



INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY AND MATERIALS RESEARCH

CONFERENCE SCHEDULE | 2nd OCTOBER 2025

0800	Conference Registration – Level 1 Foyer		
Session	Session 1A <i>Venue: Sireh 3 - Level 1</i> Chair: Prof. Subash C. B. Gopinath Co-chair: Dr. Anis Amirah Alim	Session 1B <i>Venue: Sireh 1 – Level 1</i> Chair: Dr. Nurul Huda Osman Co-chair: Anis Syafiq Rosman	Session 1C <i>Venue: Sireh 2 - Level 1</i> Chair: Dr. Norizah Abd Karim Co-chair: Nurul Aishah Amran
0830	ICONMAR-05 Investigation on Geometrical Effects of FinFET Electronic Device Properties Using TCAD Simulations and Taguchi Optimization <i>Hanim Hussin</i>	ICONMAR-86 Effect on carbonization temperature on activated carbon utilizing palm kernel shell <i>Nurul Aishah Binti Mohd Amran</i>	ICONMAR-03 Effect of TiC Nanoparticles Deposition on UNS S31803 Surface using Tungsten Arc Melting Method <i>Alin Qistina Shamsuri</i>
0845	ICONMAR-06 Electrical Performance Evaluation Based on Design Parameters of Silicon Nanowire Gate-All-Around (GAA) TFET <i>Hanim Hussin</i>	ICONMAR-21 Synthesis and Characterization of Activated Carbon From Bamboo Charcoal <i>Anis Syafiq Rosman</i>	ICONMAR-13 The Effect of Temperature on Sweet Corrosion Behaviour of Mild Steel in 3.5% NaCl <i>Engku Sofiyah Hanan Engku Omar Amiruddin</i>
0900	ICONMAR-27 Enhancing Electron Transport in Silicon Self-Switching Devices: A Study on Triangular Barrier-Induced Ballistic Effects <i>Tan Yi Liang</i>	ICONMAR-73 Insertion loss reduction in SAW device through ZnO nanoparticle coating toward cell migration applications <i>Mohd Hafizuddin Junaidi</i>	ICONMAR-70 Development of a Portable Gold Nanoparticle-Based Sensor for Rapid Malathion Detection <i>Marlia Morsin</i>
0915			

	ICONMAR-49 Comparative Analysis of Near-Infrared Light Absorption in Glucose and Simulated Blood Component Solutions with and without Ultrasound Enhancement <i>Mohamad Ikhwan Jamaludin</i>	ICONMAR-68 Fabrication and Characterization of Eco-Friendly Screen Printed Electrode Using Activated Rice Husk Carbon Ink for Electrochemical Detection of SAR-CoV-2. <i>Athirah Amir</i>	ICONMAR-52 Electrochemical Performance of Electrodeposited Gold Nanoparticles on Graphene Oxide for Hydrogen Peroxide Detection <i>Nur Syakimah Ismail</i>
0930	ICONMAR-26 Comparative Analysis on Performances of PDMS based Electromagnetic Vibrational Energy Harvester (EM-VEH): Functionality Test on Rotating Machinery <i>Nur Indah Asmantowi</i>	ICONMAR-38 The Influence of Network Topology on the Sensitivity of Fiber Bragg Grating Sensors: Serial and Parallel Approaches <i>Anas Hambali Ahmad Abas</i>	ICONMAR-16 Electrospun Nanofibers From Durian Rind-Derived Nanocellulose: Influence of Tween 20 and Tween 80 on Morphology and Structure for Livestock Semen Preservation <i>Azima Azmi</i>
0945		ICONMAR-42 Effect of Bending Radius on Signal Attenuation in Single- and Multi-Mode Optical Fibers: Application Toward miRNA Biosensing in <i>Crocodylus porosus</i> <i>Mackerina Awing</i>	ICONMAR-17 Exploring Electrospun Nanofiber Encapsulation as an Alternative to Cryopreservation for Semen Preservation <i>Ainaa Abdul Kahar</i>
1000			ICONMAR-101 Enhancing Gamma-Ray Shielding Properties of Concrete Using Palm Oil Fuel Ash and PET <i>Nurain Najwa Ramli</i>
1015	Morning Break		
1030	Opening Remarks - Sireh 3, Level 1		

