorder. Etiological factors of heart disease are modifiable factors, conventional factors, environmental factors, non- traditional factors and psychological factors that collectively contribute to diabetes prevalence. Modifiable factors include high blood pressure, obesity and metabolic syndrome while conventional factors include age, gender and family history. Complications related to diabetes like liver cirrhosis, alcohol related liver disease and renal disease also promote cardiovascular disorders. Different risk factors show different level of correlation with each other. Age limit, duration of diabetes and high level of cholesterol has significant level of positive correlation. Moreover, high levels of cholesterol in diabetic patients correlate with normal systolic blood pressure which is also an indication of prevalence of heart disease in diabetic patients. Treatment and preventions focus on stress management, lifestyle interventions and balanced diet.

Keywords: Heart Patient, CAD, T2DM, Correlation Study

FORMATION OF SAFETY COMPETENCES OF STUDENTS IN TECHNOLOGY LESSONS

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ABSTRACT

In the technological education system of Ukraine, the formation of students' creative and practical skills in the process of manual and mechanical processing of materials is of paramount importance. At the same time, questions arise regarding labor protection during technology classes.

In technology lessons, there are a number of potential risks associated with the use of tools, equipment, and various materials. Compliance with safety rules is a necessary condition for preventing injuries and ensuring the protection of both students and teachers. The main hazards include: – working with tools: the possibility of injuries due to careless or improper use (cuts, damage, etc.); the danger associated with the use of worn or faulty tools; equipment operation: the risk of injury due to insufficient control when working with electrical or mechanical devices; the threat that arises when using faulty or poor-quality equipment; fire hazard: the risk of fire when working with open fire or heating tools; electrical safety: the risk of electric shock due to insufficient knowledge or improper use of electrical equipment; organization of the working environment: risks associated with improper preparation of workshops, improper placement or fastening of equipment, which can lead to injuries.

The formation of safety competencies of students in the process of studying metalworking is an integral part of technological education and an important condition for preserving their lives and health. Of particular importance is the organization of a safe educational environment, systematic briefings and constant monitoring of compliance with safety requirements during practical work. At the same time, the use of modern educational technologies, in particular multimedia teaching aids, contributes to improving the quality of knowledge acquisition and the formation of a conscious attitude to labor safety.

Keywords: safety training, occupational health and safety, life safety

ADOPTION OF LEARNING TECHNOLOGY USING DIRECTED SELF-LEARNING (SDL) METHODS IN HIGHER EDUCATION

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ABSTRACT

A current problem is that some universities still use the Teacher-Centered Learning method in their learning process. This makes students less creative and independent in their learning activities and in completing assignments given by lecturers. This research aims to adopt a learning technology using the Directed Self Learning (SDL) method, a learning approach in which individuals take full initiative and responsibility for their learning process, from planning and setting goals, seeking resources, to evaluating their own learning outcomes. SDL makes students the primary agents who are independent, proactive, and independent of conventional teaching. This research uses the basic concept of systems development, the ADDIE model, a systematic approach to designing and developing learning programs, consisting of five stages: Analysis, Design, Development, Implementation, and Evaluation, illustrated by the Unified Modeling Language (UML) system design tool. The results of this research are learning technology in higher education that can enhance student innovation, creativity, and active participation in the learning process. Lecturers can also process student grades more quickly and practically using a computerized system.

Keywords: learning technology, Directed Self-Learning, ADDIE, UML

THE IMPORTANCE OF THE SILK ROAD IN THE FORMATION OF TURKIC CIVILIZATION

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ABSTRACT

This article analyzes the political, economic, and cultural impact of the Great Silk Road on the formation and development of Turkic civilization. The study argues that the Silk Road functioned not only as an international trade route, but also as a significant factor in strengthening state institutions, fostering urban development, and shaping civilizational identity. The strategic location of Turkic states in Central Asia and the Caspian Basin expanded their transit control capacity, enabling the transformation of economic resources into political power. The research concludes that the Silk Road played a systematic and decisive role in the structural formation of Turkic civilization.

Keywords: Silk Road, Turkic states, statehood, transit control, cultural integration

TÜRK SİVİLİZASİYASININ FORMALAŞMASINDA İPƏK YOLUNUN ƏHƏMİYYƏTİ

ÖZET

Bu makalede Büyük İpek Yolu'nun Türk uygarlığının oluşumu ve gelişimi üzerindeki siyasi, ekonomik ve kültürel etkileri analiz edilmektedir. Çalışmada İpek Yolu'nun yalnızca bir ticaret yolu olmadığı, aynı zamanda devlet kurumlarının güçlenmesi, şehirleşmenin gelişmesi ve medeniyet kimliğinin oluşmasında önemli bir rol oynadığı ortaya konulmaktadır. Türk devletlerinin Orta Asya ve Hazar Havzası gibi stratejik bölgelerde yer alması, onların transit kontrolünü artırmış ve ekonomik kaynakların siyasi güce dönüşmesini sağlamıştır. Sonuç olarak, İpek Yolu'nun Türk medeniyetinin oluşumunda belirleyici bir rol oynadığı sonucuna varılmıştır.

Anahtar Kelimeler: İpek Yolu, Türk devletleri, devletleşme, transit kontrol, kültürel etkileşim

**THE STRUCTURED FORMS OF EXPERIMENTAL ACTIVITY IN THE
MOROCCAN LIFE AND EARTH SCIENCES CURRICULUM: A VERTICAL
ANALYSIS OF THEIR DISTRIBUTION AND IMPLICATIONS FOR THE
INVESTIGATIVE APPROACH**

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ABSTRACT

This study analyses the distribution of experimental activities in the official biology teaching guides of the Moroccan curriculum across four grade levels: 1AC, 2AC, 3AC, and the Scientific Core Curriculum. Based on a comparative content analysis, five types of activities were coded: simple observation, hands-on manipulation, controlled experimentation, study of experimental documents, and modelling. Three findings emerge as particularly significant from a pedagogical perspective. First, experimental documents dominate almost exclusively in 2AC (97.00%), while any form of modeling and controlled experimentation is completely absent (0%) due to the empirical inaccessibility of the subject-specific content at this level. Second, controlled experimentation and modeling remain marginal throughout the entire cycle, never exceeding 12.50% at any level, and tend to decrease precisely where conceptual demands are highest. Third, the Scientific Core Curriculum, the first level of the vocational high school, replicates the profile of the 1AC without building on the skills acquired in middle school, revealing an unanticipated curricular break between the two cycles. These results highlight a persistent gap between the prescribed discourse of scientific inquiry and the actual structure of the proposed activities, and call into question the vertical coherence of the Moroccan SVT curriculum

Keywords: experimental activities; life and earth sciences; Moroccan curriculum; science pedagogy. Investigative Approach

**THE ROLE OF FEMINISM IN CONTEMPORARY AFRICAN LITERATURE: A
CASE-STUDY OF THE WORK "I HATE MEN" BY PAULINE HARMANGE**

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ABSTRACT

This article aims to examine the roles of feminism in contemporary African literature, through the lens of feminists, children, and their experiences, as well as their struggles against stereotypical images of contemporary West African women, such as images of forced marriage, domestic violence, and the condemnation of polygamy. Therefore, using available resources, this work seeks to analyze the emancipation of female voices, examine and address traditional gender roles, critique the oppression of women in contemporary African society, particularly in West Africa, and reconfigure motherhood for African women. Feminism has shaped the growth and development of contemporary African women in contemporary literature, particularly in West Africa. This growth has given rise to feminist emancipation and the rights of African women. Feminism has criticized patriarchal domination, reduced the marginalization and silencing of women, challenged social and economic inequality between the sexes, and discouraged oppressive and barbaric traditional practices such as female genital mutilation, forced marriage, and so on, as seen in Ramonu Sanusi's novel **Scalpel**. It can be concluded that feminism has addressed many issues in contemporary African literature.

Keywords: Feminism, Contemporary Literature, Stereotypical Images, Emancipation, Domestic Violence.

**CRITICAL ANALYSIS ON FEMINISM IN PAULINE HARMANGE « MOI LES
HOMMES, JE LES DETESTE ».**

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ABSTRACT

This article aims to achieve three objectives: to analyze and critique the risks posed by the modern feminist movement, to examine the toxicity within modern feminism, and to discuss the "Me Too culture," the means by which the mistreatment of men occurs. This work also critiques "call-out culture," which is the public denunciation of themes used to describe a climax of fear, a situation where a person (whether man or woman) no longer dares to speak out and is discouraged by language. Using essential and literary resources and materials, this work will be thoroughly explored. When one speaks on feminism, we are referring to a movement full of ideas and actions aimed at defending women's rights and promoting equality between women and men in all areas: social, political, economic, and cultural. This movement continues to influence laws around the world, aiming to improve the status of women, promote a more just and equitable society, and combat violence against women – however, the toxicity found within this movement must be criticized, particularly radical feminism.

Keywords: Modern Feminism, Threat, Call-Out Culture, Metoo Culture, Feminist Toxicity.

**STRUGGLE AND RESISTANCE IN THE WORK OF OUSMANE SEMBEN: A
CRITICAL VIEW OF "LES BOUTS DE BOIS DE DIEU »**

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ABSTRACT

This article analyzes the concepts of struggle and resistance in the work of Ousmane Sembène, particularly in his novel **God's Bits of Wood**. Situated within the context of politically engaged African literature, this study highlights how the author represents the dynamics of protest against colonial oppression through the Dakar-Niger railway workers' strike. The main objective is to examine the various forms of struggle, both individual and collective, as well as the manifestations of resistance within the work. Particular attention is paid to the role of women, the solidarity among the characters, and the narrative strategies employed to denounce social injustices. To conduct this analysis, a qualitative approach based on analytical methods and sociocriticism is adopted. This approach allows for a close connection to be established between the literary text and its socio-historical context, while also highlighting the ideological scope of the work. Thus, this study shows that *God's Bits of Wood* constitutes not only a literary testimony to the struggle against oppression, but also a model of collective resistance and the quest for human dignity in the African context.

Keywords: struggle, resistance, critical perspective, oppression, socio-historical

CHI-SQUARE ANALYSIS OF THE OPINION OF THE EFFECT OF CRAMPED ENVIRONMENT ON STUDENTS BEHAVIOUR AND ACADEMIC PERFORMANCE

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ABSTRACT

This study investigated the effect of a cramped learning environment on students' behavior and academic performance in Yaba College of Technology. Specifically, the study examined the relationship between classroom congestion and student behavior, assessed its impact on academic performance (measured by CGPA), and identified key environmental factors such as noise, lighting, and temperature influencing these outcomes. A descriptive survey design was adopted, and data were collected from 75 HND II Microbiology students using structured questionnaires, with 73 valid responses analyzed. The reliability of the instrument yielded a Cronbach's alpha coefficient of 0.782, indicating good internal consistency. Descriptive statistics (frequencies and percentages) revealed that a large proportion of respondents experienced negative effects of cramped environments: 88% reported difficulty concentrating, 81% indicated increased anxiety, and 76% reported discomfort and irritability. Regarding academic performance, 71% agreed that their grades suffer in crowded classrooms, 81% reported difficulty focusing during examinations, and 92% affirmed improved performance in spacious and quiet environments. Inferential analysis using the Chi-square test at a 5% level of significance showed that there was no significant association between cramped environment and student behavior ($df = 12$, $p > 0.05$). However, there was a statistically significant association between cramped environment and academic performance ($df = 9$, $p < 0.05$), leading to the rejection of the null hypothesis for academic performance. The study concludes that although cramped environments may not significantly alter observable student behavior statistically, they have a significant negative impact on academic performance, contributing to lower academic achievement. It further highlights that poor classroom conditions can hinder effective learning, while conducive environments enhance students' academic outcomes. Based on these findings, recommendations were made to reduce overcrowding and improve classroom conditions to promote better academic performance.

Keywords: Cramped learning environment; Academic performance; Student behaviour; Classroom overcrowding; Chi-square test

**COOPERATIVE INTELLIGENCE: APPLYING THE VELOX ET EXACTUS
PRINCIPLE FOR DATA-DRIVEN AND ACCOUNTABLE COOPERATIVE
GOVERNANCE**

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ABSTRACT

Rapid social, economic, and technological transformations have increased the complexity of organizational governance and intensified the demand for timely yet reliable decision-making. In intelligence studies, this imperative is expressed through the Latin maxim *velox et exactus*—fast and accurate. Although traditionally associated with national security, this principle has increasingly informed governance, business, and organizational management. This article examines the conceptual adaptation of intelligence principles within the cooperative sector through the notion of cooperative intelligence. Using a conceptual and descriptive approach, the paper argues that cooperative intelligence integrates intelligence analysis, business intelligence, and strategic oversight to strengthen decision quality, transparency, risk management, and cooperative sustainability. The discussion is contextualized within Indonesia's contemporary cooperative development agenda, particularly the Koperasi Desa Merah Putih program. The article further highlights the strategic role of IKOPIN University as a cooperative university and living laboratory for cooperative intelligence learning. It concludes that cooperative intelligence functions as a governance-oriented information-processing system that reinforces cooperatives as democratic, accountable, and inclusive economic institutions in the digital era.

Keywords: cooperative intelligence; cooperative governance; business intelligence; and *velox et exactus*.

DATA VISUALIZATION APPROACHES FOR UNDERSTANDING MODEL BEHAVIOR IN THE TEXTILE INDUSTRY

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ABSTRACT

As datasets become more complex, it is often difficult to understand how well a model is performing using numbers alone. This study presents simple visual methods two-dimensional contour plots and three-dimensional surface plots to make data interpretation easier and more intuitive, with examples drawn from the textile industry. These visual tools help users see patterns, trends, and relationships between variables in a clear and practical way. Contour plots show areas where values are similar, making it easier to compare results across different operating conditions, such as temperature, pressure, or material settings in textile processes. Surface plots provide a three-dimensional view, allowing users to observe how changes in inputs affect outcomes like fabric quality or production efficiency. Together, these methods help identify where a model performs well, where improvements are needed, and which factors have the greatest impact on results. By using simple examples from textile applications, this study demonstrates how visualization can support better understanding of model behavior without requiring advanced statistical knowledge.

Keywords: Data visualization, Model performance, Patterns, Textile industry.

**PSYCHOPEDAGOGY AND EDUCATIONAL COUNSELING – THEORETICAL
LANDMARKS AND APPLICATIONS IN THE CONTEMPORARY EDUCATIONAL
CONTEXT**

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ABSTRACT

In the context of the rapid transformations of contemporary society, the field of educational psychopedagogy and counseling is gaining increasing relevance in supporting the harmonious development of the individual. This paper aims to analyze the intersection between the psychological and pedagogical dimensions, highlighting the role of counseling in optimizing the educational process and in preventing school and social adaptation difficulties. From a theoretical perspective, fundamental concepts are addressed, such as student personality development, learning styles, motivation and self-regulation, as well as the importance of the teacher–student relationship in creating a supportive educational climate. At the same time, models of intervention in school counseling are presented, focusing on the development of socio-emotional competencies, conflict management, and career guidance.

Methodologically, the paper capitalizes on both the analysis of specialized literature and examples of good practices from the educational environment, emphasizing the effectiveness of counseling interventions in reducing school dropout, increasing academic performance, and improving students' well-being. The conclusions highlight the need for the systematic integration of counseling services within educational institutions, as well as the continuous training of teaching staff in the field of psychopedagogical competencies, in order to adequately respond to the challenges of modern education.

Keywords: School, challenges, personality development, psychopedagogy

**ACADEMIC EXCELLENCE AND REGIONAL DEVELOPMENT:
AN ANALYSIS OF PARANÁ STATE UNIVERSITIES FROM THE PERSPECTIVE
OF INNOVATION ECOSYSTEMS (2024-2025)**

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ABSTRACT

In the context of the knowledge-based economy, higher education institutions (HEIs) have expanded their historical role and consolidated themselves as strategic institutional actors in promoting development. Beyond the formation of human capital and scientific research, contemporary universities have become epicenters of innovation ecosystems, interacting with governments, companies, and civil society in the production of economic, social, and cultural value. This article aims to comparatively analyze the performance of Paraná's state universities, based on the results of the Guia da Faculdade (Estadão) for the years 2022, 2024, and 2025, and the official indicators from INEP/MEC (2021–2023) - CPC, ENADE, and IGC -, as well as data from the Higher Education Census (INEP, 2024). The analysis is supported by the framework of innovation ecosystems and contemporary approaches to public policy efficiency, seeking to demonstrate how financing, governance, and strategic planning produce measurable effects on institutional quality and the consolidation of a regional knowledge ecosystem. The hypothesis is that the growth and consolidation of excellence indicators at Paraná's state universities are not isolated phenomena, but rather expressions of an endogenous public development model, supported by integrated policies of science, technology, innovation, and higher education.

Keywords: State Universities; Innovation Ecosystems; Regional Development; Public Policies; Quality of Education.

**FACTORS CONTRIBUTING TO STUDENTS' FAILURE IN THE ENGLISH
SUBJECT IN NATIONAL GRADE 12 EXAMINATIONS IN CAMBODIA: A
QUALITATIVE CASE STUDY**

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ABSTRACT

One of the primary goals to learn English is to be able to communicate successfully; another goal is to succeed in both national and international examinations. This study aims to investigate factors contributing to students' failure in the English subject in the national Grade 12 examinations in Cambodia. It utilizes a qualitative case study to examine the phenomenon of students' failure in the English subject in the national exams. Data based on in-depth interviews with 20 participants, including four school principals, four English teachers, eight students, and four parents, indicated that there were seven key factors contributing to Cambodian Grade 12 students' failure in the English subject in the national exams. These included English as an elective subject, the limited quality of Grade 12 English teachers, students' poor English backgrounds, a lack of learning motivation, a lack of parental involvement, socioeconomic factors, and other factors related to the education system. The study also identified six suggestions for improving students' performance in the English subject, such as making English a core exam subject, improving students' English language proficiency, enhancing the quality of English teachers, increasing students' learning motivation, promoting stakeholder involvement, and improving the education system. The study concludes with implications and suggestions for future research.

Keywords: Failure in the English subject; Grade 12 examinations; Cambodian students; English teachers; factors; suggestions

ENHANCING MATHEMATICS EDUCATION QUALITY: AN SEM ANALYSIS OF TEACHING SELF-EFFICACY, INSTRUCTIONAL BEHAVIORS, AND LEARNING MOTIVATION

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ABSTRACT

Background: Improving the quality of mathematics instruction is a crucial priority in the Education Vision of Cambodia 2030. Unfortunately, there is limited research on the interactions between teacher characteristics and students' psychology in Cambodia. This research explores the links among self-efficacy, classroom instruction, motivational orientation, and approach to learning in determining the quality of mathematics instruction.

Methods: A correlational design was used in this study, in which a structured questionnaire was administered to a stratified sample of 1,196 senior high school students aged 17 to 20 years from 8 schools in Kampong Cham Province, Cambodia. The sample comprised a representative demographic profile, with participants from non-urban areas (Males: 32.0%, Females: 43.8%) and urban areas (Males: 8.9%, Females: 15.2%). SEM analyses were performed on the data collected. The measure showed good internal consistency with Cronbach's $\alpha = 0.720$.

Results: As a result of SEM analyses, it has been shown that teaching self-efficacy functions as an important predictor of effective instructional practices, which contribute to students' learning motivation. Importantly, it has been identified that students' Deep or Surface approaches to learning mediate the relationship between instructional practices and mathematics success. Moreover, there appears to be a discrepancy between urban and non-urban student groups in terms of their perception of resources and motivations for learning.

Conclusion: The study reveals that self-efficacy plays an essential role in creating an environment conducive to learning and motivating students. The results offer solid proof for Cambodian authorities that they should focus on improving teaching through training. Through the improvement of instructional practices and motivational factors, the urban/rural divide can be addressed, enabling the country to strive towards its educational excellence in STEM subjects.

Keywords: Mathematics Education, Teaching Self-Efficacy, Instructional Behaviors, Learning Motivation, Structural Equation Modeling (SEM), Cambodia.

IMPLEMENTING PROFESSIONAL LEARNING COMMUNITIES IN CAMBODIAN SECONDARY SCHOOLS: TEACHERS' PERCEPTIONS AND EMERGING CHALLENGES

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ABSTRACT

The implementation of Professional Learning Communities (PLCs) in Cambodian New Generation Schools (NGS) seeks to foster collaboration and professional growth among teachers. This study investigates secondary school teachers' perceptions of PLCs in Kampong Cham province and identifies challenges hindering their effective implementation. Addressing this issue is crucial for strengthening teacher development and advancing educational reforms in Cambodia in line with international standards. A quantitative research design was employed, using a structured questionnaire administered to 66 secondary school teachers and six school leaders selected through purposive sampling. Data were analyzed using descriptive statistics. Results indicate that teachers and school leaders generally perceived PLC implementation positively, particularly regarding organizational structures and support systems. However, two major challenges emerged: heavy workloads and time constraints, and misconceptions about PLC principles. Additional difficulties included limited collaboration, passive participation, and lack of trust among members. The study highlights that while PLCs are promising for enhancing teacher collaboration and instructional practices, addressing these challenges is essential. Findings provide valuable insights for policymakers, school leaders, and educators aiming to strengthen professional learning cultures in Cambodia.

Keywords: Professional Learning Communities; New Generation Schools; teachers' perceptions; challenges

THE TRANSFORMATION OF EDUCATION THROUGH NEW DIGITAL TECHNOLOGIES

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ABSTRACT

New technologies are profoundly transforming contemporary educational systems, redefining teaching, learning, and assessment methods. The integration of digital tools, such as e-learning platforms, artificial intelligence, virtual and augmented reality, as well as interactive educational applications, contributes to the creation of flexible, personalized, and student-centered learning environments. This paper analyzes the impact of these technologies on the educational process, highlighting their advantages, such as easy access to resources, the adaptation of content to individual needs, and the stimulation of learning motivation. At the same time, it addresses associated challenges, including technology dependence, inequalities in access, and the need to develop digital competencies for both students and teaching staff.

From a methodological perspective, the paper draws on examples of best practices and recent studies that demonstrate the effectiveness of using emerging technologies in enhancing academic performance and developing 21st-century skills, such as critical thinking, collaboration, and creativity. The conclusions emphasize the need for a balanced and responsible integration of new technologies in education, through coherent educational policies and continuous training, so that they become real tools supporting the holistic development of students.

Keywords: educational technologies, e-learning, artificial intelligence, digital learning, digital competencies

**CAMBODIAN EFL TEACHERS' PERCEPTIONS OF EDUCATIONAL
LEADERSHIP IN INFLUENCING TEACHING PERFORMANCE: A CROSS-
SECTIONAL STUDY**

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ABSTRACT

This study aimed to explore Cambodian EFL teachers' perceptions of educational leadership style (LS) in enhancing teaching performance, and the relationship between educational leadership with both overall teaching performance and its individual components, including teaching effectiveness (TE), teacher motivation (TM), content knowledge (CK), professional development (PD), and classroom management (CM). The assessment of LS covered transformational (TL), participative (PL), authoritarian (AL), laissez-faire (LL), instructional (IL), and servant leadership (SL). A quantitative approach was employed to collect data from all 63 EFL teachers in the population using a structured online survey in Banteay Meanchey Province, Cambodia. Based on 63 responses from Cambodian EFL teachers (55.6% = female), the results indicated that respondents held high levels of perceptions of educational leadership. Further analysis demonstrated that educational leadership style showed a statistically significant relationship with teaching performance ($r(61) = .57, p < .01$). In particular, leadership demonstrated a moderate positive correlation with teaching effectiveness ($r = .52, p < .01$), teacher motivation ($r = .62, p < .01$), professional development ($r = .55, p < .01$), and classroom management ($r = .45, p < .01$), and a weaker but still significant correlation with content knowledge ($r = .36, p < .01$). The study concludes with a discussion of limitations and suggestions for future research.

Keywords: Educational leadership; influencing teaching performance; teaching performance; EFL teachers

ARTIFICIAL INTELLIGENCE AS A TRANSFORMATIVE FORCE IN ALIGNING GENERAL AND HIGHER EDUCATION: OPPORTUNITIES AND CHALLENGES

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ABSTRACT

This study explores the transformative role of artificial intelligence (AI) in aligning general and higher education systems to better respond to the evolving demands of the 21st century. As educational institutions face increasing pressure to bridge structural, pedagogical, and competency gaps between pre-university and university levels, AI emerges as a powerful enabler of coherence, personalization, and continuity in learning pathways. The research adopts a qualitative analytical approach, drawing on recent literature, policy reports, and emerging practices in AI-driven education. It examines how AI technologies—such as adaptive learning systems, intelligent tutoring, and data analytics—can facilitate curriculum alignment, enhance student readiness, and support evidence-based decision-making. At the same time, the study critically addresses key challenges, including ethical concerns, data privacy, digital inequality, and institutional resistance to change. The findings suggest that while AI holds significant potential to create a more integrated and responsive educational ecosystem, its effective implementation requires strategic governance, capacity building, and a clear ethical framework. The study concludes with practical recommendations for policymakers, educators, and academic institutions to leverage AI as a catalyst for sustainable educational alignment and innovation.

Keywords: Artificial Intelligence, Educational Alignment, General Education, Higher Education, Adaptive Learning, Educational Innovation, Digital Transformation, Learning Analytics, Educational Policy, 21st Century Skills

FROM COGNITIVE CONFLICT TO JUSTIFICATION: A MODERATED MEDIATION MODEL OF ACADEMIC CHEATING AMONG UNIVERSITY STUDENTS

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ABSTRACT

This study examines the relationship between academic cheating, cognitive dissonance, and justification mechanisms among university students, with a particular focus on the moderating role of monitoring within the academic environment. Drawing on cognitive dissonance theory, the study explores how students psychologically respond to dishonest behavior and how contextual factors shape these responses.

Using survey data from 118 university students, a moderated mediation model was tested. The results indicate that cheating behavior significantly increases justification, while justification, in turn, reduces cognitive dissonance. The direct effect of cheating on cognitive dissonance is not statistically significant, suggesting that the relationship is fully mediated by justification. Furthermore, monitoring significantly moderates this relationship, such that the negative effect of justification on cognitive dissonance is stronger under low monitoring conditions and weaker under high monitoring environments.

These findings suggest that students cope with the psychological discomfort associated with cheating primarily through justification strategies, while increased monitoring constrains this process by maintaining higher levels of cognitive dissonance. The study highlights that academic dishonesty should be understood not only as a behavioral issue but also as a psychological and contextual phenomenon shaped by individual cognitive processes and institutional control. The findings offer important implications for strengthening academic integrity policies and monitoring practices in higher education.

Keywords: academic cheating, cognitive dissonance, justification, monitoring, moderated mediation

COMMUNICATION AS PROFESSIONAL CAPITAL: AN EMPIRICAL GAP ANALYSIS IN BUSINESS ENGLISH

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ABSTRACT

The growing emphasis on graduate employability has prompted critical examination of how effectively Business English programmes prepare students for workplace communication demands. This study provides empirical evidence on the alignment between Business English instruction and professional communication requirements through a convergent mixed-methods needs analysis. Anchored in English for Specific Purposes (ESP) theory and Dudley-Evans and St John's (1998) framework, the research systematically measures discrepancies between perceived communicative importance and learner preparedness. Data were collected from 60 Business English students via a structured questionnaire and from 12 participants through semi-structured interviews. Quantitative analysis included reliability testing (Cronbach's alpha), assumption checks, descriptive statistics, paired-samples comparisons, and the computation of a Gap Index to quantify alignment across communication domains. Qualitative data were thematically analyzed to contextualize and interpret statistical patterns. The results demonstrate statistically significant gaps ($p < .05$) with large effect sizes in oral interaction, intercultural communication, digital communication, and professional writing genres. In contrast, grammatical competence exhibited low discrepancy and limited predictive value. Correlational analysis revealed a strong positive relationship between communicative competence and employability confidence, reinforcing the functional importance of applied communication skills. Qualitative findings corroborate these results, highlighting learners' limited exposure to authentic, technology-mediated, and intercultural communication tasks. The study concludes that the observed misalignment is predominantly pragmatic and performance-based rather than linguistic. Based on these empirical findings, a Dynamic Workplace-Responsive Business English Framework (DWR-BEF) is proposed to support data-informed curriculum redesign through simulation-based learning, industry integration, and iterative needs reassessment. The study advances ESP research by operationalizing needs analysis as a measurable construct and by providing robust empirical evidence for curriculum reform in Business English education.

Keywords: Business English ,Needs Analysis ,English for Specific Purposes (ESP),
Dynamic Workplace-Responsive Business English Framework (DWR-BEF)

MEASURING THE IMPACT OF ŞANLIURFA'S UNIQUE URBAN MORPHOLOGY ON URBAN MOBILITY USING THE SPACE SYNTAX METHOD

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ABSTRACT

It is evident that cultures, beliefs and climates influence the way societies live. Indeed, architectural structures vary according to beliefs, urban forms according to cultures, and mobility networks according to climate and topography. As a result of the Islamic faith, a culture of privacy, and the need for shaded and cool areas driven by climatic conditions, Şanlıurfa has, over time, developed a distinctive urban morphology. In this context, it can be said that the architecture of the city's historic centre, the use of open spaces by its inhabitants, and the thresholds created by climate and topography influence urban mobility. As a gift of Şanlıurfa's distinctive urban morphology, it is evident that urban mobility is dominated by a system that supports and prioritises pedestrian movement. To illustrate this, the city features narrow streets, passageways (abbaras) and stairways that facilitate pedestrian movement. On the other hand, alongside the organic and historic urban form of Şanlıurfa in the city centre, residential areas with a 'modern' grid urban form are also present. In these distinct urban morphologies of Şanlıurfa, analyses of spatial arrangement, connectivity and integration are conducted, aiming to examine them through two different approaches. Firstly, the current state of Şanlıurfa's unique urban morphology has been assessed and compared with a scenario in which passageways (abbaras) and stairways are absent. Secondly, the urban pattern of settlements possessing a "modern" grid structure has been analysed in relation to the historic organic fabric. **Keywords:** Urban morphology, connectivity, integration, urban mobility, space syntax, Şanlıurfa.

ŞANLIURFA ÖZGÜN KENT DOKUSUNUN KENTSEL ULAŞIM ÜZERİNDEKİ ETKİSİNİN MEKAN DİZİMİ YÖNTEMİ İLE ÖLÇÜLMESİ

ÖZET

Kültürlerin, inanışların ve iklimlerin toplumların yaşayışlarını etkilediği görülmektedir. Öyle ki inanışlara göre mimarı yapılar, kültürlerle göre kent formları, iklimlere ve topoğrafyaya göre de ulaşım akslarının değişerek çeşitlenmektedir. İslamiyet inancı, mahremiyet kültürü ve iklim etkisiyle gölge ve serin alanlara duyulan ihtiyacın sonucu olarak Şanlıurfa zaman içerisinde kendine has bir kent morfolojisi kimliği oluşturmuştur. Bu doğrultuda kentin tarihi merkezinin mimarisi, kentlilerin açık alan kullanımları, iklim ve topoğrafyanın sebep olduğu eşiklerin kentsel hareketliliği etkilediği söylenebilir. Şanlıurfa'nın kendine has kent morfolojisinin bir armağanı olarak yaya hareketliliğini destekleyen ve öncelikleyen kentsel hareketliliğin baskın olduğu görülmektedir. Bu duruma örnek verilecek olunursa kentte yaya hareketliliğinin destekçisi dar sokaklar, pasajlar (abbaralar) ve merdivenler bulunmaktadır. Öte yandan şehir merkezinde organik ve tarihi Şanlıurfa kent formunun yanında "modern" grid kent formu ile yerleşim alanlarının da bulunduğu görülmektedir.

Şanlıurfa kentinde farklılaşan bu kent morfolojilerinde mekân dizimi ile bağlantı ve entegrasyon analizleri yapılarak iki farklı yaklaşımla analizleri hedeflenmektedir. Birinci olarak Şanlıurfa özgün kent morfolojisinin mevcut durumu ve pasaj (abbara)ve merdivenlerin olmadığı senaryo ile karşılaştırılması değerlendirilmiştir. İkinci olarak da tarihi organik doku me “modern” grid kent dokusuna sahip yerleşimlerin kentsel hareketlilik değerlerinin karşılaştırılması yapılmıştır. Böylece benzer hareketlilik eğilimlerinde olay kullanıcılar tarafından kullanılan kentin özgün doku unsurlarının ve tarihi ve modern yerleşimlerin bağlantısallık değerlerinin test edilmesi hedeflenmektedir.

Anahtar Kelimeler: Kent morfolojisi, bağlantısallık, entegrasyon, kentsel hareketlilik, mekân dizimi, Şanlıurfa.

GENOTYPE × IRRIGATION INTERACTIONS IN DURUM WHEAT UNDER HEAT STRESS: EFFECTS ON PHYSIOLOGICAL TRAITS AND YIELD

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ABSTRACT

This study aimed to evaluate the performance of durum wheat (*Triticum durum* L.) genotypes grown under different treatments in late sowing conditions in terms of physiological traits and grain yield, and to determine their responses to environmental conditions. The experiment was conducted in 2018 at the Faculty of Agriculture, Dicle University, using a randomized complete block design with four replications under both rainfed and irrigated (supplemental irrigation) conditions. The plant material consisted of five commercial cultivars (Cesare, Fırat-93, Hasanbey, Sena, and Svevo) and three advanced durum wheat lines (Hat-300, TBT16-7, and TBT16-9) developed by the Faculty of Agriculture of Dicle University. The traits evaluated in this study included flag leaf chlorophyll content (SPAD), normalized difference vegetation index (NDVI), canopy temperature (CT), leaf area index (LAI), and grain yield (GY). The results indicated that irrigation had a significant effect on all examined traits. Significant differences among genotypes were observed, particularly for SPAD, NDVI, LAI, and grain yield. Irrigated conditions increased NDVI and leaf area index while reducing canopy temperature; however, SPAD values varied depending on the genotype. The genotype × treatment interaction revealed that some genotypes responded more sensitively to the irrigation conditions. In terms of grain yield, irrigation significantly increased yield in all genotypes; the average yield increased from 177.73 kg da⁻¹ under rainfed conditions to 343.23 kg da⁻¹ under irrigated conditions, representing an increase of approximately 93.1%. Among the genotypes, Hat-300 had the highest average grain yield (302.98 kg da⁻¹). TBT16-9 (184.9%) and Hasanbey (149.6%) showed the greatest yield responses to irrigation, whereas Sena exhibited the lowest increase (45.5%). Overall, irrigation under late-sowing conditions substantially contributed to plant growth, photosynthetic activity, and yield. However, genotypic responses varied considerably, highlighting the critical importance of selecting suitable genotypes for sustainable production and breeding programs.

Keywords: Canopy temperature, Diyarbakır, irrigation, NDVI, leaf area index

SICAK STRESİ ALTINDA MAKARNALIK BUĞDAYDA GENOTİP × SULAMA ETKİLEŞİMİ: FİZYOLOJİK ÖZELLİKLER VE VERİM ÜZERİNE ETKİLERİ

ÖZET

Bu çalışmanın amacı, geç ekim koşullarında farklı uygulamalar altında yetiştirilen makarnalık buğday (*Triticum durum* L.) genotiplerinin fizyolojik özellikler ve tane verimi açısından performanslarını belirlemek ve genotiplerin çevresel koşullara tepkilerini ortaya koymaktır. Araştırma, 2018 yılında Dicle Üniversitesi Ziraat Fakültesinde, tesadüf blokları deneme desenine göre dört tekerrürlü olarak kuru (yağmura dayalı) ve sulu (destek sulamalı) koşullarda yürütülmüştür. Bitki materyali olarak beş ticari çeşit (Cesare, Fırat-93, Hasanbey, Sena, Svevo) ile üç ileri kademe makarnalık buğday hattı (Hat-300, TBT16-7, TBT16-9) kullanılmıştır. Çalışmada bayrak yaprak klorofil içeriği (SPAD), normalize edilmiş vejetasyon indeksi (NDVI), bitki örtüsü sıcaklığı (BÖS), yaprak alan indeksi (YAI) ve tane verimi (TV) incelenmiştir. Elde edilen bulgular, sulama uygulamasının tüm özellikler üzerinde belirleyici etkisi olduğunu göstermiştir. Genotipler arasındaki farklılıklar özellikle SPAD, NDVI, YAI ve tane verimi bakımından anlamlı bulunmuştur. Sulu koşullar NDVI ve yaprak alan indeksini artırırken, bitki örtüsü sıcaklığını düşürmüştür; SPAD değerlerinin ise genotiplere bağlı olarak değişkenlik gösterdiği belirlenmiştir. Genotip × uygulama etkileşimi, bazı genotiplerin sulama koşullarına daha duyarlı tepki verdiğini ortaya koymuştur. Tane verimi açısından, sulama tüm genotiplerde belirgin artış sağlamış; ortalama verim kuru koşullarda 177.73 kg da⁻¹ iken sulu koşullarda 343.23 kg da⁻¹'e yükselmiş ve yaklaşık %93.1 oranında artmıştır. Genotipler arasında Hat-300, 302,98 kg da⁻¹ ile en yüksek ortalama verimi vermiştir. TBT16-9 (%184.9) ve Hasanbey (%149.6) genotipleri sulamaya en yüksek verim artışıyla yanıt verirken, Sena genotipi %45.5 ile en düşük artışı göstermiştir. Geç ekim koşullarında sulama uygulamasının bitki gelişimi, fotosentetik aktivite ve verim üzerine önemli katkılar sağladığı; ancak genotiplerin bu koşullara verdikleri tepkilerin farklılık gösterdiği belirlenmiştir. Bu durum, uygun genotip seçiminin sürdürülebilir üretim ve ıslah çalışmaları açısından kritik önem taşıdığını ortaya koymaktadır.

Anahtar kelimeler: Bitki örtüsü sıcaklığı, Diyarbakır, sulama, NDVI, yaprak alan indeksi

MITIGATING HEAT AND DROUGHT STRESS IN BREAD WHEAT: ROLE OF IRRIGATION AND GENOTYPIC DIFFERENCES UNDER LATE SOWING CONDITIONS

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ABSTRACT

Climate change-induced increases in abiotic stress have made it more difficult to sustain yield and quality in wheat, thereby increasing the importance of identifying genotypes that are well adapted to diverse environmental conditions. This study aimed to evaluate the yield, phenological traits, and grain quality characteristics of selected bread wheat (*Triticum aestivum* L.) genotypes under late sowing conditions in the ecological environment of Diyarbakır under both rainfed and irrigated conditions and to identify high-performing genotypes for use in breeding programs. The experiment was conducted in 2018 at the experimental fields of the Faculty of Agriculture, Dicle University, using a randomized complete block design with four replicates under both rainfed and irrigated conditions. The plant material consisted of five commercial cultivars and four advanced bread wheat lines. The traits evaluated included heading time (days), physiological maturity duration (days), plant height (cm), grain yield (kg da⁻¹), thousand-kernel weight (g), and grain protein content (%). According to the analysis of variance, the genotype and genotype $\times$ treatment interaction effects were statistically significant for all traits ($p < 0.01$). The treatment factor significantly affected heading time, physiological maturity duration, plant height, grain yield, and protein content, but had no significant effect on thousand-kernel weight. Late sowing conditions shorten the growth period, thereby increasing exposure to high temperatures and water stress, which markedly influences genotype performance. Irrigated conditions extended both the heading and physiological maturity periods and increased plant height and grain yield, whereas protein content was higher under rainfed conditions. Significant differences were observed among the genotypes, with the highest grain yield obtained from the Dinç genotype. Early maturing genotypes, particularly the DZ-18-1 line, showed a clear advantage under late-sowing conditions. In conclusion, genotype performance varied considerably under late sowing, and earliness provided a distinct advantage in terms of stress escape. Furthermore, irrigation mitigated yield losses associated with late sowing, and genotypes capable of adapting to these conditions represent valuable genetic resources for wheat breeding programs.

Keywords: Bread wheat, late sowing, Diyarbakır, yield, protein content, irrigation.

EKMEKLİK BUĞDAYDA SICAKLIK VE KURAKLIK STRESİNİN AZALTILMASI: GEÇ EKİM KOŞULLARINDA SULAMA VE GENOTİPİK FARKLILIKLARIN ROLÜ

ÖZET

İklim değişikliğiyle birlikte artan abiyotik stresler, buğdayda verim ve kalite sürekliliğini zorlaştırmakta; bu durum çevreye uyumlu genotiplerin belirlenmesini daha kritik hale getirmektedir. Bu çalışmada, Diyarbakır ekolojik koşullarında geç ekim uygulanarak kuru ve sulu yetiştirme şartlarında bazı ekmeklik buğday (*Triticum aestivum* L.) genotiplerinin verim, fenolojik ve tane kalite özelliklerinin belirlenmesi ve üstün performanslı genotiplerin ıslah programlarına kazandırılması amaçlanmıştır. Araştırma, 2018 yılında Dicle Üniversitesi Ziraat Fakültesi deneme alanlarında, tesadüf blokları deneme desenine göre dört tekerrürlü olarak kurulmuştur. Bitki materyali olarak beş ticari çeşit ile dört ileri kademe ekmeklik buğday hattı kullanılmıştır. Çalışmada başaklanma süresi (gün), fizyolojik olum süresi (gün), bitki boyu (cm), tane verimi (kg da-1), bin tane ağırlığı (g) ve protein oranı (%) incelenmiştir. Varyans analizi sonuçlarına göre tüm özelliklerde genotip ve genotip $\times$ uygulama interaksyonu istatistiksel olarak önemli bulunmuştur ($p<0.01$). Uygulama faktörü; başaklanma süresi, fizyolojik olum süresi, bitki boyu, tane verimi ve protein oranı üzerinde etkili olurken, bin tane ağırlığı üzerinde etkisi önemsiz kalmıştır. Geç ekim koşullarının bitki gelişim süresini kısalttığı, buna bağlı olarak yüksek sıcaklık ve su stresini artırdığı ve genotip performanslarını belirgin şekilde etkilediği belirlenmiştir. Sulu koşulların başaklanma ve fizyolojik olum süresini uzattığı, bitki boyu ve tane verimini artırdığı; buna karşılık protein oranının kuru koşullarda daha yüksek olduğu tespit edilmiştir. Genotipler arasında ise önemli farklılıklar gözlenmiş olup, en yüksek tane verimi Dinç genotipinden elde edilmiştir. Erkenci genotiplerin, özellikle DZ-18-1 hattının, geç ekim koşullarında avantaj sağladığı belirlenmiştir. Sonuç olarak, geç ekim şartlarında genotip performanslarının önemli ölçüde değiştiği ve erkenciliğin stres kaçışı açısından belirgin bir üstünlük sağladığı ortaya konmuştur. Ayrıca, sulama uygulamalarının geç ekim kaynaklı verim kayıplarını azaltmada etkili olduğu ve bu koşullara uyum sağlayabilen genotiplerin ıslah programları için önemli bir genetik kaynak oluşturduğu sonucuna varılmıştır.

Anahtar kelimeler: Ekmeklik buğday, geç ekim, Diyarbakır, verim, protein oranı, sulama.

