



# IN-PERSON CONFERENCE

**PROGRAM- AT-A-GLANCE**



**Peers Alley Media**

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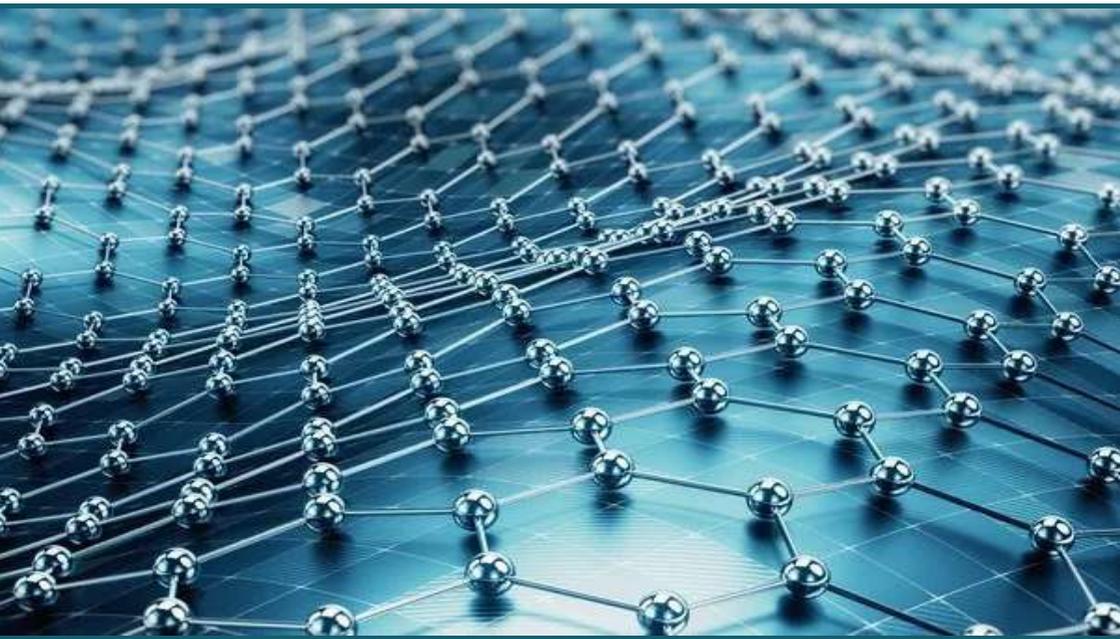


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# SCIENTIFIC PROGRAM



8TH EDITION OF

# ADVANCED MATERIALS SCIENCE WORLD CONGRESS

MARCH 30-31, 2026 | ROME, ITALY

<https://www.materialsscienceconference.com/>

# SCIENTIFIC PROGRAM

# DAY 01

MONDAY

MARCH 30, 2026

08:00-08:30

**Registrations**

08:30-08:40

**Inaugural Ceremony**

**Moderator**

**Gary J. Dickelman**, *EPSScentral LLC, USA*

**Topics:** Materials Science and Engineering | Nanomaterials and Nanotechnology | Smart Materials | Biomaterials | Energy Materials | Crystallography | Graphene Technology | Chemistry | Carbon and 2D Materials | Semiconductors | Optics | Green Technologies | Metals and Alloys | Perovskites | Artificial Intelligence | Robotics | Catalysis

## Distinguished Speaker Talks

**Session Chair**

**Karen K. Leonas**, *North Carolina State University, USA*

**Session Chair**

**Arturo Gómez-Ortega**, *SECIHTI-Centro de Ingeniería y Desarrollo Industrial (CIDESI), México*

08:40-09:00

Title: On an Optimal AI Framework for Materials Research, Discovery and Application

**Gary J. Dickelman**, *EPSScentral LLC, USA*

09:00-09:20

Title: Performance Evaluation of Hydronic Air Coil for Building Heating with Nanofluids of Varying Concentrations *via* theoretical Analysis and Experimental Characterization

**Debendra K. Das**, *University of Alaska Fairbanks, USA*

09:20-09:40

Title: Influence of Differential Speed Rolling and Post Annealing on the Formability of Mg-Based Alloys

**Christopher L. Hale**, *North Carolina A&T State University, USA*

09:40-10:00

Title: Toward Sustainable Dyeing: Achieving Targeted Shades and Fastness through Chemical and Technological Integration

**Karen K. Leonas**, *North Carolina State University, USA*

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10:00-10:20 Title: Lightweight Spur Gears with Cellular Cores: Design, Simulation and Validation through Additive Manufacturing

**Arturo Gómez-Ortega**, *SECIHTI-Centro de Ingeniería y Desarrollo Industrial (CIDESI), México*

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GROUP PHOTO 10:20-10:30

REFRESHMENT BREAK 10:30-10:50

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10:50-11:10 Title: Smart Materials Based Semiconductors to be used in Photo-Electrocatalysis for Environmental Applications

**Fernando Cruz de Moraes**, *Federal University of São Carlos, Brazil*

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11:10-11:30 Title: Synergetics of Fracture and Evolution of Interrelationship with Multi-Level Self-Organizing Processes in Material Destruction

**Ahad Janahmadov**, *Azerbaijan National Academy of Aviation, Azerbaijan*

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11:30-11:50 Title: Wireless Communication Protocols for the IoT-How to Choose the Best Option?

