

SYMPOSIUM OF MALAYSIAN CHEMICAL ENGINEERS

SOMChE 2026

35th Edition

“Intelligent and Integrated Chemical Engineering for Global Challenges”

CONFERENCE PROGRAMME

7 – 9 September 2026

Sunway University, Malaysia

Hosted by the School of Engineering, Faculty of Engineering and Technology,
Sunway University Malaysia, in collaboration with IChemE Malaysia



IChemE

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FOREWORD by the President and Vice Chancellor of Sunway University

It is my pleasure to extend a warm welcome to all distinguished speakers, guests, and participants at the 35th Symposium of Malaysian Chemical Engineers (SOMChE 2026). It is both a privilege and an honour for Sunway University to host this prestigious symposium and to bring together a diverse community of chemical engineers, researchers, academics, and industry professionals.

In a rapidly changing world, chemical engineering continues to play a vital role in addressing global challenges through innovation, sustainability, and technological advancement. SOMChE 2026 provides an important platform for the exchange of cutting-edge research, emerging ideas, and transformative solutions in areas ranging from sustainable processes and resource efficiency to digitalisation, artificial intelligence, and advanced engineering technologies. Addressing these complex challenges requires not only scientific excellence, but also strong collaboration across disciplines, institutions, and industries.

At Sunway University, we are committed to advancing research, education, and innovation that contribute to sustainable development and positive societal impact. Guided by our commitment to the United Nations Sustainable Development Goals and planetary health, we continue to promote interdisciplinary research and meaningful collaborations that translate knowledge into solutions for a better future. Hosting SOMChE 2026 reflects our dedication to strengthening the chemical engineering community and creating opportunities for collaboration at both national and international levels.

I would like to express my sincere appreciation to the organising committee, invited speakers, session chairs, paper contributors, sponsors, and all those who have contributed their time and expertise towards making SOMChE 2026 a success. Your dedication and commitment have been instrumental in ensuring the success of this symposium.

I look forward to the fruitful discussions, inspiring exchanges, and impactful collaborations that will emerge from this gathering. I wish all participants a rewarding, engaging, and successful SOMChE 2026.



Professor Sibrandes Poppema

President and Vice-Chancellor
Sunway University

A note from the Conference Chair

It gives me great pleasure to welcome all participants to the 35th Symposium of Malaysian Chemical Engineers (SOMChE 2026). On behalf of the organising committee, I am delighted to welcome researchers, academics, industry professionals, and students to Sunway University for this important gathering of the chemical engineering community.

SOMChE has always been a valuable platform for sharing knowledge, presenting new research findings, and building connections among chemical engineers across Malaysia and beyond. This year's symposium brings together a wide range of contributions that highlight the continuous evolution of chemical engineering and its important role in addressing global challenges.

The theme of SOMChE 2026, “Intelligent and Integrated Chemical Engineering for Global Challenges”, reflects the growing need for innovative approaches that combine engineering principles with emerging technologies and sustainable practices. As our discipline continues to advance, collaboration between academia and industry will be essential in developing solutions that improve efficiency, sustainability, and societal impact.

As Conference Chair, I am especially grateful to the members of the organising committee for their dedication, teamwork, and tireless efforts throughout the preparation of SOMChE 2026. I would also like to thank our reviewers, invited speakers, sponsors, and contributors for their valuable support and participation. It is through the collective efforts of everyone involved that we are able to bring together such a vibrant and engaging programme for the chemical engineering community.

I hope SOMChE 2026 will provide an engaging environment for meaningful discussions, knowledge exchange, and the establishment of new collaborations. I wish all participants a productive and memorable symposium experience.

Thank you, and I warmly welcome you to SOMChE 2026.



Professor Nishanth Gopalakrishnan Chemmangattuvalappil

Professor

School of Engineering, Faculty of Engineering and Technology, Sunway University

Conference Chair, SOMChE'26

About SOMChE 2026

The Symposium of Malaysian Chemical Engineers (SOMChE) has established itself as a key platform for the chemical engineering community to connect, exchange knowledge, and discuss advancements shaping the future of the discipline. Since its inception, SOMChE has brought together researchers, academics, industry practitioners, and students to share ideas, strengthen collaborations, and showcase contributions that address challenges faced by society.

The 35th edition of SOMChE, hosted by the School of Engineering, Sunway University Malaysia, in collaboration with IChemE Malaysia, continues this tradition by focusing on the theme **“Intelligent and Integrated Chemical Engineering for Global Challenges”**.

