

# The Eurasia Proceedings of Science, Technology, Engineering & Mathematics

**EPSTEM**

**VOLUME 22 ICBASET CONFERENCE**

**ISSN: 2602-3199**

**ISBN: 978-625-6959-09-5**

**ICBASET 2023: 3rd International Conference on Basic Sciences, Engineering and Technology (ICBASET)**

April 27 - 30, 2023

Marmaris, Turkey

**Edited by:** Prof. Dr.Mehmet Ozaslan (Chair), Gaziantep University, Turkey

# ICBASET 2023

Volume 22, Pages 1-388 (August 2023)

The Eurasia Proceedings of Science, Technology, Engineering & Mathematics  
(EPSTEM)

e-ISSN: 2602-3199

©2023 Published by ISRES Publishing

Address: Istanbul C. Cengaver S. No 2 Karatay/Konya/TURKEY

Website: [www.isres.org](http://www.isres.org)

Contact: [isrespublishing@gmail.com](mailto:isrespublishing@gmail.com)

**Conference:** ICBASET2023: 3rd International Conference on Basic Sciences, Engineering and Technology (ICBASET)

**Conference website:** <https://www.2023.icbaset.net>

**Dates:** April 27 – 30, 2023

**Location:** Marmaris, Turkey

**Edited by:** Prof. Dr.Mehmet Ozaslan

## About Editor(s)

Prof Dr. Mehmet Ozaslan  
Department of Biology, Gaziantep University, Turkey  
Website: [mehmetozaslan.com](http://mehmetozaslan.com)  
E-mail: [ozaslanmd@gantep.edu.tr](mailto:ozaslanmd@gantep.edu.tr)

## Language Editor(s)

Assoc. Prof. Dr. Kagan Buyukkarci  
Department of English Language Education, Suleyman Demirel University, Turkey  
E-mail: [kaganbuyukkarci@sdu.edu.tr](mailto:kaganbuyukkarci@sdu.edu.tr)

## CONFERENCE PRESIDENT

Prof. Dr. Mehmet Özcaslan - Gaziantep University, Turkey  
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 Jakóbczak - 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  
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 Stanić - 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  
Zipporah Pawat Duguryil - Federal College of Education, Nigeria

**ORGANIZING COMMITTEE**

Besnik Hajdari - University "Isa Boletini" Mitrovica, Kosovo  
Cemil Aydogdu - Hacettepe University, Turkey  
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  
Ishtar Imad - Uruk University, Iraq  
Jaya Bishnu Pradhan-Tribhuvan University, Mahendra Ratna Campus, Nepal  
Kamil Yurtkan - Cyprus International University, Cyprus  
Mehmet Özaslan - Gaziantep University, Turkey  
Mohammad Sarwar - Sialert, Dubai, United Arab Emirates  
Murat Beytur - Kafkas University, Turkey  
Samire Bagirova - Institute of Dendrology of Anas, Azerbaijan  
Suhail Bayati - Hadi University College, Iraq

**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. Authors will be notified of the application results in three weeks. Submitted abstracts will be evaluated on the basis of abstracts/proposals. The conference system allows you to submit the full text if your abstract is accepted. Please upload the abstract of your article to the conference system and wait for the results of the evaluation. If your abstract is accepted, you can upload your full text. Your full text will then be 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: 1-42

#### **CONTENTS**

Mathematical Analyzing of Laser Triangulation System without Scheimpflug Condition via C++ and Qt Framework / Pages: 1-14

*Orkun KASAPOGLU, Tugba BILGIN*

General Upper Bounds for the Numerical Radii of Powers of Hilbert Space Operators / Pages: 15-25

*Mohammed AL-DOLAT*

Investigation of Mechanical and Dimensional Features in Unfilled Polyketone Polymer / Pages: 26-32

*Hasan OKTEM, Halit KARASUNGUR, Ahmet EROGLU*

Global Food Security Strategies, Issues and Challenges / Pages: 33-47

*Hayati YUSOF, Mai Farhana MIOR BADRUL MUNIR, Zulnurhaini ZOLKAPLY, Muhammad Ashraf ANUAR*

