

The Eurasia Proceedings of Science, Technology, Engineering & Mathematics

VOLUME 24 ICONTECH CONFERENCE

ISSN: 2602-3199 ISBN: 978-625-6959-25-5 ICONTECH 2023: 3rd International Conference on Technology (IConTech)

EPSTEM

November 16 - 19, 2023 Antalya, Turkey **Edited by:** Prof.Dr. Sabri KOCER - Necmettin Erbakan University, Turkey

©2023 Published by the ISRES Publishing



ICONTECH 2023 NOVEMBER

Volume 24, Pages 1-300 (November 2023)

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

e-ISSN: 2602-3199

©2023 Published by the ISRES Publishing

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

Website: www.isres.org

Contact: isrespublishing@gmail.com

Conference: ICONTECH2023: : 3rd International Conference on Technology (ICONTECH) Conference website: <u>https://www.2023.icontechno.net</u> Dates: November 16 – 19, 2023 Location: Antalya, Turkey Edited by: Prof. Dr. Sabri Kocer

About Editor

Prof Dr. Sabri Kocer Engineering Faculty, Department of Computer Engineering, Division of Computer Software, Necmettin Erbakan University, Turkey Email: <u>skocer@erbakan.edu.tr</u>

Language Editor(s)

Assoc. Prof. Dr. Kagan Buyukkarci Department of English Language Education, Suleyman Demirel University, Turkey Email: <u>kaganbuyukkarci@sdu.edu.tr</u>

CONFERENCE PRESIDENT Prof Dr. Sabri Kocer

SCIENTIFIC BOARD

Agata Mesjasz-Lech - Czestochowa University of Technology, Poland Bahar Tercan - Institute for Systems Biology, USA Besnik Hajdari - University "isa Boletini" Mitrovica, Kosovo Bogdan PATRUT - Alexandru Ioan Cuza Üniversitesi , Romania Dariusz Jacek Jakóbczak - Technical University of Koszalin, Poland Ebba Ossiannilsson - Swedish Association for Distance Education, Swedish Eleonora Guseinoviene - Klaipeda University, Lithuania Gabriel DELGADO-TORAL - Universidad Nacional Autónoma de México, Mexico Isti HIDAYAH - Semarang State University, Indonesia Jose Manuel Lopez Guede - University of Basque Country, Spain Katarzyna Szymczyk - Czestochowa University of Technology, Poland



Marija STANIĆ - University of Kragujevac, Serbia M. Hanefi CALP - Karadeniz Technical University, Turkey Mohamed Ahmed - Mansoura University, Egypt Nicu BIZON - Pitesti University, Romania Ossi AUTIO - University of Helsinki, Finland Pandian VASANT - Teknology Petronas University, Romania Rajnalkar LAXMAN - Gulbarga University, India Tunde Anifowose-Kelani, Siegener Sabithos College of Health Science & Technology, Nigeria Utku KÖSE - Süleyman Demirel University, Turkey Yiyang Chen - Soochow University (CN), China Zairi Ismael Rizman - MARA University of Technology, Malaysia Zipporah Pewat DUGURYIL - Federal College of Education, Nigeria

ORGANIZING COMMITTEE

Agata Mesjasz-Lech - Czestochowa University of Technology, Poland Hakan YUKSEL - Isparta University of Applied Sciences, Turkey Mohammad SARWAR - Scialert, Dubai, United Arab Emirates M. Hanefi CALP - Karadeniz Technical University, Turkey Mustafa Özhan KALAC - Manisa Celal Bayar University, Turkey Resul BUTUNER - Adil Karaağac Vocational and Technical Anatolian High School, Turkey Robert Beloiu - University of Pitesti, Romania Ozgur DUNDAR - Necmettin Erbakan University, Turkey Selahattin ALAN - Selcuk University, Turkey Yusuf UZUN - Necmettin Erbakan University, Turkey 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. 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

In the past, accessing information was tiring both financially and morally, but today, thanks to technology, it is easier and faster to access information. With this feature, technology not only makes daily life easier, but also accelerates the developments in science. Therefore, the focus of the conference is to share the studies on the developments in technology and the applications of technology in fields such as science and engineering by the participants. Studies in the fields of technology are accepted to the conference.