As chemical engineering continues to evolve, the integration of emerging technologies, sustainable practices, and multidisciplinary approaches has become increasingly important. SOMChE 2026 highlights how innovation in areas such as artificial intelligence, process systems engineering, sustainable technologies, circular economy, advanced materials, and digital transformation can contribute to the development of more efficient, resilient, and sustainable solutions.

Conference Topics

- Bioprocess Engineering and Biotechnology
- Chemical Engineering Education and Professional Development
- Computational Methods in Chemical Engineering
- Environmental Impact and Green Chemistry
- Food and Pharmaceutical Engineering
- Materials and Corrosion Science
- Nanotechnology Applications in Chemical Engineering
- Particle Production and Characterisation
- Polymer Science and Engineering
- Process and Product Synthesis and Design
- Process Intensification and Optimisation
- Process Safety and Risk Management
- Renewable Energy and Biochemical Engineering
- Smart Manufacturing and Industry 4.0 in Chemical Engineering
- Sustainable Palm Oil Production and Processing

OUR SPONSORS:



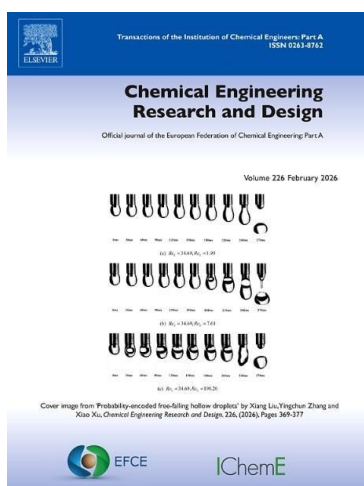
Format

The Conference technical program is structured into three parallel sessions, along with a dedicated poster presentation session.

CONFERENCE CONTRIBUTIONS

CATEGORY	NUMBER
Oral	68
Poster	8
Total	76

SPECIAL ISSUES



Chemical Engineering Research & Design



Processes

COMMITTEE MEMBERS

SCIENTIFIC COMMITTEE

Prof. Dominic Foo University of Nottingham Malaysia	Assoc. Prof. Ianatul Khoiroh University of Nottingham Malaysia
Assoc. Prof. Suchithra Thangalazhy Gopakumar University of Nottingham Malaysia	Prof. Jaka Sunarso Swinburne University of Technology Sarawak Campus
Prof. Viknesh Andiappan Swinburne University of Technology Sarawak Campus	Assoc. Prof. How Bing Shen Swinburne University of Technology Sarawak Campus
Dr. Mohd Fadhil Majnis Universiti Teknologi MARA	Dr. Jecksin Ooi Heriot-Watt University Malaysia
Assoc. Prof. Mimi Hassim Universiti Teknologi Malaysia	Prof. Lau Woei Jye Universiti Teknologi Malaysia
Prof. Wan Azlina Universiti Putra Malaysia	Prof. Su Shiung Lam Universiti Malaysia Terengganu
Prof. Lim Jit Kang Universiti Sains Malaysia	Dr. Nor Adilla Rashidi Universiti Teknologi PETRONAS
Prof. Ong Wee Jun Xiamen University Malaysia	Prof. Yong Wai Fen Xiamen University Malaysia
Prof. Ir. Chai Siang Piao Monash University	Dr. Tan Jully Monash University
Dr. Tan Lling-Lling Monash University	Assoc. Prof. Pang Yean Ling Universiti Tunku Abdul Rahman
Ir. Dr. Chong Woon Chan Universiti Tunku Abdul Rahman	Dr. Sum Jing Yao UCSI University
Dr. Eric Chan Wei Chiang UCSI University	Ir. Dr. Chow Yin Hui Taylor's University
Ir. Ts. Dr. Low Jiun Hor Taylor's University	Dr. Sureena Binti Abdullah Universiti Malaysia Pahang Al-Sultan Abdullah
Assoc. Prof. Ir. Teoh Wey Yang University of Malaya	Prof. Adeline Chua Seak May University of Malaya
Prof. Ts. Loh Kee Shyuan Universiti Kebangsaan Malaysia	Assoc. Prof. Wong Wai Yin Universiti Kebangsaan Malaysia
Assoc. Prof. Bridgid Chin Lai Fui Curtin University Malaysia	Ts. Dr. Mustakimah Binti Mohamed Curtin University Malaysia
Dr. Azlin Suhaida Azmi International Islamic University Malaysia	Assoc. Prof. Norliza Abd Rahman Universiti Kebangsaan Malaysia
Prof. Ir. Dr. Siti Kartom Kamarudin Universiti Kebangsaan Malaysia	Ir. Rafil Elyas EAST101
Dr. Zulfan Adi Putra ExxonMobil	Noor Akmawati Mohd Noor Tenaga Nasional Berhad Research
Nur Salwa Binti Ahmad Sani Tenaga Nasional Berhad Research	Ir. Dr. Edwin Lim Chun Hsion Heriot-Watt University Malaysia
Dr. Raymond Ooi Oleology Australia	Prof. Raymond Tan De La Salle University Philippines
Assoc. Prof. Jui-Yuan Lee National Cheng Kung University Taiwan	Prof. Santanu Bandyopadhyay Indian Institute of Technology Bombay India