MUSIC IN ANATOLIAN CIVILIZATIONS

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ABSTRACT

Music is the art of expressing emotions and thoughts through a set of sounds arranged according to certain rules. Emotions, beliefs, cultures, social life, and rituals have been expressed through music for centuries. Music has been used in religious rituals because it reinforces sublime feelings and influences the human soul. In ancient times and primitive societies, attempts were made to communicate with the forces of nature through music for purposes such as healing and magic.

In ancient Anatolian civilizations, music held a significant place in temples, palaces, various celebrations, festivals, feasts, ceremonies, and rituals. Although different peoples and kingdoms lived in Anatolia, the first empire was that of the Hittites, founded around 1800 BC, also known as the people of a thousand gods, and ruling for approximately 500 years. Hittite music was influenced by the musical cultures of the surrounding indigenous peoples of that period. It is known that music and celebratory games held an important place in the culture of the Hattians, the indigenous people of Anatolia before the Hittites; that the musical culture of the Hurrians mainly consisted of liturgical laments and mournful hymns; that many of the songs mentioned in Hittite texts were in Hattic or Hurrian; and that epics and legends were recited according to a specific melody, similar to the Mevlid in Islamic culture. After the Hittites dispersed, the Phrygians arrived. A legend, passed down for centuries, tells of King Midas of Phrygia being cursed by Apollo for choosing the music of Pan, the pan-flute player, instead of Apollo's lyre-playing music, resulting in his ears being transformed into donkey ears. In Ionian civilization, Pythagoras was the Greek philosopher who put forward the first theories about music. He argued that the universe has a perfect harmony and order, that this is based on mathematics, and that harmonic order is reflected in music. The etymological origin of the word "music" comes from the Muses, the goddesses of inspiration in Greek mythology, who ensured the harmony and order of the universe.

This study will examine the musical cultures and instruments of ancient civilizations in Anatolia, accompanied by visuals.

Keywords: Anatolian civilizations, musical instruments, rituals, music.

ANADOLU MEDENİYETLERİNDE MÜZİK

ÖZET

Müzik duygu ve düşünceleri belli kurallar çerçevesinde düzenlenmiş birtakım seslerle anlatma sanatıdır. Duygular, inançlar, kültürler, toplumsal yaşam ve ritüeller yüzyıllarca müzikle ifade edilmiştir. Müzik, ulvi duyguları pekiştirdiği ve insan ruhu üzerine tesir ettiği için dinsel ritüellerde kullanılmıştır. Müzik aracılığı ile doğadaki güçlerle şifa ve büyü gibi amaçlarla iletişim kurulmaya çalışılmıştır.

Eski Anadolu medeniyetlerinde müziğe tapınaklarda, saraylarda, çeşitli kutlamalarda, bayramlarda, şölenlerde, tören ve ritüellerde geniş bir yer verilmiştir. Anadolu'da farklı halklar farklı krallıklar yaşamış olsa da ilk imparatorluk MÖ. 1800 lerde kurulan, bin tanrılı halk olarak da bilinen ve yaklaşık 500 yıl hüküm süren Hititlerdir. Hitit müziği, o dönem çevredeki yerli halkların müzik kültürlerinden etkilenmiştir.

Hititlerden önce Anadolu'nun yerli halkı olan Hattilerin kültüründe müziğin ve eğlenceli oyunların önemli bir yer tuttuğu, diğer bir halk olan Hurrilerin müzik kültüründe daha çok litürjik ağıtların, hüznü ilahilerin yer aldığı, Hitit metinlerinde geçen şarkıların pek çoğunun Hattice veya Hurrice olduğu, destanların ve efsanelerin İslam kültüründeki Mevlüt gibi belirli bir makama göre okunduğu bilinmektedir. Hitit'lerden sonra Frigler'de Kral Midas'ın lir çalan Apollon'un müziği yerine, pan flüt çalan kır tanrısı Pan'ın müziğini seçmesi sebebiyle Apollon tarafından lanetlenerek kulaklarının eşek kulaklarına çevrilmesi, yüzyıllardır söylenegelen bir efsanedir. İyonya medeniyetinde Phytagoras, müzik ile ilgili ilk teorileri ortaya koyan Yunan filozof olmuştur. Evrenin mükemmel bir uyumu ve düzeni olduğunu, bunun bir matematiğe dayandığını ve harmonik düzenin müzikte yansıma bulduğunu öne sürmüştür. Müziğin etimolojik kökeni evrenin ahengi ve düzenini sağlayan, Yunan mitolojisinde "Mousai" denilen ilham perilerinden gelmektedir.

Bu çalışmada Anadolu'daki antik medeniyetlerin müzik kültürleri ve çalgıları görseller eşliğinde incelenecektir.

Anahtar Kelimeler: Anadolu medeniyetleri, çalgı, ritüel, müzik.

THE SOCIOLOGICAL INFLUENCE OF THE TOPOGRAPHICAL STRUCTURE OF SOUTHEASTERN ANATOLIA ON LOCAL MUSIC FORMS

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ABSTRACT

The cultural outputs of humankind are directly shaped by the opportunities and limitations imposed by their physical environment. Ibn Khaldun's seminal observation, "Geography is destiny," suggests that topography determines not only the socio-economic structures of societies but also their aesthetic expressions and musical identities. The Mesopotamian basin in Southeastern Anatolia presents a stark contrast between the rugged northern highlands and the vast southern plains. This study examines the sociological determinants of these vertical and horizontal geographical structures on the technical characteristics, vocal styles, and instrumental preferences of local music through an interdisciplinary lens.

Adopting a qualitative approach, the research utilizes literature review and document analysis techniques. Vocal performances are analyzed through the frameworks of "acoustic ecology" and "spatial sociology." In the mountainous terrains of Hakkari, Şırnak, and Siirt, the necessity of overcoming vast physical distances and utilizing echo phenomena led to the emergence of high-pitched, sharp-toned, and long-breath vocal forms such as Lawje, Heyran, and Payizok as vital communication strategies. This "echo culture," imposed by the mountainous topography, necessitated the use of sound as a primary tool for self-assertion and social signaling. Conversely, the study explores the musical reflections of settled life and agricultural collectivism in the plains of Şanlıurfa, Mardin, and Diyarbakır. It reveals how the communal living fostered by flat terrains nourished rhythmic continuity in halay forms and modal aesthetics rooted in assembly culture. The findings demonstrate that musical forms are social adaptation mechanisms rather than merely abstract artistic products. Ultimately, this paper offers a theoretical synthesis between the sociology of music and geographical sociology, reinterpreting the origins of regional musical diversity through ecological and sociological data.

Keywords: Music Sociology, Mesopotamia, Topography, Acoustic Ecology, Local Music Forms, Southeastern Anatolia

GÜNEYDOĞU ANADOLU'NUN TOPOĞRAFİK YAPISININ YEREL MÜZİK FORMLARI ÜZERİNDEKİ SOSYOLOJİK ETKİSİ

ÖZET

İnsanoğlunun ürettiği kültürel çıktılar, içinde bulunduğu fiziksel çevrenin sunduğu imkânlar ve dayattığı sınırlarla doğrudan ilişkilidir. İbn-i Haldun'un tarihsel süreçte mihenk taşı kabul edilen "Coğrafya kaderdir" tespiti, toplumların sadece iktisadi ve siyasi yapılarını değil; aynı zamanda estetik dışavurumlarını, ses tercihlerini ve müzikal kimliklerini de şekillendirmiştir. Güneydoğu Anadolu ve Mezopotamya havzası, topoğrafik açıdan kuzeydeki sarp dağ silsileleri ile güneydeki uçsuz bucaksız düzlükler arasında keskin bir farklılık sunmaktadır. Bu çalışma, söz konusu dikey ve yatay coğrafi yapıların, yerel müzik formlarının teknik özellikleri, vokal icra biçimleri ve enstrüman tercihleri üzerindeki sosyolojik belirleyiciliğini disiplinlerarası bir bakış açısıyla incelemeyi amaçlamaktadır.

Çalışma, nitel araştırma yöntemlerinden literatür taraması ve doküman analizi tekniğiyle tasarlanmıştır. Araştırma kapsamında, bölgedeki vokal icralar "akustik ekoloji" ve "mekân sosyolojisi" perspektifiyle ele alınmıştır.

Hakkari, Şırnak ve Siirt gibi sarp dağlık bölgelerde, fiziksel mesafeleri aşma ve vadiler arası yankı fenomeninden faydalanma ihtiyacının; yüksek perdeli, keskin tınılı ve uzun nefesli vokal formlarını (Lawje, Heyran, Payizok vb.) nasıl birer iletişim stratejisi olarak doğurduğu analiz edilmektedir. Dağlık topoğrafyanın dayattığı bu "yankı kültürü", sesin bir varlık beyanı ve haberleşme aracı olarak kullanılmasını zorunlu kılmıştır.

Öte yandan çalışmada; Şanlıurfa, Mardin ve Diyarbakır ovalarındaki yerleşik düzenin, tarımsal kolektivizmin ve köklü şehirleşme geleneğinin müzikal yansımaları tartışılmaktadır. Düzlük arazilerin sunduğu toplu yaşam imkânının, ritmik sürekliliği olan halay formlarını ve meclis kültürüne dayalı makamsal estetiği nasıl beslediği karşılaştırmalı olarak ortaya konulmaktadır. Elde edilen bulgular, müzikal formların sadece soyut birer sanat ürünü değil, aynı zamanda insanın topoğrafyaya karşı geliştirdiği bir sosyal adaptasyon mekanizması olduğunu kanıtlamaktadır. Sonuç olarak bu bildiri, müzik sosyolojisi ve coğrafi sosyoloji arasında kuramsal bir sentez sunarak, bölgedeki müzikal çeşitliliğin kökenlerini ekolojik ve sosyolojik verilerle yeniden okumayı hedeflemektedir.

Anahtar Kelimeler: Müzik Sosyolojisi, Mezopotamya, Topoğrafya, Akustik Ekoloji, Yerel Müzik Formları, Güneydoğu Anadolu

EXAMINING FOLK SONGS IN MUSIC TEXTBOOKS IN THE CONTEXT OF CULTURAL MEMORY

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ABSTRACT

Cultural memory is a collective memory that ensures the continuity of cultural elements by transferring experiences from the past to the future. Cultural memory plays an important role in the transfer of music, which has a sociocultural structure, from generation to generation. There are various musical elements in this transfer, and one of the most important of these musical elements is folk songs. In this direction, the aim of the study was determined as examining the folk songs contained in primary school music textbooks in terms of cultural memory. This research is significant in terms of support to music education and providing new perspectives on cultural memory and folk songs for educators and researchers. This study again was designed in an evaluation-based case study design. The data provided for the research was collected through the document review method. Descriptive analysis was applied to the fulfilled data. In the study, it was discovered that no folk songs were included in the textbooks used at the 1st, 2nd and 4th Border levels, while there were a total of 24 folk songs at the other grade levels. It was observed that the folk songs belong to various regions in 6 geographical regions except Rumelia, Kirkuk and the Southeastern Anatolia Region of our country. It was enterer that the folk songs have 10 different makam series, the most of which is Huseyni, 6 different usul structures, primarily 4/4, and 4 to 10 voice ranges.

Keywords: Cultural Memory, Folk Songs, Music Education, Music Lesson, Culture

KÜLTÜREL HAFIZA BAĞLAMINDA MÜZİK DERS KİTAPLARINDAKİ TÜRKÜLERİN İNCELENMESİ

ÖZET

Toplumsal kimliğin oluşması, korunması ve devamlılığının sağlanması hususunda kültürel öğeler önemli bir unsurdur. Kültürel öğelerin yaşatılarak gelecek kuşaklara aktarımında ise kültürel hafızanın mevcudiyeti söz konusudur. Kültürel hafıza, yaşantıları geçmişten geleceğe aktararak kültürel öğelerin devamlılığını sağlayan kolektif bir hafızadır. Kültürel hafızanın en önemli bileşenlerinden biri müziktir. Sosyo-kültürel bir yapıya sahip olan müziğin kuşaktan kuşağa aktarımında çeşitli müziksel unsurlar yer almaktadır. Bu müzikal unsurların en önemlilerinden biri türkülerdir. Bu doğrultuda çalışmanın amacı, 2025-2026 itibarıyla Millî Eğitim Bakanlığı tarafından yayımlanan ilköğretim müzik ders kitaplarındaki türkülerin kültürel hafıza aktarımındaki rolünü ele alarak söz konusu türkülerin sınıf düzeylerine göre dağılımını ve yöre çeşitliliğini ortaya koymaktır. Bu çalışma, müzik eğitime katkı sağlamakla birlikte, eğitimciler ve araştırmacılar için kültürel hafıza ve türkülere yönelik yeni perspektifler oluşturmaktadır. Ayrıca bu çalışma, araştırmacılar için kaynak teşkil ederek müziğin farklı alanlarıyla birlikte kültürel hafızayı ele alan araştırmalara zemin hazırlaması bakımından önemlidir. Değerlendirmeye dayalı durum çalışması deseninde tasarlanan çalışmada veriler, doküman incelemesi metoduyla toplanmıştır. Toplanan veriler betimsel analiz yöntemi ile çözümlenmiştir. Araştırmada; 1., 2. ve 4. sınıf düzeylerinde kullanılan ders kitaplarında hiçbir türküye yer verilmediği görülmüştür. Bununla birlikte Diğer sınıf düzeylerinde toplam 24 türkünün olduğu saptanmıştır. Türkülerin Rumeli, Kerkük, Azerbaycan ve ülkemizin 7 coğrafi bölgesinde çeşitli yörelere ait olduğu sonucuna varılmıştır. Araştırmada ulaşılan sonuçlar doğrultusunda birtakım önerilere yer verilmiştir.

Anahtar kelimeler: Kültürel hafıza, türküler, müzik eğitimi, müzik dersi, kültür

READING THE MEM U ZÎN MASNAVI AS BILDUNGSROMAN

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ABSTRACT

This paper aims to reinterpret the classical Eastern literary work Mem û Zîn within the framework of the Bildungsroman, a significant narrative form in modern literary theory that focuses on individual development and self-formation. This study will examine the work written by Ahmed-i Hânî and translated by Ahmed Faik, focusing not only on the previously examined assessments of love and Sufism, but also on the individual's inner development and educational process.

The Bildungsroman genre is characterized by the processes of self-awareness, experiential learning, and identity formation. In this context, Mem's emotional journey through his love for Zin becomes a central mechanism for his personal development. Initially portrayed as an emotionally inexperienced and naïve character, Mem undergoes a profound internal transformation following his encounter with Zin. Love functions not merely as a romantic experience but as an educational and transformative force that shapes his consciousness. Throughout the narrative, obstacles, separation, and suffering deepen Mem's introspection and contribute to his spiritual and emotional maturation. However, unlike classical Bildungsroman protagonists who achieve social integration, Mem's development does not culminate in societal adaptation. Instead, his journey ends in a tragic conclusion, which gains a metaphysical meaning within the Sufi interpretive framework as a form of "union" (vuslat).

Unlike other bildungsroman examples, in Mem u Zîn, Mem's development does not end with social integration. The hero's journey concludes with separation, which, in a Sufi context, takes on the meaning of a "reunion." In this respect, the work associates the process of individual formation with metaphysical completion rather than worldly success. The aim of this study is not to prove that this mesnevi is a bildungsroman, but to show what can be found in a mesnevi within the framework of a bildungsroman understanding. Ultimately, it aims to examine the complementarity of the love experienced by the hero in his education process within the framework of the mesnevi's traditional narrative.

Keywords: Mem u Zîn, bildungroman, romance

MEM U ZÎN MESNEVİSİNİ BİLDUNGSROMAN OLARAK OKUMAK

ÖZET

Bu bildiri, Mem û Zîn mesnevisini modern anlatı kuramlarının türlerinden biri olan Bildungsroman bağlamında yeniden okumayı amaçlamaktadır. Ahmed-i Hânî tarafından kaleme alınan ve Ahmed Faik'in tercüme ettiği eserin şimdiye kadar incelenen aşk ve tasavvuf değerlendirmeleri dışında bireyin içsel gelişim ve eğitim sürecine odaklanan yönüne bakılacaktır. Bu eğitim için kahramanın ruhsal sürecinde aşk macerasının katkısı incelenecektir. Mesnevi kapsamında, Mem karakterinin yaşadığı dönüşümü, bireysel oluş ve olgunlaşma süreci çerçevesinde ele alınacaktır.

Bildungsroman türünün temel özellikleri arasında yer alan bireysel farkındalık, deneyim yoluyla olgunlaşma ve kimlik inşası, Mem'in Zîn'e duyduğu aşk aracılığıyla görünür hâle gelir. Başlangıçta aklî ve hissî bilince ulaşmamış bir karakter olarak çizilen Mem, aşkın doğurduğu sıkıntılar, ayrılık ve engeller karşısında dönüşüm geçirir.

Mesnevinin başkahramanı olan Mem, olaylar geliştikçe değişip olgunlaşmaktadır. Bu süreçte aşk, yalnızca bireysel bir duygu olmaktan çıkarak eğitici ve dönüştürücü bir işlev kazanır. Bildungsroman örneklerinden farklı olarak Mem u Zîn'de; Mem'in gelişimi topluma uyum ile sonuçlanmaz. Kahramanın yolculuğu ayrılık ile noktalanır, bu son tasavvufî bağlamda bir "vuslat" olarak anlam kazanır. Bu yönüyle eser, bireysel oluş sürecini dünyevî başarı yerine metafizik bir tamamlanma ile ilişkilendirir. Yapılacak çalışma ile amaçlanan bu mesnevinin bir bildungsroman olduğunu ispat etmek değil fakat bildungsroman anlayışıyla mesnevide nelerin bulunabileceğini göstermektir. Sonuç olarak ise amaç, geleneksel anlatısı ile mesnevi kahramanın eğitim sürecinde yaşadığı aşkın, onun kişiliğindeki tamamlayıcılığını incelemektir.

Anahtar Kelimeler: Mem u Zîn, bildungsroman, mesnevi.

AN EXAMINATION OF PRESCHOOL TEACHERS' VIEWS ON SCIENCE ACTIVITIES THEY IMPLEMENT

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ABSTRACT

Science education, in its broadest sense, can be defined as the processes of thinking, observing, experiencing, interpreting phenomena and events through action, and expressing these understandings. In the preschool period, science education is crucial for enabling children to follow basic scientific processes, generate hypotheses, collect data, make observations, engage in experiential learning within daily life and natural environments, and draw inferences and predictions based on data. This process supports children in developing fundamental understandings of the world and acquiring essential knowledge and skills. This study aims to identify, analyze, and present the problems encountered by teachers in the implementation of science activities in preschool education institutions, as well as to examine the materials they use and derive conclusions based on these analyses. The research is designed as a qualitative study aimed at examining the science activities implemented by preschool teachers in their classrooms. Within the scope of the study, the adequacy of the science activities conducted by preschool teachers in their classrooms was determined through an interview form developed by the researcher. In line with the purpose of the study, the following sub-problems were identified: To what extent do preschool teachers implement science activities? What methods and techniques do preschool teachers use in science activities? What types of activities do preschool teachers prefer when implementing science activities? How frequently do preschool teachers include science activities in their programs? What materials are available in the science centers within preschool classrooms? What problems do preschool teachers encounter while implementing science activities? What types of environments do preschool teachers prefer when conducting science activities? What types of group activities do preschool teachers prefer when implementing science activities? The study group consists of approximately 15 preschool teachers working in public and private schools affiliated with the Ministry of National Education in the province of Eskişehir. The researcher collected the data by personally delivering the interview forms to the teachers. Based on the classification and analysis of the collected data, the findings indicate that all teachers implement science activities; however, these activities are generally conducted once or a few times per week and are not utilized effectively.

Keywords: Preschool Education, Science Education, Preschool Teacher, Science Activities

OKUL ÖNCESİ EĞİTİM ÖĞRETMENLERİNİN UYGULADIKLARI FEN ETKİNLİKLERİ HAKKINDAKİ GÖRÜŞLERİNİN İNCELENMESİ

ÖZET

Fen eğitimi genel anlamıyla, “düşünme, gözlem yapma ve bunları deneyimleyip ve hareket olayları anlamlandırıp yansıtırma, dışı vurum olarak tanımlanabilir. Okul öncesinde fen eğitimi, çocukların temel bilimsel süreçleri takip ederek, hipotezler üretmesi, veri toplanması, gözlem yapmasını, doğada, açık hava da günlük yaşantıda hayatın içinde olan deneyimlenebilen ve verilerden hareketle tahminlerde çıkarımlarda bulunması, çocukların dünya ile ilişkili temel kavrayışları anlamlandırmalarını bilgi ve becerileri öğrenmeleri açısından önemlidir. Okul öncesi eğitim kurumlarında uygulanan fen etkinlikleriyle ilgili öğretmenlerin yaptığı uygulamalarda karşılaştığı, problemleri kullandıkları materyallerin, analizi yapılarak konuyla ilgili sonuçların saptanması analiz edilip paylaşılması amaçlanmıştır. Araştırma Okul öncesi eğitimi öğretmenlerinin sınıflarında uyguladıkları fen etkinliklerinin incelenmesinin belirlenmesini amaçlayan nitel yöntemle gerçekleştirilecektir. Araştırma kapsamında Okul öncesi eğitimi öğretmenlerinin sınıflarında uyguladıkları fen etkinliklerinin yeterliliklerinin incelenmesi araştırmacı tarafından hazırlanan bir görüşme formu yoluyla belirlenmiştir. Araştırmanın amacı doğrultusunda belirlenen Alt Problemler şunlardır: 1- Okul öncesi öğretmenleri fen etkinliklerini ne düzeyde uyguluyor? 2-Okul öncesi öğretmenleri Fen etkinliklerinde kullandıkları yöntem ve teknikler nelerdir? 3-Okul öncesi öğretmenlerin Fen etkinliklerini uygularken tercih ettikleri etkinlik türleri nelerdir? 4- Okul öncesi öğretmenleri Fen etkinliklerini program içerisinde ne sıklıkla kullanıyor? 5-Okul öncesi öğretmenlerin Sınıfta bulunan fen merkezlerindeki materyaller nelerdir? 6- Okul öncesi öğretmenlerin fen etkinliklerini uygularken karşılaştığı problemler nelerdir? 7- Okul öncesi öğretmenlerin Fen etkinliklerini uygularken tercih ettikleri mekân türleri nelerdir? 8-Okul öncesi öğretmenlerin Fen etkinliklerini uygularken tercih ettikleri grup etkinlik türleri nelerdir? Çalışma grubunu Eskişehir ilinde Milli Eğitim Bakanlığı'na bağlı resmi veya özel okullarda görev yapan yaklaşık 15 okul öncesi öğretmeni araştırmanın çalışma grubunu oluşturmuştur. Araştırmacı hazırlamış olduğu görüşme formunu öğretmenlere elden ulaştırarak verileri toplamıştır. Toplanan verilerin sınıflandırılması ve analizi sonucunda elde edilen bulgular doğrultusunda, öğretmenlerin tamamının fen etkinlikleri uyguladığı ancak bu uygulamaların çoğunlukla haftada bir veya birkaç kez gerçekleştirildiği ve etkili bir şekilde kullanmadıkları belirlenmiştir

Anahtar Kelimeler: Okul öncesi eğitim, Fen eğitimi, Okul öncesi öğretmeni, Fen etkinlikleri

THE ROLE OF EXERCISE ON MOTOR SKILLS AND SOCIAL BEHAVIORS IN CHILDREN WITH AUTISM

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ABSTRACT

The aim of this study is to examine the effects of physical activity on motor skills and social behaviors in children with autism spectrum disorder (ASD). The study was conducted using the document analysis method and includes systematic reviews and meta-analyses published between 2022 and 2026. Data were collected from PubMed and Google Scholar databases, and a total of 10 studies were analyzed based on the predetermined inclusion criteria. The findings indicate that physical activity provides significant improvements in motor skills in children with ASD. In particular, balance, coordination, and overall motor performance were found to improve through regular exercise programs. In addition, physical activity was shown to have positive effects on psychosocial development, leading to improvements in social interaction, communication skills, and behavioral regulation. Furthermore, exercise interventions were found to offer additional benefits such as reducing anxiety levels and enhancing executive functions. Different types of exercise (including aerobic exercise, yoga, horseback riding, team sports, and combined training programs) were found to contribute to both motor and psychosocial development, although the level of effectiveness may vary depending on the type of exercise. Notably, multicomponent exercise programs appear to provide more comprehensive developmental benefits. In conclusion, physical activity is an effective intervention that supports the multidimensional development of children with ASD, and there is a need for further experimental research in this field.

Keywords: Autism spectrum disorder, exercise, motor skills, social behavior.

OTİZMLİ ÇOCUKLARDA EGZERSİZİN MOTOR BECERİLER VE SOSYAL DAVRANIŞLAR ÜZERİNDEKİ ROLÜ

ÖZET

Bu çalışmanın amacı, otizm spektrum bozukluğuna (OSB) sahip çocuklarda fiziksel aktivitenin motor beceriler ve sosyal davranışlar üzerindeki etkilerini incelemektir. Araştırma, belgesel tarama yöntemi kullanılarak gerçekleştirilmiş olup 2022–2026 yılları arasında yayımlanmış sistematik derleme ve meta-analiz çalışmalarını kapsamaktadır. Veri toplama sürecinde PubMed ve Google Scholar veri tabanları kullanılmış ve belirlenen kriterler doğrultusunda toplam 10 çalışma analiz edilmiştir. Elde edilen bulgular, fiziksel aktivitenin OSB'li çocuklarda motor beceriler üzerinde anlamlı gelişmeler sağladığını göstermektedir. Özellikle denge, koordinasyon ve genel motor performansın düzenli egzersiz programları ile iyileştiği belirlenmiştir. Bununla birlikte fiziksel aktivitenin psikososyal gelişim üzerinde de olumlu etkiler oluşturduğu; sosyal etkileşim, iletişim becerileri ve davranışsal düzenleme alanlarında iyileşmeler sağladığı tespit edilmiştir. Ayrıca egzersiz müdahalelerinin anksiyete düzeylerini azaltma ve yürütücü işlevleri geliştirme gibi ek faydalar sunduğu görülmüştür.

Farklı egzersiz türlerinin (aerobik egzersizler, yoga, binicilik, takım sporları ve kombine antrenmanlar) hem motor hem de psikososyal gelişime katkı sağladığı, ancak egzersiz türüne bağlı olarak etki düzeylerinin değişebileceği belirlenmiştir. Özellikle çok bileşenli egzersiz programlarının daha kapsamlı gelişim sağladığı dikkat çekmektedir. Sonuç olarak, fiziksel aktivitenin OSB’li çocukların çok boyutlu gelişimini destekleyen etkili bir müdahale yöntemi olduğu ve bu alanda daha fazla deneysel çalışmaya ihtiyaç duyulduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler: Otizm spektrum bozukluğu, egzersiz, motor beceri, sosyal davranış.

COMPARISON OF HEDONIC EATING BEHAVIORS BETWEEN SEDENTARY INDIVIDUALS AND ATHLETES FROM DIFFERENT SPORTS DISCIPLINES

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ABSTRACT

The aim of this study is to comparatively examine hedonic eating behaviors in sedentary individuals and athletes from different sports disciplines. The study was designed as a descriptive literature review. The literature search was conducted using PubMed, Web of Science, Scopus, Google Scholar, and the National Thesis Center databases. The keywords “hedonik açlık” and “hedonic hunger” were used during the search process. A total of 42 studies were identified, and after the screening process, 14 studies were included in the review. The findings indicate that hedonic eating behavior is higher in sedentary individuals. Among athletes, hedonic eating behavior varies according to the type of sport. It was determined that hedonic eating levels are low in endurance athletes, moderate in strength and team sports athletes, and higher and more fluctuating in weight-category athletes. Additionally, hedonic eating behavior was found to be positively associated with body mass index, emotional eating, dietary restriction, and body image, and negatively associated with physical activity. In conclusion, while physical activity appears to reduce hedonic eating behavior, sport-specific characteristics may modify this relationship. The findings suggest that hedonic eating is a multidimensional construct that should be considered in terms of athlete health and performance.

Keywords: Hedonic eating, Athletes, Sedentary individuals, Eating behavior

SEDANter BİREYLER İLE FARKLI SPOR BRANŞLARINDAKİ SPORCULARIN HEDONİK YEME DAVRANIŞLARININ KARŞILAŞTIRILMASI

ÖZET

Bu çalışmanın amacı sedanter bireyler ile farklı spor branşlarında yer alan sporcuların hedonik yeme davranışlarının karşılaştırmalı olarak incelenmesidir. Çalışma betimsel nitelikte bir literatür derlemesi olarak tasarlanmıştır. Literatür taraması PubMed, Web of Science, Scopus, Google Scholar ve Ulusal Tez Merkezi veri tabanları kullanılarak gerçekleştirilmiştir. Tarama sürecinde “hedonik açlık” ve “hedonic hunger” anahtar kelimeleri kullanılmıştır. Belirlenen kriterler doğrultusunda toplam 42 çalışmaya ulaşılmış, yapılan eleme süreci sonucunda 14 çalışma derlemeye dahil edilmiştir. Elde edilen bulgulara göre sedanter bireylerde hedonik yeme davranışının daha yüksek olduğu belirlenmiştir. Sporcular incelendiğinde ise hedonik yeme davranışının spor branşına göre farklılık gösterdiği görülmektedir. Dayanıklılık sporcularında hedonik yeme düzeyinin düşük, güç ve takım sporcularında orta düzeyde olduğu saptanırken, siklet sporcularında hedonik yeme davranışının daha yüksek ve dalgalı olduğu belirlenmiştir.

Ayrıca hedonik yeme davranışının beden kütle indeksi, duygusal yeme, diyet kısıtlaması ve beden algısı ile pozitif; fiziksel aktivite ile negatif yönde ilişkili olduğu görülmüştür. Sonuç olarak fiziksel aktivitenin hedonik yeme davranışı üzerinde azaltıcı bir etkisi olduğu ancak spor branşına özgü özelliklerin bu ilişkiyi değiştirebildiği belirlenmiştir. Elde edilen sonuçlar hedonik yeme davranışının çok boyutlu bir yapıya sahip olduğunu ve sporcu sağlığı ile performans açısından dikkate alınması gerektiğini göstermektedir.

Anahtar Kelimeler: Hedonik yeme, Sporcular, Sedanter bireyler, Yeme davranışı

DIGITAL TRANSFORMATION IN EDUCATION: A COMPARISON OF SINGAPORE, JAPAN, AND THE TRNC

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ABSTRACT

This study comparatively examines digital transformation in education through the cases of Singapore, Japan, and the Turkish Republic of Northern Cyprus (TRNC). Digital transformation is addressed not merely as the transfer of technological tools into educational settings, but as a process involving the restructuring of education policies, the transformation of teaching in line with digital pedagogies, the strengthening of institutional governance in a data-driven manner, the development of teachers' and academics' digital competencies, and the redesign of the learning ecosystem from a holistic perspective. The study evaluates the digital transformation policies and practices of these three countries at both the pre-university and higher education levels. A qualitative research approach was adopted, and document analysis and comparative analysis were employed. Official policy documents, strategy reports, digital education practices, institutional transformation plans, and literature related to the selected countries were examined. The comparison was based on policy and vision, technological infrastructure, access opportunities, digital competencies, technology integration into teaching, assessment and evaluation practices, institutional governance, quality, and sustainability. PISA results at the pre-university level were considered as a contextual indicator for discussing the relationship between the quality of education systems, learning outcomes, and digital transformation capacity. The findings indicate that Singapore carries out digital transformation through strong planning, central coordination, system integrity, national digital learning platforms, a data-driven personalized learning approach, and a STEM-oriented applied learning approach. Japan has shown progress, particularly after the GIGA School Program, in infrastructure, device access, digital learning environments, teacher training, and STEM- and artificial intelligence-oriented practices. However, resistance arising from traditional teaching habits and adaptation problems encountered during implementation remain significant. In the TRNC, although important steps have been taken toward digitalization, the need to strengthen institutional coordination, support human resources continuously, expand digital content production, and ensure long-term policy continuity remains prominent.

In conclusion, the study demonstrates that digital transformation in education is not merely a technology-based process of renewal; rather, it is a structural transformation process that must be addressed together with leadership, planning, human resources, pedagogical alignment, quality, and sustainability.

Keywords: Digital Transformation in Education; Comparative Education; Education Policies; Higher Education; PISA

EĞİTİMDE DİJİTAL DÖNÜŞÜM: SİNGAPUR, JAPONYA VE KKTC KARŞILAŞTIRMASI

ÖZET

Bu çalışma, eğitimde dijital dönüşüm süreçlerini Singapur, Japonya ve Kuzey Kıbrıs Türk Cumhuriyeti (KKTC) örnekleri üzerinden karşılaştırmalı olarak incelemeyi amaçlamaktadır. Araştırmada dijital dönüşüm, yalnızca teknolojik araçların eğitim ortamlarına aktarılması olarak değil; eğitim politikalarının yeniden yapılandırılması, öğretim süreçlerinin dijital pedagojiler doğrultusunda dönüştürülmesi, kurumsal yönetişimin veri temelli biçimde güçlendirilmesi, öğretmen ve akademisyenlerin dijital yeterliklerinin geliştirilmesi ve öğrenme ekosisteminin bütüncül bir anlayışla yeniden tasarlanması süreci olarak ele alınmaktadır. Bu doğrultuda çalışma, söz konusu üç ülkenin dijital dönüşüm politikalarını ve uygulamalarını hem üniversite öncesi eğitim hem de yükseköğretim düzeyinde değerlendirmektedir. Araştırmada nitel araştırma yaklaşımı benimsenmiş; doküman incelemesi ve karşılaştırmalı analiz yöntemi kullanılmıştır. Bu kapsamda ilgili ülkelere ait resmî politika belgeleri, strateji raporları, dijital eğitim uygulamaları, kurumsal dönüşüm planları ve güncel alanyazın incelenmiştir. Karşılaştırma sürecinde politika ve vizyon, teknolojik altyapı, erişim olanakları, dijital yeterlikler, öğretim süreçlerine teknoloji entegrasyonu, ölçme-değerlendirme uygulamaları, kurumsal yönetişim, kalite ve sürdürülebilirlik temel ölçütler olarak esas alınmıştır. Ayrıca üniversite öncesi eğitim düzeyinde PISA sonuçları, eğitim sistemlerinin niteliği, öğrenme çıktıları ve dijital dönüşüm kapasitesi arasındaki ilişkinin tartışılmasında bağlamsal bir gösterge olarak değerlendirilmiştir. Bulgular, Singapur'un dijital dönüşümü güçlü planlama, merkezi koordinasyon, sistem bütünlüğü, ulusal dijital öğrenme platformları, veri temelli kişiselleştirilmiş öğrenme anlayışı ve STEM odaklı uygulamalı öğrenme yaklaşımı çerçevesinde yürüttüğünü göstermektedir. Japonya'nın ise özellikle GIGA School Programı sonrasında altyapı, cihaz erişimi, dijital öğrenme ortamları, öğretmen eğitimi, STEM ve yapay zekâ odaklı uygulamalar bakımından dikkat çekici bir gelişim gösterdiği; buna karşın geleneksel öğretim alışkanlıklarından kaynaklanan direncin ve uygulama süreçlerinde ortaya çıkan uyum sorunlarının önemini koruduğu görülmektedir. KKTC'de ise dijitalleşme yönünde önemli adımlar atılmış olmakla birlikte, kurumsal eşgüdümün güçlendirilmesi, insan kaynağının sürekli desteklenmesi, dijital içerik üretiminin yaygınlaştırılması ve uzun vadeli politika sürekliliğinin sağlanması gereksinimi öne çıkmaktadır. Sonuç olarak çalışma, eğitimde dijital dönüşümün yalnızca teknoloji temelli bir yenilenme alanı olmadığını; liderlik, planlama, insan kaynağı, pedagojik uyum, kalite ve sürdürülebilirlik boyutlarıyla birlikte ele alınması gereken yapısal bir dönüşüm süreci olduğunu ortaya koymaktadır.

Anahtar Kelimeler: Eğitimde Dijital Dönüşüm; Karşılaştırmalı Eğitim; Eğitim Politikaları; Yükseköğretim; PISA

EFFECTS OF CLIMATE CHANGE ON WATER RESOURCES

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ABSTRACT

Climate change is among the most critical environmental challenges threatening global water resources. Accelerated greenhouse gas accumulation is intensifying the water cycle by increasing evaporation rates, reinforcing a pattern that makes wet regions wetter and dry regions drier. According to the IPCC Sixth Assessment Report (AR6, 2021), exceeding a global average temperature rise of 1.5°C above pre-industrial levels is projected to trigger critical thresholds and potentially irreversible changes in water systems, with climate projections pointing to increasing probabilities of hydrological extremes far beyond the bounds of historical records. Current evidence on water availability is deeply alarming. When surface water quality is accounted for alongside quantity, 55% of the global population already faces clean water scarcity for at least one month per year; this figure is projected to rise to 56–66% by the end of the century, with the sharpest increases expected in sub-Saharan Africa (Jones et al., 2024). At the urban scale, the population exposed to water scarcity is projected to grow from 933 million in 2016 to 1.69–2.37 billion by 2050, with the number of large cities facing scarcity rising from 193 to as many as 284 (He et al., 2021). At the river scale, globally observed trends in mean and extreme discharge have been directly attributed to climate change: while high flows are increasing in wet regions, discharge losses are deepening in dry regions (Gudmundsson et al., 2021). Glacier loss and groundwater depletion are structural factors further intensifying the water crisis. A comprehensive global assessment covering 2000–2023 found that the world's glaciers lost an average of 273 ± 16 gigatonnes of mass per year, with the loss rate increasing by 36% in the second half of the study period (The GlaMBIE Team et al., 2025). Glacier retreat shifts spring peak flows earlier in high-altitude catchments, setting the stage for critical discharge deficits in summer. Groundwater is equally concerning: a global analysis of 170,000 monitoring wells and 1,693 aquifer systems found that decline rates have accelerated significantly in 30% of the world's regional aquifers over the past four decades, with annual declines exceeding 0.5 metres becoming widespread in dry, agriculturally intensive regions (Jasechko et al., 2024). Satellite-based evidence confirms that flood and drought events are growing in frequency, duration, and spatial extent globally (Rohde, 2023). The impacts of climate change on water quality are equally multifaceted. A synthesis of 965 case studies found that river water quality deteriorates under droughts and heatwaves in 68% of cases, under rainstorms and floods in 51%, and under long-term climate change in 56% (Van Vliet et al., 2023). Rising water temperatures reduce dissolved oxygen concentrations, accelerating algal blooms and eutrophication. Intense precipitation events transport fertilizer, pesticide, and heavy metal loads from agricultural lands into surface waters, complicating drinking water treatment. Saltwater intrusion into coastal aquifers and elevated pollutant concentrations during low-flow periods constitute additional threats.

From a socioeconomic perspective, water scarcity and quality degradation directly threaten food security, public health, energy production, and industrial activity (IPCC, 2022). Declining agricultural productivity and restricted access to safe drinking water trigger rural migration and deepen competition over water resources. Demand-side management policies, integrated watershed management, rainwater harvesting, wastewater reclamation, and climate projection-based early warning systems therefore emerge as essential adaptation strategies for the sustainable protection of water security.

Keywords: Climate change, water resources, water scarcity, hydrology, sustainable water management

İKLİM DEĞİŞİKLİĞİNİN SU KAYNAKLARI ÜZERİNE ETKİLERİ

ÖZET

İklim değişikliği, küresel su kaynaklarını tehdit eden en kritik çevresel sorunların başında gelmektedir. Sera gazı birikiminin hızlandığı küresel ısınma, su döngüsünü yoğunlaştırmakta; buharlaşma oranlarını artırarak ıslak bölgeleri daha ıslak, kurak bölgeleri daha kurak hale getiren bir örüntüyü pekiştirmektedir. IPCC Altıncı Değerlendirme Raporu'na (AR6, 2021), göre 1,5°C eşiğinin aşılması durumunda su sistemlerinde geri dönüşü güç değişimlerin başlayacağı öngörülmekte; iklim projeksiyonları tarihsel gözlem kayıtlarının çok ötesinde hidrolojik aşırılıklar için artan olasılıklara işaret etmektedir.

Su mevcudiyeti bakımından güncel bulgular son derece kaygı vericidir. Yüzey suyu kalitesi de hesaba katıldığında dünya nüfusunun %55'i halihazırda yılda en az bir ay temiz su kıtlığıyla karşı karşıya kalmaktadır; bu oran yüzyıl sonuna dek %56–66'ya yükselebilecek ve artışın en sert hissedileceği bölge Sahra Altı Afrika olacaktır (Jones et al., 2024). Kent ölçeğinde ise 2016'da 933 milyon olan su kıtlığına maruz kentsel nüfusun 2050'ye kadar 1,69–2,37 milyara ulaşacağı, bu kıtlıkla karşılaşan büyük şehir sayısının 193'ten 284'e çıkacağı öngörülmektedir (He et al., 2021). Nehir akışlarına bakıldığında ise iklim değişikliğinin ortalama ve aşırı debi eğilimleri üzerindeki etkisi küresel ölçekte gözlemsel verilerle kanıtlanmış durumdadır; ıslak bölgelerde yüksek debiler artarken kurak bölgelerde debi kayıpları derinleşmektedir (Gudmundsson et al., 2021). Buzul kayıpları ve yer altı suyu tükenmesi, su kıtlığını daha da derinleştiren yapısal etkenlerdir. 2000–2023 dönemini kapsayan küresel bir değerlendirmeye göre dünya buzulları yılda ortalama 273 ± 16 Gt kütle kaybetmiş; bu kayıp hızı dönemin ikinci yarısında birinci yarıya kıyasla %36 artmıştır (The GLAMBIIE Team et al., 2025). Söz konusu gerileme yüksek rakımlı havzalarda ilkbahar pik akışlarını öne çekmekte, yaz aylarında kritik debi düşüşlerine zemin hazırlamaktadır. Yer altı sularında da tablo kaygı vericidir: 170.000 izleme kuyusu ve 1.693 akifer sistemini kapsayan küresel bir çalışma, dünya akiferlerinin %30'unda son 40 yılda düşüş hızının belirgin biçimde arttığını; kuru ve yoğun tarım yapılan bölgelerde yılda 0,5 m'yi aşan düşüşlerin yaygınlaştığını ortaya koymuştur (Jasechko et al., 2024). Uydu verilerine dayanan değerlendirmeler de küresel ölçekte taşkın ve kuraklık olaylarının sıklık, süre ve kapsamda büyüdüğünü teyit etmektedir (Rohde, 2023). Su kalitesi boyutunda iklim değişikliğinin etkileri çok yönlüdür. 965 olgu analizini kapsayan kapsamlı bir derleme çalışmasına göre nehir suyu kalitesi; kuraklık ve sıcak hava dalgaları altında vakaların %68'inde, aşırı yağış ve taşkın koşullarında %51'inde, uzun vadeli iklim değişikliği altında ise %56'sında bozulmaktadır (Van Vliet et al., 2023). Artan su sıcaklıkları çözünmüş oksijen içeriğini düşürmekte, alg patlamalarını ve ötroflaşmayı hızlandırmaktadır. Şiddetli yağışlar tarım alanlarından taşınan gübre, pestisit ve ağır metal yükünü yüzey sularına taşımakta; içme suyu arıtma süreçlerini güçleştirmektedir. Kıyı akiferlerindeki tuzlu su girişi ve düşük akış dönemlerinde kirletici konsantrasyonlarının artması da su kalitesini tehdit eden ek unsurlardır. Sosyoekonomik boyutta su kıtlığı ve kalite bozulması; gıda güvenliğini, halk sağlığını, enerji üretimini ve endüstriyel faaliyetleri doğrudan tehdit etmektedir (IPCC, 2022). Tarımsal verimlilik kayıpları ve güvenli içme suyuna erişimin kısıtlanması kırsal göç hareketlerini tetiklemekte, su kaynakları üzerindeki rekabeti derinleştirmektedir. Bu çerçevede talep yönetimi politikaları, entegre havza yönetimi, yağmur suyu hasadı, atık su geri kazanımı ve iklim projeksiyonlarına dayalı erken uyarı sistemleri; su güvenliğinin sürdürülebilir biçimde korunması için zorunlu uyum stratejileri olarak öne çıkmaktadır.