The aim of the conference is to bring together researchers and administrators from different countries, and to discuss theoretical and practical issues in the field of technology. At the same time, being aware of the applications of technology in different fields (such as engineering) is among the objectives of the conference.

Articles: 1-37

CONTENTS

AI-Powered Game Design: Experts Employing ChatGPT in the Game Design Process / Pages: 1-9 *Michael LANKES, Andreas STOCKL*

Quality Issue Classification by Using Dedicated Data Analysis Software Created in Phyton Language / Pages: 10-20 Elena RADUCAN, Mihaita ARHIP

Exploring Social Engineering Attacks Using Spear Phishing in a University / Pages: 21-28 Trust Tshepo MAPOKA, Keneilwe ZUVA, Gaedupe KUKUMARA, Tebogo SEIPONE, Tranos ZUVA

The Effect of Antenna Spacing on Active S-Parameters in Planar Array Antennas / Pages: 29-36 *Emirhan AYDIN, Ramiz ERDEM AYKAC*

The Role of Internet of Things, Machine Learning, Artificial Neural Networks and Industry 5.0 in Business Research: Trends and Future Insights / Pages: 37-48 Zeynep BAYSAL, Hamide OZYUREK, Ali OZARSLAN, Serdar CELIK

Implementation of Industry 4.0 in Ship Repair Industry: Challenges and Opportunities / Pages: 49-54 Yordan DENEV

Detecting Litter in Street Sweepers Using Deep Learning / Pages: 55-62 Suheda GOKBUDAK, Emir Enes TAS, Onur OZER, Veysel TILEGI



Origin of Raw Materials of Ancient Glass (B.C.) from Kythnos Island, Greece / Pages: 63-70 Petros KARALIS, Elissavet DOTSIKA, Alexandros MAZARAKIS-AINIAN, Evaggelia KOLOFOTIA, Foteini RIZOU, Anastasia Electra POUTOUKI, Panagiotis Leandros POUTOUKIS, Anastasios DROSOU, Dimitrios TZOVARAS

Artificial Intelligence Technology to Predict the Financial Crisis in Business Companies / Pages: 71-82 Mohamed Ahmed HAMADA, Khaled M. K. ALHYASAT

S/MIME Certificate Test Suite / Pages: 83-88 Yagmur FIDANER, Aysun COSKUN, Tamer ERGUN

Investigation of Damping Energy in Trusses / Pages: 89-95 Victor RIZOV

Enhancing Call Center Efficiency: Data Driven Workload Prediction and Workforce Optimization / Pages: 96-100 Muhammet Ali KADIOGLU, Bilal ALATAS

PV Supplied Electrochemical Production of Hydrogen Peroxide: A Green Pathway for Fenton Based Advanced Oxidation Processes / Pages: 101-109 *Kaouther KERBOUA*

User-Defined Autogenerated Fuzzy Solvers for Embedded Applications / Pages: 110-118 Alexei Evgenievich VASSILIEV, Ye Min HTET, Htut SHINE, Ant-on Victorovich VEGNER

Provenance Study of Gypsum Black Crusts / Pages: 119-125 Petros KARALIS, Elissavet DOTSIKA, Dafni KYROPOULOU, Alexandros MAZARAKIS-AINIAN, Evaggelia KOLOFOTIA, Iakovos RAPTIS, Anastasios DROSOU, Dimitrios TZOVARAS, Anastasia Electra POUTOUKI Giorgos DIAMANTOPOULOS, Panagiotis Leandros POUTOUKIS

A Research on Determining the Degree of Risk by Using ResNet / Pages: 119-125 *Serap TEPE, Serkan ETI*

Energy Management of the Hybrid Electric Wheel Loader / Pages: 135-140 Mustafa KARAHAN

Performance Assessment of Sustainable Machining Techniques / Pages: 141-148 Vamsi Krishna PASAM, Kartheek GAMIDI, Banoth SRINU, Lingaraju DUMPALA

Industry 5.0 and National Development Plans / Pages: 149-157 Beste ALPASLAN, Serdar CELIK

The Effect of HFMI Treatment on Stress Concentration for S355J2C+N Steel with Fillet Weld Joint / Pages: 158-164 Mehmet Can KATMER, Sami Gokberk BICER