**Luiz Carlos Branquinho Caixeta Ferreira**, *Federal Institute of Education, Science and Technology of Southern Minas Gerais, Poços de Caldas Campus, Brazil*

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11:50-12:10 Title: Hybrid of F-doped SnO<sub>2</sub> Aerogel and Pt Nanoclusters for High-Efficiency Hydrogen Evolution

**Hyung-Ho Park**, *Aerogel Materials Research Center, Yonsei University, South Korea*

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12:10-12:30 Title: Charged Water Radical Clusters as the Soft Nanomaterial for Energy, Chemistry, Medicine and Life Sciences

**Huanwen Chen**, *Jiangxi University of Chinese Medicine, China*

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12:30-12:50 Title: Development of Manufacturing and Recycling Processes on Breeding Functional Materials for Fusion Applications

**Jae-Hwan Kim**, *National Institutes for Quantum Science and Technology, QST, Japan*

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GROUP PHOTO 12:50-13:00

LUNCH BREAK 13:00-13:40

13:40-14:00

Title: To Study, Effect of Oxidizing Agent, on Electrochemical Supercapacitor Properties of NiO-Polyaniline Composite

**Munish Pandey**, *K. M. Agrawal College, India*

14:00-14:20

Title: Automatic Play-Field Analyzing and Player Tracking in Broadcast Tennis Video using Improved Kalman Filter

**M. Archana**, *Annamalai University, India*

14:20-14:40

Title: Graphene Oxide/Goethite-Chitosan Composite for the Optimization of Arsenic (III) Adsorption from Polluted Aqueous Solutions

**Hari Mohan Meena**, *Department of Chemistry, Hansraj College, University of Delhi, India*

14:40-15:00

Title: Intelligent Packaging Hydrogel Incorporating *Nerium oleander* Anthocyanin to Preserve Chicken Meat

**Sirajunnisa Abdul Razack**, *Acharya Institute of Technology, India*

15:00-15:20

Title: Functional Defect-Rich Oxide Nanoparticles for Industrial and Biomedical Applications

**Maksim Aleksandrovich Pugachevskii**, *Southwest State University, Russia*

15:20-15:40

Title: Anti-Neoplastic Activity of Selected Essential Oil (EO)-Loaded in Niosomes Against HepG2 and YAC-1 Cells: An *in vitro* Study

**Kalaiselvi Aasaithambi**, *JSS Academy of Higher Education and Research, India*

15:40-16:00

Title: TPP-Chitosomes as Effective Carriers for Protecting Enriched Bioactive Extracts

**Milena Martelli Tosi**, *University of São Paulo, Brazil*

REFRESHMENT BREAK 16:00-16:20

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Title: Adsorption Performance of Rare Earth Elements using a Phosphoric Group-Functionalized Magnetic Nanomaterial

**Carlos Basualto Flores**, *Universidad de Chile, Chile*

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Title: Use of Mesenchymal Stem Cells in a Dog with Bone Marrow Hypoplasia: Case Report

**Weli Cristina Bessi dos Santos**, *Veterinary Hematology Hemoclinic, Brazil*

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16:20-16:50  
(Posters)

Title: Naturally Cross-Linked Matrices: The Effect of Extract from Polish Plum Waste as a Novel Cross-Linking Agent on the Functional Properties of Hydrogels

**Natalia Baka**, *Cracow University of Technology, Poland*

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Title: Investigation of the Pro-Aging Properties of Extracts from Food Industry Waste as a Source of Bioactive Functional Materials

**Aleksandra Kamienik**, *Cracow University of Technology, Poland*

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Title: Phytochemical Composition of Extracts from Fruit and Vegetable Processing Waste for Functional Material Applications

**Magda Ptaszekiewicz**, *Cracow University of Technology, Poland*

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16:50-17:10

Title: Ferromagnetic Materials for MTJ Based Energy Efficient Non-Volatile Memory

**Prasanna Kumar Misra**, *Indian Institute of Information Technology, Allahabad, India*

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17:10-17:30

Title: Coir Fibre Reinforced Ceiling Board Development with Overview of Mechanical, Thermal, and Physical Aspects

**Darshani Asha Madarasinghe**, *University of Moratuwa, Sri Lanka*

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17:30-17:45

Title: Long-Lasting Antimicrobial Coatings for Real-World Applications: PVB Nanocomposites with Multifunctional Performance

**Mindaugas Ilickas**, *Institute of Materials Science, Kaunas University of Technology, Lithuania*

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17:45-18:00 Title: Effect of Thermal and Thermochemical Treatment on Complex AlSi10Mg Structures Fabricated by Laser Powder Bed Fusion (LPBF)

**Ines Carolina Ortega Portilla**, *SECIHTI-Centro de Ingeniería y Desarrollo Industrial (CIDESI), México*

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18:00-18:20 Title: Evidence of the Main Role of Minority Current Carriers in the Occurrence of Superconductivity

**Yurii Uhryn**, *Ivan Franko Drohobych State Pedagogical University, Ukraine*

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18:20-18:35 Title: Development of Phosphazene Nanostructures Encapsulated with Natural Polymers as Drug Carriers for Colon Cancer

