

The Eurasia Proceedings of Science, Technology, Engineering & Mathematics

EPSTEM

VOLUME 34 ICBASET CONFERENCE

ISSN: 2602-3199

ISBN: 978-625-6959-71-2

ICBASET 2025: 5th International Conference on Basic Sciences, Engineering and Technology (ICBASET)

May 01- 04, 2025 Trabzon, Türkiye

Edited by: Prof.Dr. Mehmet Ozaslan - Gaziantep University, Türkiye

ICBASET 2025

International Conference on Basic Sciences, Engineering and Technology (ICBASET)

Proceedings Book

Editor

Mehmet Ozaslan
Gaziantep University, Türkiye

ISBN: 978-625-6959-71-2

Copyright 2025

Published by the ISRES Publishing

Address: Askan Mah. Akinbey Sok. No: 5-A/Konya/TÜRKİYE

Web: www.isres.org

Contact: isrespublishing@gmail.com

Dates: May 01- 04, 2025

Location: Trabzon, Türkiye

<https://2025.icbaset.net>



This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

About Editor

Prof Dr. Mehmet Ozaslan
Department of Biology, Gaziantep University, Türkiye
Website: mehmetozaslan.com
E-mail: ozaslanmd@gantep.edu.tr

Language Editor

Lecturer Ceren Dogan
School of Foreign Languages, Necmettin Erbakan University, Türkiye
Email: cerendogan@erbakan.edu.tr

CONFERENCE PRESIDENT

Prof. Dr. Mehmet Ozaslan - Gaziantep University, Türkiye

Prof. Dr. Csaba Antonya - Transilvania University of Brasov, Romania

SCIENTIFIC BOARD

Besnik Hajdari - University "isa Boletini" Mitrovica, Kosovo

Bogdan Patrut - Alexandru Ioan Cuza Üniversitesi, Romania

Chalavadi Sulochana - Gulbarga University, India

Csaba Antonya - Transilvania University of Brasov, Romania

Dariusz Jacek Jakobczak - Technical University of Koszalin, Poland

Dehini Rachid - University of Bechar, Algeria

Eleonora Guseinoviene - Klaipeda University, Lithuania

Elena Krelja Kurelovic - Polytechnic of Rijeka, Croatia

Elżbieta Patkowska - University of Life Sciences in Lublin, Poland

Eva Trnova - Masaryk University, Czech Republic

Farhad Balash - Kharazmi University, Iran

Fundime Miri - University of Tirana, Albania

Gabriel Delgado-Toral - Universidad Nacional Autónoma de México, Mexico

Gordana Savic - University of Belgrade, Serbia

Hasan Mlinaku, VUZF, Sofia in Bulgaria

Ibrahim Krasniqi - University of Peja, Kosovo

Irina Andreeva - Peter The Great St. Petersburg Polytechnic University, Russia

Isti Hidayah - Semarang State University, Indonesia

Jose Manuel Lopez Guede - University of Basque Country, Spain

Kamil Yurtkan - Cyprus International University, Cyprus

Katsina Christopher Bala - Federal University of Technology, Minna, Nigeria

Khitam Shraim - Palestine Technical University, Palestine

Marija Stanic - University of Kragujevac, Serbia

M. Hanefi Calp - Karadeniz Technical University, Turkey

Mohamed Ahmed - Mansoura University, Egypt

Mousa Attom- American University of Sharjah, U.A.E.

Nicu Bizon - Pitesti University, Romania

Pandian Vasant - Teknology Petronas University, Romania

Rajnalkar Laxman - Gulbarga University, India

Sanaa Al-Delaimy - Mosul University, Iraq

Shadi Aljawarneh - Jordan University of Science and Technology, Jordan

Shynar Baimaganbetova - Nazarbayev University, Kazakhstan

Svetlana Khan - Almaty University of Power Engineering and Telecommunications, Kazakhstan

Yiyang Chen - Soochow University (CN), China

Zairi Ismael Rizman - MARA University of Technology, Malaysia

Zipporah Pewat Duguryil - Federal College of Education, Nigeria

ORGANIZING COMMITTEE

Besnik Hajdari - University "isa Boletini" Mitrovica, Kosovo

Cemil Aydogdu - Hacettepe University, Türkiye

Csaba Antonya - Transilvania University of Brasov, Romania

Danielle Gonçalves de Oliveira Prado-Federal Technological University of Paraná, Brazil