1045	Keynote Speaker 1 Organic Conjugated Polymer for Biomedical Applications: Sensing and Therapy <i>Prof. Dr. Hafsa Korri-Youssoufi</i> Director of Research CNRS (HDR), Institute of Molecular Chemistry & Material of Orsay (ICCMO), University Paris-Saclay, France		
1145	Keynote Speaker 2 Surface Matters: Advanced Electrode Modification Strategies for Electrochemical Performance Boost <i>Prof. Dr. Khairunisak Abdul Razak</i> School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, Institute for Research in Molecular Medicine (INFORMM), Universiti Sains Malaysia		
1245	Group Photo		
1300	Lunch Break – Lesong Café		
Session	Session 2A <i>Venue: Sireh 2 - Level 1</i> Chair: Dr. Mohamad Faris Mohamad Fathil Co-chair: Assoc. Prof. Dr. Mohammad Nuzaihan Md Nor	Session 2B <i>Venue: Sireh 1 – Level 1</i> Chair: Assoc. Prof. Ts. Dr. Foo Kai Loong Co-chair: Dr. Nur Hamidah Abdul Halim	Session 2C <i>Venue: Sireh 3 - Level 1</i> Chair: Dr. Nor Azizah Parmin Co-chair: Assoc. Prof. Dr. Norfarhani Zakaria
1400	ICONMAR-35 (Invited) Review on cases of potential photovoltaic implementation in duck farming <i>Renan Prasta Jenie</i>	ICONMAR-67 (Invited) Graphene-Based Nanomaterials as Novel Modulators of Lipid Metabolism and Inflammation in Atherosclerosis <i>Rafeezul Mohamed</i>	ICONMAR-71 (Invited) Effect of Ruthenium Catalyst on the Thermal Performance of Polyamide-Based Phase Change Materials <i>Yamuna Munusamy</i>

1430	ICONMAR-83 Unintended Catalysis and Defect Formation in Electroless Metallization of Semiconductor Wafers <i>Phey Yee Foong</i>	ICONMAR-14 Formulation and characterization of lemon myrtle essential oil in water nanoemulsion prepared via ultrasonication <i>Siti Noraini Bunawan</i>	ICONMAR-102 Microwave synthesis of carbon quantum dots for possible metal ion detection <i>Nurul Huda Osman</i>
1445	ICONMAR-76 Investigation of significant parameter and interaction of Plastic Transfer Moulding Parameters for 3D Dual In-Line IC Package Encapsulation <i>Uzair Rosli</i>	ICONMAR-08 The Stress Analysis of Polymethyl Methacrylate (PMMA) Nanocube Using Molecular Dynamics Simulation <i>Nur Fatiha Mohd Hasni</i>	ICONMAR-07 Development and Preliminary Analysis of 3D Printing Filament from Post-consumer Polypropylene <i>Khaw Ming Yee</i>
1500	ICONMAR-15 A Comparative Study in Fused Filament Fabrication Using Recycled Polystyrene and Commercial High-Impact Polystyrene <i>Calista Ng Hue Thung</i>	ICONMAR-23 Dual-sensitizer loaded nanodroplets effects on reactive oxygen species production under microwave hyperthermia exposure <i>Shazwan Abd Shukor</i>	ICONMAR-20 Effect of Calcination on The Structure of Montmorillonite and Their Adsorption of Aflatoxin B1 <i>Noor Azlina Masdor</i>
1515	ICONMAR-22 Optimizing BaTiO₃ Content in Flexible PVDF Films for Enhanced Piezoelectric Nanogenerator Performance <i>Norhafizah Burham</i>	ICONMAR-30 Cellulose Nanocrystal-Aluminium Oxide (CNC-Al₂O₃) for Tribology Application in Internal Combustion Engine: Stability, Thermophysical and Tribological Behavior <i>Mohd Kamal bin Kamarulzaman</i>	ICONMAR-09 Characterization of SnO₂ nanoparticles via Morinda citrifolia leaf extract <i>Irmaizatussyehdany Buniyamin</i>