**İlknur Atli**, *Canakkale Onsekiz Mart University, Turkey*

**NETWORKING**

END OF DAY 1

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# SCIENTIFIC PROGRAM

# DAY 02

TUESDAY

MARCH 31, 2026

HALL-01

08:30-08:40

## Introduction

**Moderator** **Gary J. Dickelman**, *EPSScentral LLC, USA*

**Topics:** Materials Science and Engineering | Nanomaterials and Nanotechnology | Smart Materials | Biomaterials | Energy Materials | Crystallography | Graphene Technology | Chemistry | Carbon and 2D Materials | Semiconductors | Optics | Green Technologies | Metals and Alloys | Perovskites | Artificial Intelligence | Robotics | Catalysis

## Distinguished Speaker Talks

**Session Chair** **David Estrada**, *Boise State University, USA*

**Session Chair** **Lucjan Kozielski**, *Institute of Materials Engineering, University of Silesia in Katowice, Poland*

**Session Chair** **Simona Perone**, *Istat and Sapienza University of Rome, Italy*

08:40-09:00  
Title: Photonic Quantum Telecommunication for Multi-Agent Systems: Free-Space Links, Topologies and Fidelity under Noise

**Stefalo N.N. Acha**, *North Carolina A&T State University, USA*

09:00-09:20  
Title: Recent Advances in Lead-Free Ceramics Materials for Energy Storage

**Lucjan Kozielski**, *Institute of Materials Engineering, University of Silesia in Katowice, Poland*

09:20-09:40  
Title: Blockchain and Artificial Intelligence: The New Frontiers of Sustainability. How Emerging Technologies Can Revolutionize Advanced Materials Demand and Verification in the Sustainability Landscape

**Simona Perone**, *Istat and Sapienza University of Rome, Italy*

09:40-10:00	Title: 2-Dimensional and Layered Materials for Applications in Energy, Water and Healthcare <b>David Estrada</b> , <i>Boise State University, USA</i>
10:00-10:20	Title: Microstructural Design and Tribological Performance of a Cu Based High-Entropy Composite Coating <b>Stefan Lucian Toma</b> , <i>Gheorghe Asachi Technical University of Iasi, Romania</i>
GROUP PHOTO 10:20-10:30	
REFRESHMENT BREAK 10:30-10:50	
10:50-11:10	Title: First-Principles Insights into Borocarbonitride Anodes for Sodium-Ion Energy Storage <b>Siamkhanthang Neihzial</b> , <i>Dhanamanjuri University, India</i>
11:10-11:30	Title: A Novel Billhook Shaped 2-Element MIMO Array for Sub 6 GHz Millimetre Wave Application <b>Jaimon Yohannan</b> , <i>Amaljyothi College of Engineering, APJKTU, India</i>
11:30-11:50	Title: Dynamic Analyses (Modal and Forced Vibration) in a Railway Vehicle Model with 25 Degrees of Freedom <b>Fernando Luiz Martinechen Beghetto</b> , <i>Federal University of Technology, Brazil</i>
11:50-12:10	Title: Ionization Dynamics in Matter with Resonant Nanoantennas Irradiated by Intense Laser Shots <b>Konstantin Zsukovski</b> , <i>Wigner Research Centre for Physics, Hungary</i>
12:10-12:30	Title: Conversion of Indanone-Derived Geminal Azidofluorides to Isoquinolines or Benzoyl Fluorides <b>Fanhong Wu</b> , <i>Shanghai Institute of Technology, China</i>
12:30-12:50	Title: BI-LSTM Enhanced Learning Based Outage Performance Analysis for Aerial Reconfigurable Intelligent Surface Assisted Communication Systems <b>Kumud S. Altmayer</b> , <i>University of Arkansas at Little Rock, USA</i>

GROUP PHOTO 12:50-13:00

LUNCH BREAK 13:00-13:40

13:40-14:00	<p>Title: New Models of University for the Digital Society</p> <p><b>Maria Amata Garito</b>, <i>International Telematic University UNINETTUNO, Italy</i></p>
14:00-14:20	<p>Title: Influence of Higher GGBFS Content on the Performance of Concrete Pavement Incorporating Processed Coarse RAP</p> <p><b>Dinesh Ganvir</b>, <i>CSIR-Central Road Research Institute, New Delhi, India</i></p>
14:20-14:35	<p>Title: DDPG-PER for an IRS-Aided Secure Wireless Communication</p> <p><b>BOUROUINA Anfal</b>, <i>LCSI Laboratory, Higher School of Computer Science (ESI), Algeria</i></p>
14:35-14:50	<p>Title: Leveraging Asymmetric Cycling Protocols for Fast Charging of LFP-Li Metal Batteries</p> <p><b>Connor Welty</b>, <i>CIC EnergiGUNE, Spain</i></p>
14:50-15:05	<p>Title: Time-Dependent Rheological Evolution of Cement Paste under Dynamic Shear Conditions</p> <p><b>Astha Sharma</b>, <i>Indian Institute of Technology Indore, India</i></p>
15:05-15:20	<p>Title: Influence of the Parameters of the Topological Optimization Method: Sequential Element Rejection and Admission in the Design of Metamaterials</p> <p><b>Mariela Gómez Castañeda</b>, <i>Centro de Ingeniería y Desarrollo Industrial (CIDESI), SECIHTI, México</i></p>
15:20-15:40	<p>Title: Electrical Conductivity of Nanofluids with Carbon Nanotubes</p> <p><b>Valery Ya. Rudyak</b>, <i>Novosibirsk State University of Architecture and Civil Engineering, Russia</i></p>
15:40-16:00	<p>Title: Anticancer Evaluation and Drug Delivery of New Complexes Based on the Chelate of Alendronate onto Hydroxyapatite Nanoparticles</p> <p><b>Sahar I Mostafa</b>, <i>Mansoura University, Egypt</i></p>