A Systematic Snapshot of Software Outsourcing Challenges / Pages: 48-58

*Issam JEBREEN, Eman AL – QBELAT*

Safetree: An Integrated Wearable Device and Mobile Application Solution for Pandemic Mitigation and Post-Pandemic Preparedness, Incorporating Contact Tracing, Social Distancing Emergency Alert Notification, and Socialization Features / Pages: 59-73

*Jille Anne R. VERANO, Doreen Marie S. SORONGON, Febus Reidj G. CRUZ*

Cushion Pin Control System with Using Image Processing / Pages: 74-80

*Oguz Alper ISEN, Emin CANTEZ, Serkan AYDIN*

A New Nano-Design of an Efficient Synchronous Full-Adder/Subtractor Based on Quantum-Dots / Pages: 81-86

*Seyed-sajad AHMADPOUR, Nima Jafari NAVIMIPOUR, Feza KERESTECIOGLU*

5G Massive MIMO and its Impact on Energy Efficiency / Pages: 87-98

*Gerhard P. TAN, Lawrence MATERUM*

Road Safety Performance Monitoring Practices: A Literature Review / Pages: 99-110

*Ibtissam EL KHALAI, Zoubida CHORFI, Abdelaziz BERRADO*

Heat-Absorbing Composite Strength Analysis for Electric Vehicles Battery Pack Cover / Pages: 111-118

*Alexander Christantho BUDIMAN, Sudirja SUDIRJA, Sunarto KALEG, Habib Saifuddin FATHONI, Dasa NOVIANTO, Amin AMIN, M. Arjuna Putra PERDANA, Rina RISTIANA, Kristian ISMAIL, Aam MUHARAM, Abdul HAPID*

A Navigation Tool for Visually Impaired and Blind People / Pages: 119-126

*Adnan AL-SMADI, Talal AL-QARYOUTI, Abdurahman REHAN, Homam ASSI, Alhareth ALSHAREA*

A Study of U-Shaped Optical Fiber Sensor for Sensing Different Concentrations of Glucose and Ion liquid (HgCl<sub>2</sub>) and a Fabrication of Microfluidics System / Pages: 127-134

*Tien BAO TRAN, Hsiang CHENG HSU, Chia CHIN CHIANG*

State of Health Estimation for Li-Ion Batteries Using Machine Learning Algorithms / Pages: 135-141

*Yunus KOC*

Spotting the Differences between Two Images / Pages: 142-151

*Raghunadh M V, Srikanth KOTAKONDA*

Adaptation of Electric Field Strength Models for Terrestrial Television Broadcast Application in Ekiti State, Nigeria / Pages: 152-162

*Abiodun Stephen MOSES, Oseni Taiwo ADEWUNI*

Mixture Herbal Tea is Oxidant or not? / Pages: 163-170

*Isik Didem KARAGOZ, Basak SIMITCIOGLU, Ugur VURAL*

Useful Ideas on the Numerical Techniques Used for the Solution of the Two-Point Boundary Value Problems of Ordinary Differential Equations / Pages: 171-175

*Mohammad H. AL-TOWAIQ*

Pin Control on Press Tables Using IoT Sensors / Pages: 176-181

*Emin CANTEZ, Oguz Alper ISEN, Serkan AYDIN*

Synchronization of the Timetable on Partially Overlapping Urban Transport Routes / Pages: 182-190

*Mirena TODOROVA, Zlatin TREDAFILOV, Violina VELYOVA*

Stance Classification for Fake News Detection with Machine Learning / Pages: 191-198

*Maysaa ALSAFADI*

Assessment of the Phytoremediation Potential of Heavy Metal Contaminated Soil Using *Vigna Unguiculata* L. (Walp) / Pages: 199-209

*Oluwole SURUKITE, Ogun MAUTIN, Usamot QUDUS, Olokooba RACHEAL, Kappo SESI, Molade FATIMAH*

Circular Supply Chains: An Internet of Things Application for Rotten Product Detection in Aggregate Food Industry / Pages: 210-216

