

Conference Programme (Tentative)

Day 1, Monday, 7th September 2026

TIME	PROGRAMME	VENUE
3.00 pm – 6.00 pm	Registration of participants	JC2 Hall, Level 1, University Building
END OF DAY 1		

Day 2, Tuesday, 8th September 2026

TIME	PROGRAMME	VENUE
8.00 am - 9.00 am	Registration and conference kit collection	JC2 Hall, Level 1, University Building
OPENING CEREMONY		
9.00 am - 9.10 am	National Anthem, Negaraku Recitation of Doa	JC2 Hall, Level 1, University Building
9.10 am - 9.50 am	Officiating Remarks by Prof. Sibrandes Poppema , President of Sunway University Welcoming Remarks by Prof. Nishanth Chemmangattuvalappil , Chairperson of SOMChE26 Welcoming Remarks by Prof. Ir. Denny Ng , Dean of Faculty of Engineering and Technology, Sunway University	
9.50 am - 10.10 am	Photography Session	
10.10 am - 11.10 am	Coffee Break + Onsite Poster Session	
11.10 am - 12.00 pm	Plenary Talk 1: Prof. Santanu Bandyopadhyay Indian Institute of Technology Bombay	JC2 Hall, Level 1, University Building
12.00 pm - 1.00 pm	Lunch	Gallery, Level 1, University Building
1.00 pm - 1.50 pm	Plenary Talk 2: Dr. Khalik Mohamad Sabil Petronas Research Sdn Bhd	JC2 Hall, Level 1, University Building
1:50 pm - 3.30 pm	Session 1	Classroom 1
	Session 2	Classroom 2
	Session 3	Classroom 3
3.30 pm - 4.00 pm	Coffee Break	

4:00 pm - 6.00 pm	Session 4	Classroom 1
	Session 5	Classroom 2
	Session 6	Classroom 3
END OF DAY 1		

Day 3, Wednesday, 9th September 2026

TIME	PROGRAMME	VENUE
9.00 am – 9.50 am	Plenary Talk 3 Prof. Ir. Suzana Yusup Sunway University	JC2 Hall, Level 1, University Building
9.50 am - 10.20 am	Coffee Break	Gallery, Level 1, University Building
10.20 am - 12.20 pm	Session 7	Classroom 1
	Session 8	Classroom 2
	Session 9	Classroom 3
12.20 pm - 1.30 pm	Lunch	Gallery, Level 1, University Building
1.30 pm – 2.00 pm	Book Launch	JC2 Hall, Level 1, University Building
2.00 pm - 4.00 pm	Session 10	Classroom 1
	Session 11	Classroom 2
	Session 12	Classroom 3
4.00 pm - 4.45 pm	Closing Remarks	JC2 Hall, Level 1, University Building
END OF DAY 2		

Remarks:

1. Please note that the Conference Programme is based on Malaysia Time (UTC/GMT +8 hours)
2. This is the latest programme, and any subsequent changes will be updated from time to time
3. For further enquiry, please contact the SOMChE secretariat

Session Breakdown

Day 2, Tuesday, 8th September 2026

Session 1 – Classroom 1

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
1.50 pm - 2.20 pm	<i>Computer Aided Molecular Design of Deep Eutectic Solvents: Challenges and Opportunities</i>	Keynote speaker	Dr. Jecksin Ooi Heriot-Watt University Malaysia
2.20 pm - 2.40 pm	Computational Design of Natural Deep Eutectic Solvent (NADES) to Enhance Skin Penetration of Clotrimazole for Fungal Infections	SOMChE35.181	Assoc Prof. Azizul Azri bin Mustafa
2.40 pm - 3.00 pm	Predicting the Formation of Room-Temperature Liquid Deep Eutectic Solvents using Interpretable Rough Set Machine Learning	SOMChE35.135	Dr. Jecksin Ooi
3.00 pm - 3.20 pm	Computer-Aided Molecular Design of Renewable and Thermally Stable Hydrocarbon Base Oils: A Quasi-PAO Approach for Sustainable Lubricants	SOMChE35.177	Ms Lim Xiao Syuen
3.20 pm - 3.40 pm	Sustainable Carbon Dioxide Capture from Flue Gas Using Ionic Liquids: Process Development and Performance Assessment	SOMChE35.199	Dr. Kanti Kumar Athankar
END OF Session 1			