Prof. Mohamed Kheireddine Aroua Fahd University of Petroleum and Minerals Saudi Arabia	Prof. Adarsh Kumar Pandey United Arab Emirates University Abu Dhabi
Dr. Florence Jong Tsinghua Shenzhen International Graduate School China	Assoc. Prof. Tannaz Park Teesside University United Kingdom
Prof. Sivakumar Manickam Universiti Teknologi Brunei Brunei	Prof. Liao Zuwei Zhejiang University China
Dr. Hong Xiaodong Zhejiang University China	Assoc. Prof. Sun Jin Guangdong University of Petrochemical Technology China
Dr. Shirleen Lo Lee Yuen National University of Singapore Singapore	Dr. Kok Sin Woon Hong Kong University of Science and Technology Hong Kong
Prof. Liu Pei Tsinghua University China	Prof. Dr. Kathleen Aviso De La Salle University Manila Philippines
Prof. Ren Jing Zheng The Hong Kong Polytechnic University Hong Kong	Ir. Dr. Tan Yie Hua Universiti Teknologi Brunei Brunei

ORGANISING COMMITTEE



Prof. Nishanth Chemmangattuvalappil
Chairperson



Assoc. Prof. Ir. Dr Lik Yin Ng
Vice Chairperson



Prof. Ir. Denny Ng Kok Sum
Advisor



Prof. Ir Suzana Yusup
Advisor



Ir Dr Li Wan Yoon
Secretary



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Prof. Saidur Rahman
Publicity



Prof. Numan Arshid
Publicity



Ts. Dr. Dalila Alias
Publication Manager



Assoc. Prof Ir. Dr. Bee Lin Chua
Publication Manger



Assoc. Prof. Ts. Dr Farihahusnah Hussin
Logistics



Ir Dr Ayu Haslija Abu Bakar
Participants/Abstract



Ms. Jinny Foo
Committee



Ms. Pei Yeng Chai
Logistics

PLENARY SPEAKERS



Dr. Khalik Mohamad Sabil

Senior Manager, Academic Alliance
Unit, PETRONAS Research Sdn Bhd

Beyond Intelligent Systems: The Mindset Driving Integrated Chemical Engineering for Global Challenges



Prof. Santanu Bandyopadhyay

Praj Industries Chair Professor,
Department of Energy Science and
Engineering
Indian Institute of Technology Bombay
(IIT Bombay)

Sustainability Assessment: A Process Systems Engineering Perspective



Professor Suzana Yuzup

Professor, School of Engineering
Sunway University

Redefining Chemical Engineering Education in the Era of Global Challenges: A paradigm shift'

KEYNOTE SPEAKERS



Assoc. Prof. Dr. Siew Shee Lim

University of Nottingham Malaysia

Materials that Heal: Engineering Bio-Inspired Nanocomposites for Medical Applications



Dr. Jacksin Ooi

Heriot-Watt University Malaysia

Computer Aided Molecular Design of Deep Eutectic Solvents: Challenges and Opportunities



Prof. Sim Yee Chin

Universiti Malaysia Pahang Al-Sultan Abdullah

Parametric and Kinetic Analysis of Tin Oxide Catalysed Polycondensation of Glycerol with Sebacic Acid



Assoc. Prof. Gulnaziya Issabayeva

Universiti Tunku Abdul Rahman

Evaluation of total suspended solids removal in coal mine wastewater by chemical and electrochemical methods



Dr Yen Yee Chong

Oleon

Advancing lubrication with esters: bridging sustainability and performance



Mr Johnny Lau

IKA

Engineering Ecosystem: Matching Chemical & Bioreactor Solutions to Your Process Needs

Conference Programme

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	JC2 Hall, Level 1, University Building
9.10 am – 9.50 am	Officiating Remarks by Prof. Abhimanyu Veerakumarasivam, Provost and Deputy Vice-Chancellor 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 Token of Appreciation	
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 Sustainability Assessment: A Process Systems Engineering Perspective	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 Beyond Intelligent Systems: The Mindset Driving Integrated Chemical Engineering for Global Challenges	JC2 Hall, Level 1, University Building
1:50 pm – 3.40 pm	Session 1	LT5

