MJIC 2025
PROGRAMME TABLE*

FEBRUARY 21, 2025 (FRIDAY)	
15:00-17:00	**REGISTRATION**
15:00-20:00	**E-POSTER & VIRTUAL INNOVATION EVALUATION**

FEBRUARY 22, 2025 (SATURDAY) BALLROOM B	
MC: TS. SALIFAIRUS MOHAMMAD JAFAR	
08:30-09:00	**OPENING CEREMONY** **PROF. DR. TETSUO SOGA** Department of Electrical & Mechanical Engineering Nagoya Institute of Technology (NITech), Japan
CHAIRPERSON: DR. RABIATULADAWIYAH MD AKHIR	
09:00-09:45	KEYNOTE LECTURE 1 **PROF. DR. MEISAM TABATABAEI** Institute of Tropical Aquaculture & Fisheries Universiti Malaysia Terengganu (UMT), Malaysia

09:45-10:30	KEYNOTE LECTURE 2 **PROF. TS. DR. SURIANI ABU BAKAR** Deputy Vice-Chancellor (Research and Innovations) Universiti Pendidikan Sultan Idris (UPSI), Malaysia		
10:30-10.45	**COFFEE BREAK & E-POSTER SESSION**		
10:45-11.30	KEYNOTE LECTURE 3 **PROF. DR. SAIDUR RAHMAN** Distinguished Research Professor and Head-Research Centre for Nano-Materials and Energy Technology (RCNMET) School of Engineering and Technology Sunway University, Malaysia Advanced MXene-based nano-composite for water purification and energy conversion		
PARALLEL SESSION			
	BALLROOM B	**STRAITS 1**	**STRAITS 2**

	CHAIRPERSON: DR. MUSA BIN MOHAMED ZAHIDI	**CHAIRPERSON: PROF. MADYA DR. NORAZILA BINTI IBRAHIM**	**CHAIRPERSON: NUR DIYANA BINTI ZULPAHMI**
11:30-12:00	INVITED LECTURE 1 **PROF. DR. TETSUO SOGA** Department of Electrical & Mechanical Engineering Nagoya Institute of Technology (NITech), Japan Direct growth of horizontal and vertical graphene and its application	INVITED LECTURE 2 **ASSOC. PROF. DR. NAOKI KISHI** Department of Electrical & Mechanical Engineering Nagoya Institute of Technology (NITech), Japan Improvement of thermoelectric properties of organic thin films	INVITED LECTURE 4 **PROF. MADYA CHM. DR. FARIDAH BINTI ABU BAKAR** Deputy Dean (Academic and Research) Centre for Graduate Studies Level 3, Research Centre Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat Johor
12:00-12.30	INVITED LECTURE 6 **PROF. DR GOPINATH PACKIRISAMY** Department of Bioscience & Bioengineering Indian Institute of Technology Roorkee, India	INVITED LECTURE 3 **PROFESSOR DR. MOHD AMBRI MOHAMED** Deputy Director (Statistics and Monitoring), Center for Research and Instrumentation Management (CRIM-UKM) Universiti Kebangsaan Malaysia	INVITED LECTURE 5 **PROF. DR. AZRUL AZLAN HAMZAH** Institute of Microengineering and Nanoelectronics (IMEN), Universiti Kebangsaan Malaysia