The Prototype of Reactor for Carbon Capture in Molten Salts / Pages: 165-170 Stanisław PIETRZYK, Piotr PALIMĄKA



Isotopic Geochemistry Applied on Marble Samples of Kythnos Island in Greece / Pages: 171-176 Petros KARALIS, Elissavet DOTSIKA, Alexandros MAZARAKIS-AINIAN, Evaggelia KOLOFOTIA, lakovos RAPTIS, Anastasia Electra POUTOUKİ, Anastasios DROSOU, Brunella RACO, Panagiotis Leandros POUTOUKIS, Dafni KYROPOULOU, Dimitrios TZOVARAS

Utilizing Flink and Kafka Technologies for Real-Time Data Processing: A Case Study / Pages: 177-183 Alper BOZKURT, Furkan EKICI, Hatice YETİSKUL

Student-Company Assignment: Simulation Approach / Pages: 184-189 Serdar CELIK, Beste ALPASLAN

Smart Cart Application for E-Commerce Websites: A Case Study / Pages: 190-195 Tahir Enes ADAK, Mehmet S. AKTAS

Torsional Fatigue and Static Torsion Strength and Test Validations of Composite Tube Hybrid Drive Shafts / Pages: 196-203 Onur OZBEK, Serdar Kaan HORTOOGLU, Sedat TARAKCI, Efe ISIK

Experimental Investigation on Thermal Properties of Al2024 Alloy by Friction Stir Welding / Pages: 204-210 Lingaraju DUMPALA, Shaik Ghouse MOHIDDIN, P. Vamsi KRISHNA, U. RAJYALAKSHMI

Quenching: An Improvement Factor of HSS Twist Drill Tool-Life When Machining C22 Steel / Pages: 211-218 Nacer MOKAS, Sabiha TEKILI, Youcef KHADRI

The Effects of the Use of DRx Antenna Structure on the Rx Performance of Smartphones / Pages: 219-224

Emirhan AYDIN, Ramiz Erdem AYKAC, Tekin AKPOLAT

Reduction of Shipping Greenhouse Emission by Alternative Fuels Used / Pages: 225-234 Yordan DENEV

Indeterminate Continuously Inhomogeneous Beam under End Rotation: A Longitudinal Fracture Study / Pages: 235-242 Victor RIZOV

A Numerical Study of the Efficiency of the Sono Galvano-Fenton Process as a Tertiary Treatment Technique for the Wastewater Reuse in Agriculture / Pages: 243-256 Kaouther KERBOUA

User-Selected Sets of Algorithmic Implementation of Fuzzy Processing Subsystem for Embedded Intelligent Control Systems / Pages: 257-262 Alexei Evgenievich VASSILIEV, Htut SHINE, Ye Min HTET, Viktoriia Alexeevna KARPENKO

Using Oxygen and Carbon Isotopic Signatures in order to Infer Dietary Information in Bones from Kythnos Island, Greece / Pages: 263-270

Giorgos DIAMANTOPOULOS, Petros KARALIS, Elissavet DOTSIKA, Alexandros MAZARAKIS-AINIAN, Evaggelia KOLOFOTIA, Stavroula SAMARTZIDOU-ORKOPOULOU, Katerina TRANTALIDOU, Eleanna



PREVEDOROU, Panagiotis Leandros POUTOUKİS, Vasileios MPLETSOS Anastasios DROSOU, Anastasia Electra POUTOUKI, Dimitrios TZOVARAS

Design and Development of Mobile Payment Platform Software Supported by Analytical Capabilities for Payment Systems / Pages: 271-278 *Pinar CELDIRME-KAYGUSUZ, Unal ASIL, Semih KOKCU*

Integration of STM32 Microcontroller with Arm Cortex Architecture into the 8-Bit Measurement Circuit Customized for Real-Time Data Acquisition on Propeller Shaft to Increase Data Speed and Accuracy / Pages: 279-286

Oguzhan ALDEMIR, Sedat TARAKCI, Serhan OZDEMIR, Efe ISIK

Numerical Simulation on Microwave Melting of Hastelloy C-276 / Pages: 287-300 Kadapa Vijaya Bhaskar REDDY, K. V. Hari SHANKAR, Venkatesh GUDIPADU