

The Eurasia Proceedings of Science, Technology, Engineering & Mathematics

EPSTEM

VOLUME 21 ICONTES CONFERENCE

ISSN: 2602-3199

ISBN: 978-605-72832-4-5

IConTES 2022: International Conference on Technology, Engineering and

Science (IConTES)

November 16 - 19, 2022

Antalya, Turkey

Edited by: Prof.Dr. Mehmet Özaslan - Gaziantep University, Turkey





ICONTES 2022 NOVEMBER

Volume 21, Pages 1-540 (November 2022)

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

e-ISSN: 2602-3199

©2022 Published by the ISRES Publishing

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

Website: www.isres.org

Contact: isrespublishing@gmail.com

Conference: IConTES 2022: International Conference on Technology, Engineering and

Science (IConTES)

Conference website: https://www.2022.icontes.net

Dates: November 16 – 19, 2022 Location: Antalya, Turkey Edited by: Prof. Dr. Mehmet Özaslan

About Editor(s)

Prof Dr. Mehmet Ozaslan

Department of Biology, Gaziantep University, Turkey

Website: http://mehmetozaslan.com/ E-mail: 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

CONFERENCE PRESIDENT

Prof Dr. Mehmet Ozaslan

SCIENTIFIC BOARD

Besnik Hajdari - University "isa Boletini" Mitrovica, Kosovo Bogdan Patrut - Alexandru Ioan Cuza Üniversitesi, Romania Chalavadi Sulochana - Gulbarga University, India Dariusz Jacek Jakóbczak - Technical University of Koszalin, Poland

Dehini Rachıd -University of Bechar, Algeria

Eleonora Guseinoviene - Klaipeda University, Lithuania

Elena Krelja Kurelovic - Polytechnic of Rijeka, Croatia

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

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

Isti Hıdayah - 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 Stanıć - 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 Pewat Duguryil - Federal College of Education, Nigeria

ORGANIZING COMMITTEE

Aynur Aliyeva - Institute of Dendrology of Anas, Azerbaijan

Besnik Hajdari - University "isa Boletini" Mitrovica, Kosovo

Cemil Aydogdu - Hacettepe University, Turkey

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

Elman Iskender - Central Botanical Garden of Anas, Azerbaijan

Halil Snopce - South East European University, Macedonia

Ishtar Imad - Uruk University, Iraq

Jaya Bishnu Pradhan-Tribhuvan University, Mahendra Ratna Campus, Nepal

Mohammad Sarwar - Scialert, Dubai, United Arab Emirates

Murat Beytur - Kafkas University, Turkey

Samire Bagırova - Institute of Dendrology of Anas, Azerbaijan

Shafag Bagirova - Baku State University, Azerbaijan

Suhail Bayati - Hadi University College, Iraq

Editorial Policies

ISRES Publishing follows the steps below in the procedings 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

Technology and basic sciences are closely related fields. Developments and innovations in one of them affect the other. Therefore, the focus of the conference is on studies related to these two fields. Studies in the fields of technology and basic sciences are accepted to the conference even if they are not associated with other field. The conference committee thinks that a study in only one field (for example, mathematics, physics, etc.) will contribute to other field (such as technology) 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, Physics, Mathematics 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 technology and basic science.

Articles: 1-67

CONTENTS

Modeling and Simulation of Marine Current Energy Conversion System with Six-Phase Permanent Magnet Synchronous Generator / Pages: 1-10

Omokhafe James TOLA, Jacob TSADO, Edwin Albert UMOH, Yahaya Asizehi ENESI, Eugene Okenna AGBACHI

Evaluation of Electricity Consumption in Turkey via Cubic Regression Analysis and One Way Anova Test / Pages: 11-17

Ezgi GULER, Suheyla YEREL-KANDEMIR

Flow Pattern Analysis for Oscillatory Flow inside Resonator Tube for Thermoacoustic Refrigerator Using PIV Measurement / Pages: 18-26

Siti Norsyahira MOHD ZAHARI, Nor Atiqah ZOLPAKAR, Nurrizatul Atikha RAHMAT

A Review of Solar-Powered Membrane Distillation System: Concept Design and Development /

Pages: 27-38

Mohd Amirul Hilmi Mohd HANOIN, Farah Najihah ZAINUDDIN, Nadzirah Mohd MOKHTAR





Wireless Channel Availability Forecasting with a Sparse Geolocation Spectrum Database by Penalty-Regularization Logistic Models / Pages: 39-45