12:30-12.40	**Mohd Zulkipli Bin Ab Kadir** Synthesis of Bio Epoxide from Hybrid Palm Oil+Waste Cooking Oil By Insitu Process Using Different Natural And Synthetic Zeolite Catalyst	**Ts. Dr. Shahrul Hisyam Marwan** Innovative Design of Lattice-Structured Ankle Brace Orthosis Using Advanced Scanning and Simulation Techniques	**Kadupitige Shashikala Dilrukshi Premarathna** Microalgae-based combined CuO/ZnO nanoflower composites for the photocatalytic degradation of Ciprofloxacin residue in water
12:40-12:50	**Syawal bin Mohd Yusof** Synergistic Enhancement of CO_2 Adsorption via Co-Doping of KCC-1 with MnO and Transition Metal Oxides	**ChM. Dr. Azizul Hakim Lahuri** The Effect of Adsorbent Activation Toward CO_2 Capture for Manganese Oxide Synthesized via Precipitation Method	**Hikaru Azuma** Reduction of ferroelectric domain wall free energy by oxygen vacancies: A molecular dynamics simulation study
12:50-13:00	**Siti Sarah Jumali** Developing Biosensors for Paddy Diseases: A Review	**Siti Sarahah** CO_2 Absorption Through Cellulose Dissolution with CaO	**Dr Jibrin Alhaji Yabagi** Thermal Decomposition Behavior and Kinetic Studies of Polystyrene Silver (PS/Ag) Nanocomposites
13:00-14:00	**LUNCH BREAK**		
	CHAIRPERSON: DR KELIMAH ANAK ELONG	**CHAIRPERSON: TS. DR. A. SHAMSUL RAHIMI BIN A. SUBKI**	**CHAIRPERSON: TS. DR RUZIANA MOHAMED**

14:00-14.10	**Malia Athirah Binti Badruddin** Development of Superhydrophobic $Cu(OH)_2$-Coated Cu Meshes for High Efficient Oil-Water Separation	**Nur Syaza Iman Binti Muhamad Salleh** Optimised Extraction and Physicochemical Characterisations of Hylocereus undatus Natural Surfactant for Water-in-Crude Oil Emulsions	**Anis Syahirah Binti Mohd Shafie** Astaxanthin Nanoemulsion Alleviates Motor Function and Neuronal Injuries Following Ischemic Stroke in Rats
14:10-14.20	**Muhammad Amir Zarif Azrai** Cantilever Vibration Energy Harvesting of Piezoelectric Material	**Saravanan Pichiah** Built in electric-field active 2D β-BN/ZIS coated water-fed photoelectrode for CH_4 mitigation	**Dr Nurul Asikin Mijan** Development of spherical porous nickel-manganese catalyst for production of bio-jet fuel rich product
14:20-14.30	**Duong Tuan Anh Nguyen** Enhanced electrochemical performance of boron-doped cobalt oxide nanoparticles for supercapacitor application	**Muhd Firdaus Abdul Halim** Characterization of Nanocrystalline Cellulose (NCC) Fibre-Reinforced Starch Biopolymer Composites: A Pathway to Sustainable Material Development	**Nur Fadzilah Basri** Impedance Spectroscopy Study of Dilute Nitride p-i-n Diode with Multi Quantum Wells
14:30-14.40	**Dr Fatimah Khairiah Abd Hamid** The Quantum Transport Characteristic of Graphene-Î³2 Graphyne Nano-Ribbon Junction	**Miss Nur Diyana Binti Zulpahmi** The Effects Precursor Salt in The Green Synthesis of Copper Nanoparticles Using Ananas Comosus Leaf Extracts	**Dilip Kumar A/L Mathevan** Molybdenum Telluride Integrated Dielectric Modulated Field Effect Transistor (FET) Based Biosensor for The Detection of Triple Negative Breast Cancer (TNBC)

14:40-14.50	**Mr. Muhammad Syaabani Mohd Rafie** Structural and Microstructural Analysis of Ruthenium-Based Double Perovskites for Advanced Electronic Applications	**Shun Shimizu** Synthesizing Graphene from Coconut Husks Using the CVD Method	**Mrs. Siti Juwairiyah A Rahman** Epoxidation of Sunflower Oil for Biolubricant Stock and Green Chemicals Precursor
14:50-15.00	**Yusuf Jameel** Enhancing Green Epoxy with Oil Palm Cellulose Nanofibrils: A Thermal, Mechanical, and Morphological Study	**Dr. Mutawalli Bello** Performance Improvement of Concentrated Solar Thermal Collectors Using To and AIN Composite Coatings for Photothermal Conversion Application	**Dr. Musa bin Mohamed Zahidi** Exploring the Potential of Tantalum-doped TiO_2/rGO Nanocomposite for Humidity Sensing Application
14:50-15.00	**Ms. Nur Ain Munirah binti Ya Omar** Study of The Effect of ZrF4 ON $LiAlH_4$ + $NaBH_4$ Composite for Solid-State Hydrogen Storage	**Ts. Dr. Abdullah Amru Indera Luthfi** A Wound Dressing Alternative: Chitosan from Black Soldier Fly for Biodegradable Films	**Nur Suraya Amad Mazni** Investigation of Micro and Nano Hardness of Hybrid Thermochemical Treated Laser Powder Bed Fusion (LPBF) 316L Stainless Steel
15:00-15.10	**Nur Basiroh Binti Mohd Rahim** Tin/Indium Electrodes for Liquid Ethanol Sensing at Various Concentrations	**Dr. Nurul Shafikah binti Mohd Mustafa** Catalytic effects of TiH_2 and ZrF_4 addition on the hydrogen storage properties of $LiAlH_4$.	**Anas Ahzaruddin bin Ahamad Tarmizi** Biosynthesis and Optimization of Marantodes pumilum-mediated Selenium Nanoparticles Utilizing Box-Behnken Design