Day 2, Tuesday, 8th September 2026

Session 2 – Classroom 2

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
1.50 pm - 2.20 pm	<i>Parametric and Kinetic Analysis of Tin Oxide Catalysed Polycondensation of Glycerol with Sebacic Acid</i>	Keynote speaker	Prof. Chin Sim Yee
2.20 pm - 2.40 pm	Development and Experimental Study of an Alginate-Based Hydrogel Agent for Extinguishing Class A and Class B Fires	SOMChE35.170	Mr. Jerell Hoh Shi Heng
2.40 pm - 3.00 pm	Synthesis of Polymer Supported Catalyst: Polystyrene-Hydrazone-Nickel Complex as Catalyst for Carbon-Carbon Coupling Reaction	SOMChE35.164	Dr. Nur Rahimah Binti Said
3.00 pm - 3.20 pm	Functional Robustness of Multi-stimuli-responsive Self-repairing Polyethersulfone (PES) Membrane for Water Filtration	SOMChE35.159	Dr. Wong Eng Cheong
3.20 pm - 3.40 pm	Effect of UV degradation on the Material Characterization and Mechanical Performance of Recycled PET Bottle Filament for Fused Filament Fabrication	SOMChE35.190	Mr. Mohammad Ashraf Bin Nursal
END OF Session 2			

Day 2, Tuesday, 8th September 2026

Session 3 – Classroom 3

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
1.50 pm - 2.20 pm	<i>Materials that Heal: Engineering Bio-Inspired Nanocomposites for Medical Applications</i>	Keynote speaker	Dr. Lim Siew Shee
2.20 pm - 2.40 pm	Size and Charge Selective Filtration Performance of a Self-healing Chitosan/Polyacrylamide-Coated Polyethersulfone Membrane	SOMChE35.158	Ms. Koh Yung Xin
2.40 pm - 3.00 pm	Three-Dimensional Graphene Oxide Composite for Zinc-Nickel Adsorption	SOMChE35.165	Ms. Eve Lai Qin Yi
3.00 pm - 3.20 pm	Deep Eutectic Solvents as a Sustainable Platform for Synthesis of Magnetic Graphene Oxide-COF Adsorbent for PAH Adsorption	SOMChE35.143	Ms. Nurul Imanina binti Zameran
3.20 pm - 3.40 pm	Sustainable Extraction of Nanocrystalline Cellulose through Box-Behnken Optimized Choline Chloride-Oxalic Acid Deep Eutectic Solvent	SOMChE35.136	Ms. Menaga A/P Thmil Selvan
END OF Session 3			

Day 2, Tuesday, 8th September 2026**Session 4 – Classroom 1**

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
4.10 pm - 4.30 pm	Rainwater Harvesting and Smart Water Treatment Integration in a Tropical Net-Zero Carbon Building: A Living Laboratory Case Study at Sunway University	SOMChE35.195	Dr. Karen Kong Gah Hie
4.30 pm - 4.50 pm	Assessing Component Cost Contributions in Emerging Technologies Using AHP	SOMChE35.154	Mr. Mohamad Akmal Mohmad Zaki
4.50 pm - 5.10 pm	Superstructure-Based Mathematical Modelling for Design and Optimisation of Palm Oil Refinery Effluent Wastewater Treatment Plants	SOMChE35.147	Mr. Ryan Soh Zhe Hse
5.10 pm - 5.30 pm	Supply-Reduction Optimization and Resource Allocation in Net Zero Industrial Complexes	SOMChE35.201	Mr. James David A. Abiog
5.30 pm - 5.50 pm	Optimising Resource Allocation Trade-offs for an Integrated Decarbonisation Strategy Across the Food-Energy-Water-Waste Nexus	SOMChE35.176	Ms. Cheng Xin Hui
END OF Session 4			

Day 2, Tuesday, 8th September 2026**Session 5 – Classroom 2**

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
4.10 pm - 4.30 pm	Fabrication of Alginate-Based Membrane with Antimicrobial Properties for Wound Healing Application	SOMChE35.133	Assoc. Prof. Lim Siew Shee
4.30 pm - 4.50 pm	MSLA-Fabricated PEGDA-HEMA/Chitosan Hybrid Monoliths for Efficient Congo Red Adsorption	SOMChE35.173	Ms. Ashreen Norman
4.50 pm - 5.10 pm	Liquid Biphasic Flotation as a Novel Strategy for Efficient Extraction of Betalains from Beetroot	SOMChE35.174	Dr. Revathy Sankaran
5.10 pm - 5.30 pm	Green Extraction of Semi-Polar Volatile Compounds from Salvia Officinalis Leaves	SOMChE35.152	Ms. Hooi Soong Ling
5.30 pm - 5.50 pm	Development of sustainable biofilms using Microcrystalline cellulose from Turmeric outer skin for food packaging application	SOMChE35.205	Dr. D. Divya
END OF Session 5			

