

3rd International Conference on Applied Science and Engineering

Day 1 September 25, 2023

Meeting Hall: **Rome**

08:00 - 08:40 Registrations

08:40 - 09:00 Introduction

Keynote Presentations

09:00 - 09:40 Title: Addressing The Challenge of Transition to A Circular Economy in Thermoset Based Fiber Reinforced Composites

Alberto Jiménez Suárez, Rey Juan Carlos University, Spain

09:40 - 10:20 Title: Stent-Grafts: A Perfect Technique of Deployment, A Durability Still Disputable, A Biocompatibility to be Addressed

Robert Guidoin, Universite Laval, Canada

Group Photo (10:20 - 10:35)

Networking and Refreshments 10:35 - 11:00 @ Rome

Oral Presentations

Session Chair **Joerg Manfred Hoffmann**, Osnabrück University in Lower Saxony, Germany

Session Chair **Simona Rada**, Technical University of Cluj-Napoca, Romania

Session Chair **Alberto Jiménez Suárez**, Rey Juan Carlos University, Spain

Sessions:

Applied Nanosciences and Nanotechnology | Environmental Sciences | Chemical Engineering | Materials Science and Engineering | Computer Applications and Information Sciences | Applied Science | Applied Thermal Engineering | Food Science | Biotechnology & Biological Sciences | Neurosciences | Energy Science and Technology | Biomedical Engineering | Polymer Engineering | Applied Physics | Mechanical Engineering | Earth Sciences and Geography | Civil Engineering | Electrical, Electronics and Communications Engineering

11:00 - 11:30 Title: Electronic Waste (E-waste) Management in Thailand: A Legal Perspective Approach

Bajrawan Nuchprayool, National Institute of Development Administration, Thailand

11:30 - 12:00 Title: Recycling Industrial Coal Fly Ashes for (Photo) Catalytic Processes

Iwona Kuzniarska-Biernacka, Porto University, Portugal

12:00 - 12:30 Title: Positioning Biotechnology Research within a Trans-Disciplinary Approach: A Reflection on Collaborative Research Strategies into Rooibos (*Aspalathus linearis*) An Indigenous Plant from South Africa and the Various Beneficial Outcomes

Simeon E.H. Davies, Cape Peninsula University of Technology, South Africa

12:30 - 13:00 Title: Structural and Mechanical Properties of the Composite – Cement Stones

Simona Rada, Technical University of Cluj-Napoca, Romania

Lunch 13:00 - 14:00 @ Escale

14:00 - 14:30 Title: Development of Distance Fabrics with Partial Chambers Using High Performance Fibers for Technical Textile Applications

Recep Türkay Kocaman, Hof University of Applied Sciences, Germany

14:30 - 15:00 Title: Line Tunneling SiGe/Si iTFET with Control Gate for Ultra-Low Power Application

Jyi-Tsong Lin, National Sun Yat Sen University, Taiwan

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15.00 - 15.30	Title: Reducing Uncertainties in Rainfall-Runoff Models for Better Low Flows Forecasts Cynthia Andraos , Saint-Joseph University ESIB Beirut, Lebanon
15.30 - 16.00	Title: Innovative Process Design and Comprehensive Feasibility Assessment of Disposable Masks Valorization Technologies Yin Ting Chu , The Hong Kong Polytechnic University, Hong Kong
Refreshments 16.00 - 16.30 @ Rome	
16.30 - 17.00	Title: Polar PAM-4 Transmission with Interferometer and Direct Detection Receiver Gilad Katz , Holon Institute of Technology, Israel
17.00 - 17.30	Title: The Leakage Characteristics and The Explosion Risk Analysis of Flammable Refrigerants Leaking into Limited Space Xiaohong Han , Zhejiang University, China
17:30 - 18:00	Title: Sustainable Water Services in Resilient Built Environment Jyrki Laitinen , Finnish Environment Institute, Finland
18:00 - 18.30	Title: Improvement of Axial Dispersion Estimation in Porous Media for Gases Under Pressure: Experimental and Modelling Methods Ahmed GRIM University of Pau et Pays de l'Adour, France
18.30 - 19.00	Title: Application of Vacuum Freezing to Improve the Quality of Thawed Carrot Discs Yuqi Huang , University of Technology of Compiègne, France
Day 1 Concludes followed by Awards Ceremony	