15:10-15.20	**Syuhadah Mohd Tahir** Enhancement of Ionic Conductivity and Mechanical Properties of Carboxymethyl Cellulose-Based Solid Biopolymer Electrolytes with TiOâ,, Nanoparticles	**Ts. ChM. Dr. Irmaizatussyehdany Buniyamin** The Influence of Calcination Process on the Green Synthesis of SnO_2 Nanoparticles using Morinda citrifolia Leaves Extract	**Dr. Norikhwan Hamzah** Carbon nanotube synthesis using quasi-pyrolysis chamber in methane diffusion flame
15:20-15.30	**Lim Teng Sheng** Seed Method Gold Nanorod Synthesis and Spectrometric Analysis	**Suriya Vathi Subramaniam** Review on Single & Integrated/Hybrid Technology for Contaminants of Emerging Concern (CECs) removal	**Aein Afina Mohd Redzuan** Mechanical and Thermal Properties of PMMA/CNF Electrospun Composite Fibre Coatings for Marine Environment
15:30-15.40	**Dr. Vasi Uddin Siddiqui** Graphene-Based Polymer Composites: Enhancing Performance and Applications	**Dr. Mohd Faizal Achoi** Immersion Time Dependence in the Fabrication of Cesium Bismuth Iodide	**Dr. Siti Rabizah Makhsin** **Insights into the Influence of Chemical Variables on Reduced Graphene Oxide Formation in the Modified Tour Method**
15:40-15.50	**Prof. Madya Dr. Norazila Binti Ibrahim** Magnetoresistance Effect in $La0.8-xErxNa0.2MnO3$ (x =0.0 and 0.1) Manganites for	**Assoc. Prof. Ts. Dr. Abdul Halim Abdullah** Optimizing Ankle Foot Orthosis Through Material Selection and Topology Mass Reduction Techniques	OP45

	Next Generation Spintronic Devices		
15:50-16.00	OP46	OP 47	OP 48
16:00-16:30	**COFFEE BREAK & E-POSTER SESSION**		
		CHAIRPERSON: ASSOC. PROF. TS. DR. ABDUL HALIM ABDULLAH	**CHAIRPERSON: TS. CHM. DR. IRMAIZATUSSYEHDANY BUNIYAMIN**
16:30-16:40		**Nur Syazwani Binti Abdul Malek** Antibacterial Activity and Structural Enhancement of 3D-Printed Waste-Derived Graphene Oxide Membranes for Water Filtration	**Kevin Alvin Eswar** Effect of Annealing Temperature on the Structural and Morphological Properties of Nb-Doped ZnO Thin Films
16:40-16:50		OP 51	**Ts. Nadya binti Hajar** Physicochemical, Optical, and Structural Properties of Cassava Starch/Xanthan Gum/Zinc Oxide Nanoparticles Coating Solution for Fruit Preservation
16:50-17:00		**Maryam Mohammad**	**Ms. Durratun Nasihah Binti Mohd Shuhairi**