Dariusz Jacek Jakóbczak - Technical University of Koszalin, Poland
Elman Iskender - Central Botanical Garden of Anas, Azerbaijan
Halil Snopce - South East European University, Macedonia
Hasan Mlinaku, VUZF, Sofia in Bulgaria
Ibrahim Krasniqi - University of Peja, Kosovo
Ishtar Imad - Uruk University, Iraq
Jaya Bishnu Pradhan-Tribhuvan University, Mahendra Ratna Campus, Nepal
Kamil Yurtkan - Cyprus International University, Cyprus
Mehmet Özaslan - Gaziantep University, Türkiye
Mohammad Sarwar - Scialert, Dubai, United Arab Emirates
Murat Beytur - Kafkas University, Türkiye
Samire Bagirova - Institute of Dendrology of Anas, Azerbaijan
Suhail Bayati - Hadi University College, Iraq
Zairi Ismael Rizman - MARA University of Technology, Malaysia

Editorial Policies

ISRES Publishing follows the steps below in the proceedings book publishing process.

In the first stage, the papers sent to the conferences organized by ISRES are subject to editorial oversight. In the second stage, the papers that pass the first step are reviewed by at least two international field experts in the conference committee in terms of suitability for the content and subject area. In the third stage, it is reviewed by at least one member of the organizing committee for the suitability of references. In the fourth step, the language editor reviews the language for clarity.

Review Process

Abstracts and full-text reports uploaded to the conference system undergo a review procedure. Abstracts will be evaluated on the basis of abstracts/proposals. The conference system allows the full text to be sent if the abstract is accepted. Participants must wait for the evaluation results after uploading their article abstracts to the conference system. If their abstracts are accepted, they can upload their full texts to the conference system. The full texts are then sent to at least two reviewers for review. The conference has a double-blind peer-review process. Any paper submitted for the conference is reviewed by at least two international reviewers with expertise in the relevant subject area. Based on the reviewers' comments, papers are accepted, rejected or accepted with revision. If the comments are not addressed well in the improved paper, then the paper is sent back to the authors to make further revisions. The accepted papers are formatted by the conference for publication in the proceedings.

Aims & Scope

Engineering, technology and basic sciences are closely related fields. Developments and innovations in one of them affect the others. Therefore, the focus of the conference is on studies related to these three fields. Studies in the fields of engineering, technology and basic science are accepted to the conference even if they are not associated with other fields. The conference committee thinks that a study in only one field (for example, mathematics, physics, etc.) will contribute to other fields (for example, engineering, technology, etc.) in future studies, even if it is not associated with the presentation at the conference. In line with this perspective, studies in the following fields are accepted to the conference: Biology, Chemistry, Engineering, Mathematics, Physics and Technology.

The aim of the conference is to bring together researchers and administrators from different countries, and to discuss theoretical and practical issues in all fields of Engineering, Technology and Basic Sciences.

Articles: 1- 46

CONTENTS

A Novel Technique for Estimation the Coefficients of ARMA Model Using Higher Order Moments /
Pages:1-7

Adnan Al- Smadi

Features of a New Method for Solving Practical Problems of Continuum Mechanics Under Conditions
of Complex Loading / Pages:8-14

Valery Chigirinsky, Sergey Kuzmin, Sergey Lezhnev

Transmission Line Fault Isolation Using Artificial Intelligence via Neural Networks / Pages:15-22

Othman Alsmadi, Mohammad Alshawabkeh, Aram Bani – Ata

New Copper(II) and Nickel(II) Complexes with Dimethylglyoxime and Amino-acids: Synthesis,
Characterization and Electrochemical Properties / Pages:23-30

Hadda Bougherra, Omar Berradj

High-Performance of Catalyst Synthesized from Waste Can Aluminum and Rice Husk Silica for
Conversion Coconut Oil into Biodiesel / Pages:31-42

Ganjar Andhulangi, Wega Trisunaryanti, Wasinton Simanjuntak, Kamisah Delilawati Pandiangan, I
Ilim, H Herliana, K Khasandra

Evaluation of the Antioxidant Activity of the Aqueous Extract of Rosa Sempervirens Leaves in
Association with Saliva / Pages:43-48

Idir Moualek, Karima Benarab, Azeddine Mouhous, Rabia Cherfouh, Farid Djellal, Ali Bouzourene,
Karim Houali