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Day 2 September 26, 2023

Meeting Hall: **Rome**

Keynote Presentations

10:00 - 10:40 Title: fNIRS Based Lie Detection in Real World Scenario
Muhammad Raheel Bhutta, University of UTAH Asia Campus South Korea

Networking & Refreshments 10.40 - 11.05 @ Rome

Oral Presentations

11:05 - 11.35 Title: Investigation of Orthotropy In The Bending of A Triangular Plate
Nuguzhinov Zhmagul Smagulovich, KazMIRD Institute at the Karaganda Technical University, Kazakhstan

Session Chair **Joerg Manfred Hoffmann**, Osnabrück University in Lower Saxony, Germany

Session Chair **Simeon E.H. Davies**, Cape Peninsula University of Technology, South Africa

Sessions Applied Nanosciences and Nanotechnology | Environmental Sciences | Chemical Engineering | Materials Science and Engineering | Computer Applications and Information Sciences | Applied Science | Applied Thermal Engineering | Food Science | Biotechnology & Biological Sciences | Neurosciences | Energy Science and Technology | Biomedical Engineering | Polymer Engineering | Applied Physics | Mechanical Engineering | Earth Sciences and Geography | Civil Engineering | Electrical, Electronics and Communications Engineering

Oral Presentations

11:35 - 12:05 Title: Continuous Crystallization of Energetic Materials Using Continuous Oscillatory Baffled Crystalliser
Ruaraidh John Wells, NiTech Solutions, United Kingdom

12:05 - 12:35 Title: Experimental and Numerical Investigations of 3D Printed Onyx Parts
Daouda Nikiema, University of Savoie Mont Blanc France

12:35 - 13.05 Title: Application of IoT and FIWARE for Rapid Development of Aged Adult's Platforms
Alexandre Chikalanov, University of Library Studies and Information Technologies, Bulgaria

Lunch 13.05 - 14.00 @ Escale

14:00 - 14.30 Title: Selective Oxygen Carrier for Low-Carbon Ethylene Oxide Production via Chemical Looping
Deblina Majumder, Newcastle University, United Kingdom

14:30 - 15:00 Title: Experimental Study of Stress Concentration in the Guide Vane and Blade-Flange Transition of a Reversible Hydraulic Machine
Riad Assad Lafi Ahmad, Al Hussein Bin Talal University, Jordan

15:00 - 15:30 Title: Diversity and Distribution of Ferns and their Antimicrobial Potential
Perfect Nasasira, Mbarara University of Science and Technology, Uganda

Poster Presentations

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ASE-P01	Title: Optimal Control of An Autonomous Microgrid Rasoavonjy Paulisimone , University of La Réunion, France
ASE-P02	Title: Green Approach for 2-Ketogluconic Acid Separation Blaga Alexandra Cristina , Gheorghe Asachi Technical University of Iasi, Romania
ASE-P03	Title: Production of Valuable Chemicals Through Selective Catalytic (Photo) Oxidation Transformation of 5-Hydroxymethylfurfural Marta Monteiro , Porto University, Portugal
ASE-P04	Title: Antibacterial Activity of Chitosan-Based Materials Fatiha Zaoui , University Moulay Tahar of Saida, Algeria

Day 2 Concludes

Panel Discussion - Awards & Closing Ceremony followed by Vote of Thanks

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Virtual Presentations

Day 1 September 25, 2023 | 11:00 BST

11:00 - 11:15 **Opening Ceremony and Introduction**

Oral Presentations

Sessions: Materials Science and Engineering | Applied Chemistry | Applied Science | Biotechnology & Biological Sciences | Agricultural Engineering | Materials Science and Engineering | Environmental Sciences | Applied Thermal Engineering | Energy Science and Technology | Computer Applications and Information Sciences | Civil Engineering | Biotechnology & Biological Sciences | Chemical Engineering | Applied Physics | Structural Engineering

11:15 - 11:40 Title: Laboratory Investigation on the Effects of Delayed Compaction to the Resilient Modulus of Foamed Bitumen Stabilised Materials
Roberto Espinosa, Fulton Hogan Pty Ltd, Australia

11:40 - 12:05 Title: Performance Properties of Denim Fabric Developed with Chitosan Added Composite Viscose Yarns
Ahmet Korkmaz, Calik Denim Research and Development, Turkey

12:05 - 12:30 Title: Waterplus OWL –Sector Coupling for Transition of Water Infrastructure Systems
Jörg Felmeden, OWL University of Applied Sciences and Arts, Germany