		Hybrid Microwave-Assisted Sonochemical Synthesis of One-Dimensional Zinc Oxide Nanowires and the Enhancement of its Physical and Morphological Properties	Tailoring Mechanical Properties of 3D-Printed Polymer Composites with Graphene Oxide Via Digital Light Processing
17:10-17:20		**Hafsa binti Omar** The Heat of Transformation: Annealing Temperature Effects on Reduced Graphene Oxide Derived Coconut Shell Charcoal	**Nordania Farisha Binti Ahmad Puzi** The Effect of Anodizing Time on the Formation of Aluminum Oxide nanowires by Two-Step Anodization Method
17:20-17:30		**Zahidah Othman** Low microwave power growth of Copper Oxide (CuO) nanostructures via Microwave-assisted Sonochemical method	**Nurfarhana binti Rosman** Sustainable Synthesis of Nitrogen-Doped Graphene Oxide Films from Fermented Koji-Based Carbon
17:30-17:40		**Nur Fairuz binti Mohd Rostan** The Structural and Optical Properties of Cu-doped ZnO Nanowires Grown via Facile Microwave-assisted Ultrasonic Irradiation Technique	**Mohamad Dzulfiqar Bin Bakri** The Development of Metal Doped Zinc Oxide Nanostructures for Hydrogen Sensors: A Review
17:40-17:50		OP 62	OP 63

17:50-18:00		OP 64	OP 65

GALA DINNER	
19:30-20:00	**REGISTRATION**
20:00-22:00	**DINNER** Officiated By **YBhg. Prof. Datuk Ts. Dr Shahrin bin Sahib @ Sahibuddin** , **FASc** Vice Chancellor Universiti Teknologi MARA

FEBRUARY 23, 2025 (SUNDAY)	
09:00-1400	**NETWORKING SESSION (MELAKA TOUR)**

***Subject to any changes.**
***The schedule is subject to periodic updates based on requirements.**

E-POSTER PRESENTATION	
Ir. Ts. Dr. Zaharah Johari Voltage Applied Effect on Bilayer Carbon-Doped Boron Nitride Nanoribbon for Hydrogen Gas Sensing	**Nur Amirah Syafiqah Binti Amirul** First-Principles Calculation on Structural, Electrical, and Optical Properties of $APbI_3$ ($A=CH_3NH_3$, Cs) For Perovskites Solar Cell Applications
Nor Amirah binti Ladjahirin Deposition of Li-doped Nickel Oxide Thin Films by Sol-Gel Spin Coating: Effect of Annealing Temperature on Structural, Optical, and Electrical Properties	**Nurul Syafiqah Binti Mohamed Mustakim** Sustainable Energy Strategies: Generating Electricity from Renewable Sources and Waste
Ts. Dr. Norfarariyanti binti Parimon Synthesis and Characterization of Deposited Manganese Doped Nickel Oxide Thin Films at Different Annealing Temperatures	**Mr. Muhammad Afif Syazani Bin Rozani** Thermal Stability and Characterisation of Virgin Coconut Oil-In-Water Emulsions: The Role of Mixed Surfactants
Nurain Najwa Ramli POFA-PET Incorporated Concrete for Gamma Ray Shielding	**Muhammmad Amir Bin Md Fu'ad / Muhammad Syazwi Salihin Bin Sobri** Augmented Reality (Ar) and Qr Code Design Implementation of File Folder Innovation at Majlis Bandaraya Johor Bahru
Nafisha Balqis binti Khairuddin First-principles Study on Structural, Electronic and Optical Properties of Cu_2ZnSnS_4 as Absorber Layer for Thin Film Solar Cell	**Nurzaihani Batrisyia Binti Said** The First- Principles Study on Structural and Electronic Properties of NiCo2O4 as an Electrode in Supercapacitors
Najwa Ezira Binti Ahmed Azhar Nanostructured Metal-Oxide Semiconductors: Towards Ultra-Sensitive Humidity Sensors	**Mr Muhammad Syakir Azri bin Anuar** Short Review on $SrTio_3$ – Synthesis Methods and Ways to Improve Its Characteristics

Nurfatini Atiqrah Binti Khairul Azhar Low-Temperature Synthesis of ZnO Nanostructures: A Precursor Concentration Study for Piezoelectric Nanogenerator	