Vladimir II Christian OCAMPO, Lawrence MATERUM

Improving Core Quality in Power Distribution Transformers Using Machine Learning Methods /

Pages: 46-54 Nihat PAMUK

Learning-Based Algorithm for Fault Prediction Combining Different Data Mining Techniques: A Real

Case Study / Pages: 55-63

Laura LUCANTONI, Filippo Emanuele CIARAPICA, Maurizio BEVILACQUA

Experimental Study of Yellowing Index Comparison between 430 Stainless Steel and 441 Stainless Steel Burner Plates on Domestic Gas Hobs / Pages: 64-69

Berkent PARIM, Mehmet KARA, Ayberk Salim MAYIL

The Prospective of Particle Image Velocimetry (PIV) Measurement Velocity Profile in Thermoacoustic System / Pages: 70-78

Siti Norsyahira MOHD ZAHARI, Nor Atiqah ZOLPAKAR, Mimi Muzlina MUKRI

New Trends in Aluminum Die Casting Alloys for Automotive Applications/ Pages: 79-87 Tanya A. BASER, Elif UMAY, Volkan AKINCI

Fluid-Structure Interaction: Impact of Reservoir Simulation Approach Considering Far-Field Boundary Condition in Dam Seismic Response / Pages: 88-95

Reza GOLDARAN

Comparison of Transparent Insulated and Non-Insulated Solar Cell / Pages: 96-109 Lida EBRAHIMI-VAFAEI

Analysis of Eye Movements with 2D Images Obtained by EOG Signals / Pages: 110-115 Yurdagul KARAGOZ-SAHIN, Mehmet Recep BOZKURT, Elcin KILIC

Effect of Protan Recoloring Algorithm on Inserted Watermark in Presence of the Superimposed AWGN / Pages: 116-124

Zoran MILIVOJEVIC, Bojan PRLINCEVIC

Implementation of an Augmented Reality Application for Basic Electrical Circuits / Pages: 125-130 *Omer Emin CINAR, Salih GUNES*

Comparing Performance of OFDM based V2V System in Rayleigh and Weibull Fading Channels /

Pages: 131-138

Didem Kivanc TURELI, Zainab QASSAB

Determination of Setting Times of Mortar Mixtures Prepared with Cement Having Different C3A

Ratios / Pages: 139-143

Kemal KARAKUZU, Veysel KOBYA, Ali MARDANI





Improving the Properties of Medium Molecular Weight Chitosan/PVA Composite Polymers via Designed ZnO Particles / Pages: 144-151

Yeliz KOSE, Ender SUVACI

The Effect of the Arrangement of a Reinforcement on the Mechanical Behavior of a Composite VER Composite Material / Pages: 152-159

Habib ACHACHE, Ghezail ABDI, Rachid BOUGHEDAOUI, Bel Abbes BACHIR BOUIADJRA

Obtaining Nonlinear Optical Transmittance Parameters of CS2 Using Z-Scan Experimental Setup /

Pages: 160-166
Ferit ARTKIN

Effect of Sisal Fibers on Flexural Behavior of Cement Mortar / Pages: 167-172

Taouche-Kheloui FATMA, Djadoun TOUFIK, Fedaoui-Akmousi OURDIA, Ben Chabane TARIK

Three States QRLE (Quantized Run Length Encoding) Based JPEG Image Compression Method /

Pages: 173-181

Sid Ahmed CHOUAKRI, Fatiha MESKINE

Experimental Modeling of the Compressive Behavior and Capillary Absorption of Mortars Based on Tuff of MEKLA / Pages: 182-187

Ourdia FEDAOUI-AKMOUSSI, Tarik BENCHABANE, Fatma TAOUCHE-KHELOU, Malik HALICHE, Fouzia DEHBI

TVWS Geolocation Database for Secondary-User TVWS Devices for Spectrum Forecasting /

Pages: 188-195

Armie PAKZAD, Raine Mattheus MANUEL, Lawrence MATERUM

Design of Dual-Stage Ku- Band Low Noise Amplifier for Satellite Downlink Application / Pages: 196-

Naman Chetan RAJDEV, Lasya V, Rashmi SEETHUR

CFD Investigation on Three Turbulence Models for Centrifugal Pump Application / Pages: 202-213 Abdessalam OTMANI, Slimane NIOU, Sahrane SARA, Azzeddine DEKHANE, Salaheddine AZZOUZ

Electrochemical Performance of Tin-Based Solder Alloys for Secondary Lithium Batteries /

