

3rd World Congress on  
**MATERIALS  
SCIENCE &  
ENGINEERING**



**MARCH 11<sup>TH</sup>, 2025 | VIRTUAL EVENT**

Virtual: Zoom Meeting (GMT+1) Time in London

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**09:00–09:15: Registrations**

**09:15–09:30: Opening Ceremony**

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# DAY 1

**MARCH 10, 2025**

## Keynote Presentations

**09:30-10:10**

**Kiran Tota–Maharaj**  
The Water Research Centre Ltd (WRc), UK

Title: Adapting Caribbean Hydrosystems to a Changing Climate: Resilient Water, Stormwater, and Wastewater Infrastructure

**10:10-10:50**

**Ismail Hakki Kara**  
Karabuk University Engineering Faculty, Turkey

Title: Microstructure characterization and Corrosion Resistance of Zinc alloys modified by Sc

**Group Photo | Coffee Break 10:50–11:10 @ Foyer**

## Oral Presentations

**11:10-11:35**

**Hadi Sarvari**  
Birmingham City University, UK

Title: Perceived Critical Success Factors (CSFs) in the Development of Construction Small and Medium–sized Enterprises (SMEs) in Developing Countries

**11:35-12:00**

**Mingzhi Wang**  
Harbin Institute of Technology, China

Title: Image–based Simulation of the Mesoscopic Environment–material Interaction

**Session Introduction**

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## Tracks

Construction Market Research and Industry Analysis | Environmental Engineering | Environment–Friendly Construction and Development | Civil Engineering and Architecture | Environmental Protection | Construction Safety Management

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**Session Chair:** Kiran Tota–Maharaj, The Water Research Centre Ltd (WRc), UK

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**12:00-12:25**

**Forrest Wu**

Lijou and Associates Consulting Engineers,  
Taiwan

Title: Innovative Eco-Friendly Housing Solutions Redefining Sustainable Living and Space Efficiency in Taiwan

**Lunch Break 12:25-13:20**

**13:20-13:45**

**Michelle Maura Ribeiro**

Pontifical Catholic University of Minas Gerais,  
Brazil

Title: Geobim for Railroad Infrastructure – Modernizing Federal Public Management through the Adoption of BIM & GIS in the Context of Brazilian Cross-Investment and ESG

**13:45-14:10**

**Duane Tristan Lawal**

Melanized Limited, UK

Title: Solar Integration Innovation – A Revolutionary Approach to Building Infrastructure through Integrated Solar Roofing Systems

**14:10-14:35**

**Hadi Sarvari**

Birmingham City University, UK

Title: Bridging to a Safer Future: Strategies for Integrating Safety I and Safety II in the Construction Industry

**14:35-15:00**

**Feria Gharakhzadeh**

Gharakhzadeh Architecture, Austria

Title: Overbuild

**15:00-15:25**

**Anwaar Al Habsi**

UAE University, UAE

Title: Advancing Self-Healing Concrete with Microbial Technologies and Sustainable Calcium Extraction in the UAE

**15:25-15:50**

**Srinath Tangaragu**

GE Vernova, UK

Title: 40% Increase in House Efficiency by Preparing for Artificial Intelligence

**15:50-16:15**

**Matías A. Valenzuela**

Pontifical Catholic University of Valparaíso, Chile

Title: Will be announced soon

**16:15-16:40**

**Rui Pang**

Henan University of Technology, China

Title: Experimental and Analytical Study on Vertical Bearing Behavior of Discretely Connected Precast Concrete Floors with Four Sides Simply Supported

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**Panel Discussion & Certificate Felicitation**

**Day -1 Ends**

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# DAY 2

**MARCH 11, 2025**

Zoom Meeting (GMT+1) Time in London

09:00-09:20

**Piyali Halder**

Department of Physics, Jadavpur University,  
India

Title: Piezo– Bio–Nanocomposite Membrane for Simultaneous Organic Pollutant Degradation and Clean Energy Generation from Wastewater

09:20-09:40

**Indrajit Mondal**

Department of Physics, Jadavpur University,  
India

Title: Piezo– Bio–Nanocomposite Membrane for Simultaneous Organic Pollutant Degradation and Clean Energy Generation from Wastewater

09:40-10:00

**Nikhil Jayaraj**

Curtin University, Bentley, Western Australia

Title: Consumer behaviour and decision–making process: A study of solar energy storage adoption among residential users in Australia

10:00-10:20

**Osman Adiguzel**

Firat University, Department of Physics, Turkey

Title: Shape Reversibility and Memory Characteristics of Shape Memory Alloys

10:20-10:40

**Xiaohong Ji**

South China University of Technology, China

Title : A Simple Strategy for Single–crystalline GaS Flakes and its Self–powered Photodetection Performance

10:40-11:00

**Evgeny Grigoryev**

Merzhanov Institute of Structural Macrokinetics and Materials Science Russian Academy of Sciences, Russia

Title: Features Of High–Voltage Consolidation Of Powder Materials

11:00-11:20

**Kirk Phillips**

Air Force Office of Energy Assurance (AF OEA),  
USA

Title: Accelerating Installation Energy Resilience for Mission Assurance

11:20-11:40

**M Ashraf Khan**

Saginaw Valley State University, University  
Center, USA

Title: A study of partial energy harvesting by solar cages and sustainability

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**11:40-12:00**

**Ahmed Ekgam**

Brega Petroleum Marketing Company, Libya

Title: Accelerating Installation Energy Resilience for Mission Assurance

**12:00-12:20**

**Salem A. G. Saleh**

Karabuk University Engineering Faculty, Turkey

Title: Microstructure Characterization and Corrosion Resistance of Zinc Alloys Modified by Sc

**12:20-12:40**

**Sevim GECICI**

Research and Development Center, Galsan Plastic and Mold Industry Inc, Turkey

Title: The Study of the Physical, Chemical and Mechanical Properties of Recycled Thermoplastic Polypropylene and Polyamide Materials Used in the Automotive Industry

**12:40-13:00**

**F. Boukazouhaa**

Research Center in Industrial Technologies, CRTI, EChahid Mohammed ABASSI, Algeria

Title: Numerical Simulation and Experimental Verification of Mechanical Displacements in Piezoelectric Transformer

**13:00-13:20**

**Jabir Ali Siddique**

University of Science and Technology (UST), South Korea

Title: Effect of Magnesium Content and Processing Conditions on Stretcher Strain Marks in Al–Mg Alloys

**13:20-13:40**

**Jessica Rawles,**

North Carolina A&T State University, USA

Title: Exploring Laser Impact Welding for Joining Magnesium and Titanium in Advanced Lightweight Applications

**13:40-14:00**

**Vilas G. Pol**

Purdue University, West Lafayette, USA

Title: Solid–State Li–ion Batteries: Engineering Inherent Safety

**14:00-14:20**

**Yakubu Adamu,**

Ibrahim Badamasi Babangida University, Nigeria

Title: Renewable Energy Storage Capacity Rating: A Forecast of Selected Load and Resource Scenario in Nigeria

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**Panel Discussion | End**

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