Synthesis, Molecular Docking and in Silico ADME Prediction of 2-Benzoylamino-N-Phenyl-Benzamide
Derivatives / Pages:49-57

Karima Ighilahriz, Amina Benazzouz- Touami, Malika Makhoulfi- Chebli, Noura Kichou

On Mersenne GCED Matrices / Pages:58-65

Wiam Zeid, Haissam Chehade, Yahia Awad

Guidelines for the Development of a Green Business Model in Companies from the Raw Materials
Industry / Pages:66-79

Borislava Galabova, Vessela Petrova

Biochemical and Blood Lipid Parameters of Broiler Chickens Fed Sagebrush (Artemisia Herba-Alba
Asso) / Pages:80-86

Si Ammar Kadi, Azeddine Mouhous, Zahia Dorbane, Nacima Zirmi- Zembri, Nadia Belaid- Gater, Farid
Djellal, Hocine Guermah, Ali Bouzourene, Idir Moualek, Rabia Cherfouh, Dahia Saidj

Development and Experimental Testing of a New Technology for Producing Screw Fittings from Bar
Scrap of Ferrous Metals / Pages:87-92

Sergey Lezhnev, Dmitry Goldabin, Elena Shiriaeva, Dmitry Kuis

Detection of Antimicrobial Activity of Aspergillus terreus Against Clinical Isolates of Serratia
marcescens / Pages:93-101

Maryam Kamel Mohammed, Ali Muhsin Ali, Shaymaa Fadhel Abbas Albaayit

Effect of Using β -Pentosanase Enzyme in Feed on Broilers Performance / Pages:102-106
Achour Mennani, Sadam Houcin Lahmar

Enhancing the Efficiency and Security of The Rabin Public-Key Cryptosystem Using Gaussian Integers
/ Pages:107-119
Yahia Awad, Haissam Chehade, Ramiz Hindi

Soft Semi # Generalized α -Connectedness in Soft Topological Spaces / Pages:120-138
Raja Mohammad Latif

Accuracy of Different Modes of Bomb Dropping from Aircraft / Pages:139-150
Milen Atanasov

Variational Principle for Studying the Long-Term Stability of Structural Materials Subjected to
Neutron Irradiation Taking into Account Geometric Nonlinearity / Pages:151-164
Abdulla Hasanov, Yusif Orujov

3D Interpretation of Gravity Anomalies in the Potentially Promising Oil and Gas Region of Ajinohur /
Pages:165-171
Gunel Sadigova , Aynur Zamanova, Khadija Mustafayeva

Performance Comparison of WebAssembly and Phaser in Procedural Maze Generation / Pages:172-
181
Noa Midzic, Matija Novak

Longitudinal Fracture of Inhomogeneous Viscoelastic Beams Subjected to Combined Time-
Dependent Loading: A Parametric Study / Pages:182-194
Victor Rizov

WCAG Success Criteria to Support Accessibility of Elderly Users in Bi-lingual Websites / Pages:195-
201
Baha Khasawneh

Study of Secondary Metabolites of Georgian Grape Wine Processing Waste Using UPLC-PDA-MS
Methods and Prospects for Using Products Obtained from It / Pages:202-208
Maia Vanidze, Khatuna Diasamidze, Indira Japaridze, Ruslan Davitadze, Aleko Kalandia

Effect of Pasture-Based Feeding Systems on Milk Production and Composition of Dairy Goats in
Different Mountainous Areas / Pages:209-214
Azeddine Mouhous, Nacima Zirmi- Zembri, Zahia Dorbane, Si Ammar Kadi, Ali Bouzourene, Rabia
Cherfouh, Idir Moualek, Hocine Guermah, Farid Djellal, Dyhia Saidj

Identification of Possibilities of Controlling Plastic Processing Processes in Conditions of Complex
Loading / Pages:215-220
Valery Chigirinsky, Abdrakhman Naizabekov, Sergey Melentyev, Irina Volokitina, Evgeniy Panin

Designing Intelligent Models with ARIMAANN for Visionary Forecasts / Pages:221-233
Morena Breshanaj, Areti Stringa

Energy Saving Measures in Enterprise from Canning Industry / Pages:234-243
Slav Valchev, Stanislava Tasheva, Ana Semerdzhieva

The Influence of Soil Flexibility on Structural Seismic Behavior / Pages:244-252
Sonia Outayeb, Samia Louadj, Amar Louzai

