



Scientific Program

4th International Virtual Conference on Materials Science and Engineering

December 12-13, 2025

Materials Science 2025 (Zoom Meeting)		Time Zone: GMT+0 (London, UK)
December 12, 2025		Time : 10:00 AM, London, UK Time
10:00-10:05	Opening Ceremony	
	Keynote Session	
10:05-10:30	Title: Dental fluorosis and shear bond strength Rim Kallala, Monastir University, Tunisia	
10:30-10:55	Title: Improving the Fatigue Design of Mechanical Systems such as Refrigerator Seongwoo Woo, Ethiopian Technical University, Ethiopia	
10:55-11:20	Title: Single and Hybrid AMMC Nano Reinforcement Wisam Alnahari, King Abdul Aziz University, Saudi Arabia	
Plenary Speaker Session		
Sessions	Current Concepts in Materials Science Materials Science and Engineering Nanomaterials and Nanotechnology Electrical, Optical, and Magnetic Materials Mining, Metallurgy and Materials Science	
Session Chairperson		
	Wisam Alnahari, King Abdul Aziz University, Saudi Arabia	
11:20-11:45	Title: Microstructure-Engineered Porous Cementitious Composites with Recycled Tire Particles: Orthogonal Optimization for Artificial Reef Applications Wei Qiao, China University of Geosciences (Beijing), China	
11:45-12:10	Title: Portable DNA Probe Detector and a New Dry-QCM Approach for SARS-CoV-2 Detection Sanong Suksaweang, Suranaree University of Technology, Thailand	
12:10-12:35	Title: Low Energy Buildings Design and Human Comfort Solutions Abdeen Omer, Energy Research Institute (ERI), United Kingdom	
12:35-13:00	Title: Efficient Synthesis of Peptoids from Dithiane Precursors via Multicomponent Reaction: A DFT-Based Mechanistic Insight Musrat Shaheen, Government College University Faisalabad, Pakistan	
13:00-13:25	Title: Eliminating Medical Device Infections without Antibiotics: 30,000 Patients and Counting Thomas J. Webster, Brown University, USA	

Session 1: Recent Advances in Materials Science and Engineering	
13:25-13:50	Title: Nano-Composite Polymer Dampers: A Solution for Energy Absorption in Modern Concrete Design Sandhya R Jalgar, KLE Technological University, India
13:50-14:00	Refreshment Break
14:00-14:25	Title: Proposal of a New Atapulgite-Based Fluid for Temporary Abandonment of Wells Ruth L N Gonçalves, Universidade Federal de Campina Grande (UFCG), Brazil
14:25-14:50	Title: Change of Coarse Aggregate Type's Impact on the Performance of Moderate and High Strength Concretes Salas Montoya Andres, National University of Colombia, Colombia
14:50-15:15	Title: Enhanced Volts-per-Hertz Sensorless Starting of Permanent Magnet Motor with Heavy Loads in Long-Cable Subsea Applications Virendra Singh, University of Houston, USA
15:15-15:40	Title: Defect And Microstructure Control Of Materials Using The Electron Wind Force Md Hafijur Rahman, Pennsylvania State University, USA
15:40-16:05	Title: Tackling Challenges: Exploring the Use of Natural Polymers in the Development of Anticorrosive Coatings Ana Alejandra Aguilar Ruiz, Instituto Tecnológico de Sonora, México
16:05-16:30	Title: A Comparative Analysis of Multi-Scale and Rayleigh Approaches in Capturing Eigenfrequencies and Mode Shape Evaluation in Planetary Gear Transmission Systems of Medium and Heavy Trucks Mahmoud Mabrouk, Hubei University of Automotive Technology China
16:30-16:55	Title: Pre-Trained Transformer-Based Models for Text Classification Using Low-Resourced Ewe Language Victor Kwaku Agbesi, University of Electronic Science and Technology of China, China
16:55-17:20	Title: Better Detection of Peripheral Arterial Disease with Toe-Brachial Index Compared to Ankle-Brachial Index among Taiwanese Patients with Diabetic Kidney Disease Chia-Wei Chang, Kaohsiung Medical University, Taiwan
End of Session	
Closing & Award Ceremony	
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