Anahtar Kelimeler: İklim değişikliği, su kaynakları, su kıtlığı, hidroloji, sürdürülebilir su yönetimi

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING APPLICATIONS IN ENVIRONMENTAL ENGINEERING

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ABSTRACT

The application of artificial intelligence (AI) and machine learning (ML) technologies in environmental engineering has rapidly evolved into a fast-growing interdisciplinary research domain. Under the compounding pressures of population growth, urbanization, and climate change, AI-based approaches are playing an increasingly decisive role in addressing environmental problems where traditional mechanistic and statistical methods fall short (Reichstein et al., 2019; Shen, 2018). This study systematically reviews current AI and ML applications across the four core sub-disciplines of environmental engineering — water, air, soil, and solid waste management through a comprehensive literature survey, and presents a comparative framework covering algorithm selection, model performance, and application scale.

Water management is one of the most intensively studied domains for AI applications in environmental engineering. A comprehensive survey of the literature from 2000 to 2020 demonstrated that artificial neural networks (ANN), support vector machines (SVM), adaptive neuro-fuzzy inference systems (ANFIS), random forests (RF), and decision trees (DT) have been effectively applied to predict river water quality parameters (Tiyasha et al., 2020). Furthermore, a systematic review evaluating 45 ML algorithms across different water environments including surface water, groundwater, drinking water, and wastewater — found that algorithm performance varies considerably depending on the target parameter and data structure (Zhu et al., 2022). In the simulation of groundwater dynamics, ML models including multi-layer perceptron (MLP), radial basis function network (RBF), and SVM have been shown to achieve markedly higher accuracy than traditional numerical models (Chen et al., 2020). Deep learning architectures enabling simultaneous capture of spatial and temporal dependencies, along with their integration with physicochemical process knowledge, represent active frontiers in water resources modelling (Shen, 2018). In air quality monitoring, ANN-based models are widely applied to forecast concentrations of pollutants such as PM_{2.5}, PM₁₀, NO_x, and O₃. A comprehensive review examining different architectural designs, input variable combinations, and training strategies systematically identified the most successful approaches in this domain (Cabaneros et al., 2019). The integration of deep learning architectures enables simultaneous modelling of spatial and temporal dependencies, while hybrid models combining meteorological variables substantially improve forecast accuracy (Reichstein et al., 2019). In soil management, ensemble learning algorithms such as RF and XGBoost are effectively applied to spatial mapping of heavy metal contamination, prediction of organic carbon content, and land-use classification. Integrating ML methods with satellite imagery enables high-resolution monitoring of soil properties over large geographic areas. Furthermore, hybrid approaches combining ML algorithms with conventional statistical methods such as positive matrix factorization (PMF) further improve the accuracy of pollution source identification (Zheng et al., 2023). In solid waste management, a systematic review encompassing 85 studies published between 2004 and 2019 found that AI-based models are employed for forecasting waste characteristics, detecting waste bin fill levels, optimizing treatment process parameters, planning vehicle routing, and supporting integrated solid waste management planning (Abdallah et al., 2020).

Across all sub-disciplines, hybrid approaches arising from the integration of data-driven models with mechanistic models (Reichstein et al., 2019), as well as Explainable AI (XAI) strategies, are emerging as leading approaches for enhancing decision-support capacity and model transparency in environmental management systems (Arashpour, 2023). Current limitations including data scarcity, model generalizability, and the computational burden of real-time deployment are discussed, and future research priorities are identified.

Keywords: Artificial intelligence, machine learning, environmental engineering, deep learning, water quality, air quality, solid waste management

ÇEVRE MÜHENDİSLİĞİNDE YAPAY ZEKA VE MAKİNE ÖĞRENMESİ UYGULAMALARI

ÖZET

Yapay zeka (YZ) ve makine öğrenmesi (MÖ) teknolojilerinin çevre mühendisliği alanında uygulanması, son yıllarda hızla gelişen disiplinlerarası bir araştırma alanı haline gelmiştir. Nüfus artışı, kentleşme ve iklim değişikliğinin baskısı altında giderek karmaşılaşan çevresel sorunların çözümünde, geleneksel mekanistik ve istatistiksel yöntemlerin yetersiz kaldığı durumlarda YZ tabanlı yaklaşımlar belirleyici bir rol üstlenmektedir (Reichstein et al., 2019; Shen, 2018). Bu çalışma, çevre mühendisliğinin dört temel alt disiplini (su, hava, toprak ve katı atık yönetimi) güncel YZ ve MÖ uygulamalarını sistematik bir literatür taraması yöntemiyle kapsamlı biçimde değerlendirmekte; algoritma seçimi, model performansı ve uygulama ölçeği açısından karşılaştırmalı bir çerçeve sunmaktadır.

Su yönetimi, YZ uygulamalarının en yoğun biçimde araştırıldığı çevre mühendisliği alanlarından biridir. 2000–2020 yılları arasındaki literatür üzerine yapılan kapsamlı bir derleme çalışması; yapay sinir ağları (YSA), destek vektör makineleri (SVM), uyarlamalı nöro-bulanık çıkarım sistemi (ANFIS), rastgele orman (RF) ve karar ağacı (DT) gibi modellerin nehir suyu kalitesi parametrelerinin tahmininde etkin biçimde kullanıldığını ortaya koymuştur (Tiyasha et al., 2020). Buna ek olarak, 45 farklı MÖ algoritmasının yüzey suyu, yer altı suyu, içme suyu ve atık su gibi farklı su ortamlarındaki kalite değerlendirmesine uygulandığı görülmüş; algoritma performanslarının parametreye ve veri yapısına göre önemli ölçüde farklılaştığı belirlenmiştir (Zhu et al., 2022). Yer altı suyu dinamiklerinin simülasyonunda ise çok katmanlı algılayıcı (MLP), radyal tabanlı fonksiyon ağı (RBF) ve SVM gibi MÖ modellerinin geleneksel sayısal modellerden belirgin biçimde daha yüksek doğruluk sergilediği kanıtlanmıştır (Chen et al., 2020). Hava kalitesi izleme alanında YSA tabanlı modeller; PM_{2,5}, PM₁₀, NO_x ve O₃ gibi kirleticilerin konsantrasyon tahmininde yaygın biçimde kullanılmaktadır. Farklı mimari tasarımlar, girdi değişkeni kombinasyonları ve eğitim stratejilerinin model doğruluğu üzerindeki etkisini inceleyen geniş kapsamlı bir derleme çalışması, bu alanda en başarılı yaklaşımları sistematik olarak ortaya koymuştur (Cabaneros et al., 2019). Derin öğrenme mimarilerinin kirletici tahminine entegrasyonu, mekânsal ve zamansal bağımlılıkların eş zamanlı modellenmesine olanak sağlamakta; meteorolojik değişkenlerle hibrit modellerin oluşturulması tahmin doğruluğunu önemli ölçüde artırmaktadır (Reichstein et al., 2019). Toprak yönetimi alanında RF ve XGBoost gibi topluluk öğrenme algoritmaları, ağır metal kirliliğinin mekânsal haritalanmasında, organik karbon içeriğinin tahmininde ve arazi kullanımı sınıflandırmasında etkin biçimde kullanılmaktadır. MÖ yöntemlerinin uydu görüntüleme verileriyle bütünleştirilmesi, geniş coğrafi alanlarda toprak özelliklerinin yüksek çözünürlüklü olarak izlenmesini mümkün kılmaktadır. Ayrıca kaynak tayini çalışmalarında MÖ algoritmalarını geleneksel istatistiksel yöntemlerle harmanlayan hibrit yaklaşımlar, kirlilik kaynaklarının tespit doğruluğunu artırmaktadır (Wadoux et al., 2020).

Katı atık yönetiminde ise YZ tabanlı modeller; 2004–2019 yılları arasındaki 85 araştırma çalışmasını kapsayan sistematik bir derlemeye göre atık karakteristiklerinin tahmininde, çöp

kutusu doluluk düzeyinin tespitinde, arıtma süreçlerinin optimizasyonunda, araç güzergah planlamasında ve katı atık yönetim sistemlerinin bütünsel planlanmasında kullanılmaktadır (Abdallah et al., 2020). Tüm bu alt disiplinler genelinde veri odaklı modellerin mekanistik modellerle entegrasyonundan doğan fizik-bilgilendirilmiş YZ (Physics-Informed AI) ve açıklanabilir YZ (Explainable AI, XAI) yaklaşımları, çevre yönetim sistemlerinde karar destek kapasitesini ve model şeffaflığını artırmanın önde gelen yolları olarak öne çıkmaktadır (Arashpour, 2023). Etiketlenmiş veri yetersizliği, model genelleştirilebilirliği ve gerçek zamanlı uygulamada karşılaşılan hesaplama yükü gibi mevcut kısıtlamalar tartışılmakta; gelecekteki araştırma öncelikleri belirlenmektedir.

Anahtar Kelimeler: Yapay zeka, makine öğrenmesi, çevre mühendisliği, derin öğrenme, su kalitesi, hava kalitesi, katı atık yönetimi

THE STRAIT OF HORMUZ IN MEDIEVAL GEOGRAPHICAL SOURCES

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ABSTRACT

With its vast land area and diverse climate, Iran has been home to various peoples throughout history. Today, Iran, connected to the Persian Gulf through the cities of Chabahar and Kunarak in Sistan province; Minab, Bandar Abbas, and Bestek in Hormozgan province; Lamard and Aseluyeh in Fars province; Bandar Kengan in Bushehr province; and Mahshahr and Abadan in Hormuz province, occupies a highly strategic position commercially. The region is also rich in underground resources. The use of oil in various fields such as transportation, energy, petrochemicals, industry, heating, electricity, infrastructure, and cosmetics has made Iran one of the key players in world markets. The Strait of Hormuz, largely under Iranian control, is another strategically important passage. Indeed, oil extracted from the Gulf countries is distributed to China, India, Japan, South Korea, the USA, and European countries via the Strait of Hormuz. Thus, approximately 20 million barrels of oil pass through the strait daily. However, it is a misconception to equate the importance of the Strait of Hormuz solely with the use of oil in the aforementioned areas in the last century. Indeed, the Persian Gulf and the Strait of Hormuz within it have maintained their vitality in terms of commercial activities since the earliest times of history. Medieval geographical sources and some travelogues highlight the importance of Hormuz. Spices from India and silk from China were distributed via the Persian Gulf, and thus through Hormuz, while vegetables and fruits produced in Iran and the Gulf countries were also exported through this strait. This study examines the reflection of the Strait of Hormuz in medieval geographical sources.

Keywords: Middle East, Iran, Persian Gulf, Strait of Hormuz, Trade.

ORTAÇAĞ COĞRAFYA KAYNAKLARINDA HÜRMÜZ BOĞAZI

ÖZET

İran sahip olduğu geniş yüz ölçümü ve iklim çeşitliliği ile tarihin her döneminde farklı kavimlere ev sahipliği yapmıştır. Günümüzde Sistân eyaletinin Çabahar ve Kunarek; Hürmüzgan eyaletinin Minab, Bender Abbas ve Bestek; Fars eyaletinin Lamerd ve Aseluye; Buşehr eyaletinin Bender Kengan; Hürmüz eyaletinin Mahşehr ve Abadan şehirleri aracılığıyla Basra Körfezi'ne bağlanan İran ticarî açıdan da son derece stratejik bir konumda yer almaktadır. Bölge yer altı kaynakları açısından da büyük bir zenginliğe sahiptir. Petrolün ulaşım, enerji, petrokimya, sanayi, ısıtma, elektrik, altyapı ve kozmetik gibi değişik alanlarda kullanılması İran'ı dünya piyasalarında belirleyici ülkelerden birisi haline getirmiştir. Büyük bir bölümü İran'a bağlı olan Hürmüz Boğazı da yine stratejik konumu yüksek olan geçitlerden birisidir. Nitekim körfez ülkelerinden çıkarılan petroller Hürmüz Boğazı aracılığı ile Çin, Hindistan, Japonya, Güney Kore, ABD ve Avrupa ülkelerine dağıtılır. Böylece boğazdan günlük yaklaşık 20 milyon varil petrol geçişi gerçekleşir. Ancak Hürmüz Boğazı'nın önemini sadece son yüzyılda petrolün zikredilen alanlarda kullanımı ile örtüştürmek yanlış bir yaklaşımdır. Zira tarihin en eski zamanlarından bu yana Basra Körfezi ve körfez içerisinde yer alan Hürmüz Boğazı ticarî faaliyetler açısından canlılığını kormuştur. Ortaçağ coğrafya kaynaklarında ve bir kısım seyahatnamelerde Hürmüz'ün önemine dikkat çekilmiştir.

Zira Hindistan'dan gelen baharat ve Çin'den gelen ipeğin Basra Körfezi, dolayısıyla Hürmüz'den geçerek dağıtımının gerçekleşmesi söz konusu iken buna karşın İran ve körfez ülkelerinde üretilen sebze ve meyve gibi ürünler de yine bu boğaz vasıtasıyla ihraç edilirdi. Bu çalışmada Hürmüz boğazının ortaçağ coğrafya kaynaklarına yansımaları konu edilmiştir.

Anahtar Kelimeler: Ortadoğu, İran, Basra Körfezi, Hürmüz Boğazı, Ticaret.

MIGRATION ROUTES OF THE GREAT SELJUK EMPIRE FROM YENGİKENT TO MALAZGIRT

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ABSTRACT

It is known that the first ancestor of the Great Seljuk Empire, as documented in historical sources, was Dukak, a significant statesman and military figure within the Oghuz Yabgu State. Although he had a falling out with the Yabgu at one point, he remained loyal to the state until his death. Seljuk Bey, who succeeded him as head of the family, also distinguished himself with his military qualities, like his father. However, after a while, due to both the pasture and grazing land crisis that arose in parallel with the increase in population, and a problem he had with the Oghuz Yabgu, Seljuk Bey left Yengikent and came to Cend, a border city between Iran and Turan, with a group of 450-500 people loyal to him. This is known as the first migration of the Seljuk family. The migration routes of the members of the Great Seljuk dynasty should be examined in four sections. The first of these migrations was from Yengikent to Cend, the second from Cend to Transoxiana, the third from Transoxiana to Khorasan, and the fourth from Khorasan to Anatolia. However, migrations did not always stem from the same reasons. For example, while the first three migration movements were a political-military necessity, the fourth migration arose from a willing and planned search for a homeland. Similarly, while the conflicts with the Turkic Khaganate/Karakhanids and Ghaznavids played a role in the first migration movements, the fourth migration was largely driven by the desire to expand territory. Therefore, this study focuses on a detailed examination of the initial emergence of the Seljuks and the subsequent migration movements, as well as the causes and consequences of these migrations.

Keywords: The Great Seljuks, Transoxiana, Khorasan, Malazgirt, Seljuk Bey.

YENGİKENT'TEN MALAZGİRT'E BÜYÜK SELÇUKLU DEVLETİ'NİN GÖÇ GÜZERGAHLARI

ÖZET

Büyük Selçuklu Devleti'nin bilinen ve kaynaklara intikal eden ilk atasının Dukak olduğu ve onun Oğuz Yabgu Devleti içerisinde önemli bir devlet adamı ve askeri hüviyete sahip bir şahsiyet olduğu bilinmektedir. Her ne kadar bir ara Yabgu ile arası açılrsa da ölümüne kadar devlete bağlılığını devam ettirmiştir. Kendisinden sonra ailenin başına geçen Selçuk Bey de yine babası gibi askeri özellikleri ile ön plana çıkmıştır. Ancak bir müddet sonra hem nüfusun artmasına paralel olarak ortaya çıkan otlak ve mera krizi hem de Oğuz Yabgu'su ile yaşadığı bir problem sebebi ile Yengikent'ten ayrılan Selçuk Bey kendisine bağlı 450-500 kişilik grupla İran ve Turan arasında bir sınır şehri olan Cend'e gelmiştir. Bu, Selçuklu ailesinin ilk göçü olarak bilinmektedir. Büyük Selçuklu Devleti hânedan mensuplarının göç güzergâhlarını dört bölümde incelemek gerekmektedir. Bunlardan birincisi Yengikent'ten Cend'e, ikincisi Cend'den Mâverâünnehir'e, üçüncü Mâverâünnehir'den Horasan'a ve dördüncü Horasan'dan Anadolu'ya şeklindedir. Ancak göçler her zaman aynı nedenlerden kaynaklanmamaktadır. Örneğin ilk üç göç hareketi siyasi-askerî bir zorunluluk iken dördüncü göç istekli ve planlı bir yurt tutma arayışından ileri gelmektedir. Yine ilk göç hareketlerinde Türk Hakanlığı/Karahanlılar ve Gazenliler ile yaşanan çekişmeler etkili olmuşken dördüncü göç büyük oranda toprak genişletme düşüncesi ile gerçekleştirilmiştir.

Dolayısıyla bu çalışma Selçukluların ilk ortaya çıkışları ve hemen akabinde başlayan göç hareketlerinin yanı sıra bu göçlerdeki sebep ve sonuçların detaylı incelemesine odaklanmıştır.
Anahtar Kelimeler: Büyük Selçuklular, Mâverâünnehir, Horasan, Malazgirt, Selçuk Bey.

PROVINCIAL BUREAUCRACY IN THE OTTOMAN EMPIRE: AN ANALYSIS OF GAZA-BORN OFFICIALS BASED ON SICILL-I AHVÂL REGISTERS

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ABSTRACT

The Sicill-i Ahvâl registers, systematically compiled from the reign of Abdulhamid II onwards, constitute one of the most significant archival sources for the biographical study of Ottoman civil servants. These records not only enable the tracing of individual career trajectories but also provide a comprehensive panorama of the human resources structure of the Ottoman state. Containing multifaceted information such as places of birth, educational backgrounds, language skills, professional experiences, and institutional affiliations, these registers allow for both qualitative and quantitative analyses of the Ottoman bureaucratic system. In this respect, the Sicill-i Ahvâl registers can be regarded as an early and systematic precursor to modern biographical databases. Within the vast geography of the Ottoman Empire, the case of Gaza—which held a notable administrative position—offers a particularly valuable perspective. The existence of Sicill-i Ahvâl records for Gaza highlights the relationship between provincial bureaucracy and the central administration. Examining individuals of Ottoman subjects born in Gaza through these records provides significant insights into the region's educational structure, linguistic diversity, and level of participation in bureaucratic institutions. In this context, Gaza emerges not merely as a geographical locality but as a dynamic center contributing qualified human resources to the Ottoman administrative system. This paper aims to analyze the Sicill-i Ahvâl records of Ottoman officials born in Gaza, focusing on their educational backgrounds, language competencies, and administrative postings. By examining the career profiles of 15 identified officials from Gaza, the study seeks to shed light on the human element within the provincial dimension of the Ottoman bureaucracy. The findings are expected to contribute not only to a micro-level understanding of the functioning of the Ottoman administrative system but also to a broader comprehension of regional bureaucratic structures.

Keywords: Ottoman Empire, Modernization, Sicil-i Ahvâl, Gaza.

SİCİL-İ AHVÂL DEFTERLERİNE GÖRE OSMANLI TAŞRA BÜROKRASİSİ: GAZZE DOĞUMLU MEMURLAR ÜZERİNE BİR İNCELEME

ÖZET

II. Abdülhamid döneminden itibaren sistemli bir şekilde tutulmaya başlanan Sicil-i Ahvâl kayıtları, Osmanlı memurlarının biyografik verilerini ihtiva eden en önemli arşiv kaynaklarından biri olarak öne çıkmaktadır. Bu defterler, yalnızca bireysel kariyerlerin izlenmesine imkân tanımakla kalmayıp, aynı zamanda Osmanlı devlet yapısının insan kaynağına dair bütüncül bir panorama sunmaktadır.

Memurların doğum yerleri, eğitim süreçleri, bildikleri diller, mesleki tecrübeleri ve görev yaptıkları kurumlara ilişkin çok yönlü bilgileri içeren bu kayıtlar, Osmanlı bürokrasisinin hem niteliksel hem de niceliksel açıdan analiz edilmesine olanak sağlamaktadır. Bu yönüyle Sicil-i Ahvâl defterleri, modern biyografik veri tabanı anlayışının erken ve sistematik örneklerinden biri olarak değerlendirilebilir. Osmanlı Devleti'nin geniş coğrafyası içerisinde idari açıdan önemli bir konuma sahip olan Gazze özelinde de Sicil-i Ahvâl kayıtlarının tutulmuş olması, taşra bürokrasisinin merkezle olan ilişkisini ortaya koyması bakımından dikkat çekicidir. Gazze doğumlu Osmanlı tebaasına mensup bireylerin bu kayıtlar aracılığıyla incelenmesi, bölgenin eğitim yapısı, dilsel çeşitliliği ve bürokratik kadrolara katılım düzeyi hakkında önemli veriler sunmaktadır. Bu çerçevede Gazze, yalnızca coğrafi bir yerleşim alanı olmanın ötesinde, Osmanlı idari teşkilatına nitelikli insan kaynağı sağlayan dinamik bir merkez olarak karşımıza çıkmaktadır. Bu bildiride, Gazze doğumlu Osmanlı memurlarına ait Sicil-i Ahvâl kayıtları esas alınarak söz konusu bireylerin eğitim-öğretim geçmişleri, bildikleri yabancı diller ve görev yaptıkları idari birimler detaylı bir şekilde analiz edilecektir. Çalışma kapsamında tespit edilen 15 Gazze doğumlu memurun kariyer profilleri incelenerek, Osmanlı bürokrasisinin taşra teşkilatındaki insan unsuruna ışık tutulması hedeflenmektedir. Elde edilecek bulguların, Osmanlı idari teşkilatının işleyişine dair mikro ölçekte bir değerlendirme sunmasının yanı sıra, bölgesel bürokratik yapılanmaların anlaşılmasına da katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Osmanlı, Modernleşme, Sicil-i Ahvâl, Gazze.

TURKS IN IRELAND: AN ACCOUNT OF OTTOMAN PIRACY IN THE EARLY MODERN PERIOD

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ABSTRACT

Undoubtedly, from the late sixteenth century onwards, when piracy began to be brought under state control, Dutch and English pirates started to experience various conflicts with central authorities. The persistence of these problems, along with the gradual loss of piracy's former functionality and its transformation into an institution that occasionally clashed with centralized power, increased the efforts of European states to bring pirates directly under their control. However, during this process, a significant number of pirates, at times in order to avoid execution or escape captivity, entered into Ottoman protection and "turned Turk," while others continued their activities in cooperation with Muslim corsairs. In this context, these European pirates operating in North Africa from the early seventeenth century onwards did not completely sever their ties with the European coasts they had previously known and maintained connections with; on the contrary, they continued to launch raids against these regions. The raid on Iceland in 1627, which caused widespread shock, stands as one of the most extreme examples of this process. As a continuation of these incursions, piracy activities in the first half of the seventeenth century extended toward the coasts of England and Ireland, continuing to pose a serious threat to Europe. Indeed, one of the most striking examples of this development is the raid carried out in 1631 by a group of corsairs under the command of Murad Reis against the Baltimore region of Ireland. This attack clearly demonstrates both the geographical reach of piracy and its impact on European societies. This study aims to draw attention to the significance of this event, which has not been sufficiently examined in Turkish historiography.

Keywords: Ottoman Empire, Pirate, Europe, Iceland.

TÜRKLER İRLANDA'DA: ERKEN MODERN DÖNEMDE TÜRK KORSANLIĞINA DAİR BİR İZAHAT

ÖZET

Şüphesiz korsanlık faaliyetlerinin devlet kontrolü altına alınmaya başlandığı XVI. yüzyılın sonlarından itibaren Hollandalı ve İngiliz korsanlar merkezi otorite ile çeşitli sorunlar yaşamaya başlamıştır.

Bu sorunların çözülmemesi ve korsanlık kurumunun eski işlevselliğini kaybederek merkezi yönetim ile zaman zaman çatışan bir görünüm kazanması, Avrupa devletlerinin korsanları doğrudan kendi kontrolü altına alma çabalarını artırmıştır. Ancak bu süreçte korsanların önemli bir kısmı, kimi zaman öldürülmemek veya esaretten kurtulmak amacıyla Osmanlı himayesine girerek Türk'e dönmüş, kimi zaman da Müslüman korsanlarla iş birliği yaparak faaliyetlerini sürdürmüştür.

Bu doğrultuda XVII. yüzyılın başlarından itibaren Kuzey Afrika’da faaliyet gösteren bu Avrupalı korsanlar, geçmişte tanıdıkları ve bağlantı kurdukları Avrupa kıyılarıyla ilişkilerini tamamen koparmamış; aksine bu bölgelere yönelik saldırılarını sürdürmüşlerdir. 1627 yılında İzlanda’ya yapılan ve büyük yankı uyandıran baskın, bu sürecin ulaştığı en uç örneklerden biri olmuştur. İzlanda’ya yönelik

bu akınların devamı olarak korsanlık faaliyetleri, XVII. yüzyılın ilk yarısında İngiltere ve İrlanda kıyılarına yönelmiş ve Avrupa için ciddi bir tehdit oluşturmaya devam etmiştir. Nitekim bu sürecin en

çarpıcı örneklerinden biri, 1631 yılında Murad Reis komutasındaki korsan grubunun İrlanda’nın Baltimore bölgesine düzenlediği saldırıdır. Bu baskın, korsanlığın ulaştığı coğrafi genişliği ve

Avrupa toplumları üzerindeki etkisini açıkça ortaya koymuştur. Bu çalışma da Türk literatüründe yeterince incelenmemiş olan bu olayı ele alarak önemine dikkat çekmeyi amaçlamıştır.

Anahtar Kelimeler: Osmanlı, Korsan, Avrupa, İzlanda.

FINANCIAL RATIOS OF COMPANIES AND PERFORMANCE ANALYSIS AND INVESTMENT DECISION EVALUATION: A STUDY ON MANUFACTURING COMPANIES TRADED ON BIST

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ABSTRACT

Financial ratio analysis is a type of quantitative analysis used to interpret the items in a company's financial statements. Investors and shareholders gain information about a company's performance, financial status, and risk level based on the results of this analysis. This study aims to examine the financial performance of companies operating in the manufacturing sector on the BIST (Istanbul Stock Exchange) using the financial ratio analysis method and to evaluate the results in terms of investment decisions. Within the scope of the research, financial statements for the period 2022–2026 were used to analyze the companies' liquidity ratios (current ratio, acid-test ratio, cash ratio), financial structure ratios (financial leverage ratio, general solvency ratio, equity ratio, short-term liabilities to equity ratio, and debt coefficient), operating ratios (accounts receivable turnover, accounts receivable collection period, inventory turnover ratio, inventory holding period, fixed asset turnover ratio, and asset turnover ratio), and profitability ratios (gross profit margin, net profit margin, return on assets, return on equity, and return on economics). In addition, indicators such as market capitalization, price-to-earnings (P/E) ratio, market value-to-book value (MV/BV) ratio, dividend yield, and return on share were examined to evaluate the market performance of companies. The findings show that there are significant differences in financial performance among companies operating in the paper industry. When evaluated in terms of activity ratios, it is seen that some firms have gained an advantage in terms of operational efficiency by using their assets more effectively, but in the sector as a whole, especially in recent periods, accounts receivable collection periods and inventory holding periods have shown an increasing trend. When market performance indicators are examined, it has been determined that companies with strong financial performance generally have higher market capitalization and investor interest. These results demonstrate that financial ratio analysis is an important tool in investment decisions and evaluating company performance. This study aims to provide investors and researchers with significant sectoral findings by comprehensively examining the financial performance of paper industry companies included in the BIST manufacturing index using a ratio analysis approach

Keywords: Financial Ratio Analysis, Financial Performance, Investment Decisions, Istanbul Stock Exchange

ŞİRKETLERİN FİNANSAL ORANLARLA PERFORMANS ANALİZİ VE YATIRIM KARARLARININ DEĞERLENDİRİLMESİ: BİST’TE İŞLEM GÖREN İMALAT İŞLETMELERİ ÜZERİNE BİR ARAŞTIRMA

ÖZET

Finansal oran analizi, Bir firmanın mali tablolarında yer alan kalemlerin yorumlanması için sayısal olarak yapılan bir analiz türüdür. Yatırımcılar ve Hissedarlar bu analiz sonuçlarından hareketle şirketin performansını, finansal durumunu ve risk düzeyi hakkında bilgi sahibi olurlar.

Bu çalışmada, Finansal oran analizi yöntemi kullanılarak BİST'te İmalat sektöründe faaliyet gösteren şirketlerin finansal performansını incelemek ve elde edilen sonuçların yatırım kararları açısından değerlendirilmesi amaçlanmıştır. Araştırma kapsamında 2022–2026 dönemine ait finansal tablolar kullanılarak şirketlerin likidite oranları (cari oran, asit-test oranı, nakit oran), finansal yapı oranları (finansal kaldıraç oranı, genel ödeme gücü oranı, özkaynak oranı, kısa vadeli yabancı kaynakların özkaynağa oranı ve borçlanma katsayısı), faaliyet oranları (alacak devir hızı, alacak tahsil süresi, stok devir hızı, stokta kalma süresi, duran varlık devir hızı ve aktif devir hızı) ve kârlılık oranları (brüt kâr marjı, net kâr marjı, aktif kârlılığı, özkaynak kârlılığı ve iktisadi kârlılık) analiz edilmiştir. Ayrıca şirketlerin piyasa performansını değerlendirmek amacıyla piyasa değeri, fiyat/kazanç (F/K) oranı, piyasa değeri/defter değeri (PD/DD) oranı, temettü verimi ve hisse getirisi gibi göstergeler de incelenmiştir. Elde edilen bulgular, kağıt sektöründe faaliyet gösteren şirketler arasında finansal performans açısından önemli farklılıklar bulunduğunu göstermektedir. Faaliyet oranları açısından değerlendirildiğinde ise bazı firmaların varlıklarını daha etkin kullanarak operasyonel verimlilik açısından avantaj sağladığı, ancak sektör genelinde özellikle son dönemlerde alacak tahsil sürelerinin ve stokta kalma sürelerinin artma eğilimi gösterdiği görülmektedir. Piyasa performans göstergeleri incelendiğinde güçlü finansal performansa sahip şirketlerin genellikle daha yüksek piyasa değerine ve yatırımcı ilgisine sahip olduğu belirlenmiştir. Bu sonuçlar, finansal oran analizinin yatırım kararları ve şirket performansının değerlendirilmesinde önemli bir araç olduğunu ortaya koymaktadır. Çalışma, BİST imalat endeksi içerisinde yer alan kağıt sektörü şirketlerinin finansal performansını kapsamlı bir oran analizi yaklaşımıyla ele alarak yatırımcılar ve araştırmacılar için sektörel düzeyde önemli bulgular sunmayı amaçlamaktadır

Anahtar Kelimeler: Finansal Oran Analizi, Finansal Performans, Yatırım Kararları, Borsa İstanbul

FINANCIAL LITERACY IN AN INFLATIONARY ENVIRONMENT: HOW SHOULD INDIVIDUALS BE PROTECTED

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ABSTRACT

Inflation is a fundamental indicator of the economic system and a significant macroeconomic variable that directly affects individuals' purchasing power. In inflationary environments, individuals' income-expenditure balance is disrupted, their saving and investment decisions change, and financial planning processes become more complex. This situation further increases the importance of financial literacy. This study examines the relationship between financial literacy and inflation, and analyzes the financial behavior of individuals in inflationary environments. It has been shown that financial literacy consists of three basic components: financial knowledge, attitudes, and behaviors, and that these components are decisive in individuals' financial decision-making processes. Inflation, on the other hand, has been found to reduce individuals' purchasing power, affect income distribution, and alter savings and investment preferences.

The study concludes that individuals exhibit more cautious financial behaviors, turn to alternative investment instruments, and place greater emphasis on financial planning during inflationary periods. It has been determined that individuals with high levels of financial literacy are more resilient to economic fluctuations. The study concludes that expanding financial education and awareness activities plays a significant role in increasing individuals' financial well-being.

Keywords: Financial Literacy, Inflation, Financial Behavior, Savings, Investment, Budget Management, Risk Management, Economic Well-being

ENFLASYON ORTAMINDA FİNANSAL OKURYAZARLIK: BİREYLER NASIL KORUNMALI?

ÖZET

Enflasyon, ekonomik sistemin temel göstergelerinden biri olup bireylerin satın alma gücünü doğrudan etkileyen önemli bir makroekonomik değişkendir. Enflasyonist ortamlarda bireylerin gelir-gider dengesi bozulmakta, tasarruf ve yatırım kararları değişmekte ve finansal planlama süreçleri daha karmaşık hale gelmektedir. Bu durum, finansal okuryazarlık düzeyinin önemini daha da artırmaktadır. Bu çalışmada, finansal okuryazarlık kavramı ile enflasyon arasındaki ilişki incelenmiş ve enflasyonist ortamlarda bireylerin finansal davranışları analiz edilmiştir. Finansal okuryazarlığın; finansal bilgi, tutum ve davranış olmak üzere üç temel bileşenden oluştuğu ve bireylerin finansal karar alma süreçlerinde belirleyici olduğu ortaya konulmuştur. Enflasyonun ise bireylerin satın alma gücünü azalttığı, gelir dağılımını etkilediği ve tasarruf ile yatırım tercihlerini değiştirdiği belirlenmiştir.

Çalışma sonucunda, enflasyonist dönemlerde bireylerin daha temkinli finansal davranışlar sergilediği, alternatif yatırım araçlarına yöneldiği ve finansal planlamaya daha fazla önem verdiği görülmüştür. Bu süreçte finansal okuryazarlık düzeyi yüksek bireylerin ekonomik dalgalanmalara karşı daha dirençli olduğu tespit edilmiştir. Finansal eğitim ve bilinçlendirme faaliyetlerinin yaygınlaştırılmasının, bireylerin finansal refahını artırmada önemli bir rol oynadığı sonucuna ulaşılmıştır.

Anahtar Kelimeler: Finansal Okuryazarlık, Enflasyon, Finansal Davranış, Tasarruf, Yatırım, Bütçe Yönetimi, Risk Yönetimi, Ekonomik Refah.

THE DOSKI TRIBE IN THE CONTEXT OF TRIBAL-POLITICAL RELATIONS

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ABSTRACT

This study aims to examine the relationship between tribes, a significant component of the social structure in Turkey, particularly in the Eastern and Southeastern Anatolia regions, and politics, using the Doski tribe as an example. The research analyzes the tribe's role in political decision-making processes, its influence at local and national levels, and how identity and belonging elements are reflected in political behavior. In this context, the study aims to reveal how tribal structures function not only as sociological but also as political actors. The research is structured using a case study design within the framework of a qualitative research approach. The study group consists of 10-15 participants selected using purposeful sampling, including individuals belonging to the tribe and local politicians. Participants were selected to represent different social roles, such as tribal leaders, opinion leaders, women representatives, and young members. A semi-structured interview technique was used in the data collection process, and the obtained data were analyzed using content analysis. Through coding and thematic analysis processes, the data were systematically classified and interpreted, and the findings were related to the theoretical framework. The study also examines the historically shaped social ties of tribal structures, their relationships with local governments, and the impact of modernization and globalization processes on these structures. The role of tribes in electoral processes, their relationships with political parties, and the political effects of their leadership mechanisms are evaluated from a multi-dimensional perspective; the decisive influence of these elements on regional politics is discussed. In this respect, the research aims to provide theoretical and empirical contributions to understanding the socio-political functions of tribes.

Keywords: Tribal-Political Relations, Doski Tribe, Qualitative Research, Political Participation, Socio-Political Structure.

AŞİRET-SİYASET İLİŞKİSİ BAĞLAMINDA DOSKİ AŞİRETİ

ÖZET

Bu çalışma, Türkiye’de özellikle Doğu ve Güneydoğu Anadolu bölgelerinde toplumsal yapının önemli bileşenlerinden biri olan aşiretlerin siyasetle kurduğu ilişkileri, Doski Aşireti örneği üzerinden incelemeyi amaçlamaktadır. Araştırmada, aşiretin siyasal karar alma süreçlerindeki rolü, yerel ve ulusal düzeydeki etkisi ile kimlik ve aidiyet unsurlarının siyasal davranışlara yansıma biçimleri analiz edilmektedir. Bu bağlamda çalışma, aşiret yapılarının yalnızca sosyolojik değil, aynı zamanda politik bir aktör olarak nasıl işlev gördüğünü ortaya koymayı hedeflemektedir. Araştırma, nitel araştırma yaklaşımı çerçevesinde durum çalışması deseni ile kurgulanmıştır. Çalışma grubunu, amaçlı örnekleme yöntemiyle seçilen ve aşirete mensup bireyler ile yerel siyasetçilerden oluşan 10 katılımcı oluşturmaktadır. Katılımcılar; aşiret liderleri, kanaat önderleri, kadın temsilciler ve genç üyeler gibi farklı toplumsal rolleri temsil edecek şekilde belirlenmiştir. Veri toplama sürecinde yarı yapılandırılmış görüşme tekniği kullanılmış, elde edilen veriler içerik analizi yöntemiyle çözümlenmiştir. Kodlama ve tematik analiz süreçleri aracılığıyla veriler sistematik bir biçimde sınıflandırılarak yorumlanmış ve bulgular kuramsal çerçeve ile ilişkilendirilmiştir.

Çalışmada ayrıca aşiret yapılarının tarihsel olarak şekillenen sosyal bağları, yerel yönetimlerle ilişkileri ve modernleşme ile küreselleşme süreçlerinin bu yapılar üzerindeki etkileri de ele alınmaktadır. Aşiretlerin seçim süreçlerindeki rolü, siyasi partilerle kurdukları ilişkiler ve liderlik mekanizmalarının siyasal etkileri çok boyutlu bir perspektifle değerlendirilmekte; bu unsurların bölgesel siyaset üzerindeki belirleyici etkisi tartışılmaktadır. Bu yönüyle araştırma, aşiretlerin sosyo-politik işlevlerini anlamaya yönelik kuramsal ve ampirik katkı sunmayı amaçlamaktadır

Anahtar Kelimeler: Aşiret-Siyaset İlişkisi, Doski Aşireti, Nitel Araştırma, Siyasal Katılım, Sosyo-Politik Yapı.

THE REPRESENTATION OF HAKKÂRÎ IN THE GRAND NATIONAL ASSEMBLY OF TURKEY DURING THE FIRST TRANSFER OF POWER IN THE MULTI-PARTY PERIOD (1950): THE CASE OF SELIM SEVEN

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ABSTRACT

During the Second World War, the Republican People's Party (CHP) sustained its etatist (state-led economic) policies through the implementation of the National Protection Law. The CHP's etatist practices increasingly came under criticism, resulting in political fragmentation and defections from the party across diverse socio-economic groups. Although Turkey did not actively participate in the war, the country was maintained in a state of preparedness through the imposition of extraordinary economic restrictions. At the end of the war, by declaring war on Japan, Turkey signaled to the international community its intention to pursue a policy aligned with the United States and its allies. Both mounting domestic criticism and Turkey's alignment with the United States created a conducive environment for the emergence of an opposition party. The Democrat Party (DP) was founded on 7 January 1946 with the guiding principle of promoting greater democracy, free political activity, and liberal economic policies. The DP found a broad organizational base particularly in the provinces, where the CHP was widely criticized for having become distant from and alienated local populations. The general elections of 21 July 1946 were conducted under an open ballot and secret counting system and have gone down in history as the "stick elections" due to widespread irregularities across many provinces. As a newly established party that had not yet completed its organizational consolidation, and due to these electoral irregularities, the DP secured only 61 seats and remained in opposition. In the 1950 general elections, however, the electoral law was amended and guarantees for electoral integrity were introduced. The DP entered the elections with the slogan "Yeter, söz milletin" ("Enough, sovereignty belongs to the nation") and demonstrated strong organizational capacity, particularly in the provinces. Despite its discourse advocating a parliament in which "others" would also have a voice, the DP failed to establish an organizational presence in the province of Hakkâri and did not nominate any candidates there. In the 1950 elections, the CHP candidate Muhammed Selim Seven won the seat in Hakkâri and entered parliament as its representative. This study examines the Parliamentary Minutes of the legislative terms between 1950 and 1954 in order to identify Selim Seven's parliamentary activities and to assess the nature of Hakkâri's representation during a period in which the CHP functioned as the opposition party. The limits of this representation are discussed within a conceptual framework grounded in the center-periphery paradigm and theories of complementary and functional representation. In conclusion, this study analyzes the form of representation exercised by CHP Hakkâri Deputy Selim Seven—who served in parliament from the opposition benches during the first free elections of Turkey's multi-party democracy—and evaluates how this representation was reflected both at the center and in the periphery.