REFRESHMENT BREAK 16:00-16:20

16:20-16:35 Title: Development of Neutral Zone-Based Lumbar Support Robotic Device Utilizing an Electroadhesive Clutch

**Garam Lee**, *Seoul National University, South Korea*

16:35-16:50 Title: In-Plane Tensile Effect Induced Ultralow Friction in Suspended Hexagonal Boron Nitride

**Kai Chen**, *Southeast University, China*

POSTER PRESENTATIONS (16:50-18:20)

P001 Title:  $\text{TiO}_2\text{-C}_3\text{N}_4$  Nanocomposites for Visible-Light-Driven Photocatalytic Air Purification

**Ângela Martins Lima**, *INL – International Iberian Nanotechnology Laboratory, Portugal*

P002 Title: Engineering Sustainable Fluorine-Free Hydrophobic Coatings for Painting Equipment Protection

**Juliana Patricia da Silva Sousa**, *INL – International Iberian Nanotechnology Laboratory, Portugal*

P003 Title: Functionalisation-Driven Control of ZnO Tetrapod Networks for Enhanced Electronic Performance

**Mindaugas Ilickas**, *Institute of Materials Science, Kaunas University of Technology, Lithuania*

P004 Title: Nanoemulsions Based on Extracts Obtained from Fruit and Vegetable Biomass

**Magdalena Chrobak**, *Cracow University of Technology, Poland*

P005 Title: Nanostructured Lipid Carriers Based on Extracts Obtained from Fruit and Vegetable Biomass

**Zuzanna Orzechowska**, *Cracow University of Technology, Poland*

P006 Title: Oleogels Based on Extracts Obtained from Fruit and Vegetable Biomass

**Lidia Faron**, *Cracow University of Technology, Poland*

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P007 Title: Hydrogels Based on Extracts Obtained from Fruit and Vegetable Biomass

**Oliwia Kubiczek**, *Cracow University of Technology, Poland*

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P008 Title: Hybrid Systems Based on Extracts Obtained from Fruit and Vegetable Biomass

**Adrianna Podlewska**, *Cracow University of Technology, Poland*

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P009 Title: From Vegetable Biomass to Bio-Patch/Mask: Physicochemical and Structural Characterization of Carrot-Derived Transdermal Hydrogel Systems

**Sandra Komaniecka**, *Cracow University of Technology, Poland*

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P010 Title: Optimization of the Chemical Cross-Linking Reaction of Protein Polymers using Plant Biomass Extracts

**Kacper Odziomek**, *Cracow University of Technology, Poland*

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## NETWORKING

END OF DAY 2

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## HALL - 02

### INTRODUCTION

**Session Chair** **Munish Pandey**, *K. M. Agrawal College, India*

09:20-09:40 Title: Engineering Modifications in Flow Channels for Enhancing Performance of Flow Batteries

**Milan Kumar**, *Rajiv Gandhi Institute of Petroleum Technology, India*

09:40-10:00 Title: Phytochemistry of *Campaluna lactiflora*: Quantitative Analysis of Bioactive Compounds, Synthesis and Characterisation of Silver Nanoparticles, Investigation of their Biological Activities

**Ramazan Erenler**, *Tokat Gaziosmanpasa University, Turkey*

10:00-10:20 Title: Precipitation-Engineered Sulfonated Polystyrene Nanoparticles with Tunable Surface Charge for Efficient Removal of Cationic Dyes and Phenolic Contaminants from Water

**Tamer Mahmoud Tamer Abdelrazik**, *University of Cyprus, Cyprus*

GROUP PHOTO 10:20-10:30

REFRESHMENT BREAK 10:30-10:50

10:50-11:10 Title: Phytochemical Profiling and Biological Activity Evaluation of *Centaurea stapfiana*