Day 2, Tuesday, 8th September 2026

Session 6 – Classroom 3

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
4.10 pm - 4.30 pm	Elucidating the Roles of Organic Matter Chemical Traits and Degradation Dynamics as Drivers of Microbial Priming	SOMChE35.180	Mr. Teoh Jin
4.30 pm - 4.50 pm	Rapid and Precise Method for Microplastic Analysis in Malaysian Bottled Water	SOMChE35.129	Ms. Lim En Qi
4.50 pm - 5.10 pm	Bioelectricity Generation from Fruit Waste in a Dual-Chamber Microbial Fuel Cell	SOMChE35.168	Dr. Thiam Hui San
5.10 pm - 5.30 pm	CO2 Capture and Sequestration: Principles and Simulation of a Supersonic Gas Conditioning System	SOMChE35.141	Mr. Xavier Henry
5.30 pm - 5.50 pm	Experimental optimisation of post-combustion membrane contactor CO2 capture - gas-in-tube vs gas-in-shell configuration	SOMChE35.134	Dr. Hue Seng Hoe
END OF Session 6			

Day 3, Wednesday, 9th September 2026**Session 7 – Classroom 1**

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
10.00 am - 10.30 am	<i>Engineering Ecosystem: Matching Chemical & Bioreactor Solutions to Your Process Needs</i>	Keynote speaker	Mr. Johny Lau
10.30 am - 10.50 am	Demand-Reduction Inoperability Modelling in Net Zero Industrial Clusters	SOMChE35.203	Mr. Mac Joseph B. Rosales
10.50 am - 11.10 am	Graphical Screening of Industrial Decarbonization Options	SOMChE35.151	Prof. Dominic Foo
11.10 am - 11.30 am	Mechanistic Elucidation of Microbial Priming via Coupled Cybernetic and Population Balance Modelling of Organic Matter Degradation Dynamics	SOMChE35.183	Mr. Joel Yow Sun Ee
11.30 am - 11.50 am	Investment and Operational Optimisation of a Dual Carbon Capture with Bioenergy System Using Advanced Control Strategies	SOMChE35.169	Dr. Norhuda Abdul Manaf
11.50 am – 12.10 pm	Multivariate Statistical Approach for Low-Carbon Strategy Optimization in Palm Oil Mills	SOMChE35.161	Mr. Edbert Gervais de Liyis
12.10 pm – 12.30 pm	Comparative Process Simulation and Mass Balance Analysis of an Algae Bio-CCU System Integrated with Gas- and Coal-Fired Power Plants Using SuperPro Designer	SOMChE35.210	Ms. Nur Atikah Syahirah binti Mohd Desa
END OF Session 7			

Day 3, Wednesday, 9th September 2026**Session 8 – Classroom 2**

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
10.00 am - 10.30 am	<i>Advancing lubrication with esters: bridging sustainability and performance</i>	Keynote speaker	Dr. Yen Yee Chong
10.30 am - 10.50 am	Establishing the Economic Value of Empty Fruit Bunch to Inform Valorisation Pathways in Palm Oil Mills	SOMChE35.208	Ms. Hemavathi Silvamany
10.50 am - 11.10 am	Hydrothermal operations of palm empty fruit bunch fibers for value added products	SOMChE35.126	Assoc Prof. Suchithra Thangalazhy-Gopakumar
11.10 am - 11.30 am	Investigating the Effects of Ultrasound Stimulation to Optimise Microalgae Growth and Biomass Composition for Biofuels	SOMChE35.188	Ms. Cheah ZhiWei
11.30 am - 11.50 am	Evaluation of Household Food Waste Co-composting with Biochar	SOMChE35.160	Assoc. Prof. Lau Phei Li
11.50 am – 12.10 pm	Integration of Batch-Derived Kinetic Parameters for Steady-State Performance Prediction of Sequencing Batch Reactors (SBRs)	SOMChE35.128	Dr. Adamu Abubakar Rasheed
12.10 pm – 12.30 pm	Enhanced Electrochemical Reduction of Captured CO ₂ via Synergistic Pb–Sn Bimetallic Catalysts and Amine Electrolytes	SOMChE35.127	Prof. Abdelbaki Benamor
END OF Session 8			