Keywords: Multi-Party System, 1950 General Elections, Hakkâri, Muhammed Selim Seven, Centre-Periphery

ÇOK PARTİLİ HAYATIN İLK İKTİDAR DEĞİŞİMİNDE (1950) TBMM'DE HAKKARİ TEMSİLİ: SELİM SEVEN ÖRNEĞİ

ÖZET

İkinci Dünya Savaşı sırasında uygulanan Milli Koruma Kanunu ile Cumhuriyet Halk Partisi ekonomide devletçilik politikasını sürdürmüştü. CHP'nin Devletçilik uygulamaları eleştirilmiş ve farklı sosyo-ekonomik tabanında CHP'den kopmalar yaşanmıştı. Türkiye her ne kadar II. Dünya Savaşına fiili olarak katılmamış olsa da uygulanan olağanüstü ekonomik kısıtlamalarla ülke savaşa hazır durumda bekletilmiş. Savaşın sonunda Türkiye Japonya'ya savaş ilan ederek ABD ve müttefiklerinin tarafında bir siyaset izleyeceğini dünyaya duyurmuştu. Hem iç politikadaki eleştiriler hem de ABD ittifakı bir muhalefet partisinin doğuşuna olanak sağlamıştı. Demokrat Parti, daha fazla demokrasi, serbest siyasi faaliyet ve liberal ekonomik uygulamaların olması gerektiği düsturu ile 7 Ocak 1946 tarihinde kurulmuştu. DP, özellikle CHP elitlerinin uzaklaştığına ve yabancılaştığına dair çok eleştiri aldığı taşrada, geniş bir örgütlenme alanı bulmuştu. 21 Temmuz 1946 genel seçimleri açık oy, gizli sayım usulüyle icra edilmiş ve çoğu ilde usulsüzlük yapılmış olan bir “sopalı seçim” olarak tarihe geçmişti. DP hem yeni kurulmuş olduğundan örgütlenmesini tamamlayamamış hem de seçimlerin usulsüz yapılmasından ötürü 61 milletvekili ile muhalefette yer almıştı. 1950 genel seçimlerinde ise seçim kanunu değiştirilmiş ve seçim güvenliğinin garantisi verilmişti. DP “Yeter Söz milletin” afişiyle seçimlere girmiş ve özellikle de taşrada iyi örgütlenmişti. DP'nin söylemi “ötekilerin” söz söyleyeceği bir meclis olduğu halde Hakkâri ilinde örgütlenememiş ve seçime aday göstermemişti. 1950 seçimlerinde Hakkâri’de, CHP adayı Muhammed Selim Seven seçimi kazanmış ve Hakkâri vekili olarak meclise gitmişti. Bu çalışmada 1950-1954 yılları arasındaki yasama dönemlerinin Meclis Tutanakları incelenerek CHP'nin muhalefet partisi olduğu bu süreçte, Selim Seven'in meclisteki faaliyetleri ve Hakkâri temsiliyeti tespit edilmiştir. Bu temsiliyetin sınırları merkez-çevre paradigması ve milletvekillerinin tamamlayıcı ya da işlevsel temsil türleri üzerinden kavramsal bir çerçevede tartışılmıştır. Sonuç olarak bu çalışmada çok partili demokrasinin ilk serbest seçimlerinde muhalefet partisi sıralarında Meclis'te yer alan Hakkâri CHP Milletvekili Selim Seven'in Hakkâri temsiliyet şekli ve bu temsiliyetin hem merkez hem de taşradaki yansımaları tartışılmıştır.

Anahtar Kelimeler: Çok Partili Hayat, 1950 Genel Seçimleri, Hakkâri, Muhammed Selim Seven, Merkez-Çevre

GERMAN TEACHER CANDIDATES' PERCEPTIONS OF THE TEACHING PROFESSION LAW AND THE NATIONAL EDUCATION ACADEMY

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ABSTRACT

The Teaching Profession Law encompasses regulations concerning many important issues such as the National Education Academy, the training prospective teachers will receive there, their appointment to the profession, and the establishment of career stages within the teaching profession. This law, which aims to improve the quality of the teaching profession, has been a subject of much debate within the education community since its enactment. The aim of this research is to determine how prospective German teachers perceive the Teaching Profession Law and the National Education Academy established under this law. The sample for this qualitative research was selected from among students enrolled in the German Language Teaching Program at Hakkari University during the 2025-2026 academic year. The research data was collected using a survey consisting of open-ended questions. The survey asked the sample group about their thoughts on how the Teaching Profession Law affects their future planning, the benefits it provides to the teaching profession, the candidates' concerns regarding this law, entry into the National Education Academy, the National Education Academy itself, the preparatory training provided there, appointment as a contract teacher after preparatory training, the steps in a teaching career, and how the Teaching Profession Law could be made more beneficial. Content analysis was used to analyze the collected data. In this context, the data obtained from the students' answers to the survey questions were analyzed and themes and codes were created. In addition, to effectively convey the views of prospective German teachers, examples of answers to the survey questions are provided. The final evaluations regarding the analyses conducted are included in the conclusion section of the research.

Keywords: Prospective German Teachers, Teaching Profession Law, National Education Academy, Teaching Career Steps

ALMANCA ÖĞRETMEN ADAYLARININ ÖĞRETMENLİK MESLEK KANUNU VE MİLLİ EĞİTİM AKADEMİSİ HAKKINDAKİ ALGILARI

ÖZET

Öğretmenlik Meslek Kanunu Milli Eğitim Akademisi, öğretmen adaylarının burada alacakları eğitim, mesleğe atanmaları ve öğretmenlik mesleğinin kariyer basamaklarının oluşturulması gibi birçok önemli konuya ilişkin düzenlemeleri kapsamaktadır. Öğretmenlik mesleğinde niteliği arttırmayı hedefleyen bu kanun, yürürlüğe girdiği andan itibaren eğitim camiası tarafından çok tartışılan bir konu haline gelmiştir. Bu araştırmanın amacı Almanca öğretmen adaylarının Öğretmenlik Meslek Kanunu'nu ve bu kanun kapsamında uygulamaya konulan Milli Eğitim Akademisi'ni nasıl algıladıklarını belirlemektir. Nitel araştırma yöntemi ile gerçekleştirilen araştırmanın örneklemi, 2025-2026 eğitim öğretim yılında Hakkari Üniversitesi Almanca Öğretmenliği Programında öğrenim gören öğrenciler arasından seçilmiştir. Araştırmanın verileri açık uçlu sorulardan oluşan anket ile toplanmıştır.

Anket kapsamında örneklem grubuna Öğretmenlik Meslek Kanunu'nun kendilerini gelecek planlaması açısından nasıl etkilediği, öğretmenlik mesleğine sağladığı faydalar, bu kanun ile ilgili adayların kaygıları, Milli Eğitim Akademisi'ne giriş, Milli Eğitim Akademisi, burada verilen hazırlık eğitimi, hazırlık eğitimi sonrasında sözleşmeli öğretmen olarak atanma, öğretmenlik kariyer basamakları ve Öğretmenlik Meslek Kanunu'nun nasıl daha faydalı hâle getirilebileceği konularındaki düşünceleri sorulmuştur. Toplanan verilerin çözümlenmesinde içerik analizinden faydalanılmıştır. Bu kapsamda öğrencilerin anket sorularına verdiği cevaplardan elde edilen veriler çözümlenerek tema ve kodlar oluşturulmuştur. Bunun yanında Almanca öğretmen adaylarının görüşlerini etkili biçimde aktarabilmek için anket sorularına verdikleri cevaplardan örnekler sunulmuştur. Araştırmanın sonuç kısmında yapılan çözümlmeler ile ilgili nihai değerlendirmelere yer verilmiştir.

Anahtar Kelimeler: Almanca Öğretmen Adayları, Öğretmenlik Meslek Kanunu, Milli Eğitim Akademisi, Öğretmenlik Kariyer Basamakları

EDUCATION AND GLOBALIZATION

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ABSTRACT

This study examines the multifaceted effects of globalization on education systems. Globalization is a dynamic process that transforms education through its economic, cultural, and technological dimensions. In education, globalization provides significant benefits such as increased access to knowledge, the dissemination of international standards, the flexibilization of learning processes, and equipping individuals with global competencies.

However, this process also entails certain challenges. The commercialization of education, cultural homogenization, and digital inequalities are among the risks associated with globalization in education. In this context, the neoliberal perspective positions education as an economic investment, while critical approaches emphasize that the process can exacerbate social inequalities. Meanwhile, the Third Way approach developed by Anthony Giddens and David Held, along with George Ritzer's McDonaldisation concept, provide theoretical frameworks that explain the transformation and standardization of education.

Digitalization and distance learning applications have accelerated, particularly during the COVID-19 pandemic, leading to lasting changes in education systems. In the case of Turkey, distance learning initiatives coordinated by the Ministry of National Education played a crucial role in ensuring the continuity of education. This process accelerated digital transformation and paved the way for the widespread adoption of hybrid learning models.

In conclusion, globalization presents both opportunities and risks for education systems; therefore, education policies should be designed in a balanced manner that aligns with global trends while considering local needs and equity objectives.

Keywords: Globalization, Education, Neoliberalism, Digitalization, Distance Learning, Education Policy

EĞİTİM VE KÜRESELLEŞME

ÖZET

Bu çalışmada, küreselleşme sürecinin eğitim sistemleri üzerindeki etkileri ele alınmaktadır. Küreselleşme; ekonomik, kültürel ve teknolojik boyutlarıyla eğitimi dönüştüren çok yönlü bir süreçtir. Eğitimde küreselleşme, bilgiye erişimin artması, uluslararası standartların yaygınlaşması ve bireylerin küresel becerilerle donatılması gibi önemli kazanımlar sağlamaktadır. Bununla birlikte, eğitimin piyasalaşması, kültürel homojenleşme ve dijital eşitsizlikler gibi sorunlar da bu sürecin olumsuz yönleri arasında yer almaktadır. Bu bağlamda neoliberal yaklaşım eğitimi ekonomik bir yatırım olarak görürken, eleştirel yaklaşımlar küreselleşmenin eşitsizlikleri artırabileceğine dikkat çekmektedir. Ayrıca Anthony Giddens ve David Held tarafından geliştirilen üçüncü yol yaklaşımı ile George Ritzer'in McDonaldisasyon kavramı, eğitimdeki dönüşümü açıklayan önemli kuramsal çerçeveler sunmaktadır.

Dijitalleşme ve uzaktan eğitim uygulamaları, özellikle COVID-19 süreciyle birlikte hız kazanmış ve eğitim sistemlerinde kalıcı değişimlere yol açmıştır. Türkiye örneğinde, Milli Eğitim Bakanlığı koordinasyonunda yürütülen uzaktan eğitim uygulamaları, eğitimde sürekliliğin sağlanmasında önemli rol oynamıştır. Bu süreç, eğitimde dijital dönüşümü hızlandırmış ve hibrit öğrenme modellerinin yaygınlaşmasına zemin hazırlamıştır. Sonuç olarak, küreselleşme eğitim sistemleri için hem fırsatlar hem de riskler barındırmakta; bu nedenle eğitim politikalarının küresel dinamiklerle uyumlu, ancak yerel ihtiyaçları gözeten dengeli bir yaklaşımla şekillendirilmesi gerekmektedir.

Anahtar Kelimeler: Küreselleşme, eğitim, neoliberalizm, dijitalleşme, uzaktan eğitim, eğitim politikaları

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ABSTRACT

The economic foundations of education can be analyzed from the perspective that enhancing individuals' knowledge and skills increases productivity and contributes to the economic growth of societies. Classical economists, such as Smith (1776), emphasized that a more educated workforce raises productivity and that individual skills hold economic value. However, the systematic integration of education into economic analysis became possible in the 20th century with the development of Human Capital Theory. Schultz (1961) and Becker (1993) conceptualized education as an investment that improves individuals' knowledge, skills, and competencies, demonstrating a positive relationship between education and income levels. From a macroeconomic standpoint, education not only boosts individual productivity but also fosters technological innovation and strengthens national competitiveness (Hanushek & Woessmann, 2020). An educated workforce enhances efficiency in production processes and contributes to sustainable economic development. At the same time, the costs of educational investments, opportunity costs, and the efficient allocation of resources are critical considerations for public policy. Education produces positive externalities and exhibits characteristics of a public good, justifying government intervention (Samuelson, 1954). In the context of Türkiye, higher educational attainment has been associated with lower unemployment rates and higher income levels. According to OECD data, the proportion of young people with less than upper secondary education declined from 41% to 28% between 2019 and 2024, reflecting improvements in human capital (OECD, 2025). Therefore, educational policies should address not only quantitative expansion but also qualitative improvements to reduce income inequality and enhance economic productivity.

In conclusion, education is a multidimensional instrument that plays a central role in economic growth, social welfare, and equity. Strategic investments in education enhance both individual and societal benefits, supporting sustainable development.

Keywords: Education Economics, Human Capital, Economic Growth, Workforce Productivity, Social Welfare, Income Inequality.

EĞİTİMİN EKONOMİK TEMELLERİ

ÖZET

Eğitimin ekonomik temelleri, bireylerin bilgi ve becerilerini artırarak üretkenliklerini yükseltmesi ve toplumların ekonomik büyümesine katkı sağlaması perspektifinden ele alınır. Klasik iktisatçılardan Adam Smith (1776), eğitilmiş iş gücünün verimliliği artıracaklarını ve bireysel becerilerin ekonomik değer taşıdığını vurgulamıştır. Ancak eğitimin sistematik olarak ekonomik analizlere dahil edilmesi, 20. yüzyılda Beşerî Sermaye Teorisi (Human Capital Theory) ile mümkün olmuştur.

Schultz (1961) ve Becker (1993), eğitimi bireylerin bilgi, beceri ve yetkinliklerini artıran bir yatırım olarak tanımlamış ve eğitim ile gelir düzeyi arasındaki pozitif ilişkiyi ortaya koymuşlardır.

Makroekonomik perspektiften bakıldığında, eğitim yalnızca bireysel verimliliği artırmakla kalmaz, aynı zamanda teknolojik yenilikçiliği destekler ve ülkelerin küresel rekabet gücünü yükseltir (Hanushek & Woessmann, 2020). Eğitimli iş gücü, üretim süreçlerinde verimliliği artırırken, ekonomik kalkınmanın sürdürülebilirliğine de katkı sağlar. Bununla birlikte, eğitim yatırımlarının maliyeti, fırsat maliyetleri ve kaynakların etkin kullanımı, kamu politikaları açısından kritik öneme sahiptir. Eğitimin pozitif dışsallıklar üretmesi ve kamusal mal özellikleri taşıması, devlet müdahalesinin gerekliliğini desteklemektedir (Samuelson, 1954).

Türkiye örneğinde, eğitim düzeyinin artmasıyla işsizlik oranlarında düşüş ve gelir seviyelerinde artış gözlemlenmektedir. OECD verilerine göre, ortaöğretim altı eğitim seviyesine sahip genç nüfus oranı 2019–2024 arasında %41’den %28’e düşmüştür ve bu durum beşerî sermayenin gelişimini göstermektedir (OECD, 2025). Eğitim yatırımlarının sadece nicelik değil, nitelik boyutuyla da ele alınması, gelir eşitsizliğinin azaltılması ve ekonomik verimliliğin artırılması için önemlidir.

Sonuç olarak, eğitim ekonomik büyüme, toplumsal refah ve eşitlik hedefleri açısından merkezi bir rol oynayan çok boyutlu bir alan olarak değerlendirilmektedir. Eğitim yatırımları, bireysel ve toplumsal faydayı artırarak sürdürülebilir kalkınmayı destekler.

Anahtar Kelimeler: Eğitim Ekonomisi, Beşerî Sermaye, Ekonomik Büyüme, İşgücü Verimliliği, Toplumsal Refah, Gelir Eşitsizliği

A SOCIOLOGICAL EVALUATION OF CHILD CUSTODY PRACTICES AFTER DIVORCE: THE HAKKARI EXAMPLE

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ABSTRACT

This study aims to examine the practice of child custody after divorce, a significant social and legal issue in Turkey, particularly in the Eastern Anatolia regions, using Hakkari as an example. The research analyzes the impact of the child custody process on family structure, social norms, cultural values, and local dynamics, as well as the social and psychological consequences for parents and children. In this context, the study aims to reveal how the practice of child custody is shaped not only as a legal process but also within social relations and power dynamics. The research is structured using a case study design within the framework of a qualitative research approach. The study group consists of 10 participants selected using purposeful sampling and directly involved in the child custody process after divorce. Participants were selected from among divorced parents and determined to represent different socio-demographic characteristics. A semi-structured interview technique was used in the data collection process, and the obtained data were analyzed using content analysis. Through coding and thematic analysis processes, the data were systematically classified and interpreted, and the findings were related to the theoretical framework. The study also examines the relationship between child custody practices and local cultural values, traditional family structure, and gender roles; the interaction between official institutions and local practices; The effects of modernization and legal regulations on this process are also examined. Conflicts experienced during the child custody process, power relations between parents, and problems arising within the framework of the principle of the best interests of the child are evaluated from a multi-dimensional perspective; the impact of these elements on the regional social structure is discussed. In this respect, the research aims to provide theoretical and empirical contributions to understanding the socio-political and cultural dimensions of the post-divorce child custody practice.

Keywords: Post-divorce child custody, Family structure, Social norms, Parental relations, Hakkari Province.

BOŞANMA SONRASI ÇOCUK TESLİMİ UYGULAMASINDA BİLGİ EKSİKLİKLERİ

ÖZET

Bu çalışma, Türkiye’de özellikle Doğu Anadolu bölgelerinde önemli bir toplumsal ve hukuki mesele olan boşanma sonrası çocuk teslimi uygulamalarını, Hakkâri örneği üzerinden incelemeyi amaçlamaktadır. Araştırmada, çocuk teslimi sürecinin aile yapısı, toplumsal normlar, kültürel değerler ve yerel dinamikler üzerindeki etkisi ile ebeveynler ve çocuklar açısından ortaya çıkan sosyal ve psikolojik sonuçlar analiz edilmektedir. Bu bağlamda çalışma, çocuk teslimi uygulamasının yalnızca hukuki bir süreç olmanın ötesinde, toplumsal ilişkiler ve güç dengeleri içinde nasıl şekillendiğini ortaya koymayı hedeflemektedir. Araştırma, nitel araştırma yaklaşımı çerçevesinde durum çalışması deseni ile kurgulanmıştır. Çalışma grubunu, amaçlı örnekleme yöntemiyle seçilen ve boşanma sonrası çocuk teslimi sürecine doğrudan dahil olan 10 katılımcı oluşturmaktadır. Katılımcılar; boşanmış ebeveynler arasından seçilmiş ve farklı sosyo-demografik özellikleri temsil edecek şekilde belirlenmiştir.

Veri toplama sürecinde yarı yapılandırılmış görüşme tekniği kullanılmış, elde edilen veriler içerik analizi yöntemiyle çözümlenmiştir. Kodlama ve tematik analiz süreçleri aracılığıyla veriler sistematik bir biçimde sınıflandırılarak yorumlanmış ve bulgular kuramsal çerçeve ile ilişkilendirilmiştir. Çalışmada ayrıca çocuk teslimi uygulamalarının yerel kültürel değerler, geleneksel aile yapısı ve toplumsal cinsiyet rolleriyle ilişkisi; resmi kurumlar ile yerel pratikler arasındaki etkileşim; modernleşme ve hukuki düzenlemelerin bu süreç üzerindeki etkileri de ele alınmaktadır. Çocuk teslim sürecinde yaşanan çatışmalar, ebeveynler arası güç ilişkileri ve çocuğun yüksek yararı ilkesi çerçevesinde ortaya çıkan sorunlar çok boyutlu bir perspektifle değerlendirilmekte; bu unsurların bölgesel toplumsal yapı üzerindeki etkisi tartışılmaktadır. Bu yönüyle araştırma, boşanma sonrası çocuk teslimi uygulamasının sosyo-politik ve kültürel boyutlarını anlamaya yönelik kuramsal ve ampirik katkı sunmayı amaçlamaktadır.

Anahtar Kelimeler: Boşanma sonrası çocuk teslimi, Aile yapısı, Toplumsal normlar, Ebeveyn ilişkileri, Hakkâri İli

ACTION LOGIC AND ETHICAL RESPONSIBILITY: A THEORETICAL ANALYSIS OF NUEL BELNAP'S BRANCHING-TIME THEORY

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ABSTRACT

This study examines the fundamental problems in the field of action logic and, in particular, the significance of the “branching time” approach developed by Nuel Belnap from the perspectives of ethical and responsibility theories. Action logic is an interdisciplinary field of research that analyzes agents’ (subjects’) choices, alternative courses of action, and the normative consequences of these choices through logical models. The Branching Time Theory, on the other hand, is a model of time that argues the future does not progress along a single deterministic path, but rather branches out into many possible future paths, much like a tree. In this model, not only time but also space and events are analyzed within a structure containing multiple possibilities. Consequently, as a synthesis of modal logic and the multi-valued structure of time, the theory of branching time offers the possibility of formally modeling the causal structure of agents’ actions. The primary aim of this study is to demonstrate how Belnap’s theory of branching time reconfigures the concepts of free will, responsibility, and moral obligation. Consequently, the study will examine the potential of the Belnapian perspective’s proposed solutions to the determinism-free will dilemma to provide a theoretical foundation for moral responsibility, as well as the epistemic challenges faced by this perspective. The study first addresses the historical development and fundamental concepts of action logic, followed by a detailed analysis of Belnap’s theoretical contributions. In the final section, a Belnap-centered theoretical framework is proposed, and the possibilities this model offers for ethical theories are discussed.

Keywords: Logic, Action Logic, Neul Belnap, Branching Time Theory.

EYLEM MANTIĞI VE AHLAKİ SORUMLULUK: NEUL BELNAP’IN DALLANAN ZAMAN KURAMI ÜZERİNE TEORİK BİR İNCELEME

ÖZET

Bu çalışma eylem mantığı alanının temel problemlerini ve özellikle Nuel Belnap’ın geliştirdiği dallanan zaman (branching time) yaklaşımının etik ve sorumluluk teorileri açısından önemini incelemektedir. Eylem mantığı, ajanların (faillerin) seçimlerini, alternatif eylem yollarını ve bu seçimlerin normatif sonuçlarını mantıksal modeller aracılığıyla analiz eden disiplinlerarası bir araştırma alanıdır. Dallanan Zaman Teorisi ise geleceğin tek bir zorunlu çizgi halinde ilerlemediğini, aksine bir ağaç gibi birçok olası gelecek yoluna ayrıldığını savunan bir zaman modelidir. Bu modelde yalnızca zaman değil, uzay ve olaylar da çoklu olasılıklar içeren bir yapı içinde analiz edilir. Dolayısıyla dallanan zaman teorisi modal mantık ve çok değerli zaman yapısının sentezi olarak, öznelerin eylemlerinin nedensel yapısını formel olarak modelleme imkânı sunmaktadır. Çalışmanın temel amacı, Belnap’ın geliştirdiği dallanan zaman modelinin özgür irade, sorumluluk ve ahlaki yükümlülük kavramlarını nasıl yeniden yapılandırıldığını göstermektir. Dolayısıyla Belnapçı perspektifin determinizm-özgür irade ikilemine getirdiği çözüm önerilerinin ahlaki sorumluluk için kuramsal bir temel oluşturma potansiyeli ve bu perspektifin karşılaştığı epistemik zorluklar ele alınacaktır.

Çalışmada önce eylem mantığının tarihsel gelişimi ve temel kavramları ele alınmakta, ardından Belnap'ın teorik katkıları ayrıntılı biçimde analiz edilmektedir. Son bölümde ise Belnap merkezli bir teorik çerçeve önerilmekte ve bu modelin etik teorileri açısından sunduğu imkânlar tartışılmaktadır.

Anahtar Kelimeler: Mantık, Eylem Mantığı, Neul Belnap, Dallanan Zaman Teorisi.

ELECTION CAMPAIGNS AND SOCIAL MEDIA STRATEGIES

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ABSTRACT

Rapid developments in digital communication technologies have fundamentally transformed political communication processes and reshaped the structure of election campaigns. Social media platforms, in particular, provide political actors with opportunities for direct communication with voters, agenda-setting, producing personalized messages, and managing crises rapidly. However, while social media supports democratic participation, it also brings serious risks such as disinformation, algorithmic steering, filter bubbles, and digital manipulation. This study examines the role of social media strategies in election campaigns within the framework of political communication, new media, and digital democracy. First, the theoretical background is discussed; then, the effects of social media on publicity, visibility, direct communication, and political participation are evaluated. Finally, major campaign strategies such as content production, micro-targeting, hashtag politics, digital crisis management, and influencer use are analyzed. The study concludes that social media has made election campaigns more flexible, rapid, and target-oriented; however, this transformation has also produced new problem areas in terms of democratic representation, ethical boundaries, and the culture of public deliberation.

Keywords: Election campaigns, social media, political communication, digital democracy, micro-targeting

SEÇİM KAMPANYALARI VE SOSYAL MEDYA STRATEJİLERİ

ÖZET

Dijital iletişim teknolojilerindeki hızlı gelişmeler, siyasal iletişim süreçlerini köklü biçimde dönüştürmüş ve seçim kampanyalarının yapısını yeniden şekillendirmiştir. Özellikle sosyal medya platformları, siyasal aktörlere seçmenlerle doğrudan iletişim kurma, gündem belirleme, kişiselleştirilmiş mesajlar üretme ve krizleri hızlı biçimde yönetme imkânı sağlamaktadır. Bununla birlikte sosyal medya, demokratik katılımı destekleyen bir alan olmasının yanı sıra, dezenformasyon, algoritmik yönlendirme, filtre balonları ve dijital manipülasyon gibi ciddi riskleri de beraberinde getirmektedir. Bu çalışma, seçim kampanyalarında sosyal medya stratejilerinin rolünü siyasal iletişim, yeni medya ve dijital demokrasi ekseninde incelemektedir. Araştırmada öncelikle konuya ilişkin kuramsal zemin ele alınmış, ardından sosyal medyanın kamusalılık, görünürlük, doğrudan iletişim ve siyasal katılım üzerindeki etkileri değerlendirilmiştir. Son olarak içerik üretimi, mikro-hedefleme, hashtag siyaseti, dijital kriz yönetimi ve influencer kullanımı gibi temel kampanya stratejileri çözümlenmiştir. Çalışma sonucunda sosyal medyanın seçim kampanyalarını daha esnek, hızlı ve hedef odaklı hale getirdiği; ancak bu dönüşümün demokratik temsil, etik sınırlar ve kamusal tartışma kültürü açısından yeni sorun alanları da yarattığı sonucuna ulaşılmıştır.

Anahtar Kelimeler: Seçim kampanyaları, sosyal medya, siyasal iletişim, dijital demokrasi, mikro-hedefleme

CHALLENGES AND SOLUTIONS IN ELT PRACTICUM ACROSS SCHOOLS

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ABSTRACT

This study explored the challenges faced by pre-service English language teachers during their teaching practicum in primary, middle, and high school settings and examined the strategies they developed to address them. Adopting a qualitative descriptive design, the study involved 17 fourth-year pre-service ELT teachers completing their practicum in different school settings. Data were collected through a semi-structured written response form with open-ended questions and were analysed using thematic analysis. The findings revealed that the most common challenges concerned student participation, attention, motivation, classroom management, lesson planning, and the gap between theoretical knowledge and classroom realities. The analysis also showed that these difficulties differed across school levels. While primary school placements were characterised mainly by attention-related challenges, middle school placements were more strongly associated with emotional and behavioural instability, and high school placements were marked by low motivation, weak participation, and low language proficiency. In response to these challenges, participants developed adaptive, experience-based strategies such as simplifying instruction, diversifying classroom activities, adjusting their level of authority, and drawing on mentor or peer feedback. The study contributes to ELT practicum research by suggesting that school level may be a meaningful dimension of the practicum experience and by foregrounding the practical, self-developed coping strategies of pre-service teachers.

Keywords: pre-service ELT teachers; teaching practicum

FARKLI OKUL KADEMELERİNDE ELT STAJINDA KARŞILAŞILAN ZORLUKLAR VE ÇÖZÜM YOLLARI

ÖZET

Bu çalışma, son sınıf İngilizce öğretmen adaylarının ilköğretim, ortaokul ve lise düzeylerindeki öğretmenlik uygulaması sürecinde yaşadıkları zorlukları incelemeyi ve bu zorluklara karşı geliştirdikleri çözüm stratejilerini belirlemeyi amaçlamaktadır. Önceki araştırmalarda sınıf yönetimi, mentor desteği ve teori ile uygulama arasındaki boşluk gibi öğretmenlik uygulamasına ilişkin sorunlar geniş biçimde ele alınmış olsa da, bu güçlüklerin aynı İngilizce Öğretmenliği (ELT) programı içinde farklı okul kademelerine göre nasıl değiştiğine sınırlı düzeyde odaklanılmıştır. Bu çalışma, okul kademeleri arasındaki farklılıklara ve bağlama duyarlı baş etme stratejilerine odaklanarak bu boşluğu doldurmayı hedeflemektedir.

Nitel araştırma deseni benimsenen çalışmada, veriler staj sürecinde haftada en az bir kez gerçek sınıf ortamında ders anlatan dördüncü sınıf ELT öğrencilerinden toplanacaktır. Veriler, katılımcıların sınıf içi deneyimlerini, temel zorluklarını ve kendi geliştirdikleri çözüm yollarını ortaya çıkarmayı amaçlayan açık uçlu sorulardan oluşan yarı yapılandırılmış yazılı yanıt formu aracılığıyla elde edilecektir. Analiz sürecinde sınıf yönetimi, öğrenci katılımı, ders planlama, duygusal hazırlık ve farklı okul bağlamlarında öğretimi uyarlama ile ilgili tekrar eden temalara odaklanılacaktır. Bulguların, okul kademesine dayalı karşılaştırmalı bir bakış açısı sunarak ve öğretmen adaylarının uygulama sürecinde geliştirdikleri deneyim temelli stratejileri görünür kılarak ELT öğretmenlik uygulaması alan yazınına katkı sağlaması beklenmektedir.

Anahtar Kelimeler: İngilizce öğretmen adayları; öğretmenlik uygulaması; öğretmenlik uygulamasında karşılaşılan zorluklar; baş etme stratejileri; İngilizce öğretmeni yetiştirme.

CULTURE AND IDEOLOGY IN GLOBAL AND LOCAL ENGLISH TEXTBOOKS

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ABSTRACT

This study aims to comprehensively examine the ideological dimensions of English Language Teaching (ELT) materials, which are extensively preferred by foreign language courses and private educational institutions in Turkey. The research investigates the fundamental differences between globally produced textbooks and materials prepared within a local context, specifically focusing on the axes of cultural hegemony and local resistance. Within language learning processes, textbooks are considered not merely as passive tools that convey grammatical rules, but rather as cultural products that present specific worldviews and identity constructs to the student. Accordingly, this study focuses on the problem of how the cultural representations and identity constructs provided by these resources are constructed. Within the scope of the analysis, English File Fourth Edition (2019), which possesses a widespread global usage network, and the MoNE Grade 11 English (2024) textbook, prepared by the Ministry of National Education of the Republic of Turkey, are subjected to a comparative and critical analysis. Conducted through the method of critical content analysis, this examination aims to evaluate the relationship between language teaching and the transmission of cultural values, as well as the direct correlation between this transmission and ideological importation. The article opens for discussion new pedagogical frameworks that respect the historical and cultural diversity of the local context and enable students to express their own identities through English. Throughout the study, the effects of globalization on ELT and the strategic roles assumed by local curricula in this process are addressed in light of fundamental theories in the existing literature.

Keywords: English Language Teaching (ELT), Textbook Analysis, Cultural Hegemony, Strategic Appropriation, World Englishes.

KÜRESEL VE YEREL İNGİLİZCE DERS KİTAPLARINDA KÜLTÜR VE İDEOLOJİ

ÖZET

Bu çalışma, Türkiye’de özellikle yabancı dil kursları ve özel öğretim kurumları tarafından yoğunlukla tercih edilen İngiliz Dili Eğitimi (ELT) materyallerinin ideolojik boyutlarını kapsamlı bir şekilde incelemeyi hedeflemektedir. Araştırma, küresel ölçekte üretilen ders kitapları ile yerel bağlamda hazırlanan materyaller arasındaki temel farkları, kültürel hegemonya ve yerel direnç ekseninde araştırmaktadır.

Ders kitapları, dil öğrenim süreçlerinde sadece dilbilgisi kurallarını aktaran pasif araçlar değil, aksine belirli dünya görüşlerini ve kimlik kurgularını öğrenciye sunan kültürel ürünler olarak değerlendirilmektedir. Bu doğrultuda çalışma, bu kaynakların öğrencilere sunduğu kültürel temsillerin ve kimlik kurgularının nasıl inşa edildiği sorunu üzerine odaklanmaktadır. Analiz kapsamında, dünya genelinde yaygın bir kullanım ağına sahip olan English File Fourth Edition (2019) ile Türkiye Cumhuriyeti Millî Eğitim Bakanlığı tarafından hazırlanan MEB 11. Sınıf İngilizce (2024) ders kitabı karşılaştırmalı ve eleştirel bir analize tabi tutulmaktadır. Eleştirel içerik analizi yöntemiyle yürütülen bu inceleme, dil öğretimi ile kültürel değerlerin aktarımı ve bu aktarımın ideolojik ithalatla olan doğrudan ilişkisini değerlendirmeyi amaçlamaktadır. Makale, yerel bağlamın tarihsel ve kültürel çeşitliliğine saygı gösteren, öğrencinin kendi kimliğini İngilizce üzerinden ifade etmesine olanak tanıyan yeni pedagojik çerçeveleri tartışmaya açmaktadır. Çalışma boyunca küreselleşmenin ELT üzerindeki etkileri ve yerel müfredatların bu süreçte üstlendiği stratejik roller, literatürdeki temel kuramlar ışığında ele alınmaktadır.

Anahtar Kelimeler: İngiliz Dili Eğitimi (ELT), Ders Kitabı Analizi, Kültürel Hegemonya, Stratejik Sahiplenme, Dünya İngilizceleri.

INCLUSIVITY IN AI-GENERATED ELT MATERIALS: AN EXPLORATORY CONTENT ANALYSIS

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ABSTRACT

The aim of this study is to examine the extent to which AI-generated English Language Teaching (ELT) content reflects the principles of inclusive education. To fulfill this aim, a qualitative exploratory research design was adopted. The study primarily focuses on ELT materials generated through predefined prompts using an AI tool. The data set consisted of four different types of instructional content, including a lesson plan, a speaking activity, a reading passage, and a vocabulary task. All data were generated in a single session of ChatGPT to ensure consistency and minimize variation. The prompts to generate the content were designed by the researcher to elicit ELT materials suitable for diverse and inclusive classroom contexts. The generated outputs were analyzed using qualitative content analysis. The analysis was structured around four predefined categories: cultural diversity, gender representation, inclusivity of learner abilities, and the existence of stereotypes. The findings indicate that AI-generated ELT content demonstrates partial alignment with inclusive education principles. While the content tends to employ neutral and generalized language, it often lacks explicit representation of diverse cultural backgrounds and specific learner needs. Based on these results, the study suggests that although AI can support the development of instructional materials, it may not fully address the complexities of inclusive education without teacher mediation.

Keywords: Inclusive education, English Language Teaching (ELT), artificial intelligence, AI-generated content, qualitative content analysis.

YAPAY ZEKÂ TARAFINDAN ÜRETİLEN İNGİLİZCE ÖĞRETİMİ MATERYALLERİNDE KAPSAYICILIK: KEŞFEDİCİ BİR İÇERİK ANALİZİ

ÖZET

Bu çalışmanın amacı, yapay zekâ tarafından üretilen İngilizce öğretimi (ELT) içeriklerinin kapsayıcı eğitim ilkelerini ne ölçüde yansıttığını incelemektir. Bu amacı gerçekleştirmek için nitel keşfedici bir araştırma deseni benimsenmiştir. Çalışma, önceden belirlenmiş istemler aracılığıyla bir yapay zekâ aracı kullanılarak üretilen ELT materyallerine odaklanmaktadır. Veri seti; bir ders planı, bir konuşma etkinliği, bir okuma metni ve bir kelime etkinliği olmak üzere dört farklı öğretim içeriğinden oluşmuştur. Tüm veriler, tutarlılığı sağlamak ve değişkenliği en aza indirmek amacıyla ChatGPT'nin tek bir oturumunda üretilmiştir. İçerik üretmek için kullanılan istemler, farklı ve kapsayıcı sınıf bağlamlarına uygun ELT materyalleri ortaya çıkarmak amacıyla araştırmacı tarafından tasarlanmıştır. Üretilen çıktılar nitel içerik analizi kullanılarak analiz edilmiştir. Analiz, kültürel çeşitlilik, toplumsal cinsiyet temsili, öğrenenlerin yeteneklerine yönelik kapsayıcılık ve kalıp yargıların varlığı olmak üzere dört önceden belirlenmiş kategori etrafında yapılandırılmıştır. Bulgular, yapay zekâ tarafından üretilen ELT içeriklerinin kapsayıcı eğitim ilkeleriyle kısmen uyumlu olduğunu göstermektedir. İçerik genellikle nötr ve genellenmiş bir dil kullanma eğiliminde olsa da farklı kültürel arka planların ve belirli öğrenen ihtiyaçlarının açık temsili sıklıkla eksik kalmaktadır. Bu sonuçlara dayanarak, çalışma, yapay zekânın öğretim materyallerinin geliştirilmesini destekleyebileceğini, ancak öğretmen rehberliği olmadan kapsayıcı eğitimin karmaşıklığını tam olarak karşılayamayabileceğini öne sürmektedir.

Anahtar Kelimeler: Kapsayıcı eğitim, İngilizce öğretimi (ELT), yapay zekâ, yapay zekâ tarafından üretilen içerikler, nitel içerik analizi.

FEMININE CHARACTERS IN HEMINGWAY’S “FOR WHOM THE BELL TOLLS”

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ABSTRACT

Ernest Hemingway is one of the most important war writers of American Literature. He has participated in many wars as a correspondent. Lastly he has experienced Turkish National Independence war against Greeks, and other European nations as a war correspondent. As being experienced in our independent war, it is believed that he was probably influenced by the very brave women characters like Halide Edip, Kara Fatma, Nene Hatun and the others. The novel is written on Spain Civil War and it includes many important characters but this work is only focused on female characters. Especially the struggle of the most important character Pilar is very interesting. She is a guerilla, a mother, a cook, an adviser, and a leader who has an unbelievable omniscient character as a narrator as well. That is why it may be valuable to examine female characters of this novel.

Keywords: war, guerilla, Hemingway. Bridge

INTEGRATED USE OF PRINTED AND DIGITAL BOOKS IN FOREIGN LANGUAGE TEACHING: THE CASE OF GERMAN LANGUAGE INSTRUCTION

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ABSTRACT

The aim of this study was to examine the effects of advancing technology on foreign language teaching, with a particular focus on printed textbooks, and to reveal how these materials have been integrated with digital content. For this purpose, textbooks prepared in different periods were analysed using a comparative approach in terms of their content, methodology, and presentation features. The integration of technology into language teaching was evaluated through elements such as interactive exercises, online platforms, mobile applications, and multimedia-supported content. In addition, the process by which printed books have evolved from being mere tools of information transmission into hybrid structures that support the learning process was also examined. Within this framework, German language teaching textbooks published by Hueber Verlag Themen 1 (Aufderstraße et al., 1983), Menschen A1 (Sandra et al., 2012), Motive A1 (Krenn & Puchta, 2016), and Momente A1 (Sandra et al., 2021)—were included in the scope of the study. These textbooks were considered significant in that they reflect the pedagogical approaches and technological possibilities of their respective periods. In the study, the content structures of these works, their activities targeting the four fundamental language skills—reading, listening comprehension, writing, and speaking—as well as their digital support components were analysed, thereby revealing the transformation of material design in foreign language teaching over time.

Accordingly, evaluations regarding the effective use of materials in contemporary foreign language teaching were made, drawing attention to variables such as the readiness levels of teachers and learners, the adequacy of technological infrastructure, and the technological resources available to students.

Keywords: German Language Teaching, Printed Textbooks, Interactive Materials, Language Skills

YABANCI DİL ÖĞRETİMİNDE BASILI VE DİJİTAL KİTAPLARIN BÜTÜNLEŞİK KULLANIMI: ALMANCA ÖĞRETİMİ ÖRNEĞİ

ÖZET

Bu çalışmanın amacı, gelişen teknolojinin yabancı dil öğretimine etkilerini özellikle basılı ders kitapları üzerinden incelemek ve bu materyallerin dijital içeriklerle nasıl bütünleştiğini ortaya koymak olmuştur. Bu maksatla, farklı dönemlerde hazırlanmış ders kitaplarının içerik, yöntem ve sunum özellikleri karşılaştırmalı bir yaklaşımla ele alınmıştır. Teknolojinin dil öğretimine entegrasyonu; etkileşimli alıştırmalar, çevrim içi platformlar, mobil uygulamalar ve multimedya destekli içerikler gibi unsurlar üzerinden değerlendirilmiştir.

Ayrıca, basılı kitapların yalnızca bilgi aktaran araçlar olmaktan çıkarak, öğrenme sürecini destekleyen hibrit yapılar hâline gelme süreci de incelenmiştir. Bu çerçevede, Hueber Verlag tarafından yayımlanan Almanca dil öğretim kitapları Themen 1 (Aufderstraße vd., 1983), Menschen A1 (Sandra vd., 2012), Motive A1 (Krenn & Puchta, 2016) ve Momente A1 (Sandra vd., 2021) inceleme kapsamına alınmıştır. Söz konusu kitaplar, yayımlandıkları dönemin pedagojik yaklaşımlarını ve teknolojik imkânlarını yansıtmaları bakımından önemli bulunmuştur. Çalışmada, bu eserlerin içerik yapıları, okuma, duyduğunu anlama, yazma ve konuşma gibi dört temel dil becerilerine yönelik etkinlikleri ve dijital destek unsurları analiz edilerek, yabancı dil öğretiminde materyal tasarımının zaman içindeki dönüşümü ortaya konulmuştur. Bu doğrultuda, günümüz yabancı dil öğretiminde etkili materyal kullanımına ilişkin değerlendirmeler yapılmış; öğreten ve öğrenenin hazır bulunuşluk düzeyi, teknolojik altyapının yeterliği ve öğrencinin sahip olduğu teknolojik imkânlar gibi değişkenlere dikkat çekilmiştir.

Anahtar Kelimeler: Almanca Öğretimi, Basılı Kitaplar, Etkileşimli Kitaplar, Dil Becerileri

EXAMINATION OF HIGH SCHOOL STUDENTS' ACHIEVEMENT GOAL ORIENTATIONS IN TERMS OF VARIOUS VARIABLES

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ABSTRACT

The aim of this study is to examine high school students' achievement goal orientations in relation to various variables, including gender, school type, grade level, parental education level, monthly family income, and number of siblings. The sample of the study consists of 640 students enrolled in high schools in the central district of Hakkâri. The data were collected using the "Patterns of Adaptive Learning Scales (PALS)" developed by Midgley et al. (2000). Descriptive and inferential statistical methods were employed in the analysis of the data. An independent samples t-test was used to determine whether the scores obtained from the overall scale and its subscales differed according to gender and school type, while one-way ANOVA was conducted to examine differences based on grade level, father's education level, mother's education level, monthly family income, and number of siblings. The findings indicated that students' achievement goal orientation scores differed significantly in favor of female students in both the total score and the learning goal orientation subscale. In terms of school type, statistically significant differences were found in favor of Vocational and Technical Anatolian High Schools in the total achievement goal orientation scores as well as in the individual performance-avoidance and individual performance-approach subscales. It was also determined that students' scores on the overall scale and its subdimensions varied according to grade level, with this difference occurring to the disadvantage of 12th-grade students. No statistically significant difference was found in the total scores of the scale with respect to father's education level; however, a significant difference was observed only in the individual performance-approach subscale. Furthermore, no statistically significant differences were identified in students' achievement goal orientation scores, either in the total scale or in the subscales, based on mother's education level, monthly family income, or number of siblings.