**Esmâ Nur Gecer**, *Tokat Gaziosmanpasa University, Turkey*

11:10-11:30 Title: The Skin as a Reflection of our Lifestyle

**Juergen Lademann**, *Charité – Universitätsmedizin Berlin, Germany*

11:30-11:50 Title: Female Computer Teachers Training by the (TAWOCK) Model

**Remsh Nasser Alqahtani**, *King Saud University, Saudi Arabia*

11:50-12:10	<p>Title: CRISPR-Cas9 Mediated Disruption of Virulence Genes in Uropathogenic <i>Escherichia coli</i>: Towards Antibiotic Free Therapeutics</p> <p><b>Tajo Abraham</b>, <i>Sir Syed College, Taliparamba, Kannur University, India</i></p>
12:10-12:30	<p>Title: Surface Chemistry-Driven Chlorobenzene Adsorption on Activated Carbons from HCl Streams</p> <p><b>Tânia Raquel Rodrigues Grainha</b>, <i>INL – International Iberian Nanotechnology Laboratory, Portugal</i></p>
12:30-12:50	<p>Title: Sulfur-doped ZnO as Cathode Interlayer for Efficient Inverted Organic Solar Cells</p> <p><b>Georgios Manginas</b>, <i>General Secretariat for Information Systems and Digital Governance, Greece</i></p>
GROUP PHOTO 12:50-13:00	
LUNCH BREAK 13:00-13:40	
13:40-14:00	<p>Title: Optimizing Thermoelectric Potential: Low-Temperature Annealed Sb-doped CuInS<sub>2</sub> vs. Cr-doped GaAs: Measurement, Modeling and Materials Comparison</p> <p><b>Nawel Khaldi</b>, <i>Research and Technology Center of Energy (CRTE<sub>n</sub>), Borj-Cedria Science &amp; Technology Park, Tunisia</i></p>
14:00-14:20	<p>Title: Experimental Investigations of Tooth Pitch Variation and Cutting Parameters on Tool Wear and Cutting Forces in Flat End Milling of Fe–Ni Alloy Supra50</p> <p><b>Mihed Ben Said</b>, <i>National Engineering School of Sfax (ENIS), University of Sfax, Tunisia</i></p>
14:20-14:35	<p>Title: Comparison of Mechanochemical Synthesis and Co-Precipitation to Obtain Composites of Yellow Clay, Hydroxyapatite and <i>Clitoria ternatea</i> L .</p> <p><b>Klaudia Kowalska</b>, <i>Maria Curie-Sklodowska University, Poland</i></p>
14:35-14:50	<p>Title: Study of the Synthesis, Dispersion and Theoretical-Experimental Analysis of Multiple-Wall Carbon Nanotubes in Portland Cement to Improve the Corrosion Resistance of Embedded Steel</p> <p><b>Miguel Angel Gómez Aristizábal</b>, <i>National University of Colombia, Manizales Campus, Colombia</i></p>

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14:50-15:10 Title: Synthesis and Investigation of Some Conductive Polymers on the Base of Aromatic Diamines

**Narine Durgaryan**, *Yerevan State University, Armenia*

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15:10-15:30 Title: Boosting Mixed-Matrix Membrane Efficiency with Sulfonated Zn-MOFs for Direct Methanol Fuel Cells

**Randa Eslah Khalifa Ghonim**, *Polymer Institute, Slovak Academy of Sciences, Slovakia*

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15:30-15:50 Title: Standards for the use of Sustainable Green Finishing Material and their Impact on Internal Spaces from Economic, Social and Environmental Point of View

**Sammer Hendawi Salem**, *October High Institute for Engineering and Technology, Egypt*

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15:50-16:05 Title: Optimization of Water Softening by Donnan Dialysis using Fujifilm Cation-Exchange Membranes

**ABBES Maroua**, *University of Gafsa, Tunisia*

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REFRESHMENT BREAK 16:05-16:25

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16:25-16:40 Title: Tailoring Processing Techniques to Tune Crystal Phase of Odd-Numbered Nylons for Mechanical Energy Harvesting

**Swagata Banerjee**, *Indian Institute of Technology Delhi, India*

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16:40-17:00 Title: Behaviour of Hinges in a Building with and without Lateral Load Resisting System Provided at Ends - Pushover Analysis

**Deepa S**, *DACG Government Polytechnic, Chickamagalore, India*

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17:00-17:20 Title: Multimodal Fusion in Machine Learning: A Comprehensive Approach using Linguistics, Visuals and Metadata

**Gautam Pal**, *Indian Institute of Management Ranchi, India*

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17:20-17:35	Title: Multimodal Double-Helix Fiber Sensor for Independent Pressure and Strain Detection in Wearable Sensory Applications <b>Tsogbayar Dashdende</b> , <i>Hanyang University, Republic of Korea</i>
17:35-17:50	Title: Assessment of Pseudo-Random Number Generator Influence on Dosimetric Parameters for Linac Head Simulation in GATE/GEANT4 <b>Meriem Tantaoui</b> , <i>Hassan II University, Morocco</i>
17:50-18:05	Title: Theoretical Perspective to the Juggling Sequence Rotation Performance Pattern from System Memory Locality Reference Viewpoint <b>Joseph Agarohenefuoma Erho</b> , <i>Niger Delta University, Nigeria</i>

## NETWORKING

END OF DAY 2

BOOKMARK YOUR DATES

9<sup>th</sup> Edition of

**ADVANCED MATERIALS SCIENCE WORLD CONGRESS**

March 2027 | Vienna, Austria



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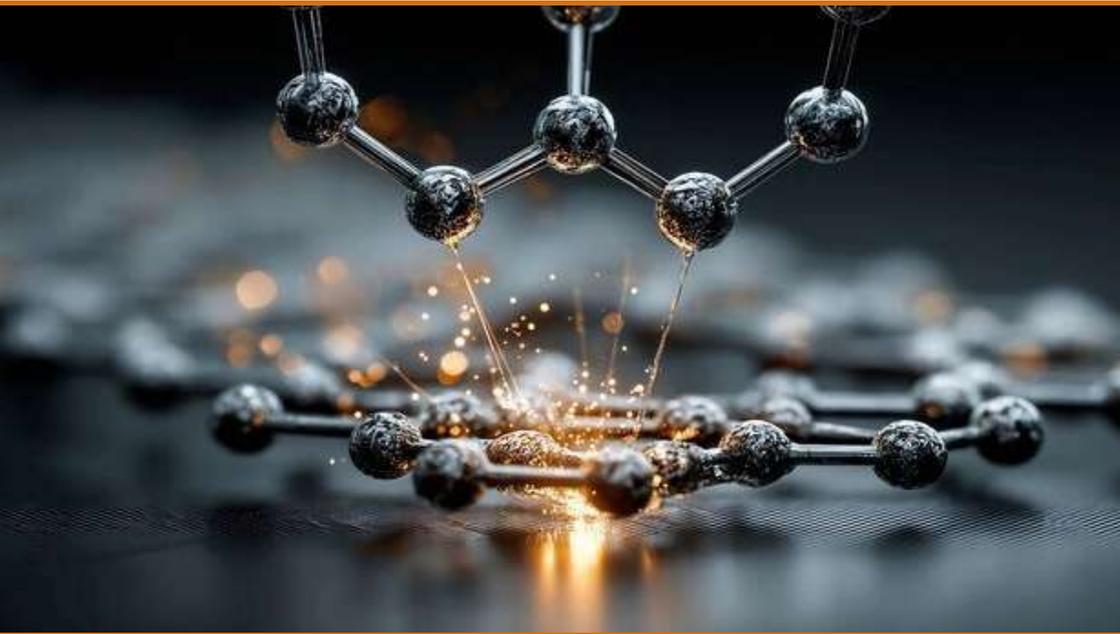