Day 3, Wednesday, 9th September 2026**Session 9 – Classroom 3**

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
10.00 am - 10.30 am	<i>Evaluation of total suspended solids removal in coal mine wastewater by chemical and electrochemical methods</i>	Keynote speaker	Assoc. Prof. Gulnaziya Issabayeva
10.30 am - 10.50 am	An Innovative Approach to Enhanced Oil Recovery from Oily Wastewater Using Coalescing Technology and Recycle Stream Integration	SOMChE35.209	Mrs. Eunice Ong May Hoong
10.50 am - 11.10 am	Kinetic Modelling of Methane Yield in Biochar-Enhanced Food Waste Anaerobic Digestion	SOMChE35.194	Mr. Loh Wai Hong
11.10 am - 11.30 am	Co-digestion of Rabbit Manure with Food Waste for Biogas Production in Anaerobic Batch Digestion Process	SOMChE35.197	Ir. Dr. Ayu Haslija Abu Bakar
11.30 am - 11.50 am	A Review of Methane Yield from Anaerobic Digestion of Food Waste in Tropical Asia	SOMChE35.157	Assoc. Prof. Chan Yi Jing
11.50 am – 12.10 pm	Evaluation of Menthol:Lauric Acid Hydrophobic Deep Eutectic Solvent in The Removal of Malachite Green from Water	SOMChE35.179	Mr. Sim Wei Jun
12.10 pm – 12.30 pm	Integrating Water Desalination into Chemical Engineering Curriculum: A Pioneering Program	SOMChE35.172	Prof. Mohd Sobri Takriff
END OF Session 9			

Day 3, Wednesday, 9th September 2026**Session 10 – Classroom 1**

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
2.00 pm – 2.20 pm	Data-Driven Process Safety Analytics Using Multimodal Machine Learning on OSHA Severe Injury Reports	SOMChE35.146	Dr. Senthil Kumar Arumugasamy
2.20 pm -2.40 pm	A Statistically Informed Machine Learning Framework for Robust Air Quality Forecasting	SOMChE35.139	Dr. Gs. Ts. Dr Hayana Dullah
2.40 pm - 3.00 pm	Enhancement of Energy Efficiency for Chilled Water Networks in Existing University Building	SOMChE35.211	Dr. Dalila Alias
3.00 pm - 3.20 pm	Carbon-constrained multiple energy resources targeting with supply limits using the Pinch analysis approach	SOMChE35.193	M. U. Ashna
3.20 pm - 3.40 pm	Oil Palm Bioenergy in Malaysia's National Energy Transition Roadmap: A Fuel Diversification Approach for Climate Resilience	SOMChE35.137	Mr. Clarence Lau Yii Fang
3.40 pm – 4.00 pm	Modeling Energy Trade-Offs Enables Prediction of Dynamic Switching of Metabolic States in the Polyhydroxyalkanoate Cycle of <i>Pseudomonas putida</i>	SOMChE35.140	Ms. Marcelina Alexandra Wibowo
END OF Session 10			

Day 3, Wednesday, 9th September 2026**Session 11 – Classroom 2**

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
2.00 pm – 2.20 pm	Sustainable Valorisation of Moringa oleifera and Palm Kernel Expeller for Poultry Feed	SOMChE35.178	Dr. Ong Sze Pheng
2.20 pm -2.40 pm	Effect of Salt and Sugar Additives on Okra Protein Functionality and Cake Hardness	SOMChE35.185	Ms. Low Suk Khe
2.40 pm - 3.00 pm	Comparative Study of Extraction Methods and Phytochemical Characterization of Senna Alata Essential Oil	SOMChE35.206	Ts. Dr. Nabihah binti Abdullah
3.00 pm - 3.20 pm	Investigating the Impact of Initial Concentration and Cycle Frequency on the Efficiency of Progressive Freeze Concentration	SOMChE35.212	Assoc. Prof. Mazura Jusoh
3.20 pm - 3.40 pm	Production of Cookies from Composite Wheat and Plantain Flour using Peanut Paste as a Fat Replacer	SOMChE35.148	Prof. Sunday Boladale Alabi
3.40 pm – 4.00 pm	Voltammetric Detection of Amoxicillin Residue in Milk at Nanohybrid Modified Screen Printed Electrode	SOMChE35.131	Dr. Aliyu Muhammad
END OF Session 11			