Influence of Perpendicular Magnetic Field Strength on Corrosion Resistance of 316 Stainless Steel in Nitric Acid / Pages:253-260
Djedjiga Ben- Abdesselam, Nacer Zazi, Fatah Hellal, Youcef Hadj- Ali, Jean Paul Chopart, Belkacem Korichi

Modeling the Mechanical Behavior of a Cement Mortar Based on Plant Fibers / Pages:261-267
Toufik Djadoun, Fatma Taouche- Kheloui, Abdelmadjid Si- Salem, Souad Ait- Tayeb, Ourdia Fedaoui- Akmoussi, Fatma Bouzeboudja

A GIS and Drone-Based Risk Assessment Framework for Hydroelectric and Solar Energy Infrastructure in Disaster-Prone Areas with High Forestry and Agricultural Activity / Pages:268-277
Oyku Alkan, Mehmet Nurullah Alkan

Synthesis, Characterization, and in Silico ADMET Evaluation of Transition Metal Complexes Based on Ortho-Phenylenediamine and Its Derivatives / Pages:278-285
Noura Kichou, Nabila Guechtouli, Manel Tafeguennit, Karima Ighilahriz

Enhancing Highway Safety Through Intelligent Transportation System / Pages:286-295
Hillary Makonise, Mustafa Alas

Preparation, Identification, and Antioxidant Activity of Some New Transition Metal Complexes of Curcumin with Mono-and Bidentate Ligands / Pages:296-303
Omar Berradj, Hadda Bougherra

Chemical Composition of Municipal Sewage Sludge: A Tool for Risk Assessment of Agricultural Land Application / Pages:304-309
Rabia Cherfouh, Samira Si- Belkacem, Fatima Sekai, Si Ammar Kadi, Azeddine Mouhous, Ali Bouzourene, Zahia Dorbane, Nacima Zimbri- Zirmi, Houci Guermah, Farid Djellal, Idir Moualek

Optimal Control Problem and Integral Quality Criteria with a Special Gradient Term / Pages:310-319
Vugar Ibrahim Salmanov

Comparative Analysis of Measures to Reduce Wear on Ship Hull Structures in Areas Around Ballast System Suction Pipes / Pages:320-325
Yordan Denev

Investigation of DNA Protective Activities and Antimicrobial Effects of Spinach (*Spinacia oleracea* L.) Plant Extracts on *Stenotrophomonas maltophilia* / Pages:326-332
Suleyman Yilmaz, Ibrahim Halil Kilic, Maryam Mohammed- Ali, Mehmet Ozaslan

Selective Transport of Bismuth from Heavy Metal Solution by Ionic Liquid-Based Polymer Inclusion Membrane IL-PIM / Pages:333-338
Mohamed Malki, Rabea Meziani, Lynda Mitiche, Amar Sahmoune, Claudia Fontas

Reliable Determination of Metabolic Syndrome Using Only One Biochemical Marker / Pages:339-344
Galya Atanasova

Digital Analysis of Gravity Data of the Absheron Peninsula / Pages:345-351
Aynur Zamanova, Azer Kadirov, Gunel Sadigova, Elnara Ahmadova

An Analysis of a Numerical Solution of the Lotka-Volterra Predator-Prey Model / Pages:352-358
Mohammad H. Al- Towaiq

Incorporating Worker Heterogeneity in Flexible Flow Shop Environment / Pages:359-368
Kubra Ozpacaci , Seyma Bekli, Betul Kayisoglu

Experimental Comparison of Planar and Parabolic Reflectors for Improved Photovoltaic Output /
Pages:369-376
Benlaria Ismail, Laidi Abdallah, Kouddad Elhachemi

Synthesis of Biocomposite of Kappa Carrageenan and Polyvinyl Alcohol for Bioplastic / Pages:377-387
Nonni Soraya Sambudi, Chaterine Lovy Sarah Nova, Fitri Ayu Radini

A Novel All-Optical Photonic Crystal Sensor for Petrochemical Liquid Detection / Pages:388-393
Elhachemi Kouddad, Sououdi Boumediene Chabani, Islam Hassani

Study in-Vitro Digestibility of Vicia Narbonensis L. and Vicia Sativa L. Seeds Cultivated for Ruminants /
Pages:394-401
Farid Djellal, Selma Mahmah, Si Ammar Kadi, Azeddine Mouhous, Rabia Cherfouh, Ali Bouzourene,
Idir Moualek, Amar Mebarkia