

ERZİNCAN UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY

ISSN: 1307-9085, e-ISSN: 2149-4584

EDITOR IN CHIEF

Assoc. Prof. Dr. Kemal Volkan ÖZDOKUR
Erzincan Binali Yıldırım University

ASSOCIATE EDITORS

Assoc. Prof. Dr. Özlem BARAN ACIMERT
Erzincan Binali Yıldırım University

Ass. Prof. Dr. Fidan ERDEN KARAOĞLAN
Erzincan Binali Yıldırım University

EDITORIAL BOARD

Prof. Dr. Ali Ercan EKİNCİ

Erzincan Binali Yıldırım University

Prof. Dr. Bülent CAĞLAR

Erzincan Binali Yıldırım University

Prof. Dr. Suat ÇOLAK

Erzincan Binali Yıldırım University

Prof. Dr. Yeşim KARASULU

Ege University

Assoc. Prof. Dr. Fulya ASLAY

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Agah Oktay ERTAY

Erzincan Binali Yıldırım University

Assoc. Prof. Dr. Neşe ERTUGAY

Erzincan Binali Yıldırım University

Prof. Dr. Salih DOĞAN

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Emre YAVUZ

Erzincan Binali Yıldırım University

Doç. Dr. Tuba AKKUŞ

Erzincan Binali Yıldırım University

Doç. Burcu BOZKURT ÇIRAK

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Vael HAJAHMAD

Erzincan Binali Yıldırım University

Prof. Dr. Süleyman KOÇAK

Manisa Celal Bayar University

Assoc. Prof. Dr. Özgür ARAR

Ege University

Ass. Prof. Dr. Burçin

TÜRKMENOĞLU

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Mehmet KUZUCU

Erzincan Binali Yıldırım University

Assoc. Prof. Dr. Tülay ERİŞİR

Erzincan Binali Yıldırım University

Prof. Dr. Öztekin ALGÜL

Mersin University

Ass. Prof. Dr. İrem BOZBEY MERDE

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Arif Onur EDEN

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Mert KARAOGLAN

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Ali CELEN

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Mehmet Kürsat ÖKSÜZ

Erzincan Binali Yıldırım University

Ass. Prof. Dr. Deniz ELMACI

Dokuz Eylül University

Assoc. Prof. Dr. İsmail TONTUL

Necmettin Erbakan University

Ass. Prof. Dr. Ülgen İlknur KONAK

Avrasya University

Ass. Prof. Dr. Fundagül EREM

Zonguldak Bülent Ecevit University

Ass. Prof. Dr. Takaichi WATANABE

Okayama University

**Ass. Prof. Dr. Ayşenur KELEŞ
DAYAUÇ**

Hitit University

Assoc. Prof. Dr. Aykut ÖZGÜR

Tokat Gaziosmanpaşa University

Ass. Prof. Dr. M. Mustafa ÇETİN

Kadir Has University

Res. Ass. Zehra ÖKSÜZ

Mersin University

**Assoc. Prof. Dr. Kemal
BUHARALIOĞLU**

İzmir Katip Çelebi University

**Assoc. Prof. Dr. Hayrettin Ozan
GÜLCAN**

Eastern Mediterranean University

Prof. Dr. Seyhan ŞAHAN FIRAT

Mersin University

Marin MARİN

Transylvania University of Braşov

Sorin VLASE

Transylvania University of Braşov

Prof. Dr. Alper SEZER

Ege University

AIMS AND SCOPE

The aim of the **Erzincan University Journal of Science and Technology** is to publish original research articles and reviews made in the fields of Science, Engineering in order to create a quality academic contribution in these fields.

Research areas covered in the journal:

- Physics, Chemistry, Biology, Mathematics and related areas
- Mechanical, Electrics-Electronics, Civil and related engineering areas
- Health sciences and related areas

Open Access Policy

Erzincan University Journal of Science and Technology is an open access journal which means that all content is freely available without charge to the user or his/her institution. Users are allowed to read, download, copy, distribute, print, search, or link to the full texts of the articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author. Erzincan University Journal of Science and Technology signed the Budapest Open Access Declaration (<https://budapestopenaccessinitiative.org/>).