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MARCH 30-31, 2026

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# SCIENTIFIC PROGRAM

# DAY 01

MONDAY

MARCH 30, 2026

GMT - GREENWICH MEAN TIME

06:05-06:20

## Opening Ceremony

**Sessions: Materials Science and Engineering | Nanomaterials and Nanotechnology | Smart Materials | Biomaterials | Energy Materials | Crystallography | Graphene Technology | Chemistry | Carbon and 2D Materials | Semiconductors | Optics | Green Technologies | Metals and Alloys | Perovskites | Artificial Intelligence | Robotics | Catalysis**

## Distinguished Speaker Talks

06:20-06:40

Title: Formation Mechanism of Ultra-High-Melting-Point Oxide Eutectic Films

**Shunkichi Ueno**, *Nihon University, Japan*

06:40-07:00

Title: Identification of Microplastics in the Tukad Badung River in Bali Indonesia

**Kadek Diana Harmayani**, *Udayana University, Indonesia*

07:00-07:20

Title: Next-Gen ISF: Feature-Guided Deformation and Hybrid Machining Techniques

**Gangaram Mandaloi**, *Rewa Engineering College, India*

07:20-07:40

Title: Advancements in Face Recognition using Deep Learning Techniques: Methods and Advantages

**Subhranil Das**, *School of Computer Science, UPES, India*

07:40-08:00

Title: Need for Smart and Adaptive Materials for Future-Proof Infrastructure

**Aditya Singh**, *Amrita Vishwa Vidyapeetham, India*

08:00-08:20

Title: Thermal Analysis of Aluminium Graphite Composite Heatsink

**Sanjay Kumar S M**, *SJB Institute of Technology, India*

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08:20-08:40 Title: Enhancing the Mechanical Performance of Recycled Aggregate Concrete: The Synergistic Effects of Micro Titanium Dioxide and Steel Fibres

**S. Jayakumar**, *Sri Manakula Vinayagar Engineering College [An Autonomous Institution], India*

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08:40-09:00 Title: Influence of Carbon Atoms on the Pt Catalysts in Polymer Electrolyte Fuel Cells

**Kun'ichi Miyazaw**, *Tokyo University of Science, Japan*

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09:00-09:20 Title: Fuzzy Logic Control for Adaptive Fan Speed Regulation Based on Temperature Variations in Cold, Warm, and Hot Seasons

**Prashant C. Ramteke**, *G. B. Pant, DSEU, Okhla Campus, Okhla Phase-III, India*

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09:20-09:40 Title: Smart Deployable Stacked MOFs as Environmental Pollutant Sensors

**Shubhangi**, *Indian Institute of Technology (BHU) Varanasi, India*

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09:40-10:00 Title: High-Gain Compact Circular RFID Antenna for TV White Space Band using FR4 Substrate: A Material-Conscious Approach to UHF Innovation

**Richa Sharma**, *Galgotias College of Engineering & Technology, India*

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REFRESHMENT BREAK 10:00-10:10

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10:10-10:30 Title: A Qualitative Assessment of the Accuracy of AI-LLM in Academic Research

**Chanlang Ki Bareh**, *Nagaland University, India*

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10:30-10:50 Title: Synthesis of Highly Stable Cu<sub>2</sub>O Nanoparticles using Triethanolamine as Stabilizing Agent

**Veldurthi Shashikala**, *Osmania University, India*

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10:50-11:10 Title: Investigation of Transport Properties of Xbzr (X = Au, Ag, Cu) Compounds Using First-Principles Methods