*Candan ERGELDI, Orhan FEYZIOGLU*

CO<sub>2</sub> Capture by PEI-Impregnated Alumina Sorbents / Pages: 217-226

*Furkan TURGUT, Simge KOSTIK, Baris ERDOGAN, Basar CAGLAR*

The Effect of Nano Graphene Reinforcement on Pin and Adhesively Bonded Sandwich Composite Structures / Pages: 227-236

*Mine USLU UYSAL*

Variable Selection with Machine Learning in the Legalization Process for Traffic Insurance / Pages: 237-246

*Vedat GÜNEŞ, Serkan KIRCA, Hasar Ersan YAGCI, Nida Gokce NARIN*

Investigate the Efficiency of Project Management Software in Construction Projects / Pages: 247-257

*Mohamed Ahmed HAMADA*

Application of Ultrasonic Methods for Evaluation the Anisotropy of Materials / Pages: 258-267

*Yonka IVANOVA*

Sizing and Structural Analysis of Mechanical Bar Screen / Pages: 268-273

*Sezer TURGUT, Yasar YENISOY, Yaser MOHAMADI, Koray TORUN*

Regional Guidance System for Cleaning Robots as a Result of Pollution of Solar Panels / Pages: 274-279

*Emin CANTEZ, Hasan SAHIN, Omer Faruk EFE*

DNA Profiling of ING1 Gene in Triple Negative Breast Cancer / Pages: 280-284

*Alaa Anwer EZZET, Isik Didem KARAGOZ, Sibel CANGI, Tulay KUS*

A Preliminary Study of a Multifunctional DOC/Wet-Scrubber Capable to Reduce both Chemical and Acoustic Emissions in Marine Field / Pages: 285-294

*Giada KYAW OO D'AMORE, Jan KAŠPAR*

Computational Study of Erosion Wear of Capillary Used in Laser Solder Ball Jetting Process / Pages: 295-304

*Suparaj PREMJARUNAN, Karuna TUCHINDA, Kittichai SOJIPHAN*

A Study on Single Mode Laser Based Plastic-Metal Joining Process / Pages: 305-310

*Mehtap HIDIROGLU, Emre EROGUL, Ramazan OZLUTURK, Tanya A. BASER*

Investigating the RSSI-based Distance Classification using Median Confidence Interval in a Multi-Device BLE Environment / Pages: 311-323

*Jille Anne R. VERANO, Doreen Marie S. SORONGON, Febus Reidj G. CRUZ*

Design of Sinus Flow Filters / Pages: 324-329

*Nilsu PARLAKYILDIZ, Neset TAS*

Analysis and Evaluation of the Maximum Runoff Formed in the River Basin of the Arda River to the Dam Wall of the Kardzhali Dam in Bulgaria / Pages: 330-338

*Silvia KIRILOVA, Kameliya RADEVA*

Investigation of Design Parameters in Tensile Loads of the Diamond Joints in Composite Structures with a Finite Element Approach / Pages: 339-347

*Mine USLU UYSAL*

NMR Spin Echo Study of Domain Wall Pinning in Magnets in Combination with an Additional Magnetic Video-Pulse / Pages: 348-358

*Tsisana GAVASHELI, Grigor MAMNIASHVILI, Tatiana GEGECHKORI*

On -Quasi-Semiprime Submodules / Pages: 359-363

*Khaldoun AL-ZOUBI, Shatha ALGHUEIRI*

Economic Impacts of Expected Istanbul Earthquake: Scenario Generation / Pages: 364-376

*Mujgan Bilge ERIS, Cagla ALPARSLAN, Melis Almula KARADAYI, Ayla ALKAN, Duygun Fatih DEMIREL, Eylul Damla Gonul-sezer EYLUL DAMLA GONUL-SEZER*

Are the Young Investors Ready for Cryptocurrency Investments in Malaysia? / Pages: 377-388

*Hayati YUSOF, Zulnurhaini ZOLKAPLY, Muhammad Ashraf ANUAR*