Editor in chief: Doç. Dr. Kemal Volkan ÖZDOKUR

Address: Department of Chemistry, Erzincan Binali Yıldırım University, Erzincan, Türkiye.

E-mail: fbedergierzincan@gmail.com

Publisher: Erzincan Binali Yıldırım University

Address: Erzincan Binali Yıldırım University, Erzincan, Türkiye.

RESEARCH ARTICLES:

Page	Manuscript Title Authors
1-9	Finite Difference Approach for Fourth-Order Impulsive Sturm-Liouville Boundary Value Problem Şerife Faydaoğlu
10-23	Business Continuity Focused Hierarchic Network Topology Application for Universities Veli Çapalı <i>et al.</i>
24-41	High Efficiency and Wideband Polarization Converter Design in Terahertz Region Fatih Kadiroğlu and Gökhan Öztürk
42-58	Investigation of Durability Performance of High Plasticity Silty Soil Improved with Alkali Activated Fly Ash and Polypropylene Fiber Hakan Alper Kamiloğlu <i>et al.</i>
59-72	Quercetin/Fe₃O₄@Cu(II) Hybrid Structures Fabrication and Cytotoxic Activity Burcu Somtürk Yılmaz.
73-97	Convolutional Neural Network Based Emotion Recognition from Facial Expressions Using Different Feature Engineering Methods Şengül Bayrak <i>et al.</i>
98-114	Asses to Genetic Diversity in Cultivated Forage Pea (<i>Pisum sativum</i> var. <i>arvense</i> L.) Genotypes Through SSR Markers Büşra Yazıcılar, Pınar Uysal
115-128	A Maple Program to the Analysis of Equilibrium Points in Social Media Addiction Model Mehmet Kocabıyık
129-139	Some Physical Attributes of a Cr-Doped Iron Oxide Thin Film Produced by Simultaneous RF and DC Magnetron Sputtering Technique Günay Merhan Muğlu <i>et al.</i>
140-148	Co-Coatomically Ps-Supplemented Modules İrfan Soydan and Ergül Türkmen
149-170	The Solutions of Caputo-Fabrizio Random Fractional Ordinary Differential Equations by Aboodh Transform Method Yasin Şahin and Mehmet Merdan
171-188	Investigation of Physical and Mechanical Properties of Polyester Matrix Polymer Composites Containing Walnut Shell Waste and CEN Sand Mehmet Nuri Kolak

- 189-203 **Lightweight Hyperparameter Optimization Model for Enhancing Phishing Detection in IoT**
Ansar Yertayev and Hunaida Avvad
- 204-212 **Comparison of Usage Possibilities of Feeder Types Used in Feeding Honey Bee (*Apis mellifera L.*) Colonies in Erzincan Province Conditions**
Ömer Erten
- 213-228 **Investigating *TIFY* Genes for Salt Stress Adaptation in Quinoa (*Chenopodium quinoa* Willd.): A Genome-Wide Approach**
Esma Yigider
- 229-247 **Investigation of Weeds Problematic in Agricultural Areas of Adana Province and Chemical Control Status**
Ramazan Gürbüz *et al.*
- 248-263 **Frequency-Dependent Dielectric Characterization of Bi_{1.75}Pb_{0.25}Sr₂Ca₂Cu_{3-x}Sn_xO_{10+δ} Glass Ceramics System**
Naki Kaya and Haluk Koralay
- 264-273 **Assessment of Heavy Metal Contamination in Sugar Beet (*Beta Vulgaris*) Plant Along Erzincan–Erzurum Highway in Eastern Anatolia Region**
Mustafa Fatih Ertugay *et al.*
- 274-290 **Using Advanced Modelling Tools to Analyse Emission Impacts of Different Aircraft Models on Domestic Flights**
Vehbi Emrah Atasoy
- 291-311 **Investigation of Toxicity Parameters of La-TiO₂ Nanoparticles in Allium cepa L. Root Tip Cells**
Aytül Uzun Akgeyik and Emrah Akgeyik
- 312-325 **Challenging Synthesis of a Highly Strained π-Extended Viologen-Based Cyclophane**
M. Mustafa Çetin