**Yasemin Oztekin Ciftci**, *Gazi University, Turkey*

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11:10-11:30	<p>Title: Synthesis and Characterization of Biobased Waterborne Polyurethanes for Textile Finishes</p> <p><b>Shazia Tabasum</b>, <i>Government College University, Pakistan</i></p>
11:30-11:50	<p>Title: Application of Two-Dimensional Metal Organic Framework Materials in Li-Ion Batteries</p> <p><b>Narges Nobakht</b>, <i>Institute for Research in Fundamental Sciences, Iran</i></p>
11:50-12:10	<p>Title: Analysis of Elevator Structures Taking into Account Technological Deviations</p> <p><b>Alexander Trubayev</b>, <i>National Technical University "Kharkiv Polytechnic Institute", Ukraine</i></p>
12:10-12:30	<p>Title: Prediction of Viscoelastoplastic Structural Failure Under Long-Term Operation</p> <p><b>Yuriy Neustadt</b>, <i>Samara State Technical University, Russia</i></p>
12:30-12:50	<p>Title: Navigating Artificial Intelligence in Modern Workplaces</p> <p><b>Anne Rosken</b>, <i>ANED – HSG – PCU, Germany</i></p>
12:50-13:10	<p>Title: Pseudo Disorder Effects on Optical and Electrical Properties in GaAs Nanowires Array</p> <p><b>Rosa M. de la Cruz</b>, <i>Universidad Carlos III de Madrid, Spain</i></p>
LUNCH BREAK 13:10-13:40	
13:40-14:00	<p>Title: Behavior of Titanium Based Oxide Thin Layer for Biomedical Application Obtained using Anodic Oxidation</p> <p><b>Dragana R. Mihajlović</b>, <i>University of Belgrade, Serbia</i></p>
14:00-14:20	<p>Title: From Multimodal Interaction to Human–AI Co-evolution: The Role of ChatGPT in Education and Creativity</p> <p><b>Angela Balzotti</b>, <i>University of Study "Aldo Moro", Italy</i></p>

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- 14:20-14:40 Title: Innovative Representation of Data: The CMB in a Multimodal Approach  
**Beatriz García**, *CONICET, UTN-FRM, Argentina*
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- 14:40-15:00 Title: The Cu-ZrO<sub>2</sub>@SiO<sub>2</sub> Core-Shell and CeZr/ MWCNT, SBA-15 Catalyst for the CO<sub>2</sub> Hydrogenation into Methanol and DME  
**Martin Schmal**, *Federal University of Rio de Janeiro, Brazil*
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- 15:00-15:20 Title: Co-Encapsulation of Copaiba Oil and Trans-Dehydrocrotonin into Self-Nanoemulsifying Drug Delivery System: Formulation, Physicochemical Characterizations, and Antioxidant *in vitro* Effect  
**Maria Aparecida Medeiros Maciel**, *Federal University of Rio Grande do Norte, Brazil*
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- 15:20-15:40 Title: Design and Construction of a Low-Cost Bomb Disposal Robot  
**João Pedro Amaro Bennett da Silva**, *Instituto de Matemática e Tecnologia, Brazil*
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- 15:40-16:00 Title: Four Decades of MEMS Technology Excellence  
**Lj Ristic**, *Mirrorcle Technologies, USA*
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- 16:00-16:20 Title: Gating Monolayer and Bilayer Graphene with a Two-Dimensional Semiconductor  
**Joshua Island**, *University of Nevada Las Vegas, USA*
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- 16:20-16:40 Title: Structural and Modal Analysis of a Small Wind Turbine Blade Considering Composite Material  
**Miriam Vázquez Padilla**, *Universidad Michoacana de San Nicolás de Hidalgo, México*
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- 16:40-17:00 Title: QGIS-Based Flood Hazard and CHIRPS Rainfall Predictions in Mecca: An Assessment of the Kaaba Region  
**Tayfun Kurt**, *Independent Researcher, Turkey*

## NETWORKING

END OF DAY 1

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# SCIENTIFIC PROGRAM

# DAY 02

TUESDAY

MARCH 31, 2026

GMT - GREENWICH MEAN TIME

06:05-06:20

## Introduction

**Sessions: Materials Science and Engineering | Nanomaterials and Nanotechnology | Smart Materials | Biomaterials | Energy Materials | Crystallography | Graphene Technology | Chemistry | Carbon and 2D Materials | Semiconductors | Optics | Green Technologies | Metals and Alloys | Perovskites | Artificial Intelligence | Robotics | Catalysis**

## Distinguished Speaker Talks

06:20-06:40

Title: Machining Studies on Inconel 625 Super Alloy to Investigate the Tool Performance

**K.S. Vijay Sekar**, *Sri Sivasubramaniya Nadar College of Engineering, India*

06:40-07:00

Title: Fermentative Valorization of Organic Waste for Biofuel and Biochemical Production

**Urmila Gupta Phutela**, *Punjab Agricultural University, India*

07:00-07:20

Title: Hybrid Carbon-based Nanomaterials for Sensing and Targeted Theranostic Applications

**Mangaiyarkarasi R**, *Vellore Institute of Technology, India*

07:20-07:40

Title: Data-Driven Prediction of Damping Force in Magnetorheological Dampers using LSTM Networks

**Aadil Arshad Ferhath**, *Karpaga Vinayaga College of Engineering and Technology, India*

07:40-08:00

Title: Optode Uncertainties in Dual-Slope Diffuse Optical Measurements

**Tapan Das**, *Jorhat Institute of Science and Technology, India*

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08:00-08:20 Title: Design and Analysis of Dual Metal Control Gate Charge Plasma Tunnel Field-Effect Transistor (TFET) with Gate Engineering to Enhance Radio Frequency (RF) Performance and Linearity

**Mynampati Venkata Sai Sri Prabhas**, *Koneru Lakshmaiah Education Foundation, India*

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08:20-08:40 Title: Multi-Modality Physiological Signal Analysis for Driver Cognitive Distraction Detection using Spectral Domain Reconstruction Graph Neural Network

**Soumya P. S.**, *Karpagam Academy of Higher Education, India*

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08:40-09:00 Title: Bismuth-Doped Nickel Ferrite Nanoparticles for Enhanced Cr(VI) Adsorption: Thermodynamics, Kinetics, and Isotherms