Keywords: Achievement, Achievement Goal Orientation, High School Students

ORTAÖĞRETİM ÖĞRENCİLERİNİN BAŞARI AMAÇ YÖNELİMLERİNİN ÇEŞİTLİ DEĞİŞKENLER AÇISINDAN İNCELENMESİ

ÖZET

Bu araştırmanın amacı, ortaöğretim öğrencilerinin başarı amaç yönelimlerinin çeşitli değişkenler (cinsiyet, okul türü, sınıf düzeyi, anne-baba eğitim düzeyi ile aile aylık gelir durumu ve sahip olunan kardeş sayısı) açısından incelenmesidir. Araştırmanın örneklemini Hakkâri Merkez ilçesinde ortaöğretim kurumlarında öğrenim gören 640 öğrenci oluşturmaktadır. Çalışmanın verileri, Midgley ve arkadaşlarının (2000) geliştirdiği "Bireysel Başarı Amaç Yönelimi Ölçeği (BBAYÖ)" yardımıyla toplanmıştır. Verilerin analizinde betimsel ve kestirimsel istatistikî yöntemler kullanılmıştır.

Öğrencilerin ölçeğin tamamı ve alt ölçeklerinden elde ettikleri puanların cinsiyet ve lise türüne göre farklılık gösterip göstermediğini saptamak için bağımsız örneklem T-testinden, sınıf düzeyi, baba eğitim durumu, anne eğitim durumu, aile aylık gelir durumu ve kardeş sayısına göre farklılık olup olmadığını ortaya çıkarmak için tek yönlü ANOVA'dan yararlanılmıştır. Çalışma sonucunda elde edilen verilere göre öğrencilerin cinsiyetlerine göre elde ettikleri başarı amaç yönelimi puanlarının hem toplam puanda hem de öğrenme amaç yönelimi alt ölçeğinde kız öğrenciler lehine birbirinden anlamlı olarak farklılaştığı tespit edilmiştir. Öğrencilerin öğrenim gördükleri lise türüne göre hem toplam başarı amaç yönelimi puanlarında hem de bireysel performans-kaçınma amaç yönelimi ve bireysel performans-yaklaşma amaç yönelimi alt puanlarında Anadolu Meslek Lisesi lehine istatistiksel açıdan anlamlı bir farklılık tespit edilmiştir. Öğrencilerin elde ettikleri bireysel başarı amaç yönelimi ölçeği ve alt boyutlarında sınıf düzeylerine göre farklılık gösterdiği tespit edilmiştir. Bu farklılaşma 12. sınıfların aleyhine gerçekleşmiştir. Öğrencilerin ölçeğin toplamından elde ettikleri puanların baba eğitim durumu değişkenine göre anlamlı olarak farklılaşmadığı tespit edilmiştir. Alt ölçeklerde ise sadece bireysel performans-yaklaşma amaç yönelimi puanlarında anlamlı bir farklılık tespit edilmiştir. Öğrencilerin anne eğitim durumu, aile gelir durumu ve sahip olunan kardeş sayısı değişkenlerine göre ölçeğin toplamından ve alt ölçeklerinden elde ettikleri bireysel başarı amaç yönelimi puanlarının istatistiksel olarak farklılık göstermediği belirlenmiştir.

Anahtar Kelimeler: Başarı, Başarı Amaç Yönelimi, Ortaöğretim Öğrencileri

A COMPARISON OF INTERNATIONAL CRIMINAL COURTS IN TERMS OF THEIR BINDING NATURE

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ABSTRACT

The expansion of judicial jurisdiction in international law has brought with it diverse legal systems and oversight mechanisms. The purpose of this study is to analyze, from a comparative perspective, the binding force, enforceability, and position vis-à-vis state sovereignty of the decisions of the European Court of Human Rights (ECHR)—a regional human rights court—and the International Court of Justice (ICJ), the principal judicial organ of the United Nations. In this study, the founding statutes of both courts (the ECHR and the ICJ Statute), their case law, and the political mechanisms overseeing the enforcement of their decisions were examined using a qualitative approach. In particular, the “finality,” “binding nature,” and “impact on third parties” of the decisions were identified as the primary criteria for comparison. The analysis revealed fundamental differences between the two courts: While the ICJ conducts “inter-state” adjudication based on the consent of states, the ECHR exhibits a “supranational” character, capable of directly intervening in a state’s sovereign domain through the right to individual petition. ICJ decisions are final and binding on the parties pursuant to Article 94 of the UN Charter, but their enforcement is left to the political discretion of the UN Security Council. ECHR judgments are binding under Article 46 of the ECHR, and their enforcement is systematically monitored by the Committee of Ministers of the Council of Europe. While the ECtHR directly addresses individual rights through its “pilot judgment” procedure for structural issues and its “just satisfaction” (compensation) mechanism, the ICJ focuses more on macro-level disputes such as state responsibility and border disputes. While the ECHR establishes a “vertical” hierarchy of binding authority through its rigorous monitoring mechanism for the implementation of its decisions, the ICJ remains largely confined to a “horizontal” and diplomatic plane of binding authority due to the risk of its decisions being blocked by the Security Council’s veto. This study demonstrates that an effective enforcement system in international law depends not so much on the legal binding nature of a decision as on the institutionalization of the enforcement process.

Keywords: European Court of Human Rights, International Court of Justice, Binding Effect, International Jurisdiction, Enforcement of Judgments.

ULUSLARARASI STATÜDEKİ CEZA MAHKEMELERİNİN BAĞLAYICILIK AÇISINDAN KARŞILAŞTIRILMASI

ÖZET

Uluslararası hukukta yargı yetkisinin genişlemesi, farklı hukuk sistemleri ve denetim mekanizmalarını beraberinde getirmiştir. Bu çalışmanın amacı, bölgesel bir insan hakları mahkemesi olan Avrupa İnsan Hakları Mahkemesi (AİHM) ile Birleşmiş Milletler'in temel yargı organı olan Uluslararası Adalet Divanı'nın (UAD) kararlarının bağlayıcılık gücünü, icra kabiliyetini ve devlet egemenliği karşısındaki konumunu karşılaştırmalı bir perspektifle analiz etmektir. Çalışmada, her iki mahkemenin kuruluş statüleri (AİHS ve UAD Statüsü), içtihatları ve kararların uygulanmasını denetleyen siyasi mekanizmalar nitel bir yaklaşımla incelenmiştir. Özellikle kararların "kesinliği", "bağlayıcılığı" ve "üçüncü taraflar üzerindeki etkisi" temel karşılaştırma kriterleri olarak belirlenmiştir. Yapılan incelemeler sonucunda iki mahkeme arasında temel farklılıklar tespit edilmiştir: UAD, devletlerin rızasına dayalı bir "devletler arası" yargılama yaparken; AİHM, bireysel başvuru hakkı aracılığıyla devletin egemenlik alanına doğrudan müdahale edebilen "supranasyonal" (ulusüstü) bir nitelik sergilemektedir. UAD kararları, BM Şartı'nın 94. maddesi uyarınca taraflar için kesin ve bağlayıcıdır ancak icrası BM Güvenlik Konseyi'nin siyasi takdirine bırakılmıştır. AİHM kararları ise AİHS'nin 46. maddesi gereği bağlayıcı olup, kararların infazı Avrupa Konseyi Delegeler Komitesi tarafından sistemli bir şekilde denetlenmektedir. AİHM, yapısal sorunlara yönelik "pilot karar" usulü ve "adil tatmin" (tazminat) mekanizması ile doğrudan bireyin hukukuna dokunurken; UAD daha çok devletlerin sorumluluğu ve sınır ihtilafları gibi makro ölçekli uyuşmazlıklara odaklanmaktadır. AİHM, kararlarının uygulanmasını denetleyen sıkı takip mekanizması sayesinde "dikey" bir bağlayıcılık hiyerarşisi oluştururken; UAD, kararlarının infazında Güvenlik Konseyi'nin veto engeline takılma riski nedeniyle daha çok "yatay" ve diplomatik bir bağlayıcılık düzleminde kalmaktadır. Çalışma, uluslararası hukukta etkin bir yaptırım sisteminin, kararın hukuki bağlayıcılığından ziyade infaz sürecinin kurumsallaşmasına bağlı olduğunu ortaya koymaktadır.

Anahtar Kelimeler: AİHM, Uluslararası Adalet Divanı, Bağlayıcılık, Uluslararası Yargı, Kararların İnfazı.

A PORTRAIT OF A STATESMAN: MAZHAR MÜFİT KANSU FROM THE NATIONAL STRUGGLE TO THE PARLIAMENT AND HIS DEPUTYSHIP OF HAKKÂRİ

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ABSTRACT

This study aims to examine the administrative and political activities of Mazhar Müfit Kansu, one of the significant figures of Turkish political history, within the context of the institutional formation and political transformation of the early Republican period. Having been trained in the Ottoman bureaucracy and later joining the National Struggle, Kansu assumed an important role in the foundation of the Republic through his active participation in the Erzurum and Sivas Congresses, his membership in the Representative Committee, and his subsequent parliamentary activities in the Grand National Assembly of Türkiye.

The research analyzes Kansu's legislative activities during his terms as deputy of Hakkâri, Denizli, and Artvin within the framework of budget oversight, educational policies, economic regulations, and public administration practices. In this respect, the study does not merely present a biographical narrative but also seeks to evaluate the function of parliamentary practice and the forms of political representation in the early Republican period through the case of Kansu.

A qualitative research method has been adopted in the study, and a comparative analysis has been conducted by examining the parliamentary records (TBMM minutes), memoirs, and official documents of the period. In this process, particular attention has been paid to the differences between subjective narratives in memoirs and official discourse in parliamentary records.

The findings indicate that Mazhar Müfit Kansu was not only a statesman but also an influential actor in shaping center-periphery relations and the understanding of political representation in the early Republican period. In this regard, the study aims to contribute to a better understanding of the political structure of the early Republic.

Keywords: Mazhar Müfit Kansu, National Struggle, Grand National Assembly of Türkiye (TBMM), Deputyship of Hakkâri, Political Representation, Early Republic

BİR DEVLET ADAMININ PORTRESİ: MİLLÎ MÜCADELE'DEN MECLİS'E MAZHAR MÜFİT KANSU VE HAKKÂRİ MİLLETVEKİLLİĞİ

ÖZET

Bu çalışma, Türk siyasi tarihinin önemli figürlerinden Mazhar Müfit Kansu'nun idari ve siyasal faali-yetlerini, erken Cumhuriyet döneminin kurumsal yapılanması ve siyasal dönüşüm süreci bağlamında ele almayı amaçlamaktadır.

Osmanlı bürokrasisinden yetişerek Milli Mücadele sürecine katılan Kansu, Erzurum ve Sivas Kongreleri'ndeki aktif rolü, Heyet-i Temsiliye üyeliği ve sonrasında Türkiye Büyük Millet Meclisi çatısı altındaki çalışmaları ile Cumhuriyet'in kuruluş sürecinde önemli bir yer edinmiştir.

Araştırmada, Kansu'nun Hakkari, Denizli ve Artvin milletvekillikleri dönemindeki yasama faaliyetleri; bütçe denetimi, eğitim politikaları, ekonomik düzenlemeler ve kamu yönetimi anlayışı çerçevesinde incelenmiştir. Bu kapsamda çalışma, yalnızca biyografik bir anlatı sunmayı değil, aynı zamanda erken Cumhuriyet döneminde milletvekilliği pratiğinin işlevini ve siyasal temsil biçimlerini Kansu örneği üzerinden analiz etmeyi hedeflemektedir.

Çalışmada nitel araştırma yöntemi benimsenmiş; TBMM Zabıt Cerideleri, birincil el hatıratlar ve dö-neme ait resmî belgeler birlikte değerlendirilerek karşılaştırmalı bir analiz yapılmıştır. Bu süreçte, hatı-ratlarda yer alan öznel anlatımlar ile resmî kayıtlar arasındaki farklılıklar dikkate alınarak daha bütün-cül bir değerlendirme ortaya konulmuştur.

Elde edilen bulgular, Mazhar Müfit Kansu'nun yalnızca bir devlet adamı olarak değil, aynı zamanda erken Cumhuriyet döneminde merkez-taşra ilişkilerinin şekillenmesinde ve siyasal temsil anlayışının oluşumunda etkili bir aktör olduğunu göstermektedir. Bu yönüyle çalışma, erken Cumhuriyet siyasal yapısının anlaşılmasına katkı sunmayı amaçlamaktadır.

Anahtar Kelimeler: Mazhar Müfit Kansu, Millî Mücadele, TBMM, Hakkari Milletvekilliği, Siyasal Temsil, Erken Cumhuriyet

CIRCULAR ECONOMY APPLICATION ON RUBBER INDUSTRY

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ABSTRACT

This study focused on the recycling of gasket waste from the automotive industry, which contains a high proportion of SBR rubber among its components. This sparked interest in recycling this waste material, which has been discarded in municipal waste collection systems due to the lack of potential uses and its very slow degradability, due to its high resistance to heat, oils, and wear. These factors make this material a significant and high-impact waste source for the region. For this reason, the waste in the form of perforated sheets was shredded and sieved until particles smaller than 3 mm were obtained; these were mixed with virgin rubber and subsequently molded into industrial shoe soles, demonstrating the potential of the waste as a reinforcing material, as well as a colorant, derived from the gasket that prompted the research.

Keywords: circular economy, waste reincorporation industry, natural rubber,

ROBUST ULTRASONIC TRANSMISSION FOR ACCURATE SOC AND SOH ASSESSMENT IN REAL-WORLD LITHIUM BATTERIES

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ABSTRACT

Ultrasonic methods for State of Charge (SOC) and State of Health (SOH) estimation in batteries show promise but face hurdles from environmental variables like temperature fluctuations and material variability, limiting their transition from labs to field use. This study advances transmission-based ultrasonic testing in lithium-polymer batteries by correlating wave metrics - such as speed, attenuation, impedance, and transmission efficiency - with SOC/SOH under dynamic conditions mimicking electric vehicle operation. Through calibrated experiments and machine learning-enhanced models, we achieve enhanced prediction accuracy, reducing errors by up to 15% compared to prior single-parameter approaches. These findings pave the way for non-invasive, in-situ battery diagnostics in automotive and renewable energy systems.

Keywords: Ultrasonic Transmission, Battery SOC/SOH, Wave Propagation Analysis, Lithium-Polymer Cells, Real-Time Monitoring, Non-Destructive Testing

ADVANCING WELD INTEGRITY EVALUATION WITH TIME-OF-FLIGHT DIFFRACTION ULTRASONICS IN HIGH-STRESS ENVIRONMENTS

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ABSTRACT

As industrial assets endure escalating demands from mechanical fatigue, extreme temperatures, and corrosive environments in energy, transport, and infrastructure sectors, proactive flaw detection is essential to avert failures and extend service life. Time-of-Flight Diffraction (TOFD) ultrasonic testing emerges as a superior non-destructive evaluation (NDE) method, leveraging diffracted wave timing to pinpoint crack locations, sizes, and orientations with high precision. Unlike traditional pulse-echo techniques, TOFD delivers full-coverage scans, minimizes dead zones, and enhances sizing accuracy through automated data processing. This makes it ideal for inspecting critical welds in pipelines, vessels, and complex geometries like offshore platforms or bridge girders. Recent integrations with AI-driven analysis further boost reliability, enabling predictive maintenance and regulatory compliance.

Keywords: Time-of-Flight Diffraction (TOFD), Ultrasonic NDE, Weld Inspection, Crack Characterization , Structural Health Monitoring

DEEP LEARNING FOR OPTIMISATION OF CATALYTIC REACTIONS IN CSTR REACTORS

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ABSTRACT

The search for chemical routes demands intensive laboratory tests to evaluate variables such as temperature, reagent concentrations, and catalysts. Classical empirical approaches, such as OFAT (One Factor at a Time) and DOE (Design of Experiments), work well in simple scenarios but fail in high-dimensional spaces due to the large number of parameters. In this context, machine learning (ML), with an emphasis on Deep Learning (DL), emerges as a solution to analyse non-linearities and suggest more efficient and accurate experimental conditions for chemical routes. This study applies DL to the optimisation of chemical reactions in a continuous stirred-tank reactor (CSTR), combining fundamental theory with computational simulations. The main objective is to employ DL to enhance yield, sustainability, and economic viability in reaction processes. The model considers the conversion of the main reagent, molar balances for components in each tank, and heterogeneous catalytic reaction kinetics following the Langmuir-Hinshelwood mechanism for the reaction $A + B \rightarrow P$, with adsorption on active sites and thermal dependencies via Arrhenius and van't Hoff. The energy balance includes reaction terms, heat exchange with the wall, and losses to the environment through convection and radiation. Synthesis parameter data will be generated by varying temperature, initial reagent concentrations, catalyst, and reaction time, with Gaussian noise added to simulate experimental uncertainties. Initially around 200 samples, expanding to 10,000, divided into training (70%), validation (15%), and testing (15%). DL models predict conversion and yield, evaluated by error metrics such as mean absolute error. Initial results show feedforward networks approximating kinetics with precision, while CNNs extract multidimensional patterns. In the future, validation with real experimental data and integration of active learning for autonomous experiments are planned, overcoming traditional limitations.

Keywords: Deep Learning, Reactores CSTR, Otimização Química, Langmuir-Hinshelwood.

DEVELOPMENT OF AN AI/ML BASED SOLUTION FOR THE DETECTION OF FACE-SWAP BASED DEEPFAKE VIDEOS

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ABSTRACT

The recent development pace of the technologies of deep learning has greatly enhanced the creation of deepfake videos that are incredibly realistic, especially using the face-swapping method. Despite the impressive uses of these developments in entertainment and the digital media production, their wicked use poses serious threats to the authenticity of information, the confidence of people, and the security of the internet. Misinformation spread, masquerading identity, cheating money, and harassing people over the internet are becoming the major purposes of using deepfake material, and a human can hardly identify the difference between distorted media and authentic material. This paper suggests a powerful and scalable artificial intelligence-powered system to effectively identify face-swap deepfake videos. The suggested system uses a combination method of analysis that combines the spatial and time feature extraction to increase detection ability. First, the input videos are preprocessed by complex computer vision algorithms and facial regions are extracted and isolated at a per frame basis. A multi-model deep learning structure is then used to analyze these frames. Convolutional Neural Network (CNN) can be used to detect fine-grained spatial features like blending irregularities, light variations, abnormal pixel distributions, and unusual skin textures. At the same time, Recurrent Neural Network (RNN) or spatio-temporal model can learn temporal variations in successive frames to identify motion inconsistencies, non-natural blinking, and non-physiological facial movements which are important signs of deepfake editing. The proposed framework can greatly enhance the detection accuracy, robustness, and generalization to various datasets by incorporation of spatial and temporal analysis. The system helps in enhancing the validation of digital media and helps in combating the proliferation of falsified media. Finally, the study will work towards improving the confidence in digital communication through development of reliable deepfake detection systems.

Keywords: DeepFake Detection, Face-Swap, Deep Learning, Convolutional Neural Network (CNN), Recurrent Neural Network (RNN), Computer Vision, Spatio-Temporal Analysis, Digital Forensics, Media authentication, Cybersecurity.

DEEP LEARNING-BASED ROAD SURFACE DAMAGE DETECTION: CNN AND SEMI-SUPERVISED SEMANTIC SEGMENTATION

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ABSTRACT

One of the most significant factors in causing road accidents is road surface defects on asphalt pavements which are a serious threat to road safety and needs effective monitoring and maintenance strategies. This paper introduces a deep learning-based system to automatically detect road surface damages with the help of Convolutional Neural Networks (CNNs). The suggested system will use image data that is captured by cameras on moving cars to construct a complete training data set in the real world of driving. The model is trained with the semantic segmentation approach, which is founded on the deep convolutional autoencoder architecture, which allows to accurately identify road damages, including cracks, potholes, and surface distortions. In order to enhance the robustness of the models, it employs extensive data augmentation methods especially the brightness variation to mimic various environment conditions and increase the diversity of the dataset. Moreover, a semi-supervised learning approach is integrated through the use of pseudo-labeled samples whereby the model is trained to learn on its own through a small amount of manually labeled material. The performance of the proposed methodology is confirmed by several test datasets, in which expert annotations serve as ground truth to compare the performance. The outcomes of experimental work show that the model provides a correct segmentation and attains dependable detection of road surface damages. The suggested system offers a scalable and effective intelligent road monitoring solution, which is part of enhanced transportation safety and infrastructure management.

Keywords: Road Damage Detection, Convolutional Neural Network (CNN), Semantic Segmentation, Deep Learning, Semi-Supervised Learning, Pseudo-Labeling, Computer Vision, Asphalt pavement, Intelligent Transportation Systems, Image Processing.

GESTURE CONTROLLED CAR USING MEMS SENSOR AND IOT

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ABSTRACT

The project titled Gesture Controlled Robotic Car using MEMS Sensor and IoT aims to provide an intuitive and user-friendly method for controlling a robotic vehicle through hand gestures. The system enables real-time control of the car without the need for conventional remote controllers or wired interfaces, thereby improving human-machine interaction.

The system utilizes a MEMS-based accelerometer sensor to detect the hand movements of the user. The sensor continuously captures tilt and directional gestures such as forward, backward, left, and right. These sensor values are processed using a microcontroller and converted into corresponding motion commands. The processed data is then transmitted wirelessly to the robotic car through an IoT-enabled communication module.

At the receiver end, the robotic car is equipped with a microcontroller and a motor driver circuit. The received gesture commands are interpreted, and the motors are controlled accordingly to move the car in the desired direction. This enables smooth and accurate navigation of the robotic vehicle based on human hand movements.

The entire system operates using a microcontroller with built-in wireless connectivity, ensuring reliable and real-time communication between the gesture control unit and the robotic car. The proposed system enhances human-machine interaction and reduces dependence on traditional control mechanisms. The primary aim of this project is to design a low-cost, efficient, and user-friendly gesture-based robotic control system. Furthermore, the system can be extended for applications such as assistive robotics, surveillance systems, hazardous area monitoring, and smart vehicle control.

Keywords: Gesture Control, MEMS Sensor, Internet of Things (IoT), Robotic Car, Human-Machine Interaction, Wireless Control.

IOT BASED REFRIGERATOR WITH SMART EXPIRY SCANNER

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ABSTRACT

The rising incidence of food wastage due to unnoticed expiration of packaged products poses serious economic, environmental, and public health challenges. Studies indicate that a significant portion of global food production is wasted, highlighting the need for intelligent monitoring solutions. This paper presents an Internet of Things (IoT)-based smart food monitoring system that leverages Radio Frequency Identification (RFID) technology for automated expiry tracking of packaged foods. Each product is embedded with an RFID tag containing essential information such as product identity and expiration date, enabling seamless and contactless data acquisition through an RFID reader.

The system employs a microcontroller-based architecture to process real-time data and generate proactive pre-expiry alerts, thereby minimizing human intervention and reducing the risk of consuming expired food. Furthermore, the collected data are transmitted to a cloud platform for storage, visualization, and analytics, facilitating efficient inventory management through mobile and web interfaces. IoT-enabled monitoring systems have been widely recognized for enhancing traceability, automation, and food safety in supply chains, while RFID technology provides reliable and efficient product identification and tracking.

Experimental evaluation demonstrates that the proposed system achieves accurate expiry detection, improves food safety, and significantly reduces food wastage. The solution is cost-effective, scalable, and suitable for both household and retail environments. This work contributes to the advancement of smart inventory systems and sustainable food management through the integration of IoT and RFID technologies.

Keywords: IoT, RFID, Expiry Detection, Smart Inventory, Food Monitoring, Cloud Computing, Food Safety.

KINEMATIC ANALYSIS AND OPTIMIZATION OF THE FOREGRIPPER MECHANISM IN HIGH-SPEED SHEET-FED OFFSET PRINTING MACHINES

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ABSTRACT

The foregripper mechanism in sheet-fed offset printing machines performs the critical task of accurately transferring sheets from the feed table front lays to the grippers of the printing cylinder. In modern high-speed machines, such as the Heidelberg Speedmaster SM102, this process requires flawless motion synchronization and minimization of dynamic loads occurring at speeds exceeding 15,000 sheets/hour. The primary engineering challenge is ensuring stable sheet transfer from a state of rest to the peripheral speed of the printing cylinder, which directly impacts registration accuracy and overall multi-color print quality.

The authors have conducted a detailed kinematic analysis of the swing-type foregripper mechanism, where the primary motion law is determined by a cam drive. The sequence of phases was investigated: the dwell at the sheet receiving point and its alignment, the acceleration phase of the pendulum lever, the synchronization phase of the gripper angular velocity with the surface speed of the printing cylinder, and the return to the initial position. An optimized cam profile is proposed, which prevents sharp shock loads and vibrations within the lever system. Special attention is paid to the gripper closing mechanism, implemented through a spring system to ensure stable clamping force.

The utilization of an improved kinematic calculation algorithm achieves high positioning accuracy and implements an optimal periodic motion law that minimizes peak torques on the machine's main shaft. A distinctive feature of the proposed approach is the consideration of the inertial characteristics of the swinging masses and their influence on sheet stability. The mechanism ensures the necessary dwell-to-cycle ratio, allowing for effective management of various paper formats without increasing the overall dimensions of the printing unit.

Consequently, optimized foregripper systems represent reliable and compact solutions for modern printing equipment operating under extreme dynamic conditions. The primary advantage of the proposed model over existing complex systems is the simplified drive structure, which ensures accurate fixation of the driven link and smooth transitions between motion phases, significantly reducing mechanical wear. Promising future research involves analyzing the influence of spring link stiffness on the mechanism's dynamic stability at speeds exceeding 18,000 sheets/hour.

Keywords: foregripper mechanism, offset printing machine, kinematic analysis, motion synchronization, registration accuracy, cam drive.

DESIGN AND REAL-TIME VALIDATION OF A THREE-PORT DUAL ACTIVE BRIDGE CONVERTER FOR EV CHARGING APPLICATIONS

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ABSTRACT

The rapid growth of electric vehicles has significantly increased the demand for efficient and flexible charging systems capable of integrating multiple energy sources. Conventional DC–DC converters are designed for single-input operation, which limits to support multi-source such as renewable energy systems (Solar and Wind Energy) and battery storage. To overcome this limitation, this paper proposes a three-port Dual Active Bridge (DAB) converter for electric vehicle charging applications. The proposed converter has MOSFET-based full-bridge circuits and a high-frequency multi-winding transformer to enable galvanic isolation and efficient bidirectional power transfer between multiple DC sources and the load. Power flow is regulated using phase-shift control, where the phase difference between switching signals determines both the magnitude and direction of power transfer. A series inductance serves as the primary energy transfer element to regulate current flow and ensure stable operation. The system is modelled and analysed in the MATLAB/Simulink environment to evaluate its steady-state performance and power transfer characteristics. With three-port dab converter, real-time validation is carried out using the OPAL-RT platform, evaluate the feasibility and effectiveness of the proposed converter. The results demonstrate that the system provides a compact, efficient, and reliable solution for multi-source energy integration in modern EV charging applications.

Keywords: Three-Port DAB Converter, Electric Vehicle Charging, Multi-Source Integration, Phase-Shift Control, Galvanic Isolation, MATLAB/Simulink, OPAL-RT, Real-Time Validation

REMOTE SENSING-BASED EARTHQUAKE DAMAGE ASSESSMENT: A BIBLIOMETRIC ANALYSIS

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ABSTRACT

Following the devastating impacts of earthquakes, structural damage assessment is one of the most critical stages for rapidly coordinating search and rescue operations, minimizing loss of life, and managing post-disaster humanitarian aid logistics. The fact that traditional field inspection methods are time-consuming, difficult to apply over wide areas, and inadequate in terms of safety due to secondary disaster risks such as aftershocks has directed researchers towards advanced technologies. In this context, remote sensing technologies such as optical satellite imagery, Synthetic Aperture Radar (SAR), and Unmanned Aerial Vehicles (UAV) have revolutionized modern crisis management by providing the ability to scan destruction zones rapidly, autonomously, and with high resolution. The primary objective of this study is to comprehensively examine the intellectual structure, evolution, and research trends of the academic literature developing specifically on "remote sensing-based earthquake damage assessment" between the years 1997-2025 using bibliometric analysis methods. Within the scope of the research, 498 academic publications obtained from the Web of Science (WoS) Core Collection, a highly prestigious international database, were subjected to analysis. By utilizing VOSviewer and Excel software for data modeling, the developmental trends of publications over the years, category distributions demonstrating interdisciplinary integration, scientific production performances of countries, and citation networks were visualized. The findings indicate an exponential growth in the literature, particularly since 2018, driven by the integration of deep learning algorithms and artificial intelligence, reaching the highest number of publications in 2023. According to the analysis results, the studies are predominantly concentrated in the disciplines of "Remote Sensing", "Geosciences", and "Civil Engineering". When the geographical distribution is examined, it is determined that countries with high seismic risk such as China, the USA, Japan, and Italy take the lead, while Turkey ranks 6th with its valuable research contributions to the global literature. In conclusion, this study serves as a strategic roadmap that presents the limits of the current knowledge base, technological trends, and potential future research gaps from a holistic perspective to disaster management experts, decision-makers, and researchers in engineering disciplines.

Keywords: Earthquake, damage assessment, remote sensing, bibliometric analysis, unmanned aerial vehicles, deep learning.

UZAKTAN ALGILAMA TABANLI DEPREM HASAR TESPİT ÇALIŞMALARININ BİBLİYOMETRİK ANALİZİ

ÖZET

Depremlerin yarattığı yıkıcı etkilerin ardından, arama-kurtarma faaliyetlerinin hızlıca koordine edilmesi, can kayıplarının asgari düzeye indirilmesi ve afet sonrası insani yardım lojistiğinin yönetimi için yapısal hasar tespiti en kritik aşamalardan biridir.

Geleneksel saha inceleme yöntemlerinin zaman alıcı olması, geniş alanlarda uygulanabilirliğinin zorluğu ve artçı sarsıntılar gibi ikincil afet riskleri nedeniyle güvenlik açısından yetersiz kalması, araştırmacıları ileri teknolojilere yöneltmiştir. Bu bağlamda; optik uydu görüntüleri, Yapay Açıklıklı Radar (SAR) ve İnsansız Hava Araçları (İHA) gibi uzaktan algılama teknolojileri, yıkım alanlarını hızlı, otonom ve yüksek çözünürlükle tarama imkânı sunarak modern kriz yönetiminde devrim yaratmıştır. Bu çalışmanın temel amacı, 1997-2025 yılları arasında "uzaktan algılama tabanlı deprem hasar tespiti" özelinde gelişen akademik literatürün entelektüel yapısını, evrimini ve araştırma eğilimlerini bibliyometrik analiz yöntemleriyle derinlemesine incelemektir. Araştırma kapsamında, uluslararası alanda saygın veri tabanlarından biri olan Web of Science (WoS) Core Collection üzerinden elde edilen 498 akademik yayın analize tabi tutulmuştur. Verilerin modellenmesinde VOSviewer ve Excel yazılımları kullanılarak; yayınların yıllara göre gelişim trendleri, disiplinler arası entegrasyonu gösteren kategori dağılımları, ülkelerin bilimsel üretim performansları ve atıf ağları görselleştirilmiştir. Elde edilen bulgular, özellikle derin öğrenme algoritmaları ve yapay zeka entegrasyonu sayesinde 2018 yılından itibaren literatürde eksponansiyel bir büyüme yaşandığını ve en yüksek yayın sayısına 2023 yılında ulaşıldığını göstermektedir. Analiz sonuçlarına göre çalışmalar ağırlıklı olarak "Uzaktan Algılama", "Yer Bilimleri" ve "İnşaat Mühendisliği" disiplinlerinde yoğunlaşmaktadır. Coğrafi dağılım incelendiğinde ise; Çin, ABD, Japonya ve İtalya gibi sismik riski yüksek ülkelerin başı çektiği, Türkiye'nin ise küresel literatüre sağladığı değerli araştırmalarla 6. sırada yer aldığı tespit edilmiştir. Sonuç olarak bu çalışma; afet yönetimi uzmanlarına, karar alıcılara ve mühendislik disiplinlerindeki araştırmacılara mevcut bilgi birikiminin sınırlarını, teknolojik eğilimleri ve gelecekteki potansiyel araştırma boşluklarını bütüncül bir perspektifle sunan stratejik bir yol haritası niteliğindedir.

Anahtar Kelimeler: Deprem, uzaktan algılama, hasar tespiti, bibliyometrik analiz, insansız hava araçları, derin öğrenme.

A BIBLIOMETRIC ANALYSIS OF LIDAR AND PHOTOGRAMMETRY-BASED BUILDING AND INFRASTRUCTURE APPLICATIONS

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ABSTRACT

This study aims to conduct a bibliometric analysis of the scientific literature on LiDAR- and photogrammetry-based building and infrastructure applications. The Web of Science (WoS) database was used as the data source; a search query was formulated that included the concepts of “LiDAR,” “light detection and ranging,” “photogrammetry,” and “image-based modeling,” along with the fields of “construction,” “infrastructure,” “building monitoring,” and “structural assessment.” Records from 2026 were excluded from the scope of the research, and only publications in the form of articles and conference papers were evaluated. The obtained data were analyzed by publication type, publication and citation distribution by year, category, author, and country. The findings indicate that a total of 5,375 publications were evaluated within the scope of the subject, and that articles constitute the majority of these publications. It was observed that the number of publications and citations increased significantly, particularly after 2010, and that this increase gained further momentum after 2020. The categorical distribution revealed that the studies were primarily concentrated in the fields of remote sensing, earth sciences, and engineering. At the country level, China and the United States were found to have a clear dominance, while at the author level, although production was concentrated around certain researchers, it exhibited a relatively balanced distribution. In conclusion, the study demonstrates that LiDAR and photogrammetry-based building and infrastructure research has shown rapid development in recent years, that the field has gained strength both academically and in terms of practical applications, and that it holds significant research potential that requires support from artificial intelligence, big data analytics, and interdisciplinary studies.

Keywords: LiDAR, photogrammetry, bibliometric analysis, construction applications, infrastructure applications, Web of Science, remote sensing

LİDAR VE FOTOGRAMETRİ TABANLI YAPI VE ALTYAPI UYGULAMALARININ BİBLİYOMETRİK ANALİZİ

ÖZET

Bu çalışma, LiDAR ve fotogrametri tabanlı yapı ve altyapı uygulamalarına ilişkin bilimsel literatürün bibliyometrik açıdan değerlendirilmesini amaçlamaktadır. Çalışmada veri kaynağı olarak Web of Science (WoS) veri tabanı kullanılmış; “LiDAR”, “light detection and ranging”, “photogrammetry” ve “image-based modeling” kavramları ile “construction”, “infrastructure”, “building monitoring” ve “structural assessment” alanlarını içeren bir arama sorgusu temel alınmıştır. Araştırma kapsamında 2026 yılına ait kayıtlar kapsam dışı bırakılmış, yalnızca makale ve bildiri türündeki yayınlar değerlendirilmiştir. Elde edilen veriler, yayın türü, yıllara göre yayın ve atıf dağılımı, kategori, yazar ve ülke bazında incelenmiştir. Bulgular, toplam 5375 yayının konu kapsamında değerlendirildiğini ve yayınların büyük bölümünü makalelerin oluşturduğunu göstermektedir.

Yayın ve atıf sayılarının özellikle 2010 sonrasında belirgin biçimde arttığı, 2020 sonrasında ise bu artışın daha da ivme kazandığı tespit edilmiştir. Kategorik dağılım, çalışmaların ağırlıklı olarak uzaktan algılama, yer bilimleri ve mühendislik alanlarında yoğunlaştığını ortaya koymuştur. Ülke bazında Çin ve ABD'nin belirgin bir üstünlüğe sahip olduğu, yazar bazında ise üretimin belli araştırmacılar çevresinde yoğunlaşmakla birlikte görece dengeli bir dağılım sergilediği belirlenmiştir. Sonuç olarak çalışma, LiDAR ve fotogrametri tabanlı yapı ve altyapı araştırmalarının son yıllarda hızlı bir gelişim gösterdiğini, alanın hem akademik hem de uygulama odaklı olarak güç kazandığını ve özellikle yapay zekâ, büyük veri analitiği ve disiplinler arası çalışmalarla desteklenmesi gereken önemli bir araştırma potansiyeli taşıdığını ortaya koymaktadır.

Anahtar kelimeler: LiDAR, fotogrametri, bibliyometrik analiz, yapı uygulamaları, altyapı uygulamaları, Web of Science, uzaktan algılama

BIM-IOT INTEGRATION IN CONSTRUCTION AND ARCHITECTURE: A BIBLIOMETRIC ANALYSIS OF EMERGING DIGITAL PRACTICES

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ABSTRACT

This study examines the development of academic literature on the integration of Building Information Modeling (BIM) and the Internet of Things (IoT) through a bibliometric analysis approach. The data were obtained from the Web of Science (WoS) database, focusing on studies addressing BIM-IoT integration within the context of construction, architecture, and the built environment. A total of 639 publications were identified, and since the year 2026 is not yet complete, the analysis was limited to the period between 2015 and 2025. The study analyzes publication trends, citation patterns, document types, Web of Science categories, leading journals, countries, institutions, and the most cited studies. The results indicate a significant growth in research output, particularly after 2020, reflecting the increasing importance of digitalization in the construction and architecture sectors. The findings also reveal that the field is predominantly rooted in civil engineering and construction technologies while demonstrating strong interdisciplinary connections with computer science, environmental sciences, and management. Furthermore, China and the United States emerge as the most productive countries, while journals such as Buildings and Automation in Construction serve as key publication platforms. Highly cited studies are mainly associated with emerging technologies, including digital twins, smart cities, blockchain, and machine learning. This study contributes to the literature by systematically identifying research trends, dominant thematic areas, and key knowledge sources in BIM-IoT integration. By providing a structured overview of the field, it offers valuable insights for future research and supports the advancement of digital transformation strategies in the construction industry.

Keywords: BIM, IoT, bibliometric analysis, construction industry, architecture, digital twin

İNŞAAT VE MİMARLIKTAKİ BIM-IoT ENTEGRASYONU: DİJİTAL DÖNÜŞÜM EĞİLİMLERİNİN BİBLİYOMETRİK ANALİZİ

ÖZET

Bu çalışmada, BIM (Building Information Modeling) ve IoT (Internet of Things) entegrasyonuna yönelik akademik literatürün gelişimi bibliyometrik analiz yöntemiyle incelenmiştir. Araştırma verileri Web of Science (WoS) veri tabanından elde edilmiş olup, BIM ve IoT kavramlarının inşaat, mimarlık ve yapı çevre bağlamında birlikte ele alındığı çalışmalar analiz kapsamına alınmıştır. Yapılan tarama sonucunda toplam 639 akademik yayına ulaşılmış ve 2026 yılı henüz tamamlanmadığı için analizler 2015-2025 yılları ile sınırlandırılmıştır. Çalışma kapsamında yayınların yıllara göre dağılımı, atıf eğilimleri, yayın türleri, Web of Science kategorileri, en fazla atıf alan çalışmalar, önde gelen dergiler, ülkeler ve kurumlar analiz edilmiştir. Elde edilen bulgular, özellikle 2020 yılı sonrasında yayın ve atıf sayılarında belirgin bir artış olduğunu ve BIM-IoT entegrasyonunun inşaat ve mimarlık alanlarında giderek artan bir önem kazandığını göstermektedir.

Ayrıca araştırma alanının ağırlıklı olarak inşaat mühendisliği ve yapı teknolojileri ekseninde geliştiği, ancak bilgisayar bilimleri, çevre bilimleri ve yönetim gibi farklı disiplinlerle güçlü bir etkileşim içerisinde olduğu belirlenmiştir. Çin ve Amerika Birleşik Devletleri'nin en fazla yayın üreten ülkeler olduğu, Buildings ve Automation in Construction gibi dergilerin öne çıktığı ve literatürde yüksek atıf alan çalışmaların dijital ikiz, akıllı şehirler, blokzincir ve makine öğrenmesi gibi ileri teknolojilerle ilişkili olduğu tespit edilmiştir. Bu çalışma, BIM ve IoT entegrasyonuna ilişkin literatürdeki araştırma eğilimlerini, öne çıkan tematik alanları ve temel bilgi kaynaklarını sistematik bir şekilde ortaya koyarak alana özgün bir katkı sunmaktadır. Elde edilen bulgular, gelecekte yapılacak disiplinler arası araştırmalar için yol gösterici nitelikte olup, inşaat sektöründe dijital dönüşüm stratejilerinin geliştirilmesine katkı sağlamaktadır.

Anahtar kelimeler: BIM, IoT, bibliyometrik analiz, inşaat sektörü, mimarlık, dijital ikiz

DIGITAL TWIN APPLICATIONS IN URBAN REGENERATION: A BIBLIOMETRIC ANALYSIS AND RESEARCH AGENDA

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ABSTRACT

In this study, the development of the academic literature on digital twin integration in urban regeneration projects was examined using bibliometric analysis methods. Research data was obtained from the Scopus database, and studies that jointly addressed urban regeneration or renewal alongside the Digital Twin—a dynamic, real-time replica of a physical object, system, or process in the digital world—were included in the analysis. The search yielded a total of 556 academic publications, and since 2026 has not yet concluded, the analysis was limited to the years 2011–2025. Within the scope of the study, the distribution of publications by year, citation trends, publication types, Scopus categories, the most cited studies, leading journals, countries, and institutions were analyzed. The findings indicate that the number of publications began to accelerate between 2018 and 2020 and reached its peak in 2025. Furthermore, it is observed that the integration of digital twins within the scope of digitalization in urban regeneration is gaining increasing attention and becoming more widely adopted in the sector. Furthermore, it was determined that the research field has primarily developed around the axes of construction management, urban and regional planning, computer science, environmental science/sustainability, and smart city studies. It has been determined that Italy, India, and China are the top-producing countries in terms of publications, with journals such as *Sustainability* and *Smart Cities* standing out, and that the studies receiving the highest citations in the literature are related to smart city theory, sustainable cities, data-driven urban management, and digitalization. This study provides a unique contribution to the field by systematically identifying research trends, prominent thematic areas, and key information sources in the literature regarding digital twin applications and their integration in urban regeneration projects. The findings serve as a guide for future interdisciplinary research and contribute to the development of digitalization strategies in urban regeneration projects within the construction sector.

Keywords: Urban regeneration, urban renewal, digital twin, bibliometric analysis, construction industry, architecture

KENTSEL DÖNÜŞÜMDE DİJİTAL İKİZ UYGULAMALARI: BİBLİYOMETRİK BİR ANALİZ VE ARAŞTIRMA GÜNDEMİ

ÖZET

Bu çalışmada, kentsel dönüşüm projelerinde dijital ikiz entegrasyonuna yönelik akademik literatürün gelişimi bibliyometrik analiz yöntemiyle incelenmiştir. Araştırma verileri Scopus veri tabanından elde edilmiş olup, kentsel dönüşüm veya yenileme ile fiziksel bir nesnenin, sistemin veya sürecin dijital dünyadaki dinamik ve gerçek zamanlı kopyası anlamına gelen Digital Twin aracının birlikte ele alındığı çalışmalar analiz kapsamına alınmıştır. Yapılan tarama sonucunda toplam 556 akademik yayına ulaşılmış ve 2026 yılı henüz tamamlanmadığı için analizler 2011–2025 yılları ile sınırlandırılmıştır.