Day 3, Wednesday, 9th September 2026

Session 12 – Classroom 3

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
2.00 pm – 2.20 pm	Palm Oil-Based Tocotrienols Double Emulsion Encapsulation Using Needle-Based Microfluidic Device	SOMChE35.149	Dr. Koh Kai Seng
2.20 pm -2.40 pm	Tailoring Lateral Sizes of Ionic Liquid Functionalized Graphene Oxide in Pebax Mixed Matrix Membrane for Efficient Carbon Capture	SOMChE35.184	Dr. Tan Peng Chee
2.40 pm - 3.00 pm	Binary Adsorption of Calcium and Cobalt onto Porous Graphene-based Composite	SOMChE35.167	Prof. Lee Lai Yee
3.00 pm - 3.20 pm	Regeneration and Reuse of Activated Carbon for Dye Adsorption under Ambient Conditions Using Dilute Chemical Solutions	SOMChE35.162	Dr. Anis Suhaila Shuib
3.20 pm - 3.40 pm	Application of Graphene Oxide Aerogel for the Continuous Removal of Iron and Aluminium	SOMChE35.166	Prof. Gan Suyin
3.40 pm – 4.00 pm	Hepatotoxicity of Gold Nanoparticles in HepG2 Cells Dependent on Size: Mechanistic Assessment of Oxidative Stress, Apoptotic Cell Death, and Cytotoxicity	SOMChE35.204	Dr. Priyadarshini Mohapatra
END OF Session 12			

Poster Session

PRESENTATION TITLE	PAPER ID	PRESENTER
Multi-Period Demand-Side Planning of Quality-Constrained Carbon Credit Procurement Using Pinch Analysis	SOMChE35.155	Ms. Rachel Yii Xi En
Managing Conflicting Goals between Carbon Trading Stakeholders using Quality-Driven Carbon Credit Pinch Analysis	SOMChE35.156	Ms. Delia Cheng Yi Shi
Temperature-inferred stoichiometric ratio control in extractive-reactive distillation	SOMChE35.132	Mr. Xuan Liang Choo
Process Simulation and Validation of a 750 MW Malaysian CCGT Power Plant for Flexible Operation Under Energy Transition Challenges	SOMChE35.182	Ms. Siti Sorfina Johari
Process Integration of Dark Fermentation and Microbial Electrolysis Cell to Enhance Hydrogen Production from Palm Oil Mill Effluent	SOMChE35.142	Mr. Yong Kai Yu
Process Integration of Dark Fermentation and Microbial Electrolysis Cell to Enhance Hydrogen Production from Palm Oil Mill Effluent	SOMChE35.142	Mr. Yong Kai Yu
Liquid-Liquid Extraction for the Separation of Binary Mixture Composed of Acetonitrile and Benzene with Emim-Based Ionic Liquids	SOMChE35.130	Dr. Ianatul Khoiroh
Comprehensive Kinetic, Isotherm and Thermodynamic Analysis of an Adsorption System in Aqueous Media	SOMChE35.200	Dr. Amal Benhathat
Design of Optimal Lubricants through Computer-Aided Approach	SOMChE35.213	Mr. Chong Xian Zhuang
Thermo-Mechanical Analysis of Fire-Exposed Type C LNG Tanks: Evaluation of BLEVE-Related Failure Conditions	SOMChE35.171	Ms. Ibtehal Mohamed Abuzaid
Consequence Modelling and Sensitivity Analysis of Alternative Fuel Releases in Maritime Storage and Transfer Systems	SOMChE35.163	Ms. Iman Mazin Alogaili
Process Hazard Analysis of the Ammonia Import Pipeline at Fertilizer Industry Using an Integrated HAZOP – LOPA – Bow-Tie Framework	SOMChE35.186	Mr. Bona Dwijaya Sakti
Study Case: Ammonia Leaks via Marine Loading Arm (MLA) during Transfer	SOMChE35.187	Mr. Bona Dwijaya Sakti
Ionic Liquid-Driven Synthesis of Barium Sulphate Nanoparticles Using 1-Ethyl-3-methylimidazolium Chloride	SOMChE35.192	Dr. Megawati Zunita
Colorimetric Detection of Lead (Pb ²⁺) In Synthetic Blood Serum Using Sodium Rhodizonate: Development of A Rapid Point-Of-Care Screening Method	SOMChE35.196	Athar Shihab
Light-Tunable Activation Barriers in Bimetallic Plasmonic Photocatalysis	SOMChE35.202	Dr. Kishan Menghrajani
END OF Session		