1530	ICONMAR-12 Lead-Free Piezoelectric Performance of BCZT-PDMS Composites for Sustainable Energy Harvesting <i>Norhafizah Burham</i>	ICONMAR-62 Bamboo Charcoal as a Dual Inhibitor of OxLDL Uptake and Foam Cell Formation <i>Mutaman Hussein Abdullah</i>	ICONMAR-02 Nanotechnology-Based Transdermal Drug Delivery: Characterization of Electrospun Temozolomide-Cellulose Acetate Nanofibers <i>Mohamad Ikhwan Jamaludin</i>
1545	ICONMAR-10 Comparative Analysis of Bovine Serum Albumin Detection Using Cuvettes, Biofunctionalized and Non-Biofunctionalized Tapered Optical Fiber <i>Norhafizah Burham</i>	ICONMAR-55 Sensors for Polystyrene Nanoplastics Detection in Water Samples <i>Nurul Iman Ramzan</i>	ICONMAR-24 Ecological Sustainability of N Utilisation and Leaching in Solanum lycopersicum var. cerasiforme via Green Synthesis of Zeolite LTA <i>Norsuhailizah Sazali</i>
1600		ICONMAR-82 Influence of MgO nanoparticles for High Voltage Direct Current (HVDC) cable insulation. <i>Noor Fadzilah Mohamed Sharif</i>	ICONMAR-28 Influence of Nb doped TiO ₂ synthesized via the solvothermal method on the efficiency of dye-sensitized solar cells. <i>Hidayani Jaafar</i>
1615		ICONMAR-54 Shape and Size Dependent Sensing Enhancement by Gold Nanomaterials <i>Subash C. B. Gopinath</i>	ICONMAR-19 Tapered Optical Fiber Coated With Rhenium Disulfide (ReS ₂) for Formaldehyde Sensing <i>Maizatul Zolkapli</i>
1630			ICONMAR-18 Effect of Size and Humidity Variations on Rhenium Disulfide-coated Fiber Optic Humidity Sensors: Experimental Analysis and Performance Evaluation

			<i>Maizatul Zolkapli</i>
1645	Coffee Break & Conference Awards – Sireh 3, Level 1		
1700	End of ICONMAR 2025		

Poster Presentation	
ICONMAR-74	Impact of Source Material Selection on Dielectric-Modulated Tunnel Field-Effect Transistor Biosensor Performance
ICONMAR-78	Gold Nanoparticle-Functionalized Silicon Nanowire Biosensor for Ganoderma boninense DNA Detection
ICONMAR-85	TiO ₂ –CNT Hybrid Nanomaterials: A Synergistic Platform for Next-Generation Biosensors
ICONMAR-87	Microstructure Enhancement of Protonic Ceramic Fuel Cell Cathode Using Sugarcane Bagasse as The Pore-Forming Agent
ICONMAR-88	Effect of Thermal Treatment on the Structural and Physicochemical Properties of Bamboo Charcoal for Biomedical Applications
ICONMAR-92	Effect of Recovered Carbon Black on Polypropylene for Conductive Polymers Composites
ICONMAR-93	Mechanical and Microstructure Behaviour of Recycled Copper Matrix Composites for Brake Pads Application
ICONMAR-91	Electrochemical Characterization of AuNP-Modified Carbon Electrodes for Sensitive 17 α -Ethinylestradiol Sensing
ICONMAR-94	Advances in Microbial Biosensors for Oil Spill Bioremediation Monitoring
ICONMAR-95	Chemical Modification and Carbon Quantum Dots of Rice Straw as Oil Adsorbent
ICONMAR-96	Performance Evaluation of Fly Ash-Based Geopolymer Binders Modified with Recycled Metal Additives
ICONMAR-97	Nano-Engineered Hydrated Lime for Hydrogen Sulfide (H ₂ S) Emission Control in Landfills
ICONMAR-98	Nanochannel Based Planar Barrier Diode as Logic Gate Operation