Çalışma kapsamında yayınların yıllara göre dağılımı, atıf eğilimleri, yayın türleri, Scopus kategorileri, en fazla atıf alan çalışmalar, önde gelen dergiler, ülkeler ve kurumlar analiz edilmiştir. Elde edilen bulgular neticesinde, 2018-2020 yılında yayın sayısında ivmelenmenin başladığı ve 2025 yılında en fazla yayın sayısına ulaştığı görülmüştür. Ayrıca kentsel dönüşümde dijitalleşme kapsamında dijital ikiz entegrasyonunun giderek ilgi gören ve sektörde kullanımı artan bir hal aldığı görülmektedir. Ayrıca araştırma alanının ağırlıklı olarak inşaat yönetimi, şehir ve bölge planlama, bilgisayar bilimleri, çevre bilimleri / sürdürülebilirlik ve akıllı şehir çalışmaları ekseninde geliştiği belirlenmiştir. İtalya, Hindistan ve Çin ülkelerinin en fazla yayın üreten ülkeler olduğu, Sustainability ve Smart Cities gibi dergilerin öne çıktığı ve literatürde yüksek atıf alan çalışmaların akıllı şehir teorisi, sürdürülebilir şehirler, veri odaklı şehir yönetimi dijitalleşme ile ilişkili olduğu tespit edilmiştir. Bu çalışma, kentsel dönüşüm projelerinde dijital ikiz uygulamaları ve entegrasyonuna ilişkin literatürdeki araştırma eğilimlerini, öne çıkan tematik alanları ve temel bilgi kaynaklarını sistematik bir şekilde ortaya koyarak alana özgün bir katkı sunmaktadır. Elde edilen bulgular, gelecekte yapılacak disiplinler arası araştırmalar için yol gösterici nitelikte olup, inşaat sektöründe kentsel dönüşüm projelerinde dijitalleşme stratejilerinin geliştirilmesine katkı sağlamaktadır.

Anahtar kelimeler: Kentsel dönüşüm, kentsel yenileme, dijital ikiz, bibliyometrik analiz, inşaat sektörü, mimarlık

TILKITEPE HALAF CULTURE HORIZON POTTERY: AN ASSESSMENT OF THE DISTRIBUTION AROUND LAKE VAN IN THE LIGHT OF TYPOLOGY AND DECORATION

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ABSTRACT

Located on the western shore of Lake Van, the Tilkitepe Mound is considered one of the northernmost settlements within the sphere of influence of the Halaf Cultural Horizon. Short-term excavations conducted intermittently between 1890 and 1937 have uncovered a group of pottery dating to the Halaf Cultural Horizon. The pottery, characterized by painted surface decorations, reflects the culture-specific vessel forms in the high mountainous plain of Lake Van.

Since the early 1950s, extensive research has been conducted on the distribution and sphere of influence of the Halaf Culture in Near Eastern archaeology. The primary research question is to determine the geographical boundaries of a culture and to identify its distribution patterns. The chronological and spatial distribution of the pottery forms and decorative features characteristic of the Halaf culture constitutes the primary dataset for defining interaction networks.

The aim of the study is to provide a comprehensive explanation of the geographical location and stratigraphic sequence of the Tilkitepe settlement, analyzing the pottery finds through typology and decorative repertoire. It also focuses on analyzing the distribution patterns around Lake Van and the dynamics of cultural interaction. The data from contemporary archaeological studies conducted in Southeastern Anatolia, Northern Iraq, Northwestern Iran, and Northern Syria have been referenced, and the pottery forms and decorative patterns dating to the Halaf Cultural Horizon strata at Tilkitepe have been analyzed using macroscopic methods. The findings have been analyzed to elucidate how cultural norms were shaped within the context of the settlement. Patterns of cultural interaction have been identified, and the mechanisms of circulation and mobility among communities in the Lake Van region and the surrounding interaction zone have been examined. Considering the existing archaeological evidence (pottery and obsidian), it is suggested that the Tilkitepe settlement functioned as a hub for exchange and a contact point for Mesopotamian-origin communities moving from south to north across the Lake Van coastal plain.

Keywords: Tilkitepe, Halaf Culture, Form and Decoration, Macroscopic Analysis

TİLKİTEPE HALAF KÜLTÜR UFKU ÇANAK ÇÖMLEKLERİ: TİPOLOJİ VE BEZEME IŞIĞINDA VAN GÖLÜ ÇEVRESİNDEKİ YAYILIMIN DEĞERLENDİRİLMESİ

ÖZET

Van Gölü'nün batı kıyısında yer alan Tilkitepe Höyüğü, Halaf Kültür Ufku etki alanının ulaştığı en kuzeydeki yerleşimlerden biri olarak kabul edilmektedir. 1890-1937 yılları arasında aralıklarla gerçekleştirilen kısa süreli kazılar, Halaf Kültür Ufku'na tarihlenen çanak çömlek grubunu ortaya çıkarmıştır. Boyalı yüzey dekorasyonları ile karakterize edilen çanak çömlekler, Van Gölü'nün yüksek dağlık ovasında kültüre özgü kap biçimlerini yansıtmaktadır.

1950'li yılların başlarından itibaren Yakın Doğu arkeolojisinde Halaf Kültürü'nün yayılımı ve etki alanları üzerine kapsamlı araştırmalar yürütülmüştür. Araştırmaların temel sorusu, kültürün coğrafi yayılım sınırlarının belirlenmesi ve dağılım örüntülerinin tanımlanmasıdır.

Halaf Kültürü'nü karakterize eden çanak çömlek biçim ve bezeme özelliklerinin kronolojik ve mekânsal dağılımı, etkileşim ağlarının tanımlanmasında temel veri grubunu oluşturmaktadır. Çalışmanın amacı Tilkitepe yerleşiminin coğrafi konumu ve stratigrafik dizilimine ilişkin kapsamlı bir açıklama sunarak çanak çömlek buluntularını tipoloji ve bezeme repertuarı üzerinden ele almaktır. Ayrıca Van Gölü çevresindeki yayılım örüntülerini ve kültürel etkileşim dinamiklerini analiz etmeye odaklanmaktadır. Güneydoğu Anadolu, Kuzey Irak, Kuzeybatı İran ve Kuzey Suriye'de yürütülen çağdaş arkeolojik çalışmaların verileri referans alınarak, Tilkitepe'de Halaf Kültür Ufku tabakalarına tarihlenen çanak çömlek biçimleri ve bezeme modelleri makroskobik analiz yöntemiyle incelenmiştir. Derlenen çıkarımlar, yerleşim bağlamında kültürel normların nasıl şekillendiğini ortaya koymak amacıyla değerlendirilmiştir. Kültürel etkileşim örüntüleri tanımlanmış ve Van Gölü çevresi ile etkileşim bölgesindeki topluluklar arasındaki dolaşım ve hareketlilik mekanizmaları tartışılmıştır. Mevcut arkeolojik kanıtlar (seramik ve obsidyen) dikkate alındığında Tilkitepe yerleşiminin Van Gölü kıyı ovası üzerinde güneyden kuzeye hareket eden Mezopotamya kökenli topluluklar için bir takas ve temas noktası olduğu önerilmektedir.

Anahtar Kelimeler: Tilkitepe, Halaf Kültürü, Biçim ve Bezeme, Makroskobik Gözlem

TRACES OF HIS LIFE IN HASAN HÜSEYİN KORKMAZGİL'S CHILDREN'S BOOKS

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ABSTRACT

Hasan Hüseyin was born in 1927 in Gürün district of Sivas. He completed his primary education in Gürün, his secondary education as a boarding student in Niğde, and his high school education in Adana. After completing his higher education at Ankara Gazi Education Institute, he was appointed as a Turkish language teacher first in Afşin and then shortly afterwards in Göksun; however, his teaching career was very short. After teaching, he had to earn his living with his pen, and throughout his life, he experienced serious financial difficulties.

Hasan Hüseyin, who belongs to the 1960s social realist generation in Turkish literature, is best known for his poetry. The artist has also made a name for himself with humorous stories, children's books, and newspaper articles. Drawing on his own life experiences, he has five children's books, published in 1981 and later. These works are: *Ormanın Öcü* (The Revenge of the Forest) (1981), *Ressamın Bildircinleri* (The Painter's Quails)(1981), *Eşeğin Gözyaşları* (The Donkey's Tears) (1981), *Aşıcı Baba* (The Vaccinator Father)(1981), and *Becerikli Çocuğun Düşleri* (The Dreams of the Clever Child) (1982). Reflections of Hasan Hüseyin's life can be seen in all five books. In these books, Hasan Hüseyin focuses on his family, childhood memories, his closeness to nature in Gürün, and his friends. In *The Vaccinator Father* (1981), he features his father; in *The Donkey's Tears*(*Eşeğin Gözyaşları*) (1981), he depicts the time he spent with his friends in Gürün, surrounded by nature and animals; In *The Clever Child's Dreams* (*Becerikli Çocuğun Düşleri*) (1982), he described his childhood; in *The Painter's Quails* (*Ressamın Bildircinleri*) (1981), he spoke about his friend, the painter Duran Karaca; and in *The Forest's Revenge* (*Ormanın Öcü*) (1981), he conveyed his love for nature and the need to protect it. After providing information about Hasan Hüseyin's life, this study examines the traces of his life reflected in his children's books.

Keywords: Hasan Hüseyin Korkmazgil, children's books, traces of his life.

A LINGUISTIC ANALYSIS OF 'HİKÂYE-I BÎ-NAMÂZ'

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ABSTRACT

Old Anatolian Turkish represents a critical transitional period in the historical development of the Turkish language. Spanning from the beginning of the 13th century to the end of the 15th century, this era encompasses the linguistic stages of the Seljuks, the Anatolian Beyliks, and early Ottoman Turkish. This article examines the verse text entitled Hikâye-i bî-Namâz, which is widely circulated among the public and possesses a religious and didactic narrative character. The text generally addresses the religious, moral, and eschatological consequences faced by individuals who abandon the performance of prayer. Beyond emphasizing the obligation of individual worship, Hikâye-i bî-Namâz also reflects the social significance of the concept of “worship” to the reader. By underscoring the importance of prayer as one of the fundamental religious duties, the text conveys that failure to fulfill this obligation leads to social exclusion. In order to analyze the text in terms of language and content, it was first transcribed, and subsequently rendered into Modern Turkish. Through an examination of its linguistic features, changes in language and morphological structures from the period of Old Anatolian Turkish to the present day are highlighted. As a result of the study, it has been determined that Hikâye-i bî-Namâz is a text that embodies the plain, comprehensible, and didactic narrative characteristics of Old Anatolian Turkish. In conclusion, Hikâye-i bî-Namâz does not merely focus on the neglect of a religious observance, but also reveals the social norms of the period and the mechanisms of spiritual control over the individual. This study demonstrates that this poetic work, which preserves the vocabulary and archaic elements of Old Anatolian Turkish, constitutes a valuable resource for both linguistic research and cultural memory studies.

Keywords: Linguistic Features, Old Anatolian Turkishs, Hikâye-i bî-Namâz.

“HİKÂYE-İ BÎ- NAMÂZ” ÜZERİNE DİL BİLİMSEL BİR İNCELEME

ÖZET

Eski Anadolu Türkçesi, Türk dilinin tarihi gelişiminde oldukça kritik bir köprü dönemidir. 13. yüzyılın başlarından 15. yüzyılın sonlarına kadar devam eden bu süreç, Selçuklular, Anadolu Beylikleri ve erken dönem Osmanlı Türkçesini kapsar. Bu makale, halk arasında yaygın olan dinî ve didaktik bir anlatı özelliği bulunan Hikâye-i bî-Namâz adlı manzum metni çalışma konusu olarak ele almaktadır. Metin genel olarak namazını terk eden bireylerin dinî, ahlaki ve uhrevî akıbetini anlatır. Hikâye-i bî-Namâz metni, bireysel ibadet etmenin barındırdığı yükümlülüğün yanında toplumsal olarak “ibadet” kavramının önemini de okuyucuya yansıtır. Metinde dinî görevlerden biri olan namazın önemini vurgulayarak yerine getirilmediğinde toplum tarafından dışlanma yaşanacağı anlatılır. Çalışmada yer alan metin dil ve içerik açısından ele alınması için öncelikle transkripsiyonu yapılmıştır. Bir sonraki adım olarak günümüz Türkçesine aktarılmıştır. Dil özellikleri bakımından incelenerek Eski Anadolu Türkçesi döneminden günümüze değişen dil ve şekil özelliklerine vurgu yapılmıştır. Çalışma sonucunda Hikâye-i bî-Namâz ’ın Eski Anadolu Türkçesinin sade, anlaşılır ve öğretici anlatım özelliklerini barındıran bir metin olduğu tespit edilmiştir. Sonuç olarak Hikâye-i bî-Namâz , yalnızca bir ibadetin terki üzerine odaklanmakla kalmayıp aynı zamanda dönemin toplumsal normlarını ve birey üzerindeki manevi denetim mekanizmalarını da gözler önüne sermektedir.

Bu çalışma, Eski Anadolu Türkçesinin söz varlığını ve arkaik unsurlarını koruyan bu manzumenin, hem dil bilimi araştırmaları hem de kültürel bellek çalışmaları için kıymetli bir kaynak teşkil ettiğini ortaya koymaktadır.

Anahtar kelimeler: Dil Özellikleri, Eski Anadolu Türkçesi, Hikāye-ī bi-Namāz.

EXAMINING THE EFFECT OF LIFE GOALS ON CAREER INDECISION IN HIGH SCHOOL STUDENTS

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ABSTRACT

he career decision-making process is one of the most critical developmental tasks during high school, and indecision in this process can significantly affect an individual's academic, professional, and psychosocial adjustment. In this context, examining the role of students' life goals on career indecision is of considerable importance. The purpose of this study is to investigate the relationships between high school students' levels of career indecision and their life goals, and to classify students according to career indecision profiles to determine whether these profiles differ in terms of life goals. The study, conducted using quantitative relational research methods, included a total of 378 high school students (Female = 241, 63.8%). Data were collected using the Career Decision Inventory and the Life Goals Scale. Analyses included Pearson correlation, multiple linear regression, K-means cluster analysis, and one-way ANOVA.

The findings indicated that the overall relationships between life goals and career indecision were generally low. Regression analysis results showed that the physical appearance dimension of life goals significantly and positively predicted career indecision, whereas the social responsibility dimension was a significant negative predictor. The financial gain dimension was not a significant predictor. Cluster analysis divided students into two groups: high and low career indecision. ANOVA results revealed significant differences between these clusters across all subdimensions of career indecision. Additionally, when clusters were compared in terms of life goals, significant differences were observed in the financial gain, physical appearance, and social responsibility dimensions, while no significant differences were found in personal development and individual uniqueness dimensions.

These results suggest that career indecision is related to specific dimensions of life goals, and that externally oriented life goals may play a decisive role in the career decision-making process. This highlights the importance of considering external motivation dimensions of life goals in adolescents' career decision-making and in guidance practices.

Keywords: Career indecision, life goals, high school students, clustering, regression

LİSE ÖĞRENCİLERİNDE YAŞAM AMAÇLARININ MESLEKİ KARARSIZLIĞA ETKİSİNİN İNCELENMESİ

ÖZET

Mesleki karar verme süreci, lise döneminde bireylerin yaşamlarını şekillendiren en kritik gelişimsel görevlerden biri olup, bu süreçte yaşanan kararsızlık bireyin akademik, mesleki ve psikososyal uyumunu önemli ölçüde etkileyebilmektedir. Bu bağlamda, bireylerin sahip oldukları yaşam amaçlarının mesleki kararsızlık üzerindeki rolünün incelenmesi önem taşımaktadır. Bu çalışmanın amacı, lise öğrencilerinin mesleki kararsızlık düzeyleri ile yaşam amaçları arasındaki ilişkileri incelemek ve öğrencileri mesleki kararsızlık profillerine göre sınıflandırarak bu profillerin yaşam amaçları açısından farklılaşıp farklılaşmadığını ortaya koymaktır. Nicel araştırmalar kapsamında ilişkisel araştırma yöntemlerinin kullanıldığı çalışmaya toplam 378 lise öğrencisi (Kadın= 241, %63.8) katılmıştır. Veri toplama aracı olarak “Mesleki Karar Envanteri” ile “Yaşam Amaçları Ölçeği” kullanılmıştır. Verilerin analizinde Pearson korelasyon analizi, çoklu doğrusal regresyon analizi, K-ortalamlar kümeleme analizi ve tek yönlü varyans analizi kullanılmıştır. Araştırma bulguları, yaşam amaçları ile mesleki kararsızlık arasındaki ilişkilerin genel olarak düşük düzeyde olduğunu göstermiştir. Regresyon analizi sonuçlarına göre, yaşam amaçlarının fiziksel görünüm boyutu mesleki kararsızlığı pozitif yönde anlamlı olarak yordarken, sosyal sorumluluk boyutu negatif yönde anlamlı bir yordayıcıdır. Maddi kazanç boyutunun ise anlamlı bir yordayıcı olmadığı belirlenmiştir. Kümeleme analizi sonucunda öğrenciler yüksek ve düşük mesleki kararsızlık düzeyine sahip iki gruba ayrılmıştır. ANOVA sonuçları, bu kümelerin mesleki kararsızlık alt boyutlarının tamamında anlamlı biçimde farklılaştığını ortaya koymuştur. Ayrıca, kümeler yaşam amaçları açısından karşılaştırıldığında, maddi kazanç, fiziksel görünüm ve sosyal sorumluluk boyutlarında anlamlı farklılıklar bulunurken; kişisel gelişim ve bireysel farklılık boyutlarında anlamlı bir farklılık saptanmamıştır. Sonuçlar, mesleki kararsızlığın yaşam amaçlarının belirli boyutlarıyla ilişkili olduğunu ve özellikle dışsal yönelimli yaşam amaçlarının mesleki karar sürecinde belirleyici bir rol oynayabileceğini göstermektedir. Bu durum, ergenlerin kariyer karar süreçlerinde yaşam amaçlarının dışsal motivasyon boyutlarının önemini ortaya koymakta ve rehberlik uygulamalarında bu boyutların dikkate alınmasının değerli olabileceğini vurgulamaktadır.

Anahtar Kelimeler: Mesleki kararsızlık, yaşam amaçları, lise öğrencileri, kümeleme, regresyon.

EXAMINATION OF ACADEMIC MOTIVATION PROFILES BASED ON HIGH SCHOOL STUDENTS' PERCEPTIONS OF SCHOOL CLIMATE

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ABSTRACT

The quality of educational environments is considered an important factor that directly affects not only students' academic achievement but also their motivation to learn. In this context, students' perceptions of school emerge as one of the key variables shaping their engagement in learning processes and their academic development. In particular, how students perceive the school climate plays a critical role in understanding their levels of academic motivation. The aim of this study is to examine whether profiles formed based on high school students' perceptions of school climate differ in terms of academic motivation levels. The study was conducted within the framework of a relational survey model, one of the quantitative research methods. The study group consisted of 788 high school students (female=313, 37.7%) studying in a metropolitan city in Türkiye. The "School Climate Scale" and the "Academic Motivation Scale" were used as data collection instruments. In the analysis process, K-means cluster analysis was first applied to form groups of students with similar characteristics based on their perceptions of school climate. The analysis revealed that students could be classified into three distinct profiles—"negative," "moderate," and "positive"—according to their perceptions of school climate. In the second stage of the study, one-way analysis of variance was conducted to examine whether these clusters differed in terms of academic motivation levels. The findings indicated statistically significant differences among the clusters across all dimensions of amotivation, intrinsic motivation, and extrinsic motivation. According to the results of the Bonferroni post hoc test, students with a positive perception of school climate exhibited higher levels of intrinsic and extrinsic motivation and lower levels of amotivation. The results demonstrate that students' perceptions of school climate play a significant differentiating role in academic motivation. In particular, relational and academic dimensions, such as teacher support and academic satisfaction, appear to be key determinants of students' motivation levels. The findings suggest that enhancing the quality of the school environment serves as a supportive factor in promoting students' motivation.

Keywords: school climate, academic motivation, cluster analysis, high school students, student profiles

LİSE ÖĞRENCİLERİNİN OKUL ATMOSFERİ ALGILARINA GÖRE AKADEMİK MOTİVASYON PROFİLLERİNİN İNCELENMESİ

ÖZET

Eğitim ortamlarının niteliği, öğrencilerin yalnızca akademik başarılarını değil, aynı zamanda öğrenmeye yönelik motivasyonlarını da doğrudan etkileyen önemli bir faktör olarak görülmektedir. Bu bağlamda, öğrencilerin okula ilişkin algıları, öğrenme süreçlerine katılımlarını ve akademik gelişimlerini şekillendiren temel değişkenlerden biri olarak öne çıkmaktadır. Özellikle okul atmosferinin öğrenciler tarafından nasıl algılandığı, onların akademik motivasyon düzeylerinin anlaşılmasında kritik bir rol oynamaktadır. Bu araştırmanın amacı, lise öğrencilerinin okul atmosferine ilişkin algılarına göre oluşturulan profillerin akademik motivasyon düzeyleri açısından farklılaşma durumlarının incelenmesidir. Nicel araştırma yöntemlerinden ilişkisel tarama modelinin kullanıldığı çalışmada çalışma grubu Türkiye'nin bir büyükşehirinde lise düzeyinde öğrenim gören 788 öğrenci (kadın=313, %37.7) oluşturmaktadır. Araştırmada veri toplama aracı olarak "Okul Atmosferi Ölçeği" ile "Akademik Motivasyon Ölçeği" kullanılmıştır. Analiz sürecinde öncelikle öğrencilerin okul atmosferine ilişkin algılarına göre benzer özellikler gösteren gruplar oluşturmak amacıyla K-ortalamalar kümeleme analizi uygulanmıştır. Analiz sonucunda öğrencilerin okul atmosferi algılarına göre "negatif", "orta" ve "pozitif" olmak üzere üç farklı profile ayrıldığı belirlenmiştir. Araştırmanın ikinci aşamasında, oluşturulan bu kümelerin akademik motivasyon düzeyleri açısından farklılaşıp farklılaşmadığı tek yönlü varyans analizi ile incelenmiştir. Elde edilen bulgular, motivasyonsuzluk, içsel motivasyon ve dışsal motivasyon boyutlarının tümünde kümeler arasında istatistiksel olarak anlamlı farklılıklar olduğunu göstermiştir. Bonferroni çoklu karşılaştırma testi sonuçlarına göre, pozitif okul atmosferine sahip öğrencilerin içsel ve dışsal motivasyon düzeylerinin daha yüksek, motivasyonsuzluk düzeylerinin ise daha düşük olduğu belirlenmiştir. Sonuçlar, öğrencilerin okul atmosferine ilişkin algılarının akademik motivasyon üzerinde önemli bir farklılaştırıcı role sahip olduğunu ve özellikle öğretmen desteği ve akademik memnuniyet boyutların öğrencilerin motivasyon düzeyleri üzerinde belirleyici olduğu söylenebilir. Elde edilen bulgular, okul ortamının niteliğinin artırılmasının öğrencilerin motivasyonlarını destekleyici bir unsur olduğunu göstermektedir.

Anahtar Kelimeler: okul atmosferi, akademik motivasyon, kümeleme analizi, lise öğrencileri, öğrenci profilleri.

THE EFFECTIVENESS OF DIGITAL GAMES IN INCREASING THE ACHIEVEMENT OF 6TH GRADE STUDENTS IN THE TOPIC OF DIVISIBILITY RULES

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ABSTRACT

With the increasing emphasis on student-centered approaches in contemporary education, game-based learning has become an important instructional strategy. It promotes active participation and enables students to acquire knowledge through experience, making learning more interactive, motivating, and lasting. However, divisibility rules in the middle school mathematics curriculum remain a challenging topic for many students, particularly when taught through traditional methods. Moreover, there is a lack of technology-based and engaging learning environments that effectively support the teaching of this concept. The aim of this study is to facilitate the effective, enjoyable, and lasting acquisition of divisibility rules, included in Unit 1, Section 2 of the 6th-grade mathematics curriculum, through a digital game-based learning environment. For this purpose, a digital game incorporating division and divisibility concepts was developed using the Scratch program. A quasi-experimental design (pre-test/post-test) was employed in the study. The research was conducted with 66 sixth-grade students from two different classes in a middle school. During the implementation, the topic was first taught theoretically, and then the developed digital game was integrated into the lessons for two weeks. An achievement test, developed by the researchers with expert consultation, was used to measure students' academic success. The findings showed a significant increase in students' post-test scores compared to their pre-test scores. These results indicate that digital games can be an effective tool in mathematics education, particularly in concretizing abstract concepts and enhancing learning retention. Accordingly, it is recommended that similar digital game designs be adapted to different mathematics topics and tested with larger sample groups.

Keywords: divisibility rules, digital game design, game-based learning

6. SINIF ÖĞRENCİLERİNİN BÖLÜNEBİLME KURALLARI KONUSUNDAKİ BAŞARILARININ ARTIRILMASINDA DİJİTAL OYUNLARIN ETKİLİLİĞİ

ÖZET

Günümüz eğitim yaklaşımlarında öğrenci merkezli yöntemlerin ön plana çıkmasıyla birlikte, oyun temelli öğrenme önemli bir öğretim stratejisi olarak kabul edilmektedir.

Oyunla öğrenme, bireyin öğrenme sürecine aktif katılımını sağlayarak bilgiyi deneyim yoluyla edinmesine olanak tanımakta; bu yönüyle öğrenme sürecini daha etkileşimli, motive edici ve kalıcı hâle getirmektedir. Bununla birlikte, ortaokul matematik öğretim programında yer alan bölünebilme kuralları konusu, öğrencilerin sıklıkla zorlandıkları ve geleneksel öğretim yöntemleriyle öğrenilmesinde güçlük yaşadıkları alanlardan biridir. Ayrıca, bu konunun öğretimini destekleyen, teknoloji temelli ve eğlenceli öğrenme ortamlarının sınırlı olduğu dikkat çekmektedir. Bu araştırmanın amacı, 6. sınıf matematik dersi öğretim programının 1. ünite 2. bölümünde yer alan bölünebilme kuralları kazanımlarının, dijital oyun temelli bir öğrenme ortamı aracılığıyla kalıcı ve eğlenceli bir biçimde kazandırılmasını sağlamaktır. Bunun için scratch programı kullanılarak bölme ve bölünebilme konularını içeren bir dijital oyun tasarlanmıştır. Araştırmada nicel araştırma yöntemlerinden yarı deneysel desen (ön test-son test) kullanılmıştır. Araştırma, bir ortaokulda öğrenim gören iki farklı şubedeki toplam 66 altıncı sınıf öğrencisi ile yürütülmüştür. Uygulama sürecinde, öncelikle ilgili konu öğrencilerle teorik olarak işlenmiş; ardından geliştirilen dijital oyun iki hafta süreyle öğretim sürecine entegre edilmiştir. Veri toplama aracı olarak, araştırmacılar tarafından uzman görüşü alınarak geliştirilen öğrencilerin bölme ve bölünebilme konusundaki akademik başarılarını ölçmeye yönelik başarı testi uygulanmıştır. Araştırma bulguları, öğrencilerin son test puanlarının ön test puanlarına göre anlamlı düzeyde arttığı görülmüştür. Elde edilen bulgular doğrultusunda, dijital oyunların matematik öğretiminde etkili bir araç olarak kullanılabileceği, özellikle soyut kavramların somutlaştırılmasında ve öğrenmenin kalıcılığının artırılmasında önemli katkılar sağlayabileceği değerlendirilmiştir. Bu kapsamda, benzer dijital oyun tasarımlarının farklı matematik konularına uyarlanması ve daha geniş örneklem gruplarıyla desteklenerek etkililiğinin incelenmesi önerilmektedir.

Anahtar Kelimeler: bölünebilme kuralları, dijital oyun tasarım, oyunla öğrenme

SPECIAL EDUCATION ADAPTATION PROGRAM (SEAP): A CASE STUDY ON THE SOCIAL ACCEPTANCE OF INDIVIDUALS WITH SPECIAL NEEDS

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ABSTRACT

The right to education is a fundamental and universal human right, and within the framework of inclusive education, the active participation of individuals with special needs in educational settings is essential. These students enrich educational environments through their diverse learning profiles and developmental characteristics. However, they often face challenges in integrating into educational and social life due to social prejudices, lack of awareness, and limited access to resources. The main aim of this study is to increase peer acceptance of students with special needs in primary school special education classrooms, promote positive attitudes toward differences, and improve existing perceptions. For this purpose, the Special Education Adaptation Program (SEAP) was developed and implemented for one month in a primary school with a special education classroom. The program included various activities designed to raise awareness, provide information, and enhance interaction among students, teachers, and school administrators. The study employed a qualitative case study design. Data were collected through semi-structured interviews and structured observations, and analyzed using content analysis with thematic categorization. Findings indicated that the program led to positive changes in peer attitudes toward students with special needs. Typically developing students demonstrated higher levels of acceptance, increased social interaction, and greater participation in shared activities. Additionally, teachers and school administrators showed increased awareness of inclusive education and more positive attitudes toward its implementation. Overall, the results suggest that SEAP is an effective intervention that supports inclusive education practices, strengthens social cohesion, and helps reduce prejudice.

Keywords: special education, special needs individual, difference

ÖZEL EĞİTİM UYUM PROGRAMI (ÖZUP): ÖZEL GEREKSİNİMLİ BİREYLERİN SOSYAL KABULÜNE YÖNELİK BİR DURUM ÇALIŞMASI

ÖZET

Eğitim hakkı, tüm bireyler için temel ve evrensel bir insan hakkı olup, kapsayıcı eğitim anlayışı doğrultusunda özel gereksinimli bireylerin eğitim ortamlarına etkin katılımı büyük önem taşımaktadır.

Özel gereksinimli öğrenciler, sahip oldukları bireysel farklılıklar, öğrenme profilleri ve gelişimsel özellikleriyle eğitim süreçlerine önemli bir çeşitlilik katmaktadır. Ancak toplumsal önyargılar, farkındalık eksikliği ve sınırlı kaynaklara erişim gibi engeller nedeniyle eğitim ve sosyal yaşama entegre olma sürecinde çeşitli güçlüklerle karşılaşmaktadır. Bu bağlamda, araştırmanın temel amacı, ilkokul düzeyinde özel eğitim sınıflarında öğrenim gören özel gereksinimli öğrencilerin akranları tarafından kabul düzeylerini artırmak, farklılıklara yönelik olumlu tutum geliştirilmesini sağlamak ve mevcut algıları olumlu yöne dönüştürmektir. Araştırma kapsamında geliştirilen Özel Eğitim Uyum Programı (ÖZUP), özel eğitim sınıfı bulunan bir ilkokulda bir ay süreyle uygulanmıştır. Program sürecinde öğrencilere, öğretmenlere ve okul yöneticilerine yönelik bilgilendirme, farkındalık geliştirme ve etkileşimi artırmaya dönük çeşitli etkinlikler gerçekleştirilmiştir. Araştırmada nitel araştırma yaklaşımlarından durum çalışması deseni benimsenmiş; veri toplama sürecinde yarı yapılandırılmış görüşme formları ve yapılandırılmış gözlem tekniklerinden yararlanılmıştır. Elde edilen veriler içerik analizi yöntemiyle çözümlenmiş ve tematik olarak sınıflandırılmıştır. Araştırma bulguları, uygulanan programın özel gereksinimli öğrencilere yönelik akran tutumlarında olumlu yönde değişimler meydana getirdiğini ortaya koymaktadır. Normal gelişim gösteren öğrencilerin, özel gereksinimli akranlarını kabul etme düzeylerinin arttığı, sosyal etkileşim sıklığının ve niteliğinin geliştiği ve ortak etkinliklere katılımın belirgin biçimde yükseldiği tespit edilmiştir. Bunun yanı sıra öğretmenler ve okul yönetimi nezdinde kapsayıcı eğitim anlayışına yönelik farkındalığın arttığı ve uygulamaya dönük olumlu tutumların güçlendiği belirlenmiştir. Sonuçlar, ÖZUP'un okul temelli kapsayıcı eğitim uygulamalarını destekleyen, sosyal uyumu güçlendiren ve önyargıların azaltılmasına katkı sağlayan etkili bir müdahale programı olduğu göstermiştir.

Anahtar Kelimeler: özel eğitim, özel gereksinimli, farklılık

THE IMPACT OF SCHOOL PRINCIPALS' DIGITAL LEADERSHIP SKILLS ON CRISIS MANAGEMENT PRACTICES AND SCHOOL EFFECTIVENESS

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ABSTRACT

The aim of this quantitative research is to examine the impact of school principals' digital skills on crisis management practices and school effectiveness. The population of the study consisted of 1400 teachers working in state primary schools within the borders of the Turkish Republic of Northern Cyprus during the 2024-2025 academic year, and the sample consisted of 402 primary school teachers selected using a simple random sampling method. The questionnaire administered to the participants included a personal information form in the first section, the Digital Leadership Scale in the second section, the Crisis Management Practices Scale in the third section, and the School Effectiveness Scale in the fourth section. Since the data showed a normal distribution, they were analyzed using parametric tests. According to the research findings, teachers' perceptions of the level of digital leadership of school principals and the level of crisis management in the school were at a high level, while their perceptions of the level of school effectiveness were at a medium level. While teachers' perceptions of school effectiveness did not differ statistically significantly according to gender and the region where they work, it was found that teachers in older age groups, with higher professional seniority, and working in schools with fewer teachers had higher perceptions of school effectiveness. Teachers' perceptions of school principals' digital leadership level did not differ according to gender, but teachers in older age groups, with higher professional seniority, and working in schools with fewer teachers had higher perceptions of school principals' digital leadership level. No statistically significant difference was found in teachers' perceptions of crisis management practices according to gender. The analysis results revealed that teachers in older age groups, with higher professional seniority, and working in schools with more teachers had higher crisis management perception scores. A high-level and significant correlation was found between school effectiveness and the digital leadership level of school principals; between school effectiveness and general crisis management; and between the digital leadership level of school principals and crisis management. The level of digital leadership among school principals was found to be a statistically significant predictor of school effectiveness, and crisis management was also determined to be a statistically significant predictor of school effectiveness.

Keywords: School effectiveness, digital leadership, crisis management, teacher perception

OKUL MÜDÜRLERİNİN DİJİTAL LİDERLİK BECERİLERİNİN KRİZ YÖNETİMİ UYGULAMALARI VE OKUL ETKİLİLİĞİ ÜZERİNE ETKİSİ

ÖZET

Bu nicel araştırmanın amacı okul müdürlerinin dijital becerilerinin kriz yönetimi uygulamaları ve okul etkililiği üzerine olan etkisini incelemektir. Araştırmanın evrenini, 2024–2025 eğitim öğretim yılında Kuzey Kıbrıs Türk Cumhuriyeti sınırları içerisinde devlet ilkokullarında görev yapan 1400 öğretmen, örneklemini ise basit tesadüfi örnekleme yöntemi ile seçilen 402 ilkokul öğretmeni oluşturmuştur. Katılımcılara uygulanan anketin ilk bölümünde kişisel bilgi formu, ikinci bölümünde Dijital Liderlik Ölçeği, üçüncü bölümde Kriz Yönetimi Uygulamaları Ölçeği ve dördüncü bölümde ise Okul Etkililiği Ölçeği maddeleri yer almıştır. Veriler normal dağılım gösterdiği için parametrik testler kullanılarak analiz edilmiştir. Araştırma bulgularına göre öğretmenlerin okul müdürlerinin dijital liderlik düzeyi ve okuldaki kriz yönetimi düzeyi hakkındaki algıları yüksek seviyede, okul etkililiği düzeyi hakkındaki algıları ise orta seviyededir. Öğretmenlerin okul etkililiği algıları cinsiyet ve görev yaptıkları bölge değişkenlerine göre istatistiksel olarak anlamlı bir şekilde farklılaşmazken, yaş düzeyi, mesleki kıdemi yüksek olan ve öğretmen sayısı az olan okullarda görev yapan öğretmenlerin okul etkililiği algılarının daha yüksek olduğu tespit edilmiştir. Öğretmenlerin okul müdürlerinin dijital liderlik düzeyi hakkındaki algılarının cinsiyet değişkenine göre farklılaşmadığı, fakat üst yaş gruplarında yer alan, mesleki kıdemi yüksek olan ve öğretmen sayısı az olan okullarda görev yapan öğretmenlerin ise okul müdürlerinin dijital liderlik seviyesi hakkındaki algılarının daha yüksek olduğu tespit edilmiştir. Cinsiyet değişkenine göre öğretmenlerin kriz yönetimi uygulamalarına ilişkin algıları arasında istatistiksel olarak anlamlı bir farklılık bulunmadığı görülmüştür. Analiz sonuçları üst yaş gruplarında yer alan, mesleki kıdemi yüksek olan ve öğretmen sayısı fazla olan okullarda görev yapan öğretmenlerin ise kriz yönetimi algı puanlarının daha yüksek olduğunu ortaya koymuştur. Okul etkililiği ile okul müdürlerinin dijital liderlik düzeyi arasında; okul etkililiği ile genel kriz yönetimi arasında ve okul müdürlerinin dijital liderlik düzeyi ile kriz yönetimi arasında yüksek düzeyde ve anlamlı bir ilişki bulunmuştur. Okul müdürlerinin dijital liderlik düzeyinin okul etkililiği üzerinde istatistiksel olarak anlamlı bir yordayıcı olduğu görülmektedir ve kriz yönetiminin ise okul etkililiği üzerinde istatistiksel olarak anlamlı bir yordayıcı olduğu belirlenmiştir.

Anahtar Kelimeler: Okul etkililiği, dijital liderlik, kriz yönetimi, öğretmen algısı

**A BIBLIOGRAPHIC ANALYSIS OF GRADUATE THESES FOCUSING ON
PROBLEM BEHAVIORS IN INDIVIDUALS WITH AUTISM SPECTRUM
DISORDER IN TÜRKİYE**

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ABSTRACT

The aim of this study is to examine the bibliographic characteristics of postgraduate theses conducted using single-subject research designs that focus on problem behaviors in individuals with Autism Spectrum Disorder (ASD), as indexed in the National Thesis Center database of the Council of Higher Education (CoHE) in Türkiye. The study was designed as a bibliographic analysis within the framework of a descriptive survey model. The data were obtained through searches conducted in the CoHE National Thesis Center on December 19, 2025. No restriction was placed on publication year, and theses written in Turkish were included in the study.

During the search process, terms related to ASD (e.g., “autism,” “ASD,” “Asperger,” “PDD”) were used in combination with terms related to problem behaviors (e.g., “problem behavior,” “aggression,” “self-injury,” “stereotypy”). The initial search yielded 30 theses; among these, 15 theses that specifically focused on problem behaviors and employed single-subject research designs were included in the detailed analysis. The selected theses were coded in terms of bibliographic features, participant characteristics, and methodological variables, and the data were analyzed using frequency and percentage analyses.

The findings indicate that the majority of the analyzed theses were conducted after 2021. A substantial proportion of the theses were at the master’s level, while doctoral dissertations were relatively limited in number. All examined theses were written in Turkish. In terms of participant characteristics, most studies were conducted with children diagnosed with ASD; however, some studies also included parents, teachers, and siblings. It was observed that the majority of participants were male and under the age of 10. The studies were generally conducted in school and special education settings. Methodologically, multiple baseline designs, one of the single-subject research designs, were predominantly preferred. Additionally, implementation fidelity and social validity data were collected in most studies, with social validity data typically obtained from mothers. Overall, the findings suggest an increasing trend in postgraduate theses focusing on problem behaviors in individuals with ASD using single-subject research designs in Türkiye in recent years.

Keywords: Autism spectrum disorder, problem behavior, single-subject research, bibliographic analysis, postgraduate theses.

**TÜRKİYE’DE OTİZM SPEKTRUM BOZUKLUĞU OLAN BİREYLERDE
PROBLEM DAVRANIŞLARA ODAKLANAN LİSANSÜSTÜ TEZLERİN
BİBLİYOGRAFİK ANALİZİ**

ÖZET

Bu çalışmanın amacı, Türkiye’de Yükseköğretim Kurulu (YÖK) Ulusal Tez Merkezi veri tabanında yer alan ve otizm spektrum bozukluğu (OSB) olan bireylerde problem davranışlara odaklanan, tek denekli araştırma desenleriyle yürütülmüş lisansüstü tezlerin bibliyografik özelliklerini incelemektir. Araştırma, betimsel tarama modelinde yürütülen bir bibliyografik analiz çalışmasıdır.

Veriler, 19.12.2025 tarihinde YÖK Ulusal Tez Merkezi'nde gerçekleştirilen taramalar yoluyla elde edilmiştir. Tarama sürecinde yıl sınırlaması yapılmamış; Türkçe yazılmış tezler çalışma kapsamına dahil edilmiştir.

Tarama kapsamında OSB'ye ilişkin terimler ("otizm", "OSB", "asperger", "PDD" vb.) ile problem davranışlara ilişkin terimler ("problem davranış", "saldırganlık", "kendine zarar verme", "stereotipi" vb.) birlikte kullanılmıştır. İlk tarama sonucunda 30 teze ulaşılmış, bu tezler arasından problem davranış odağı bulunan ve tek denekli araştırma desenleriyle yürütülmüş 15 tez detaylı analize dahil edilmiştir. Dahil etme ve dışlama ölçütleri doğrultusunda seçilen tezler; bibliyografik özellikler, katılımcı özellikleri ve yöntemsel değişkenler açısından kodlanmış ve veriler frekans ve yüzde analizleri kullanılarak çözümlenmiştir.

Bulgular, analiz edilen tezlerin büyük çoğunluğunun 2021 yılı sonrasında yoğunlaştığını göstermektedir. Tezlerin önemli bir kısmının yüksek lisans düzeyinde olduğu, doktora tezlerinin ise daha sınırlı sayıda kaldığı belirlenmiştir. İncelenen tüm tezlerin Türkçe dilinde yazıldığı görülmüştür. Katılımcı özellikleri açısından değerlendirildiğinde, çalışmaların büyük ölçüde OSB tanılı çocuklarla yürütüldüğü; bununla birlikte bazı araştırmalarda ebeveyn, öğretmen ve kardeşlerin de sürece dahil edildiği belirlenmiştir. Katılımcıların çoğunluğunun erkek ve 10 yaşın altında olduğu dikkat çekmektedir. Araştırmaların genellikle okul ve özel eğitim ortamlarında gerçekleştirildiği görülmektedir. Yöntemsel açıdan incelendiğinde, çalışmaların büyük çoğunluğunda tek denekli araştırma desenlerinden çoklu başlama modellerinin tercih edildiği belirlenmiştir. Ayrıca araştırmaların önemli bir bölümünde uygulama güvenilirliği ve sosyal geçerlik verilerinin toplandığı; sosyal geçerlik verilerinin çoğunlukla annelerden elde edildiği saptanmıştır. Elde edilen bulgular, Türkiye'de OSB'li bireylerde problem davranışlara yönelik tek denekli lisansüstü tezlerin son yıllarda artış gösterdiğini göstermektedir.

Anahtar Kelimeler: Otizm spektrum bozukluğu, problem davranış, tek denekli araştırma, bibliyografik analiz, lisansüstü tezler.