**Renju R Krishnan**, *St. Xavier's College Thumba, India*

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09:00-09:20 Title: Assessment of a Gradient Damage Plasticity Model to Predict the Behavior of Composite Beam-to-Column Junctions

**Megha Thilak**, *Indian Institute of Technology Madras, India*

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09:20-09:40 Title: Parametric Investigation into Friction Crush Welding of Dissimilar Aluminium 5052 and Magnesium AZ31 Joint with Zinc Interlayer

**Ashu Kumar**, *University of Petroleum and Energy Studies, India*

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09:40-10:00 Title: Mechanically Responsive Organic-Inorganic Hybrid as Advanced Delivery Vehicle for Targeted Cancer Treatment

**Swapan Maity**, *Calcutta University, India*

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REFRESHMENT BREAK 10:00-10:10

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10:10-10:30 Title: Calculation of RMS Radiuses of the Point Spread Function using Zernike Fringe Coefficients

**Igor Chyzh**, *National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Ukraine*

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10:30-10:50	<p>Title: Photosensitivity Centers in CdGa<sub>2</sub>S<sub>4</sub> Single Crystals</p> <p><b>Zafar Kadiroglu</b>, <i>Ministry of Science and Education Republic of Azerbaijan, Azerbaijan</i></p>
10:50-11:10	<p>Title: Engineering Guefoams -Aluminum Foams with Guest Phases- for Optimized Thermal Transport</p> <p><b>Lucila Paola Maiorano Lauria</b>, <i>University of Alicante, Spain</i></p>
11:10-11:30	<p>Title: Fully Coupled Optoelectronic Modeling of Perovskite LEDs</p> <p><b>Morteza Yarahmadi</b>, <i>Tarbiat Modares University, Turkey</i></p>
11:30-11:50	<p>Title: Smart Functional Coatings for Protective Textiles</p> <p><b>Wan Norfazilah Wan Ismail</b>, <i>Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia</i></p>
11:50-12:10	<p>Title: Bioprinted Acellular Dermal Scaffolds: A Novel Approach for Secondary Intention Wound Healing</p> <p><b>Hafiza Parkar</b>, <i>University of Pretoria, South Africa</i></p>
12:10-12:30	<p>Title: Factors Associated with Sexually Transmitted Infection Literacy Among Men Who Have Sex with Men and Transgender People in Soweto: A Machine Learning Approach</p> <p><b>Claris Siyamayambo</b>, <i>University of Johannesburg, South Africa</i></p>
12:30-12:50	<p>Title: Reducing Underwater Observation Costs by Leveraging Cloud Technology</p> <p><b>Thomas Ederer</b>, <i>University of Applied Sciences Burgenland, Austria</i></p>
12:50-13:10	<p>Title: LumiSign: AI- Powered Solutions to Break Communication Barriers</p> <p><b>Lucía de la Vega Encinas</b>, <i>Pontifical University of Salamanca, Spain</i></p>
LUNCH BREAK 13:10-13:40	
13:40-14:00	<p>Title: Porosity and Permeability as Governing Structural Parameters in the Durability of Construction Materials</p> <p><b>Almudena Ortiz Marqués</b>, <i>University of León, Spain</i></p>

14:00-14:20	Title: Preliminary Characterisation of the <i>Thaumatococcus Daniellii</i> Fruit as a Potential Biomass Source for Biorefinery <b>Lena Yoh Ekaney Elango</b> , <i>University of Buea, Cameroon</i>
14:20-14:40	Title: Resilient Rural Base Road Stabilised Chemically using Claycrete and Earthzyme in Manica Mozambique <b>Moises Alexandre Dzimba</b> , <i>National Road Administration, Mozambique</i>
14:40-15:00	Title: Powder Dissolution Temperature as a Predictive Tool for Excipient Selection in Controlled Release Formulations <b>Matthias Knar</b> , <i>PS Biopolymer GmbH &amp; Co. KG, Germany</i>
15:00-15:20	Title: The use of Time-Frequency Analysis and Convolutional Neural Networks in the Automatic Classification of Low-Probability of Interception Radar Signals <b>Edgard Braz Alves</b> , <i>Instituto Militar de Engenharia, Brazil</i>
15:20-15:40	Title: Enhanced and Safe Removal of a Novel Experimental Fiber-Colored Post: An <i>in vitro</i> Micro-CT Study <b>Laís Lima Pelozo</b> , <i>University of São Paulo, Brazil</i>
15:40-16:00	Title: Impact of the Information Consumption Culture on Public Perception of Artificial Intelligence <b>Adriele Marchesini</b> , <i>University of São Paulo, Brazil</i>
16:00-16:20	Title: Assessment of Pseudo-Random Number Generator Influence on Dosimetric Parameters for Linac Head Simulation in GATE/GEANT4 <b>Meriem Tantaoui</b> , <i>Hassan II University, Morocco</i>
16:20-16:40	Title: Chitosan-Coated Silver Nanocomposite Films Green-synthesized with Galega officinalis Extract: Mechanical Performance, Thermal Behavior, and Silver Retention <b>D. Martínez-Cisterna</b> , <i>Universidad de La Frontera, Chile</i>

END OF DAY 2

BOOKMARK YOUR DATES

9TH EDITION OF **ADVANCED MATERIALS SCIENCE WORLD CONGRESS**

March 2027 | Vienna, Austria