Pages: 214-217

Ersu LOKCU, Resat Can OZDEN, Mustafa ANIK

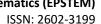
R&D Project Portfolio Selection with Fuzzy Data Envelopment Analysis / Pages: 218-227 Umutcan BOLUK, Murat ARIKAN

Comparative Study of Analysis and Cost of Flat Slab and Conventional Slab Structures in Somalia-Mogadishu / Pages: 228-236

Shafie IBRAHIM, Shaghayegh OSTOVAR RAVARI, Rifat RESATOGLU

Improved Energy Efficiency of Lithium-Air Batteries by using Alloy Based Anode and Photocatalyst Loading Cathode / Pages: 237-240

Ersu LOKCU, Resat Can OZDEN, Mustafa ANIK





Threat and Vulnerability Modelling of Malicious Human Interface Devices / Pages: 241-247 Mathew NICHO, Ibrahim SABRY

Comparison of the Effects of Vegetable Oils such as Castor and Canola Oil and Polyol Esters on the Metalworking Performance of AL 6061 and Al 7075 Metal Alloys by Tapping Torque Method / Pages: 248-257

Kubra KAVUT, Hanife GULEN-TOM, Tugce OZPERCIN

Cyber Attacks on Unmanned Aerial Vehicles and Cyber Security Measures / Pages: 258-265 Mustafa COSAR

Detection of the Mineral Presence and Its Effects on Different Tree Species Using Drone Photogrammetry and Remote Sensing Methods / Pages: 266-273

Oyku ALKAN, Muntaha Kassim Hayder AL-ZUBADE, Mehmet Nurullah ALKAN

Seismic Risk Prioritization of Masonry Buildings Using the First-Level Approaches for Vulnerability Assessment / Pages: 274-282 Isil SANRI-KARAPINAR, Ayşe Elif OZSOY-OZBAY

Improvement of Photo-Catalytic Properties of Graphene by N-Doping / Pages: 283-287 Resat Can OZDEN, Ersu LOKCU, Mustafa ANIK

Modeling the Nonlinear Behavior of Predamaged Reinforced Concrete Beams Retrofitted with Bonded and Jacketed FRP Sheets / Pages: 288-294 Souad AIT TALEB, Sara MEDJMADJ, Abdelmadjid SI SALEM

Experimental Analysis of the Influence of Inter-Electrode Distance in Juice Extraction Processes Using Pulsed Electric Fields / Pages: 295-301

Mohammed Hamza BERMAKI, Houcine MILOUDI, Yacine BELLEBNA, Amar TILMATINE

Numerical Analysis of the Mechanical Behavior on the Effect of the Geometric Interface of the Aluminum/Aluminum Plate Assembly / Pages: 302-310

Sidi Mohamed MEDJDOUB, Kouider MADANI, Yacine MESSID

In-Situ Observation of Biofouling Growth in a Submerged Membrane Bioreactor using CLSM / Pages: 311-315

Aida Isma MOHAMAD IDRIS, Munira MOHAMMAD, Putri Razreena ABDUL RAZAK, Hazmin MANSOR

Synthesis of Nanocomposite Photo-Catalysts for Photo-Assisted Charging of Li-Ion Oxygen Batteries / Pages: 316-320

Ersu LOKCU, Resat Can OZDEN, Mustafa ANIK

Statistical Analysis of 30 Year Rainfall Data: A Case Study for Langat River Basin / Pages: 321-327 Nor Faiza ABD RAHMAN, Noramira HISHAM, Munira MOHAMMAD, Vin Cent TAI, Khairi KHALID, Mohamad Shakri MOHMAD SHARIF

Vehicle Plate Recognition System Using Image Processing / Pages: 328-334 Nihat PAMUK





Study of the Correlation between the Process Parameters and the Mechanical Characteristics of the Aluminum Sheets Welded by the FSW Process / Pages: 335-348

Mohamed MERZOUG, Abdelatif MIMMI, Abdelkader GHAZI

Hydrological Safety of Vaturu Dam by Evaluating Spillway Adequacy / Pages: 349-355

Munira MOHAMMAD, Patrick Jione PAGKALE, Nor Faiza ABD RAHMAN, Mohamad Shakri MOHMAD

SHARIFF

Experimental Axial Compressive Behavior of Partially Confined Concrete Columns with Combined External and Internal FRP Strips / Pages: 356-362

Abdelmadjid SI SALEM, Sonia DJENAD, Souad AIT TALEB

Effect of Additive on the Structure and Performance of PVDF Hollow Fibre Membrane on Phosphorus Removal / Pages: 363-370