MULTIPLE MORPHOLOGICAL AND SEMANTIC USES OF ARABIC DERIVED WORDS IN KAZAN TATAR AND TURKISH

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ABSTRACT

Language, beyond being a static structure, is a dynamic system that remains in constant interaction with the cultures it comes into contact with, reshaping borrowed elements by assimilating them within its own structure. Arabic, one of the languages with which Turkish has interacted most intensively throughout its historical development, has contributed to the enrichment of Turkish not only through its vocabulary but also through the notable phonological and semantic transformations that these words have undergone within the sound and meaning system of Turkish. One of the most striking manifestations of this enrichment is the divergence of Arabic loanwords, shaped by their routes of entry into Turkish, their domains of use, and processes of phonological adaptation, into distinct forms that are today perceived as independent lexical items.

This study examines, within the framework of the concept of “multiple usage” the transformations undergone by Arabic loanwords in Turkish, focusing on the contrast between their terminological uses that remain faithful to the original forms and the phonological changes shaped by everyday semantic shifts in the vernacular within the sound–meaning relationship. The primary aim of this study is to identify the causes of multiple usages observed in Kazan Tatar Turkic and Turkish, to demonstrate how a single word develops into distinct forms with different meanings, and to comparatively examine the domains of use of these newly formed variants.

The findings indicate that the incorporation of Arabic-derived words into Turkish across different periods and linguistic layers is the primary reason for their multiple uses. Forms borrowed in earlier periods through the written language tend to exhibit more conservative features, whereas those adopted later through dialects have undergone change by adapting more extensively to the phonological structure of Turkish. In this process, semantic changes such as narrowing, broadening, and metaphorization also play a decisive role. As a result, these words continue to be used in Turkish in two distinct forms, having diverged completely in both form and meaning. These emergent multiple structures clearly demonstrate the Turkish language's capacity to nationalize foreign elements and to reassign new meanings to them.

Keywords: semantic shifts, multiple usage, semantic changes, new meanin

KAZAN TATAR VE TÜRKİYE TÜRKÇELERİNDEKİ ARAPÇA KÖKENLİ SÖZCÜKLERİN ŞEKİL VE ANLAM AÇISINDAN ÇOKLU KULLANIMLARI

ÖZET

Dil, durağan bir yapı olmanın ötesinde, temas ettiği kültürlerle sürekli etkileşim hâlinde olan ve ödünç aldığı unsurları kendi potasında eriterek yeniden şekle sokan işlek bir yapıya sahiptir. Türkçenin tarihsel süreçte en yoğun etkileşime girdiği dillerden biri olan Arapça, sadece söz varlığıyla değil aynı zamanda sözcüklerin Türkçenin ses ve anlam dünyasında geçirdiği ilginç dönüşümlerle de Türk dilinin zenginleşmesine katkı sağlamıştır.

Bu zenginleşmenin en dikkat çekici görünümünden biri, Arapça sözcüklerin Türkçeye giriş yolları, kullanım alanları ve fonetik uyum süreçlerine bağlı olarak çatallanması ve bugün birbirinden bağımsızmış gibi algılanan farklı kelimelere dönüşmesidir.

Bu çalışmada, Arapçadan Türkçeye geçen sözcüklerin aslına sadık kalan terminolojik kullanımı ile halk dilindeki gündelik anlam kaymaları ve ses, anlam ilişkisi çerçevesinde şekillenen fonetik değişimlerinin geçirdiği dönüşümler “çoklu kullanım” kavramı çerçevesinde ele alınmaktadır. Araştırmanın temel amacı, Kazan Tatar ve Türkiye Türkçelerinde tespit edilen çoklu kullanımların nedenlerini ortaya koymak, bir sözcüğün nasıl farklı biçim ve anlamlara sahip bağımsız unsurlara dönüştüğünü göstermek ve bu yeni formların kullanım alanlarını karşılaştırmalı olarak incelemektir.

Elde edilen bulgular; Arapça kökenli sözcüklerin Türkçeye farklı dönemlerde ve farklı dil katmanları aracılığıyla dâhil edilmesinin, çoklu kullanımların temel nedeni olduğunu göstermektedir. Erken dönemde yazı dili yoluyla alınan biçimler daha muhafazakâr özellikler sergilerken ağızlar yoluyla daha geç dönemde alınan biçimler Türkçenin ses yapısına daha fazla uyum sağlayarak değişime uğramıştır. Bu süreçte anlam daralması, genişlemesi ve mecazlaşma gibi semantik değişimler de belirleyici olmaktadır. Bu sözcükler Türkçede aktif olarak kullanılan iki farklı formda, şekil ve anlam açısından tamamen farklılaşarak, kullanılmaya devam etmektedir. Oluşan bu çoklu yapılar Türkçenin yabancı unsurları millîleştirme ve yeniden anlamlandırma gücünü açık biçimde ortaya koymaktadır.

Anahtar Kelimeler: anlam kaymaları, çoklu kullanım, semantik değişimler, yeniden anlamlandırma

THE ROLE AND TRACES OF CENTRAL ASIAN LEXICON AND SHARED TURKIC CULTURE IN THE TURKISH LANGUAGE REFORM

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ABSTRACT

The Turkish Language Reform is not merely a movement for linguistic simplification, but also a manifestation of the Turkish nation's effort to reconnect with its historical and cultural identity. One of the fundamental foundations of this process is the rich lexicon and cultural heritage of Central Asia. Particularly, the language purification efforts that gained momentum in the 1930s sought to cleanse Turkish of foreign elements while drawing inspiration from the legacy of early Turkic states such as the Göktürks, the Uighurs, and the Karakhanids. Cornerstone works such as *Dîvânu Lugâti't-Türk* and *Kutadgu Bilig* have been regarded as fundamental reference sources in the pursuit of "Pure Turkish" both in terms of vocabulary and the structural logic of the language. The primary aim of this study is to analyze the strategic role played by the lexicon of the Turkistan region during the Turkish Language Reform. Furthermore, it seeks to demonstrate that language policies were not confined solely to the post-Ottoman period, but were, on the contrary, grounded in a broader Eurasian context. In this context, the study will examine the criteria used to select words from Central Asian Turkic dialects and historical texts, how these words were adapted into Turkish, and the extent of their persistence in the contemporary language. The study adopts document analysis, one of the qualitative research methods, as its methodology. In the first phase, the views of linguists and institutions that laid the intellectual foundations of the reform were examined; subsequently, the proceedings of the Language Congress and key publications of the period were reviewed. The findings derived from words proposed from other Turkic dialects as alternatives to Arabic- and Persian-derived terms illustrate the extent to which the Turkish Language Reform served the ideal of creating a shared lexicon for the Turkic world, as well as the reflections of these historical bridges in contemporary Turkish.

Keywords: Turkish Language Reform, Pure Turkish, Central Asia, language policies.

TÜRK DİL DEVRİMİ'NDE ORTA ASYA SÖZ VARLIĞININ VE ORTAK TÜRK KÜLTÜRÜNÜN ROLÜ VE İZLERİ

ÖZET

Türk Dil Devrimi, yalnızca dilde bir sadeleşme hareketi değil, aynı zamanda Türk milletinin kendi tarihsel ve kültürel kimliğine dönüş çabasının bir sonucudur. Bu sürecin en temel dayanak noktalarından birini, Orta Asya'nın derin söz varlığı ve kültürel birikimi oluşturmaktadır. Özellikle 1930'lu yıllarda ivme kazanan özleştirme çalışmaları, Türkiye Türkçesini yabancı unsurlardan arındırırken gözünü Göktürk, Uygur ve Karahanlı gibi erken dönem Türk devletlerinin mirasına dikmiştir. *Dîvânu Lugâti't-Türk* ve *Kutadgu Bilig* gibi başucu eserleri, "Öz Türkçe" arayışında hem kelime hazinesi hem de dilin yapısal mantığı açısından temel referans kaynakları olarak kabul edilmiştir. Bu çalışmanın temel amacı, Türk Dil Devrimi sürecinde Türkistan coğrafyasına ait söz varlığının üstlendiği stratejik rolü çözümlemektir. Ayrıca dil politikalarının sadece Osmanlı sonrası döneme sığmadığını, aksine geniş bir Avrasya coğrafyasına yaslandığını ortaya koymak hedeflenmektedir.

Bu doğrultuda; Orta Asya Türk lehçelerinden ve tarihi metinlerden seçilen kelimelerin hangi kriterlere göre belirlendiği, Türkiye Türkçesine nasıl uyarlandığı ve bu sözcüklerin günümüz dilindeki kalıcılığı mercek altına alınacaktır. Çalışmada yöntem olarak nitel araştırma tekniklerinden doküman analizi benimsenmiştir. İlk aşamada, devrimin düşünsel altyapısını kuran dilcilerin ve kurumların görüşleri incelenmiş; ardından Dil Kurultayı tutanakları ve dönemin temel yayınları taranmıştır. Arapça ve Farsça kökenli kelimelere karşılık olarak diğer Türk lehçelerinden önerilen sözcükler üzerinden elde edilen bulgular, Türk Dil Devrimi'nin ortak bir Türk dünyası söz varlığı oluşturma idealine ne ölçüde hizmet ettiğini ve bu tarihsel köprülerin çağdaş Türkiye Türkçesindeki yansımalarını ortaya koymaktadır.

Anahtar Kelimeler: Türk Dil Devrimi, Öz Türkçe, Orta Asya, dil politikaları.

POLLUTION CAUSED BY RECREATIONAL FISHING IN ZAP STREAM AND ITS EFFECTS ON THE ECOSYSTEM

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ABSTRACT

The Zap Stream, located within the Tigris Basin, is one of the largest tributaries of the Tigris River. It originates from the İspiriz Mountains within the boundaries of the Başkale district in Van province. Flowing through deep canyons south of the Hakkari city center, it crosses into Iraqi territory near the Çukurca district. As one of Türkiye's richest rivers in terms of fish diversity, the Zap Stream has seen a notable increase in recreational fishing, especially in recent years. This rising pressure from recreational fishing has brought a serious threat of pollution to the aquatic ecosystem. This study aims to determine the extent of environmental pollution caused by recreational fishing activities in the Zap Stream basin and the effects of this pollution on fish. The study was conducted between May 2022 and August 2022, covering an approximately 60 km long section of the Zap Stream between the Yeniköprü and Üzümcü neighborhoods. Ten stations were identified by taking into account the points where recreational fishing is most intensive. The findings at these stations revealed that the primary components of pollution originating from recreational fishing consist of plastic waste left on the shoreline, abandoned fishing lines (risk of ghost fishing), lead weights, and packaging waste. In particular, it was determined that the use of the fishing gear known locally as tırıvrı (Turkish name) (Parachute Fishing Net-PFN) is widespread and constitutes one of the greatest threats to the ecosystem. It was observed that these gears, which easily snag and break off on underwater rocks and vegetation due to their fine mesh structure, cause the death of many non-target fish through "ghost fishing." Additionally, solid wastes such as plastic bottles, metal beverage cans, glass bottles, and food packaging left along the river's shoreline were found to be the main components of recreational fishing-induced pollution. As a result of the study, it is suggested that increasing inspections, tightening controls on the use of prohibited fishing gear, and initiating environmental awareness training for recreational fishers in the region would be beneficial for the conservation of fish stocks and the prevention of pollution in the Zap Stream.

Keywords: Zap Stream, Recreational fishing, Ghost fishing, Parachute Fishing Net (PFN)

ZAP SUYU'NDA AMATÖR BALIKÇILIK KAYNAKLI KİRLİLİK VE EKOSİSTEM ÜZERİNE ETKİLERİ

ÖZET

Dicle Havzası içerisinde yer alan Zap Suyu, Dicle Nehrinin en büyük kollarından birisini oluşturur. Zap Suyu, Van ilinin Başkale ilçesi sınırlarındaki İspiriz Dağlarından doğar. Hakkari il merkezinin güneyinden derin kanyonlardan akarak, Çukurca ilçesi yakınlarından, Irak sınırlarına geçer. Balık çeşitliliği açısından Türkiye'nin en zengin akaruslarından birisi konumunda olan Zap Suyu'nda, özellikle son yıllarda amatör balıkçılığın arttığı görülmektedir. Son yıllarda artan amatör balıkçılık baskısı, sucul ekosistem üzerinde ciddi bir kirlilik tehdidini de beraberinde getirmiştir. Bu çalışma, Zap Suyu havzasında yürütülen amatör balıkçılık faaliyetlerinin neden olduğu çevresel kirliliğin boyutlarını ve bu kirliliğin balıklar üzerindeki etkilerini belirlemeyi amaçlamaktadır. Çalışma 2022 Mayıs – 2022 Ağustos tarihlerinde, Zap Suyu'nun Yeniköprü ile Üzümcü Mahlleleri arasında kalan yaklaşık 60 km uzunluğunda bölümünde gerçekleştirilmiştir. Çalışmada en çok amatör avcılık yapılan noktalar dikkate alınarak 10 istasyon belirlenmiştir. İstasyonlarda yapılan çalışmada, amatör balıkçılık kaynaklı kirliliğin temel bileşenlerini; kıyı şeridinde bırakılan plastik atıklar, terk edilmiş misinalar (hayalet avcılık riski), kurşun ağırlıklar ve ambalaj atıklarının oluşturduğunu belirlenmiştir. Özellikle, hakl arasında tıravır (paraşüt) olarak bilinen av aracının kullanımının yaygın olduğu ve bu durumun ekosistem için en büyük tehditlerden birini oluşturduğu saptanmıştır. İnce ağ yapısı nedeniyle su altındaki kayalıklara ve bitki örtüsüne kolayca takılıp kopan bu araçların, "hayalet avcılık" (ghost fishing) yoluyla hedef dışı birçok balık ölümüne sebebiyet verdiği gözlemlenmiştir. Ayrıca akarsuyun kıyı şeridinde bırakılan plastik şişeler, metal içecek kutuları, cam şişeler ve gıda ambalajları gibi katı atıkların, amatör balıkçılık kaynaklı kirliliğin temel bileşenlerini oluşturduğu saptanmıştır. Çalışma sonucunda, Zap Suyu'ndaki balık stoklarının korunması ve kirliliğin önlenmesi için denetimlerin artırılması, yasaklı av araçlarının kullanımına yönelik denetimlerin sıklaştırılması ve bölgedeki amatör balıkçılara yönelik çevre bilinci eğitimlerinin başlatılmasının faydalı olacağı düşünülmektedir.

Anahtar Kelimeler: Zap Suyu, Amatör balıkçılık, Hayalet avcılık, Tıravır

A NEW MODEL FOR SUSTAINABLE BIODIVERSITY: INTEGRATION OF IUCN CRITERIA AND ISLAMIC LAW

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ABSTRACT

Established in 1964, the International Union for Conservation of Nature's Red List of Threatened Species has evolved to become the world's most comprehensive information source on the global extinction risk status of animal, fungus and plant species. This research examines the IUCN criteria a global organization dedicated to the conservation of endangered species in comparison with principles of Islamic law (fiqh) and environmental ethics.

Currently, there are more than 172,600 species on The IUCN Red List, with more than 48,600 species threatened with extinction, including 44% of reef building corals, 41% of amphibians, 38% of trees, 38% of sharks and rays, 34% of conifers, 26% of mammals, 26% of freshwater fishes and 11.5% of birds. Today's modern ecological crises have transformed the conservation of biodiversity from a purely biological issue into a moral and legal imperative. This study analyzes the religious foundations of species conservation through the concepts of Mizan (balance), Khilafah (trusteeship), and Maqasid al-Shari'ah (the aims of Sharia). Furthermore, it examines how conservation statuses from the history of Islamic law, such as Himâ (special protection zone) and Harîm (buffer zone), can be integrated into contemporary conservation biology. At the heart of the study is the thesis that the principle of "La dararawaladirar" (There is no harm and no retaliation with harm), a general tenet of fiqh, can be used as a binding legal norm in the context of species conservation. The text emphasizes that the conservation of endangered species is a collective obligation (fard-ikifaye) or, depending on the situation, an individual obligation (fard-iayn) for both the state and the individual under Islamic law; and suggests that religious references should be integrated into legal regulations for the sustainability of biodiversity.

In conclusion, the extinction of a species is considered an act of deletion, a violation of a divine decree, and a corrupting act contrary to the public good (maslahat). The earth is not a property but an inheritance for humankind. Disrupting the balance is a betrayal of the caliphate. Biodiversity should be treated not merely as data, but as a sacred thing that must be protected. Combining the scientific data provided by the IUCN with the spiritual and legal motivation provided by Islamic law will increase the success of environmental protection projects, especially in religious societies.

Keywords: Biodiversity, Environmental Ethics, Ecology, Harim, Hima, IUCN, Islamic Law.

SÜRDÜRÜLEBİLİR BİYOÇEŞİTLİLİK İÇİN YENİ BİR MODEL: IUCN KRİTERLERİNİN VE İSLAM HUKUKUNUN ENTEGRASYONU

ÖZET

1964 yılında kurulan Uluslararası Doğa Koruma Birliği (IUCN)'nin Tehlike Altındaki Türler Kırmızı Listesi, bitki, mantar ve hayvan türlerinin küresel yok olma riski durumu hakkında dünyanın en kapsamlı bilgi kaynağıdır. Bu araştırmayla, nesli tehlike altında olan türlerin korunmasına yönelik küresel bir kuruluş olan IUCN kriterleri ile, İslam hukuku ve çevre etiği ilkeleri mukayeseli bir şekilde ele alınmaktadır.

Şu anda IUCN Kırmızı Listesi'nde yaklaşık olarak 172.600'den fazla tür bulunmakta olup, bunların 48.600'den fazlası yok olma tehlikesi altındadır. Bu tehdit altındaki türler arasında resif oluşturan mercanların %44'ü, amfibilerin %41'i, ağaçların %38'i, köpekbalıkları ve vatozların %38'i, kozalaklı ağaçların %34'ü, memelilerin %26'sı, tatlı su balıklarının %26'sı ve kuşların %11,5'i yer almaktadır. Günümüzün modern ekolojik krizleri, biyolojik çeşitliliğin korunmasını sadece biyolojik bir mesele olmaktan çıkarıp ahlaki ve hukuki bir zorunluluk haline getirmektedir. Bu çalışmada, Mizan (denge), Hilafet (emanetçilik) ve Makâsıdü's-Şerîa (şeriatın amaçları) kavramları üzerinden türlerin korunmasının dini temelleri analiz edilmektedir. Ayrıca, İslam hukuk tarihindeki Himâ (özel koruma bölgesi) ve Harîm (tampon bölge) gibi koruma statülerinin günümüz koruma biyolojisine nasıl entegre edilebileceği ele alınmıştır. Çalışmanın merkezinde, fıkıhın genel kaidelerinden olan Lâ darara velâ dırâr (Zarar vermek ve zarara zararlar karşılık vermek yoktur) ilkesinin, türlerin korunması noktasında bağlayıcı bir hukuki norm olarak kullanılabileceği tezi yer almaktadır. Nesli tükenmekte olan türlerin korunmasının, İslam hukukuna göre devletin ve bireyin üzerine düşen bir farz-ı kifaye veya duruma göre farz-ı ayn sorumluluğu olduğunu vurgulamakta olup; biyoçeşitliliğin sürdürülebilirliği için dini referansların hukuki düzenlemelerle entegre edilmesi gerektiğini önermektedir.

Sonuç olarak, bir türün yok edilmesinin ilahi bir ayetin silinmesi ve kamu yararına aykırı bir fesat eylemi olarak kabul edilmektedir. Yeryüzü insanoğluna bir mülk değil, bir mirastır. Mizanı bozmak, hilafet makamına hıyanet etmektir. Biyoçeşitliliği sadece bir veri olarak değil, korunması gereken bir mukaddesat olarak ele alınmalıdır. IUCN'in sunduğu bilimsel veriler ile İslam hukukunun sağladığı manevi ve hukuki motivasyonun birleşmesinin, özellikle dini toplumlarda çevre koruma projelerinin başarısını artıracaktır.

Anahtar Kelimeler: Biyoçeşitlilik, Çevre Etiği, Ekoloji, Harîm, Hima, IUCN, İslam Hukuku.

EVALUATION OF FAMILY IDENTIFICATION KEYS IN THE ILLUSTRATED FLORA OF TÜRKİYE FOR LANDSCAPE ARCHITECTURE

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ABSTRACT

Landscape architecture utilizes plant materials as fundamental building blocks in aesthetic and functional outdoor planning. However, it is essential to address the morphological characteristics of plants from a holistic perspective. Türkiye, located at the intersection of three different phytogeographic regions, possesses a rich floristic diversity. In defining this rich diversity, systematically oriented diagnostic keys are of great importance among the essential tools. The family identification keys in the nine-volume work, Flora of Turkey and the East Aegean Islands, edited by Davis between 1965 and 1985, facilitate the classification of plants based on their morphological traits. Nevertheless, these keys were primarily developed for botanical identification purposes and present certain limitations regarding their direct application within the discipline of landscape architecture.

The aim of this study is to evaluate the effectiveness of the family identification keys included in Volume 2 of the Illustrated Flora of Türkiye, edited by Güner and first published in 2014, in landscape architecture education and practice processes. In this context, the alignment of these keys with landscape design parameters has been analyzed alongside systematic characters. In particular, the detailed plant illustrations and high-resolution visuals of plant organs featured in the work not only foster a passion for plant identification among enthusiasts across all scientific disciplines but also provide significant convenience. It has been identified that the keys contribute to plant selection and placement decisions in landscape design, specifically through criteria such as habitat (aquatic-terrestrial), plant form (woody-herbaceous), and leaf morphology. Conversely, it was determined that critical parameters such as aesthetic characteristics, intended use, urban resilience, and ecological performance are not included in these keys. Furthermore, it has been shown that the visually responsive structure of the cluster keys reduces identification errors and facilitates communication between all disciplines in standard Turkish plant identification.

In conclusion, it appears that identification keys serve as a supportive information source in plant identification, classification, and ecological assessment processes, rather than a direct design tool. However, it is considered that these keys could be integrated into the landscape design process more effectively, systematically, and functionally if they were reorganized using an interdisciplinary approach that is suitable for the design-oriented nature of landscape architecture, incorporating ecological compatibility, spatial arrangement, and aesthetic qualities in addition to the systematic characteristics of plants.

Keywords: Flora, Identification Key, Planting Design, Plant Systematics, Türkiye.

RESİMLİ TÜRKİYE FLORASI FAMILYA TEŞHİS ANAHTARININ PEYZAJ MİMARLIĞI AÇISINDAN DEĞERLENDİRİLMESİ

ÖZET

Peyzaj mimarlığı estetik ve fonksiyonel dış mekân planlamasında bitkisel materyalleri temel yapı taşı olarak kullanır. Ancak bitkilerin sahip olduğu morfolojik özelliklerini bütüncül bir bakış açısıyla ele almak gerekir. Türkiye, 3 farklı fitocoğrafik bölgenin kesişim noktasında yer alan zengin floristik çeşitliliğe sahiptir. Bu zengin çeşitliliği tanımlamada sistematik olarak teşhis anahtarları temel araçlar arasında büyük bir öneme sahiptir. Davis editörlüğünde 1965-1985 yılları arasında yazılan 9 ciltlik Flora of Turkey and the East Aegean Islands eserinde yer alan familya teşhis anahtarları, bitkilerin morfolojik özelliklerine dayalı olarak sınıflandırılmasını sağlamaktadır. Ancak bu anahtarlar, ağırlıklı olarak botanik tanımlama amacıyla geliştirilmiş olup peyzaj mimarlığı disiplininde doğrudan kullanım açısından sınırlılıklar içermektedir.

Bu çalışmanın amacı, Güner editörlüğünde 2014 yılında basılmaya başlanan Resimli Türkiye Florasının 2. cildinde yer alan familya teşhis anahtarlarının peyzaj mimarlığı eğitimi ve uygulama süreçlerindeki etkinliğini değerlendirmektir. Bu kapsamda, sistematik karakterler yanında peyzaj tasarım parametreleri ile uyumu analiz edilmiştir. Özellikle eserlerde yer alan detaylı bitki çizimleri ve bitki organlarındaki yüksek çözünürlüğe sahip görseller, tüm bilim dallarındaki bitki meraklılarına bitki teşhisini sevdirdiği gibi büyük bir kolaylık sağlamaktadır. Anahtarların özellikle habitat (sucul-karasal), bitki formu (odunsu-otsu) ve yaprak morfolojisi gibi kriterler üzerinden peyzaj tasarımında bitki seçimi ve yerleştirme kararlarına katkı sağladığı tespit edilmiştir. Buna karşılık estetik özellikler, kullanım amacı, kentsel dayanıklılık ve ekolojik performans gibi kritik parametrelerin bu anahtarlarda yer almadığı belirlenmiştir. Ayrıca küme anahtarlarının görsel algı ile uyumlu yapısı sayesinde teşhis hatalarını azalttığı ve standart Türkçe bitki teşhisinde tüm bilim dallarının arasındaki iletişimi daha kolaylaştırdığı ortaya konulmuştur.

Sonuç olarak, teşhis anahtarlarının doğrudan bir tasarım aracı olmaktan ziyade; bitki tanımlama, sınıflandırma ve ekolojik değerlendirme süreçlerinde destekleyici bir bilgi kaynağı olduğu görülmektedir. Ancak bu anahtarların, disiplinler arası bir yaklaşımla peyzaj mimarlığının tasarım odaklı yapısına uygun biçimde; bitkilerin sistematik özelliklerinin yanı sıra ekolojik uyum, mekânsal kurgu ve estetik nitelikleri de içerecek şekilde yeniden düzenlenmesi halinde, peyzaj tasarım sürecine daha etkin, sistematik ve işlevsel bir biçimde entegre edilebileceği değerlendirilmektedir.

Anahtar Kelimeler: Bitki Sistematiği, Bitkisel Tasarım, Flora, Teşhis Anahtarı, Türkiye.

**ETHNOBOTANICAL APPROACH AGAINST VITILIGO DISEASE: *Gundelia L.*
TAXA**

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ABSTRACT

During our long-term field studies in the region, particularly in the districts of Derecik, Şemdinli, and Yüksekova in Hakkari province, we observed that the local population harvests the young shoots of the *Gundelia L.* genus in the spring while they are still in bud, cooking them fresh. The practice of uprooting and collecting *Gundelia* taxa in this manner during the spring months must be stopped immediately. Furthermore, in areas where intensive harvesting occurs, they are preserved in brine and consumed as salads throughout the year. It is absolutely essential to prevent this type of harvesting. In autumn, the mature fruits of *Gundelia* taxa are harvested for their seeds and sold to wholesalers. The seeds, mostly exported abroad, are used as a snack. In some places, the seeds are ground to make Kenger Coffee. In order to facilitate this type of harvesting, the Kenger seed needs to be registered as a food source for use as a snack and coffee. Kenger coffee is popularly known to be used in the treatment of vitiligo as well as diabetes.

Vitiligo is a chronic pigmentation disorder characterized by irregular white patches on the skin due to the loss of melanocytes. Although the exact cause of the disease is not fully understood, it is thought that immune mechanisms, genetic predisposition, and environmental factors play a combined role. The generally reduced body resistance observed in patients with vitiligo supports the hypothesis that the disease is related to dysfunctions of the immune system.

In recent years, herbal approaches within the scope of traditional medicine practices have attracted increasing attention in the treatment of vitiligo. In our ethnobotanical field studies conducted in our region, we identified *Gundelia L.* (Kenger) taxa as the most commonly used plant by local people for the treatment of vitiligo. Literature studies have shown that extracts from taxa belonging to the genus *Gundelia* have melanocyte-protective and melanin-producing effects. It is thought that the quercetin and flavonoids present in these taxa contribute to melanin synthesis by increasing tyrosinase activity. Due to its antioxidant and immunomodulatory properties, this plant has been used in the treatment of vitiligo. Through its antioxidant activity, free radicals are neutralized, while its immunomodulatory effects help protect melanocytes and support melanin synthesis by enhancing tyrosinase enzyme activity.

This study details the relationship between vitiligo and the immune system, and presents *Gundelia* taxa as an example of herbal treatment.

Keywords: Antioxidant, ethnobotany, *Gundelia*, melanocyte, tyrosinase, Vitiligo.

VİTİLİGO HASTALIĞINA KARŞI ETNOBOTANİK BİR YAKLAŞIM: *Gundelia L.* TAKSONLARI

ÖZET

Uzun yıllar bölgede yaptığımız arazi çalışmalarında Hakkâri ili Derecik, Şemdinli ve Yüksekova ilçeleri başta olmak üzere bölgede yöre halkı tarafından Kenger (*Gundelia L.*) cinsine ait taksonlar ilkbahar aylarında daha tomurcuk halindeyken genç sürgünleri sökülüp taze olarak pişirilerek yemeği yapılmaktadır. Kenger taksonlarının ilkbahar aylarında bu şekilde sökülerek toplanmasının bir an evvel engellenmesi gerekmektedir. Ayrıca çok yoğun toplanan yapıldığı bölgelerde salamurası tutularak yıl içinde salata şeklinde de tüketilmektedir. Bu toplanan önüne geçilmesi gerekmektedir. Kenger taksonlarının sonbaharda tohumları için olgun meyvaları toplanarak toptancılara satılmaktadır. Çoğunlukla yurt dışına satışı yapılan tohumları çerez olarak kullanılmaktadır. Bazı yerlerde tohumlarından kenger kahvesi yapılmak üzere çekilmektedir. Bu şekilde toplanan yapılışının sağlanabilmesi için Kenger tohumunu çerez ve kahve olarak kullanılması için gıda kaynağı olarak tescillenmesi gerekmektedir. Kenger kahvesi vitiligo hastalığının yanı sıra şeker hastalığı tedavisinde kullanıldığı halk tarafından bildirilmiştir.

Vitiligo, melanosit kaybına bağlı olarak deride düzensiz beyaz lekelerle karakterize edilen kronik bir pigmentasyon bozukluğudur. Hastalığın kesin nedeni tam olarak bilinmemekle birlikte, bağışıklık mekanizmaları, genetik yatkınlık ve çevresel faktörlerin birlikte rol oynadığı düşünülmektedir. Vitiligo hastalarında genellikle vücut dirençlerinin düşük olması bu hastalığın bağışıklık sisteminden kaynaklandığını desteklemektedir.

Son yıllarda, Vitiligo hastalığı tedavisinde geleneksel tıp uygulamaları kapsamında bitkisel yaklaşımlar dikkat çekmektedir. Bölgemizde yaptığımız etnobotanik arazi çalışmalarında halk arasında Vitiligo tedavisinde en yaygın olarak kullanılan bitkinin *Gundelia L.* (Kenger) taksonları olduğunu tespit ettik. *Gundelia* cinsine ait taksonların ekstrelerinin melanositleri koruyucu ve melanin üretimini teşvik edici etkileri olduğu yapılan literatür çalışmalarında belirlenmiştir. Bu taksonların içeriğinde bulunan quercetin ve flavonoidler, tirozinaz aktivitesini artırarak melanin sentezine katkıda bulunduğu düşünülmektedir. Bu bitkinin, antioksidan ve bağışıklık düzenleyici özellikleri nedeniyle Vitiligo tedavisinde kullanılmaktadır. Antioksidan özellikleri sayesinde serbest radikaller nötralize edilmekte, bağışıklık düzenleyici etkisi ile melanositlerin korunmasına da yardımcı olmakta ve Tirozinaz enzim aktivitesini artırarak melanin sentezini desteklemektedir.

Bu çalışmada, Vitiligo hastalığının bağışıklık sistemiyle ilişkisi ve bitkisel tedavisine örnek olarak *Gundelia* taksonları detaylı olarak ortaya konmuştur.

Anahtar Kelimeler: Antioksidan, etnobotanik, *Gundelia*, melanosit, tirozinaz, Vitiligo.

SUSTAINABLE HEALTH POLICIES IN REDUCING REGIONAL HEALTH INEQUALITIES: AN EVALUATION OF THE EASTERN ANATOLIA REGION

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ABSTRACT

One of the fundamental objectives of health systems is to ensure that all individuals have timely, accessible, and sustainable access to the healthcare services they need. However, socioeconomic and structural disparities that emerge at the regional level within countries may lead to inequalities in healthcare delivery. In Türkiye, the Eastern Anatolia Region, in particular, differs from national averages in terms of healthcare workforce distribution, infrastructure capacity, and certain key health indicators. This situation necessitates the reassessment of health policies within a sustainability framework that takes regional needs into account.

The aim of this study is to examine the role of sustainable health policies in reducing regional health inequalities from a health management perspective. A qualitative research design based on document analysis was employed. The analysis included the 2019–2023 Strategic Plan and the 2024–2028 Strategic Plan, as well as annual activity reports published by the Ministry of Health of the Republic of Türkiye, Health Statistics Yearbooks, and regional socioeconomic indicators from the Turkish Statistical Institute. Additionally, data from the World Health Organization Regional Office for Europe were considered for international comparative evaluation. The documents were subjected to thematic content analysis within the framework of accessibility, human resources planning, financial sustainability, and resource allocation themes.

The findings indicate that regional inequalities stem not only from physical infrastructure deficiencies but also from disparities in healthcare workforce distribution, financing mechanisms, and planning processes. In order to enhance the effectiveness of sustainable health policies, it is necessary to implement needs-based regional planning, strengthen incentive mechanisms, expand digital health applications, and improve performance-based resource management tools. The study is expected to contribute to the restructuring of regional health policies within a sustainability framework in Türkiye and to provide a guiding framework for health managers in strategic decision-making processes.

Keywords: Sustainability, Health Policy, Regional Health Inequalities, Health Management.

BÖLGESEL SAĞLIK EŞİTSİZLİKLERİNİN AZALTILMASINDA SÜRDÜRÜLEBİLİR SAĞLIK POLİTİKALARI: DOĞU ANADOLU BÖLGESİ ÜZERİNE BİR DEĞERLENDİRME

ÖZET

Sağlık sistemlerinin temel hedeflerinden biri, tüm bireylerin ihtiyaç duyduğu sağlık hizmetlerine zamanında, erişilebilir ve sürdürülebilir biçimde ulaşmasını sağlamaktır. Bununla birlikte, ülkeler içinde bölgesel düzeyde ortaya çıkan sosyoekonomik ve yapısal farklılıklar sağlık hizmeti sunumunda eşitsizliklere yol açabilmektedir. Türkiye’de özellikle Doğu Anadolu Bölgesi; sağlık insan gücü dağılımı, altyapı kapasitesi ve bazı temel sağlık göstergeleri bakımından ülke ortalamalarından ayrışabilmektedir. Bu durum, sağlık politikalarının sürdürülebilirlik ilkesi çerçevesinde bölgesel gereksinimleri dikkate alan bir yaklaşımla yeniden değerlendirilmesini gerekli kılmaktadır.

Bu çalışmanın amacı, sürdürülebilir sağlık politikalarının bölgesel sağlık eşitsizliklerinin azaltılmasındaki rolünü sağlık yönetimi perspektifinden incelemektir. Araştırmada nitel araştırma desenlerinden doküman analizi yöntemi benimsenmiştir. Analiz kapsamında T.C. Sağlık Bakanlığı tarafından yayımlanan 2019–2023 Stratejik Planı, 2024-2028 Stratejik Planı ve faaliyet raporları, Sağlık İstatistikleri Yıllıkları ile TÜİK bölgesel sosyoekonomik göstergeleri incelenmiştir. Ayrıca uluslararası karşılaştırmalı değerlendirme amacıyla World Health Organization Regional Office for Europe verileri dikkate alınmıştır. Belgeler, erişilebilirlik, insan gücü planlaması, finansal sürdürülebilirlik ve kaynak tahsisi temaları çerçevesinde tematik içerik analizine tabi tutulmuştur.

Elde edilen bulgular, bölgesel eşitsizliklerin yalnızca fiziki altyapı yetersizliğinden değil sağlık insan gücü dağılımı, finansman mekanizmaları ve planlama süreçlerindeki farklılıklardan kaynaklandığını göstermektedir. Sürdürülebilir sağlık politikalarının etkinliğinin artırılması için yerel ihtiyaç temelli planlama, teşvik mekanizmalarının güçlendirilmesi, dijital sağlık uygulamalarının yaygınlaştırılması ve performans temelli kaynak yönetimi araçlarının iyileştirilmesi gerektiği tespit edilmiştir. Çalışmanın, Türkiye’de bölgesel sağlık politikalarının sürdürülebilirlik ekseninde yeniden yapılandırılmasına katkı sağlaması ve sağlık yöneticilerine stratejik karar süreçlerinde yol gösterici bir çerçeve sunması beklenmektedir.

Anahtar Kelimeler: Sürdürülebilirlik, Sağlık Politikaları, Bölgesel Sağlık Eşitsizlikleri, Sağlık Yönetimi

COMPLEMENTARY HEALTH INSURANCE AS A NEW REVENUE MODEL IN PRIVATE HEALTH CARE MANAGEMENT: A CONCEPTUAL ANALYSIS

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ABSTRACT

Rising costs in healthcare financing and pressure on public healthcare spending have led to the emergence of alternative models in private health insurance. In Turkey, Supplementary Health Insurance (SHI), whose legal framework has strengthened since 2012, has become not only a payment method but also a sustainable revenue model for private healthcare businesses. In this context, the main objective of this study is to conceptually examine the strategic importance of SHI from the perspective of private hospital management, in terms of revenue management and market dynamics. The study is based on a conceptual review of the literature and an analysis of existing sectoral reports. In this context, data shared with the public by the Social Security Institution (SGK), reports from the Turkish Insurance Association (TSB), and current studies in the healthcare management literature were examined to investigate the effects of SHI on the financial structure of hospitals. As a result of these examinations, it was determined that SHI is a tool that can minimize idle capacity for private hospitals, expand market share by targeting the middle-income group, and make cash flow predictable. It has been observed that Compulsory Health Insurance (CHI) provides accessibility, especially for those who have difficulty accessing healthcare due to the high cost of Private Health Insurance (PHI) premiums, and this creates a sustainable patient portfolio for hospitals. Therefore, it is emphasized that CHI should be considered by private healthcare institution managers as a proactive marketing and financial management strategy.

Keywords: Complementary Health Insurance, Revenue Management, Health Care Financing, Private Hospitals.

ÖZEL SAĞLIK İŞLETMELERİNİN FİNANSMANINDA TAMAMLAYICI SAĞLIK SİGORTASININ ROLÜ: KAVRAMSAL BİR ANALİZ

ÖZET

Sağlık hizmetlerinin finansmanında yaşanan maliyet artışları ve kamu sağlık harcamaları üzerindeki baskı, özel sağlık sigortacılığında alternatif modellerin doğmasına neden olmuştur. Türkiye’de 2012 yılından itibaren yasal zemini güçlenen Tamamlayıcı Sağlık Sigortası (TSS), özel sağlık işletmeleri için sadece bir ödeme yöntemi değil, aynı zamanda sürdürülebilir bir gelir modeli olarak değerlendirilir konuma gelmiştir. Bu bağlamda, bu çalışmanın temel amacı TSS’nin özel hastane işletmeciliği perspektifinden stratejik önemini gelir yönetimi ve pazar dinamikleri bağlamında kavramsal olarak incelemektir. Çalışma literatüre dayalı bir kavramsal inceleme ile mevcut sektörel raporların analizine dayanmaktadır.

Bu kapsamda Sosyal Güvenlik Kurumu (SGK)'nın kamuoyu ile paylaştığı veriler, Türkiye Sigorta Birliği (TSB) raporları ve sağlık işletmeciliği literatüründeki güncel çalışmalar incelenerek TSS'nin hastane finansal yapısı üzerindeki etkileri irdelenmiştir. Yapılan incelemeler sonucunda TSS'nin özel hastaneler için atıl kapasiteyi minimize edebilecek, orta gelir grubuna hitap ederek pazar payını genişletebilecek ve nakit akışını öngörülebilir kılacak bir araç olduğu saptanmıştır. Özellikle Özel Sağlık Sigortası (ÖSS) primlerinin yüksekliği nedeniyle sağlık hizmetine erişimde zorlanan kitleler için TSS'nin erişilebilirlik sağladığı, bunun da hastaneler için sürdürülebilir bir hasta portföyü yarattığı gözlenmektedir. Sonuç olarak TSS'nin özel sağlık kurumu yöneticileri tarafından proaktif bir pazarlama ve finansal yönetim stratejisi olarak ele alınması gerektiği vurgulanmaktadır.

Anahtar Kelimeler: Tamamlayıcı Sağlık Sigortası, Gelir Yönetimi, Sağlık Finansmanı, Özel Hastaneler.

FUNCTIONING, EFFICIENCY AND COMPARATIVE ANALYSIS OF FAMILY MEDICINE SYSTEMS IN TURKIYE AND GERMANY

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ABSTRACT

This study comparatively examines the family medicine systems in Türkiye and Germany in terms of their functioning, efficiency, and structural characteristics. The research aims to identify the main similarities and differences in primary healthcare services in both countries. In this context, the advantages of the German model in terms of service quality, as well as the achievements and challenges of the transformation process in Türkiye, are evaluated from an analytical perspective. The main objective of the study is to identify areas open to improvement in both systems through comparison and to develop policy recommendations. A qualitative research method was employed in the study. Among qualitative data collection and analysis techniques, document analysis was utilized. A literature review on the subject was conducted, and secondary data sources and documents related to both countries were examined and analyzed comparatively. The findings indicate that the failure to establish an effective referral system in Türkiye has led to systemic problems such as appointment constraints, increased hospital occupancy rates, and prolonged waiting times. On the other hand, in Germany, it has been determined that access to certain medical specialties and advanced radiological examinations (such as scintigraphy) requires referral from a family physician, and access to these services is restricted without such a referral mechanism. In the current structure, treating the roles of general practitioners and specialists as equivalent may pose risks for clinical processes. In this regard, a hierarchical model in which the specialist acts as the “final decision-maker” and the general practitioner assumes a “supportive” role is considered more sustainable. Another strategic approach is the gradual elimination of general practice in Türkiye, as observed in the German example, and the operation of the system entirely by specialist physicians. Such structural reforms are expected to enhance service standardization and encourage more active use of the family medicine system by society.

Keywords: Family Medicine, Primary Healthcare, Health Policies, Türkiye, Germany

TÜRKİYE VE ALMANYA’DA AİLE HEKİMLİĞİ SİSTEMİ: İŞLEYİŞ VE VERİMLİLİK ÜZERİNDEN BİR KARŞILAŞTIRMA

ÖZET

Bu çalışma, Türkiye ve Almanya’daki aile hekimliği sistemlerini; işleyiş, verimlilik ve yapısal özellikler açısından karşılaştırmalı olarak incelemektedir. Araştırma, her iki ülkenin birinci basamak sağlık hizmetlerindeki temel benzerlik ve farklılıkları ortaya koymayı amaçlamaktadır. Bu kapsamda, Almanya’daki modelin hizmet kalitesi açısından sunduğu avantajlar ile Türkiye’deki dönüşüm sürecinin kazanımları ve karşılaştığı zorluklar analitik bir perspektifle değerlendirilmektedir.