12:30 - 12:55 Title: Synergistic Potential of Aegle Marmelos Essential Oil in Combination with Antifungal Drugs Against Drug Resistant Fungal Pathogens.
Riya Bhattacharya, Woxsen University, India

Lunch @ (12:55 - 13:30)

13:30 - 13:50 Title: Positive Periodic Solutions of an Iterative Survival Model of Red Blood Cells
Marwa Khemis, Lamahis laboratory, University of 20 August 1955 Skikda, Algeria

13:50 - 14:15 Title: Perspective of Biodiesel as Sustainable Alternative Fuels in the Transportation and Marine Sector
Ali Raza, National University of Technology, Pakistan

14:15 - 14:40 Title: Mitigating Drinking Water Scarcity in Pakistan: A Comprehensive Review of Atmospheric Water Extraction as an Urgent Imperative
Muhammad Aurangzaib, Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan

14:40 - 15:05 Title: Impact of Single and Bi-Metal Doping on Structural and Optical Properties of CuO Nanoparticles
Neeraj Kumari, K. R. Mangalam University, India

15:05 - 15:30 Title: Identifying Diagnostic Protein Markers in the Urine Samples of Malaria Patients for Non-Invasive Diagnosis
Himani Tripathi, Central University of Rajasthan, India

15:30 - 15:55 Title: Theoretical Study on Transport Properties of Janus Particle
Debajyoti Debnath, Rajkunwar College of Waghru, India

15:55 - 16:20 Title: Synthesis and Structural Properties of Cu Nanoparticles
Shivani Dhall, DAV College, India

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16:20 - 16:45	Title: Application of Haar Scale-3 Wavelet Collocation Method to the Solution of Fitzhugh-Nagumo Nonlinear Partial Differential Equation Sonia Arora , Lovely Professional University, India
16:45 - 17:10	Title: Efficient Electron Acceleration by Radially Polarized Hermite-Cosh-Gaussian Laser Beam in an Ion Channel Jyoti Rajput , Lovely Professional University, India
17:10 - 17:35	Title: Detection of Intervals Containing Subhorizontal Fractures in Carbonate Rocks by Using The Stoneley Wave Parameters Irina Markova , Instituto Mexicano del Petroleo Mexico, Mexico
17:35 - 18:00	Title: Modelling and Analysis of a Compression/resorption Heat Pump System with a Zeotropic Mixture of Acetone/CO ₂ Paúl Sebastián Dávila Aldás , International University of Ecuador, Ecuador

Poster Presentations

18:00-18:15	Title: Reduction of Chemicals and Wastes Adverse Effects to Environment Under Implementation of Basel, Rotterdam, Stockholm and Minamata Conventions Anahit Aleksandryan , Florida iMinistry of Environment of the Republic of Armenia, Armenia
18:15-18:30	Title: Design and Construction of a Device to Determine Thermal Properties of Construction Systems Ana Cecilia Borbón Almada , Universidad de Sonora, México

Day 1 Concludes

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Oral Presentations

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11:00 - 11:25	Title: Multi Modality Brain Computer Interface Muhammad Raheel Bhutta , University of UTAH Asia Campus South Korea
11:25 - 11:50	Title: Reduced Graphene Oxide-Zinc Sulfide Nanocomposite Decorated with Silver Nanoparticles for Wastewater Treatment by Adsorption, Photocatalysis and Antimicrobial Action Hafiz Muhammad Tofil , Quaid-i-Azam University, Pakistan
11:50 - 12:15	Title: Implementation of the Global Concepts of Smart Municipalities in Jordan (Greater Amman Municipality as a Case Study) Reham M. Alregeb , Aljiza Municipality, Jordan
12:15 - 12:40	Title: Identifying Health Risks in Rural Households: A Multi-Pollutant Exposure and Risk Assessment Model Basuraj Bhowmik , Indian Institute of Technology BHU, India
12:40 - 13:05	Title: Mathematical Modelling in Differential Equation for Tumour Growth Analysis Saradha Madhrubotham , Reva University, Karnataka, India
13:05 - 13:30	Title: Studying the Behavior of the Light-off Bioreporter DF4/PUTK2 as a Light-on Assay Against Lead Abdul-Rhman H. Muhammad , Cairo University, Egypt
13:30 - 13:55	Title: An Advanced Review on the Impacts of Plastic Pollution on Soil and Land Areas Suresh Aluvihara , University of Peradeniya, Sri Lanka