Hazmin MANSOR, Nur Hidayah MOHD SOBRAN

Effect of the Addition of a Fin on the Thermal Behavior of the Shell of a Rotary Cement Kiln /

Pages: 371-379

Mohammed BOUHAFS, Abed MEGHDIR

The Role of Drone Photogrammetry, Remote Sensing and GIS Methods in the Detection of Ore Areas and Their Surroundings / Pages: 380-387

Muntaha Kassim Hayder AL-ZUBADE, Oyku ALKAN

Investigation of High Range Water-Reducing Admixture Requirement in Cementitious Systems Containing Fly Ash with Different Utilization Ratio and Fineness / Pages: 388-395 Hatice Gizem SAHIN, Oznur BIRICIK, Ali MARDANI

Performance and Analysis of Thermal Energy on Solar Reflector Cooker -Application of an Alternative Source of Energy in Cyprus / Pages: 396-403

Lida EBRAHIMI VAFAEI, Samuel Nii TACKIE, Serah BENSTEAD, McDominic Chimaobi EZE

Performance Evaluation of Solar Assisted Membrane Distillation for Seawater Desalination Using Solar Simulator / Pages: 404-411

Mohd Amirul Hilmi Mohd HANOIN, Nadzirah Mohd MOKHTAR

Investigation of Wood Biomass Ash on the Thermal Behaviour of Compressed Earth Bricks / Pages: 412-417

Fatma KHELOUI, Nadia BOUSSAA, Nasser CHELOUAH

Correlation between Tetragonality and the Residual Stress in Cryotreated Spring Steels / Pages: 418-422

Resat Can OZDEN

Prediction of Microhardness Profil of Friction Stir Welded Joints of AA3003 Aluminum Alloy /

Pages: 423-429

Chekalil ISMAIL, Abdelkader MILOUDI, Ghazi ABDELKADER, Planche MARIE-PIERRE



Dual Band Branch-Line Coupler Using Stub-Loaded Lines / Pages: 430-434 Heba EL- HALABI, Manal K. FATTOUM

Toxicology of Nano-Scale Materials Used in Water Treatment / Pages: 435-440 Arzu OZTURK

Whale Optimization Algorithms for Multi-Objective Flowshop Scheduling Problems / Pages: 441-451 *Cecilia E. NUGRAHENI, Luciana ABEDNEGO, Craven S. SAPUTRA*

Numerical Investigation of a Tubular Heat Exchanger Fitted with Triangular Ribs / Pages: 452-463 Nabil BENAMARA, Djelloul LAHMER, Mohamed MERZOUG, Abdelkader LAHCENE, Abdelkader BOULENOUAR, Miloud AMINALLAH

Effect of Neon Ion Implantation on the Electrical Propertie of CIGS Photovoltaic Cells / Pages: 464-468

Mustapha DJABAR

Comparative Study of Encryption Algorithms Applied to the IOT / Pages: 469-476 Abdelkrim GHAZ, Ali SEDDIKI, Nadhir NOUIOUA

Material Selection of Batch Type Supercritical Reactor for Biodiesel Production / Pages: 477-483 Filiz ALSHANABLEH, Mahmut A. SAVAS

An Analysis of Flexural Bond Length and Anchorage Length of Prestressed Fiber Reinforced Polymer Reinforcement / Pages: 484-499

Aidas JOKŪBAITIS, Juozas VALIVONIS

Design of a Reversible Full Adder Using Quantum Cellular Automata / Pages: 500-505 Sourabh T, Wrileena SANYAL, Rashmi SEETHUR

Water Remediation from Recalcitrant Pollution Using the Galvano-Fenton Process: A Modeling Approach of the Hydroxyl Radical Generation and the Energy Efficiency / Pages: 506-516 Kaouther KERBOUA, Naoufel HADDOUR, Intissar GASMI, Oualid HAMDAOUI

Numerical Study of a Shell and Tubes Heat Exchanger: Impact of the Geometrical Change of the Tube Section on the Overall Exchange Coefficient and the Pressure Drop / Pages: 517-524 Sara SAHRANE, Slimane NIOU, Abdassalam OTMANI, Salah-Eddine AZZOUZ

Investigation on the RCCI Engine on Performance and Emission / Pages: 525-540

Ahmad Fitri YUSOP, Mohamad Adzuan AZIZ, Mohd Adnin HAMIDI, Daing Mohamad Nafiz DAING IDRIS, Ummi Hafsah ZAIDI