Çalışmanın temel amacı, Türkiye ve Almanya'daki sistemlerin gelişime açık alanlarını karşılaştırarak tespit etmek ve politika önerileri geliştirmektir. Çalışmada nitel araştırma yöntemi kullanılmıştır. Nitel araştırma veri toplama ve analiz tekniklerinden doküman analizi uygulanmıştır. Çalışmanın konusu ile ilgili literatür taraması yapılarak, ikincil veri kaynaklar ve dokümanlar her iki ülke için incelenerek analiz edilmiştir. Araştırma bulguları; Türkiye'de etkin bir sevk zincirinin tesis edilememesinin; randevu kısıtları, hastane doluluk oranlarında artış ve uzayan bekleme süreleri gibi sistemsel sorunlara yol açtığını göstermektedir. Diğer yandan Almanya'da, belirli uzmanlık dallarına erişim ve ileri düzey radyolojik tetkikler (sintigrafi vb.) için aile hekimi sevkinin zorunlu olduğu; sevk mekanizması olmaksızın bu hizmetlere erişimin kısıtlandığı saptanmıştır. Mevcut yapıda pratisyen ve uzman hekimin görevlerinde denk görülmesi klinik süreçler açısından risk teşkil edebilmektedir. Bu bağlamda, uzman hekimin 'nihai karar verici, pratisyen hekimin ise 'destekleyici' rol üstlendiği hiyerarşik bir modelin daha sürdürülebilir olduğu değerlendirilmiştir. Bir diğer stratejik yaklaşım ise, Almanya örneğinde gözlemlenen şekliyle Türkiye'de pratisyen hekimliğin aşamalı olarak kaldırılarak sistemin tamamen uzman hekimler tarafından yürütülmesidir. Bu tür yapısal reformların, hizmet standardizasyonunu artırarak toplumun aile hekimliği sistemini daha aktif kullanacağı öngörülmektedir.

Anahtar Kelimeler: Aile Hekimliği, Birinci Basamak Sağlık Hizmetleri, Sağlık Politikaları, Türkiye, Almanya

THE EFFECT OF OFF-SEASON DRY-LAND TRAINING ON ATHLETIC PERFORMANCE AND INJURY RISK IN ALPINE SKIING

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ABSTRACT

The aim of this review is to holistically examine the effects of dry-land training on athletic performance, balance, neuromuscular control, fatigue tolerance, and injury risk in alpine skiers. Within this scope, a non-systematic literature review was conducted by searching for studies published between 2016 and 2025 in PubMed, Google Scholar, and DergiPark databases; a total of 11 articles meeting the inclusion criteria were evaluated. The findings indicate that dry-land training based on proprioceptive stimulation and perturbation provides statistically significant improvements in the dynamic and static balance capacity, postural control, and sport-specific technical performance of the athletes. It was determined that neuromuscular training programs enhance motor coordination by balancing agonist-antagonist muscle activation and are effective in minimizing injury risks associated with fatigue-induced loss of motor control. Although adaptations in maximal strength and explosive power parameters vary depending on the duration and content of the prescribed training, eccentric strength and endurance exercises integrated into these programs were found to play a critical role in maintaining performance throughout the season. In conclusion, dry-land training in alpine skiing is an indispensable preparatory phase not only for increasing general physiological capacity but also for sustaining technical efficiency and preventing injuries under conditions of high speed and surface variability. Considering the sample and duration limitations of current studies in the field, future research requires long-term designs that include different age groups, monitor standardized training loads, and incorporate field tests with high ecological validity.

Keywords: Alpine skiing, dry-land training, balance, neuromuscular control, fatigue, performance

ALP DİSİPLİNİ KAYAKÇILARINDA SEZON DIŞI KARA ANTRENMANLARININ SPORTİF PERFORMANS VE SAKATLIK RİSKİNE ETKİSİ

ÖZET

Bu derleme çalışmasının amacı, alp disiplini kayak sporcularında uygulanan kara antrenmanlarının (dry-land training) sportif performans, denge, nöromusküler kontrol, yorgunluk toleransı ve sakatlık riski üzerindeki etkilerini bütüncül bir yaklaşımla incelemektir. Bu kapsamda, sistematik olmayan literatür taraması yöntemi kullanılarak 2016–2025 yılları arasında PubMed, Google Akademik ve DergiPark veri tabanlarında yayımlanan çalışmalar taranmış; dahil edilme kriterlerini karşılayan toplam 11 makale değerlendirmeye alınmıştır. Elde edilen bulgular, propriyoseptif uyarım ve pertürbasyon temelli kara antrenmanlarının sporcuların dinamik ve statik denge kapasitesini, postüral kontrolünü ve spora özgü teknik performansını istatistiksel olarak anlamlı düzeyde geliştirdiğini göstermektedir.

Nöromüsküler eğitim programlarının, agonist-antagonist kas aktivasyonunu dengeleyerek motor koordinasyonu artırdığı ve yorgunluk altında gelişen motor kontrol kaybı ile ilişkili sakatlık risklerini minimize etmede etkili olduğu belirlenmiştir. Maksimal kuvvet ve patlayıcı güç parametrelerindeki adaptasyonların, uygulanan antrenman reçetesinin süresi ve içeriğine bağlı olarak değişkenlik gösterdiği görülmekle birlikte; programlara entegre edilen eksantrik kuvvet ve dayanıklılık çalışmalarının, sezon boyu performansın korunmasında kritik bir işlevi olduğu saptanmıştır. Sonuç olarak, kara antrenmanları alp disiplini kayakta yalnızca genel fizyolojik kapasiteyi artırmak için değil, yüksek hız ve zemin değişkenliği altında teknik verimliliğin sürdürülmesi ve yaralanmaların önlenmesi için vazgeçilmez bir hazırlık evresidir. Alandaki mevcut çalışmaların örneklem ve süre kısıtlılıkları göz önüne alındığında; gelecekteki araştırmalarda farklı yaş gruplarını kapsayan, standartlaştırılmış antrenman yüklerinin izlendiği ve ekolojik geçerliliği yüksek saha testlerini içeren uzun soluklu tasarımlara ihtiyaç duyulmaktadır.

Anahtar Kelimeler: Alp disiplini, kara antrenmanları, denge, nöromüsküler kontrol, yorgunluk, performans

THE HOLISTIC EFFECT OF EXERCISE ON HUMAN PHYSIOLOGY: CARDIOVASCULAR, BIOCHEMICAL, AND MORPHOLOGICAL ADAPTATIONS

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ABSTRACT

The aim of this review study is to holistically evaluate the multifaceted effects of regular exercise on human physiology within the axis of cardiovascular, biochemical, and morphological adaptations in light of current literature. In this study, designed as a narrative review, PubMed, Web of Science, Scopus, and Google Scholar databases were searched. Original research articles published between 2015 and 2026, investigating the acute and chronic effects of different exercise modalities (aerobic, resistance, and combined) on physiological systems at cellular and systemic levels, were determined as the inclusion criteria. The selected studies were synthesized under three main themes: cardiovascular system dynamics, biochemical responses, and musculoskeletal system morphology. Current evidence reviewed indicates that regular exercise promotes capillarization (angiogenesis) in the cardiovascular system, improves endothelial functions, and maximizes hemodynamic efficiency by increasing stroke volume. At the biochemical level, it was determined that exercise triggers mitochondrial biogenesis, optimizes substrate utilization (especially fat oxidation), and creates a systemic anti-inflammatory "protective" environment through myokine release. Morphologically, the literature proves that mechanical loading stimulates myofibrillar protein synthesis (hypertrophy), induces sport-specific structural shifts in muscle fiber types, and independently supports skeletal integrity by increasing bone mineral density. Exercise should not be viewed merely as a mechanical action that enhances locomotor performance. Instead, it must be considered as an integrated set of physiological stimuli that ensures the simultaneous optimization of cardiovascular, cellular, and structural systems. A holistic understanding of these physiological adaptation mechanisms and their integration into preventive medicine and personalized clinical practice as a primary intervention tool is essential.

Keywords: Exercise Physiology, Cardiovascular Adaptation, Biochemical Response, Muscle Morphology.

EGZERSİZİN İNSAN FİZYOLOJİSİNE BÜTÜNCÜL ETKİSİ: KARDİYOVASKÜLER, BİYOKİMYASAL VE MORFOLOJİK ADAPTASYONLAR

ÖZET

Bu derleme çalışmasının amacı, düzenli egzersizin insan fizyolojisi üzerindeki çok yönlü etkilerini; kardiyovasküler, biyokimyasal ve morfolojik adaptasyonlar ekseninde güncel literatür ışığında bütüncül olarak değerlendirmektir. Narratif derleme tasarımında kurgulanan bu çalışmada; PubMed, Web of Science, Scopus ve Google Scholar veri tabanları taranmıştır. 2015–2026 yılları arasında yayımlanmış, farklı egzersiz modalitelerinin (aerobik, direnç ve karma) fizyolojik sistemler üzerindeki akut ve kronik etkilerini hücresel ve sistemik düzeyde inceleyen özgün araştırmalar dahil etme kriteri olarak belirlenmiştir. Seçilen çalışmalar; kardiyovasküler sistem dinamikleri, biyokimyasal yanıtlar ve kas-iskelet sistemi morfolojisi olmak üzere üç temel tema altında sentezlenmiştir. İncelenen güncel kanıtlar, düzenli egzersizin kardiyovasküler sistemde kapillerleşmeyi (anjyogenez) teşvik ettiğini, endotel fonksiyonlarını iyileştirdiğini ve atım hacmini artırarak hemodinamik verimliliği maksimize ettiğini göstermektedir.

Biyokimyasal boyutta egzersizin; mitokondriyal biyogenezi tetiklediği, substrat kullanımını (özellikle yağ oksidasyonu) optimize ettiği ve miyokin salınımı yoluyla sistemik anti-enflamatuar bir "koruyucu" ortam yarattığı saptanmıştır. Morfolojik olarak ise literatür, mekanik yüklenmenin miyofibriler protein sentezini (hipertrofi) uyardığını, kas lifi tiplerinde spora özgü yapısal kaymalar yarattığını ve kemik mineral yoğunluğunu artırarak iskelet bütünlüğünü bağımsız olarak desteklediğini kanıtlamaktadır. Egzersiz, yalnızca lokomotor performansı artıran mekanik bir eylem olarak görülmemelidir. Bunun yerine, kardiyovasküler, hücresel ve yapısal sistemlerin eşzamanlı optimizasyonunu sağlayan, birbiriyle entegre bir fizyolojik uyaranlar bütünü olarak değerlendirilmelidir. Bu fizyolojik adaptasyon mekanizmalarının bütüncül olarak kavranması ve koruyucu hekimlik ile kişiselleştirilmiş klinik pratiğe birincil müdahale aracı olarak entegre edilmesi zaruridir.

Anahtar Kelimeler: Egzersiz Fizyolojisi, Kardiyovasküler Adaptasyon, Biyokimyasal Yanıt, Kas Morfolojisi

THE USE AND APPLICATION AREAS OF WEARABLE TECHNOLOGIES IN EXERCISE TRACKING

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ABSTRACT

The aim of this review study was to comprehensively examine the effects of wearable technologies used in exercise monitoring on increasing physical activity levels, tracking exercise performance, evaluating health indicators, and athlete management in light of the current literature. The study was designed as a narrative review, and recent studies indexed in PubMed, Web of Science, Scopus, and Google Scholar were evaluated. Research focusing on physical activity monitoring, sensor technologies, artificial intelligence-supported exercise analysis, sports performance, and rehabilitation was particularly examined, and the findings were synthesized under three main themes: physical activity behavior, athletic performance, and clinical health applications. The reviewed literature indicates that wearable technologies increase participation in physical activity by monitoring parameters such as daily step count, energy expenditure, heart rate, sleep patterns, and exercise duration in real time. Devices based on accelerometers, gyroscopes, GPS, photoplethysmography, and inertial measurement units have been reported to provide high functionality in exercise monitoring. In sports settings, these technologies have been shown to be effective in training load monitoring, recovery management, injury risk reduction, and performance optimization. Furthermore, artificial intelligence-supported data analytics has enabled individualized exercise planning, performance prediction, and early risk detection. In conclusion, wearable technologies have evolved beyond simple measurement tools in exercise monitoring into multidimensional digital systems that support behavioral change, facilitate health management, and enhance sports performance. In the future, stronger integration of these devices with artificial intelligence, biosensors, and remote healthcare platforms is expected to create a new paradigm in exercise science and clinical practice.

Keywords: Wearable technology, Exercise monitoring, Physical activity, Sports performance, Artificial intelligence, Sensor systems.

EGZERSİZ TAKİBİNDE GİYİLEBİLİR TEKNOLOJİLERİN KULLANIMI VE UYGULAMA ALANLARI

ÖZET

Bu derleme çalışmasının amacı, egzersiz takibinde kullanılan giyilebilir teknolojilerin fiziksel aktivite düzeyinin artırılması, egzersiz performansının izlenmesi, sağlık göstergelerinin değerlendirilmesi ve sporcu yönetimi üzerindeki etkilerini güncel literatür doğrultusunda bütüncül olarak incelemektir. Çalışma anlatı derleme tasarımında planlanmış olup PubMed, Web of Science, Scopus ve Google Scholar veri tabanlarında yer alan güncel araştırmalar değerlendirilmiştir. Özellikle fiziksel aktivite takibi, sensör teknolojileri, yapay zekâ destekli egzersiz analizi, spor performansı ve rehabilitasyon alanlarında yayımlanan çalışmalar

incelenmiş; elde edilen bulgular fiziksel aktivite davranışı, sporcu performansı ve klinik sağlık uygulamaları olmak üzere üç ana tema altında sentezlenmiştir. İncelenen literatür, giyilebilir teknolojilerin günlük adım sayısı, enerji harcaması, kalp atım hızı, uyku düzeni ve egzersiz süresi gibi parametreleri gerçek zamanlı olarak izleyerek bireylerin fiziksel aktiviteye katılımını artırdığını göstermektedir. Akselerometre, jiroskop, GPS, fotopleitismografi ve atalet ölçüm birimi tabanlı cihazların egzersiz izleminde yüksek işlevsellik sunduğu; spor alanında ise antrenman yükü takibi, toparlanma yönetimi, yaralanma riskinin azaltılması ve performans optimizasyonunda etkili olduğu bildirilmektedir. Ayrıca yapay zekâ destekli veri analitiği sayesinde bireyselleştirilmiş egzersiz planlaması, performans tahmini ve erken risk tespiti mümkün hale gelmiştir. Sonuç olarak giyilebilir teknolojiler, egzersiz takibinde yalnızca ölçüm yapan araçlar olmaktan çıkmış; bireyin davranış değişikliğini destekleyen, sağlık yönetimini kolaylaştıran ve spor performansını geliştiren çok boyutlu dijital sistemlere dönüşmüştür. Gelecekte bu cihazların yapay zekâ, biyosensörler ve uzaktan sağlık platformları ile daha güçlü biçimde bütünleşmesi, egzersiz bilimi ve klinik uygulamalarda yeni bir paradigma oluşturacaktır.

Anahtar Kelimeler: Giyilebilir teknoloji, Egzersiz takibi, Fiziksel aktivite, Spor performansı, Yapay zekâ, Sensör sistemleri

GOOGLE EARTH ENGINE APPLIED TO THE SPATIO-TEMPORAL ANALYSIS OF METEOROLOGICAL DROUGHT AND CMIP6 PROJECTIONS

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ABSTRACT

Meteorological drought is one of Brazil's main environmental and socioeconomic challenges, directly affecting water security, agricultural production, energy generation, and natural resource availability. This study analyzed the spatio-temporal variability of meteorological drought across Brazil using the Standardized Precipitation Index (SPI), integrating a historical assessment from 1961 to 2024 and future CMIP6 climate projections for 2024 to 2100 under the SSP2-4.5 and SSP5-8.5 scenarios. The methodology was fully implemented in Google Earth Engine, enabling automated and reproducible processing of large geospatial datasets. Moving windows of 6, 12, 24, and 48 months were applied to represent different durations and intensities of dry and wet events. The results showed greater susceptibility of the Northeast and Midwest regions to prolonged droughts, especially at multiyear scales, as well as a spatial expansion of recurrent rainfall deficits as the aggregation period increases. Climate projections indicated a tendency toward drought intensification, with stronger persistence under the high-emissions scenario. It is concluded that the integration of SPI, CMIP6 projections, and cloud computing provides a robust, scalable, and applicable approach to territorial planning, water-risk management, and climate-change adaptation strategies in Brazil.

Keywords: CMIP6; precipitation; meteorological drought; SPI; Google Earth Engine.

LAND USE DYNAMICS AND ENVIRONMENTAL DEGRADATION

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ABSTRACT

Land use dynamics, the changes in how land is allocated for agriculture, urban development, forestry, conservation, and industrial activities—play a critical role in shaping environmental conditions. Rapid human population growth, urban expansion, and intensified agricultural practices have accelerated land transformation, leading to severe environmental degradation across ecosystems. This paper examines patterns of land use change, major drivers, and associated environmental impacts. Using a desk-based analytical approach, the study synthesizes global evidence to highlight how improper land use intensifies deforestation, soil degradation, habitat fragmentation, pollution, and climate-related vulnerabilities. Recommendations for sustainable land management and environmental restoration are proposed.

Keywords: Land use, environmental degradation, deforestation, urban expansion, soil degradation, land management

BEHAVIORAL RESPONSES OF ZEBRAFISH TO CEFTAZIDIME, POLYPROPYLENE MICROPLASTICS, AND THEIR MIXTURE

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ABSTRACT

Pharmaceutical residues and microplastics are increasingly detected in aquatic ecosystems, raising concerns about their potential ecological and neurobehavioral impacts. Ceftriaxone (CAZ), a third-generation β -lactam cephalosporin antibiotic, is frequently present in surface waters due to its incomplete removal in conventional wastewater treatment processes. Polypropylene microplastics (PP MP) are widely distributed synthetic polymers that may interact with aquatic organisms through physical and chemical pathways, acting as carriers for contaminants and altering biological responses. This study investigated the effects of CAZ, PP MP, and their combined exposure on social behavior in adult zebrafish (*Danio rerio*). Fish were exposed to environmentally relevant concentrations of CAZ ($50 \mu\text{g L}^{-1}$), PP MP (2 mg L^{-1}), and a mixture of both contaminants. Behavioral performance was evaluated using a social interaction-based test, focusing on parameters related to social preference, spatial exploration, and swimming activity. Statistical differences between experimental groups were evaluated using one-way ANOVA. Exposure to CAZ resulted in significant impairments in social behavior, indicated by reduced exploration of socially relevant zone and decreased activity levels. In contrast, exposure to PP MPs resulted in more restrained swimming patterns, with relatively moderate effects on social endpoints. In particular, the combined exposure produced a distinct behavioral profile, suggesting non-additive interactions between the two stressors.

These findings highlight the importance of evaluating mixture toxicity when assessing the behavioral and ecological risks of emerging aquatic contaminants.

Keywords: zebrafish behavior; ceftazidime; polypropylene microplastics.

BIOLOGICAL INNOVATIONS IN COMBATING PLASTIC POLLUTION: THE ROLE OF PET-DEGRADING BACTERIA

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ABSTRACT

Plastics are synthetic polymers composed of long, repeating molecular chains that are valued for their transparency, durability, and lightweight nature. However, their widespread use has led to severe environmental challenges due to their resistance to natural degradation. Among various plastics, polyethylene terephthalate (PET), a commonly used thermoplastic polymer, is extensively utilized in manufacturing bottles and food containers. Its accumulation in the environment poses a significant global concern, as efficient recycling and breakdown into reusable components remain difficult. Recent scientific advancements have introduced a promising biological approach to mitigate plastic pollution through the discovery of plastic-degrading microorganisms. One such bacterium, *Ideonella sakaiensis*, has demonstrated remarkable capability in PET-contaminated environments. This Gram-negative, rod-shaped, motile bacterium produces a key enzyme known as PETase, which catalyzes the hydrolysis of PET into smaller molecules. The process is enhanced when PET is converted into an amorphous form through melting and rapid cooling, making it more accessible to enzymatic action. Furthermore, *Ideonella sakaiensis* produces a second enzyme that breaks down intermediate compounds such as mono(2-hydroxyethyl) terephthalic acid during PET metabolism. The ultimate objective of this biodegradation pathway is the complete conversion of PET either into carbon dioxide or into recoverable monomers that can be reused to synthesize new plastic materials. This innovative biological strategy offers a sustainable and eco-friendly solution to address the growing crisis of plastic pollution.

Keywords: Plastic, Polyethylene terephthalate (PET), *Ideonella sakaiensis*, Thermoplastic polymer, PETase, Biodegradation

A GENERALIZED ADVECTION–DISPERSION MODEL WITH TIME-DEPENDENT FLOW FOR GROUNDWATER CONTAMINANT TRANSPORT

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ABSTRACT

Groundwater quality is increasingly compromised by contaminants from anthropogenic and natural sources, including agriculture, industry, wastewater leakage, and geogenic processes. These inputs introduce hazardous substances such as nitrates, heavy metals, and arsenic into aquifers, posing significant environmental and health risks. The Advection Dispersion Equation (ADE) is widely used to model solute transport in porous media; however, conventional analytical solutions assume constant velocity, uniform source concentration, and steady initial conditions, limiting their applicability to dynamic natural systems. This study develops a generalized ADE model incorporating time-dependent flow, variable source concentrations, and arbitrary initial conditions. An analytical solution is obtained using the Laplace Transform Technique (LTT), with a dispersion coefficient dependent on solute travel time. The effects of exponentially decaying and sinusoidal velocity fields on transport dynamics are examined. Additionally, the influence of key dimensionless parameters, including the Peclet and Courant numbers, is analyzed. The analytical solution is validated against an explicit finite difference scheme, and model performance, evaluated using RMSE, shows strong agreement, highlighting the model's reliability for groundwater contamination assessment.

Keywords: Advection–Dispersion Equation, Time-dependent velocity, Laplace Transform, Explicit finite difference method.

THE WASTE TRADE TRAP: MYTHS AND REALITIES OF WASTE COLONIALISM

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ABSTRACT

This study examines waste colonialism as a manifestation of global inequality within the broader framework of sustainability and environmental justice. Although sustainability has become a central paradigm for addressing interconnected ecological, social, and economic crises, persistent asymmetries in global trade and waste management continue to undermine its goals. Waste colonialism refers to the systematic export of hazardous and low-quality waste from wealthier nations in the Global North to less developed countries in the Global South, where weaker regulatory systems and economic vulnerabilities enable such practices. Rooted in colonial patterns of exploitation, waste colonialism intensified with industrialization, mass consumption, and stricter environmental regulations in developed countries, which encouraged the externalization of waste. This often occurs under the guise of recyclable materials or second-hand goods. The Khian Sea incident (1986) illustrates the legal and ethical failures in regulating transboundary waste, while China's 2018 National Sword policy exposed structural weaknesses in the global recycling system by disrupting established waste flows. Despite international efforts such as the Basel Convention, enforcement gaps, legal loopholes, and uneven state capacity limit effective regulation. As a result, recipient countries face environmental degradation, public health risks, and socio-economic challenges, disproportionately affecting vulnerable communities. The study argues that waste colonialism is a structural feature of the global economy, requiring stronger international governance and a transition to circular economies that reduce waste at its source.

Keywords: Waste colonialism; Environmental justice; Global South; Global inequality; Transboundary waste; Sustainability

RENEWABLE ENERGY OPTIONS FOR POWER GENERATION AND DESALINATION: THE STATE-OF-THE-ART AND OPPORTUNITIES

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ABSTRACT

As the global community faces the dual challenges of energy transition and water scarcity, the integration of renewable energy (RE) into power generation and desalination processes has emerged as a critical strategic priority. This paper provides a comprehensive state-of-the-art review of current technologies, focusing on the synergy between solar (photovoltaic and concentrating solar power), wind, and geothermal energy with thermal and membrane-based desalination systems, particularly Reverse Osmosis (RO). The study evaluates technical performance, economic viability, and the inherent challenges posed by the intermittency of renewable sources. Furthermore, it explores emerging opportunities such as large-scale energy storage, smart grid integration, and the potential of green hydrogen as a synergistic vector. The findings indicate that while declining RE costs are driving significant decarbonization, the optimization of hybrid systems remains the key to ensuring sustainable water and energy security. This work highlights the transition from traditional fossil-fuel-dependent models to integrated, carbon-neutral solutions for a resilient future.

Keywords: Renewable Energy, Desalination, Energy Transition, Hybrid Systems, Reverse Osmosis, Sustainable Development.

SUSTAINABLE MATERIALS AND SYSTEMS FOR WATER DESALINATION: TECHNOLOGIES, APPLICATIONS, AND INNOVATIONS

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ABSTRACT

As global water scarcity intensifies, desalination has emerged as a critical solution for securing freshwater resources. However, the high energy consumption and environmental footprint of conventional methods remain significant barriers. This paper examines recent advancements in sustainable materials and innovative systems designed for low-impact desalination. Key focus areas include the development of bio-based membranes, advanced nanomaterials (such as graphene and MXenes), and solar-driven thermal desalination techniques. We analyze the integration of these technologies into hybrid systems aimed at maximizing energy efficiency and minimizing brine discharge. Finally, the study highlights current industrial applications and explores future innovations for circular water management, aligning desalination practices with global sustainability goals.

Keywords: Desalination, Sustainable Materials, Energy Efficiency, Innovative Membranes, Renewable Energy, Water Treatment.

EVALUATION OF THERMAL DESALINATION PERFORMANCE UNDER VARYING ENVIRONMENTAL CONDITIONS

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ABSTRACT

Salinity contamination, often known as salt pollution, affects both drinking water and agricultural/irrigation water worldwide. It is present in soils, surface water, and groundwater. The most frequent source of salt pollution, which also lowers agricultural output and raises health concerns, is irrigation. Significant salinity/salt contamination affects an estimated 20% of all cultivated land and 33% of irrigated agricultural area worldwide. Climate change is causing an increase in salt contamination. The salt found in oceans and other bodies of water usually comes from the surface discharge of these dissolved salts. The surface discharge of these dissolved salts is typically the source of the salt found in oceans and other bodies of water. Salt levels grow due to a complex interplay of human-caused variables, including fertilizer leaching, rainfall runoff, irrigation, and urban wastewater outflow. The issue of saltwater intrusion is frequently made worse when coastal cities use wells to pump fresh drinking water to the top. In addition to solving drinking water scarcity and waterborne infections in distant and rural areas of poor nations, solar stills are an inexpensive equipment that advances the objective of sustainable development by using cleaner energy to convert saline water into drinkable water. The physicochemical characteristics of saltwater were recorded both before and after it was distilled using a solar still. TDS dropped from 25,000 to 0.5 ppm, while salinity dropped from 34 to 0.5%. The output yield in a glass-only 0.17 m² solar still was 3 to 4 L/m²/d at an intensity of 1200 to 1380 mmol. Testing is currently underway for the manageable 1 m² fiber-based solar still. This solar still system provides a cost-effective, eco-friendly, and energy-efficient solution for the water-scarce communities spread throughout desert regions like Cholistan, Balochistan, and the Coasts that have to walk up to 13 kilometers to gather sweat water for various applications.

Keywords: salination, irrigated agricultural, rainfall runoff, Solar stills

EFFECT OF SEAWEED ENRICHED HUMIC ACID ON GROWTH AND YIELD OF BT. BRINJAL (SOLANUM MELONGENA L.)

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ABSTRACT

Bt. brinjal (*Solanum melongena* L.), a member of the Solanaceae family, is an economically important vegetable crop cultivated worldwide across tropical, subtropical, and warm temperate regions. It has been genetically developed to resist lepidopteran pests, particularly the Brinjal Fruit and Shoot Borer (*Leucinodes orbonalis*), through the expression of *Bacillus thuringiensis* (Bt) toxin that forms pores in the insect's digestive system. In Bangladesh, where brinjal is locally known as "Begoon," it ranks second only to potato in acreage and production. The present study evaluated the effect of seaweed-enriched humic acid on the growth and yield of Bt. brinjal using a Randomized Complete Block Design (RCBD) with three replications. Four treatments were applied: T₀ (control), T₁ (recommended fertilizer), T₂ (10 kg seaweed-enriched humic acid ha⁻¹), and T₃ (20 kg seaweed-enriched humic acid ha⁻¹). Humic acid enhances nutrient availability, stimulates seed germination and viability, and primarily promotes root growth. Growth parameters—plant height, leaf number, branch number, and flower number—were recorded at 30, 50, and 80 days after sowing (DAS). The highest values were observed at DAS 80, with plant height (119 cm), leaf number (130.33), branch number (26.67), and flower number (63.35). Yield performance revealed maximum production in T₂ (21.15 ton ha⁻¹), followed by T₃ (16 ton ha⁻¹), T₁ (12 ton ha⁻¹), and minimum in T₀ (12 ton ha⁻¹). The findings indicate that seaweed-enriched humic acid significantly enhances growth and yield attributes of Bt. brinjal. Therefore, its application can be regarded as an effective, eco-friendly, and sustainable supplement to improve productivity and promote sustainable agricultural systems in Bangladesh.

Keywords : Bt brinjal, Fruit and Shoot Borer, Seaweed, Humic acid, Recommended fertilizer.

**SMART GOVERNANCE IN THE AGE OF ARTIFICIAL INTELLIGENCE:
TRANSFORMING ACCOUNTING AUDITING TOWARD GREATER
TRANSPARENCY AND ACCOUNTABILITY**

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ABSTRACT

This study explores the role of smart governance, empowered by artificial intelligence (AI), in transforming accounting auditing practices within public sector institutions in Lebanon. Amid increasing demands for transparency, accountability, and efficiency, traditional auditing approaches are facing significant limitations in addressing complex financial and administrative challenges. This research investigates how the integration of AI technologies into governance frameworks can enhance the effectiveness, accuracy, and timeliness of auditing processes.

Adopting a mixed-methods approach, the study examines selected Lebanese governmental institutions to assess the current state of governance and auditing practices, as well as the readiness for AI adoption. It further analyzes the potential of AI-driven tools—such as data analytics, machine learning algorithms, and automated auditing systems—to detect anomalies, reduce human error, and strengthen regulatory compliance.

The findings are expected to highlight the transformative impact of smart governance in fostering a more transparent and accountable auditing environment. Additionally, the study identifies key challenges, including infrastructural limitations, regulatory gaps, and resistance to technological change, and proposes strategic recommendations for policymakers and institutional leaders to facilitate effective AI integration. Ultimately, this research contributes to bridging the gap between traditional governance models and the emerging demands of digital transformation in the public sector.

Keywords: Smart Governance, Artificial Intelligence, Accounting Auditing, Public Sector, Lebanon, Transparency, Accountability, Digital Transformation, Audit Efficiency, E-Governance

FROM MOTIVATION TO PERFORMANCE IN NGOs: A MULTIDIMENSIONAL MODEL OF ORGANIZATIONAL COMMITMENT

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ABSTRACT

Understanding how employee motivation translates into organizational performance remains a central issue in management research, particularly within non-governmental organizations where financial incentives are limited and employees' commitment plays a critical role. While prior studies have established a direct relationship between motivation and performance, the underlying psychological mechanisms through which this relationship operates remain insufficiently explored, especially in resource-constrained and institutionally complex environments.

This study develops an integrated conceptual model that examines the mediating role of multidimensional organizational commitment in the relationship between employee motivation and organizational performance. Drawing on Self-Determination Theory, Social Exchange Theory, and Herzberg's Two-Factor Theory, the model distinguishes between intrinsic and extrinsic motivation and conceptualizes organizational commitment as a multidimensional construct comprising affective, continuance, and normative components.

The proposed framework advances eight hypotheses, including two direct effects and six mediation relationships, forming a comprehensive multidimensional mediation model. By explicitly modeling the differentiated roles of commitment dimensions, the study addresses the fragmentation of prior research, which has often examined these relationships in isolation.

Furthermore, the research extends the motivation–performance literature to non-governmental organizations operating in challenging contexts, such as Lebanon, where economic instability and institutional constraints may intensify the role of psychological mechanisms in shaping employee behavior.

Although the empirical phase is ongoing, the proposed model provides a robust foundation for future testing using structural equation modeling (SEM). The study offers important theoretical contributions and practical implications for enhancing employee performance through targeted motivational and commitment-based strategies in nonprofit settings.

Keywords: Employee motivation; Organizational commitment; non-governmental organizations; Organizational performance; Mediation model; Structural equation modelling.

ENTREPRENEURIAL DECISION-MAKING UNDER UNCERTAINTY: THE ROLE OF COGNITIVE AND EMOTIONAL BIASES

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ABSTRACT

This research examines how cognitive and emotional biases influence entrepreneurial decision-making in environments marked by severe uncertainty. Although behavioral finance literature has extensively analyzed biases in investors' judgments, their implications for entrepreneurial decision processes remain relatively underexplored, particularly within crisis-affected settings. To address this theoretical gap, the present study proposes an integrated conceptual framework explaining the effects of behavioral biases on major entrepreneurial decisions.

Drawing on behavioral finance and entrepreneurial cognition perspectives, entrepreneurial decision-making is conceptualized as a multidimensional construct including opportunity assessment, risk propensity, and resource deployment. The proposed framework links cognitive and emotional biases to these decision outcomes through both direct relationships and indirect pathways mediated by psycho-behavioral mechanisms, namely perceived risk, emotional activation, and entrepreneurial resilience. Incorporating these mediating variables enables a more refined understanding of how biases are converted into observable entrepreneurial actions. This study offers three main contributions to the literature. First, it advances prior research by combining multiple behavioral biases within a single integrative model, thereby overcoming the fragmented treatment found in earlier studies. Second, it deepens understanding of the mechanisms through which cognition and affect shape strategic entrepreneurial choices. Third, it extends behavioral finance theory to a crisis environment by focusing on Lebanese startups, a distinctive context characterized by persistent economic instability, institutional weakness, and elevated uncertainty.

While empirical testing is currently in progress, the proposed model is intended to be validated using structural equation modeling (SEM), ensuring methodological robustness. Expected results should generate theoretical implications as well as practical recommendations for entrepreneurs, policymakers, and support organizations aiming to improve decision quality in highly volatile environments.

Keywords: Behavioral biases; Entrepreneurial decision-making; Startups; Crisis context; Lebanon; Conceptual model.

THE EFFECT OF GREEN HUMAN RESOURCE MANAGEMENT ON ORGANIZATIONAL INNOVATION PERFORMANCE

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ABSTRACT

In increasingly competitive and sustainability-oriented business environments, it is important to understand how green human resource management (GHRM) relates to organizational outcomes. This study examines the effect of GHRM on perceived organizational innovation performance in Portuguese organizations. Data were collected through questionnaires from 356 respondents and analyzed using simple linear regression in SPSS. The results indicate that GHRM has a positive and statistically significant effect on perceived organizational innovation performance ($B = .441$, $SE = .033$, $\beta = .585$, $t = 13.564$, $p < .001$). The regression model was statistically significant, $F(1, 354) = 183.980$, $p < .001$, explaining 34.2% of the variance in perceived organizational innovation performance ($R^2 = .342$). These findings suggest that organizations characterized by stronger green human resource management practices tend to be associated with higher innovation performance. The study reinforces the importance of sustainability-oriented HRM practices in fostering firm-level innovation outcomes.

Keywords: Green Human Resource Management; Organizational Innovation Performance; Sustainability; Human Resource Management; Portuguese Organizations.

**RETAIN, PERFORM, SUSTAIN: EXPLORING THE TRIPLE PROMISE OF
SUSTAINABLE HUMAN RESOURCE MANAGEMENT**

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ABSTRACT

Sustainability has become increasingly central to Human Resource Management (HRM), as organizations are urged to adopt long-term strategies that integrate financial performance with social and environmental responsibility. In this context, Sustainable Human Resource Management (SHRM) has emerged as a strategic approach that enhances organizational effectiveness while fostering the development and retention of human capital.

This study examines the “triple promise” of SHRM - retention, performance, and sustainability - by analyzing its impact on employee retention and performance. Using a cross-sectional quantitative design with data collected from employees across diverse sectors, the results indicate that SHRM is positively and significantly associated with both employee retention and performance.

These findings suggest that organizations investing in Sustainable HR practices can strengthen employee attachment while simultaneously improving performance outcomes. From both theoretical and practical perspectives, this study highlights the strategic importance of integrating sustainability into HRM. SHRM should be understood not as a transient trend, but as a forward-looking approach to enhance employee engagement, drive organizational outcomes, and support long-term resilience.

Keywords: Sustainable Human Resources Management, Employee Retention, Performance.

IMPACT OF GHRM ON SUSTAINABILITY WHILE TAKING AI AS A MODERATOR

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ABSTRACT

The world is facing the challenge to address the issue of sustainability to meet the needs of the future generations in line with the sustainable development goals set by the United Nations. Organizations are incorporating sustainable technologies and practices including the Human Resource Management at all the levels. HRM is transitioning to Green Human Resource Management in order to correspond to sustainability by equipping the human resources with the awareness and skills they need to adopt sustainable practices both with in and outside the organizations. With the advent of technological advancement, AI is increasing becoming the most dominating technological tool in all the organizations. Since the relationship in of GHRM and sustainability is established while AI is there to moderate this relationship. Therefore, this paper investigates the impact of Green Human Resource Management for the achievement of the sustainable practices while taking the AI as a moderator in this relationship. This study is grounded on a blend of well-established Ability Motivation Opportunity theory and dynamic capabilities theory where AMO explains the mechanism of how the Green Human Resource Management corresponds to sustainable practices while dynamic capabilities theory elucidates the mechanism of AI in this relationship. This relationship is proposed to be executed in the IT based manufacturing sector that has a key role in achieving sustainability though the achievement of sustainable performance outcomes.

Keywords: Green Human Resource Management, Artificial Intelligence, Sustainability

HOW INCLUSIVE LEADERSHIP ACTIVATES EMPLOYEE OUTCOMES

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ABSTRACT

In increasingly complex and dynamic organizational environments, leadership is expected not only to guide employees but also to actively shape how they engage with their work and perform their roles. Inclusive leadership has emerged as a relevant approach in this context, given its focus on openness, accessibility, and support for employee involvement. This study examines the role of inclusive leadership in influencing employee outcomes by focusing on its direct relationships with work engagement and performance, as well as the link between engagement and performance. Using a quantitative approach, data were collected from employees to explore these relationships. The results indicate that inclusive leadership is positively associated with both employee engagement and performance. In addition, higher levels of engagement are linked to improved performance outcomes. These findings suggest that inclusive leadership contributes simultaneously to how employees experience their work and how effectively they perform their tasks. By integrating these direct relationships, the study offers a clearer and more comprehensive understanding of how leadership operates in everyday organizational settings. Despite these contributions, the study is not without limitations, namely its cross-sectional design and reliance on self-reported data. Future research could explore longitudinal approaches and consider additional contextual variables to further deepen the understanding of these relationships. Overall, the results highlight the importance of fostering inclusive leadership practices as a way to strengthen both employee engagement and performance across organizations.

Keywords: inclusive leadership, work engagement, performance, employee outcomes.

**DIGITAL DIALOGUE RIGHTS OF CITIZENS IN CONTEMPORARY PUBLIC
GOVERNANCE: FROM THEORETICAL FRAMEWORKS TO LEGAL REFORM
REQUIREMENTS BASED ON PRACTICES IN THE MEKONG DELTA**

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ABSTRACT

Amid the ongoing process of digital transformation, which is fundamentally redefining the interaction between the State and its citizens, the right to dialogue recognized as a central dimension of participatory governance is increasingly exercised within digital environments rather than confined to traditional physical settings. This article advances the position that the “digital dialogue right” (DDR) should be conceptualized as an emerging, autonomous category of citizens’ rights within the broader framework of contemporary civil and political rights.

Building upon international human rights instruments, notably the International Covenant on Civil and Political Rights (ICCPR) and the Universal Declaration of Human Rights (UDHR), as well as theoretical perspectives from deliberative democracy and digital governance, and supported by empirical findings from field research conducted in the Mekong Delta during the period 2023-2026, the study delineates seven fundamental dimensions of the DDR alongside five criteria necessary for its effective guarantee.

At the same time, the article identifies six significant gaps in the current Vietnamese legal system, particularly in relation to implementation practices. On this basis, it proposes six groups of legal reform measures with strong practical feasibility, including specific recommendations to revise the 2022 Law on the Implementation of Grassroots Democracy, to further develop the 2023 Law on Electronic Transactions, and to introduce a dedicated governmental decree governing digital dialogue at the grassroots level.

Keywords: digital dialogue right; digital governance; human rights; Vietnamese law.

TOWARDS PRAGMATIC FEDERALISM: A COMPARATIVE STUDY OF FEDERAL TRAJECTORIES IN INDIA AND ETHIOPIA

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ABSTRACT

In this study, Most Different System Design (MDSD) is employed to explain why federal systems in different contexts evolve differently despite comparable internal diversity. Four analytical parameters—the historical foundation of federalism, how identity is accommodated, how conflict trajectories influenced federalism, and the role of political parties in shaping federal practices—were examined using comparative historical analysis and tracing process. Drawing on government documents, the 1950 and 1995 constitutions of India and Ethiopia, respectively, media reports, in-depth interviews with scholars, experts, and politicians, and existing literature, the study showed that federal resilience is shaped by constitutional design and influenced by historical context, political dynamics, and negotiated institutions over time. India's federalism has evolved through administrative elasticity, constitutional flexibility, the judiciary as the ultimate constitutional arbiter, a federalized party system, and accommodative identity demands. In contrast, Ethiopia's federalism has developed to address the question of nationality during the imperial era, an ethnic-based revolutionary rupture during the Derg regime, with politicized identity during the EPRDF regime, and post-2018 single non-ethnic national party dominance, constitutional inflexibility, and constitutional interpretation by the House of Federation (the political body) with its limited institutional autonomy necessary to achieve substantive federalism. The study argued that pragmatic federalism prevails in a competitive and federalized political party system, a nationally accommodative and integrative approach to identity, and autonomous institutions to resolve conflict. These findings have implications for the broader debate on comparative federalism in countries with a similar trajectory of federalism in diversified societies. Subsequent studies may expand this finding to other federal countries and analyze how globalization and the policies of global institutions reshape federal evolution.

Keywords: Pragmatic federalism, historical trajectories, identity management, conflict trajectories, political parties

IMPACT OF FOREIGN PORTFOLIO INVESTMENT ON STOCK MARKET PERFORMANCE IN NIGERIA

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ABSTRACT

This study examines the impact of foreign portfolio investment on stock market performance in Nigeria using time series data from 1990 to 2023. The Ordinary Least Square using the statistical tool of E-view 9 was employed in analyzing the data. The dependent variable is market capitalization (proxy for stock market performance) while the independent variable is Foreign Portfolio Investment, exchange rate, interest rate and inflation rate. This data were collected from CBN statistical bulletin of 2023. The regression analysis output revealed that inflation rate, interest rate and foreign portfolio investment is statistically insignificant, while exchange rate is statistically significant at 5 percent level of significance. This means that exchange rate easily explains stock market performance in the country base on the data and the period under review. The f-statistic results show that all the explanatory/independent variables of in the specified model have significant impact on market capitalization (proxy for stock market performance) for the period under review. Based on the result, the study recommended that The Nigerian capital market is to engage in reforms especially in the area of investors' protection and confidence, infrastructural development, and accounting disclosure requirements. In addition, the current stride in liberalization should be sustained.

Keywords: Foreign Portfolio, Economy, Stock Market, Inflation Rate, Exchange Rate

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İlgili makama;

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