TIME	PROGRAMME	VENUE
	Session 2	LT6
	Session 3	LT7
3.40 pm – 4.10 pm	Coffee Break	
	Session 4	LT5
4:10 pm – 6.10 pm	Session 5	LT6
	Session 6	LT7
END OF DAY 2		

Day 3, Wednesday, 9th September 2026

TIME	PROGRAMME	VENUE
9.00 am – 9.50 am	Plenary Talk 3 Prof. Ir. Suzana Yusup Sunway University Redefining Chemical Engineering Education in the Era of Global Challenges: A paradigm shift'	JC2 Hall, Level 1, University Building
9.50 am – 10.20 am	Coffee Break	Gallery, Level 1, University Building
10.20 am – 12.30 pm	Session 7	LT5
	Session 8	LT6
	Session 9	LT7
12.30 pm – 1.30 pm	Lunch	Gallery, Level 1, University Building
1.30 pm – 2.00 pm	Book Launch <i>Book 1: Introduction to Chemical Product Design</i> <i>Book 2: Industrial Water Conservation: Systematic Design Tools and Case Studies</i>	JC2 Hall, Level 1, University Building
2.00 pm – 2.15 pm	Journal presentation by MDPI	JC2 Hall, Level 1, University Building
2.15 pm – 3.55 pm	Session 10	LT5
	Session 11	LT6
	Session 12	LT7
4.00 pm – 4.45 pm	Closing Remarks	JC2 Hall, Level 1, University Building
END OF DAY 3		

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 – LT5 [Session chairs: Dr Wan Yoke Kin, Prof Kaye Aviso]

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. Jacksin Ooi <i>Heriot-Watt University Malaysia</i>
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 Mustaffa <i>Universiti Teknologi Malaysia</i>
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. Jacksin Ooi <i>Heriot-Watt University Malaysia</i>
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 <i>Sunway University</i>
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 <i>IPS Academy, Institute of Engineering & Science Indore (M.P.), India</i>
END OF SESSION 1			

DAY 2, TUESDAY, 8TH SEPTEMBER 2026

Session 2 – LT6 [Session chairs: Ts. Dr. Nabihah binti Abdullah, Assoc Prof Ianatul Khoiroh]

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 <i>University Malaysia Pahang Al-Sultan Abdullah</i>
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 <i>Xiamen University Malaysia</i>
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 <i>Universiti Teknologi MARA</i>
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 <i>MILA University</i>
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 <i>Universiti Brunei Darussalam</i>
END OF SESSION 2			

DAY 2, TUESDAY, 8TH SEPTEMBER 2026

Session 3 – LT7 [Session chairs: Dr Yoon Li Wan, Assoc. Prof. Gulnaziya Issabayeva]

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 <i>University of Nottingham Malaysia</i>
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 <i>Universiti Tunku Abdul Rahman</i>
2.40 pm – 3.00 pm	Three-Dimensional Graphene Oxide Composite for Zinc-Nickel Adsorption	SOMChE35.165	Ms. Eve Lai Qin Yi <i>University of Nottingham Malaysia</i>
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 <i>Universiti Kebangsaan Malaysia</i>
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 <i>Universiti Malaysia Perlis</i>
END OF SESSION 3			

DAY 2, TUESDAY, 8TH SEPTEMBER 2026

Session 4 – LT5 [Session chairs: Assoc Prof Ng Lik Yin, Dr Dalila Alias]

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
4.10 pm – 4.30 pm	Carbon-constrained multiple energy resources targeting with supply limits using the Pinch analysis approach	SOMChE35.193	Prof. Santanu Bandyopadhyay <i>Indian Institute of Technology Bombay</i>
4.30 pm – 4.50 pm	Assessing Component Cost Contributions in Emerging Technologies Using AHP	SOMChE35.154	Mr. Mohamad Akmal Mohamad Zaki <i>Heriot-Watt University Malaysia</i>
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 <i>University of Nottingham Malaysia</i>
5.10 pm – 5.30 pm	Supply-Reduction Optimization and Resource Allocation in Net Zero Industrial Complexes	SOMChE35.201	Mr. James David A. Abiog <i>De La Salle University</i>
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 <i>Swinburne University of Technology Sarawak</i>
5.50 pm – 6.10 pm	Investment and Operational Optimisation of a Dual Carbon Capture with Bioenergy System Using Advanced Control Strategies	SOMChE35.169	Dr. Norhuda Abdul Manaf <i>Universiti Teknologi Malaysia</i>
END OF SESSION 4			

DAY 2, TUESDAY, 8TH SEPTEMBER 2026

Session 5 – LT6 [Session chairs: Assoc Prof Chua Bee Lin, Assoc Prof Lim Siew Shee]

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 <i>University of Nottingham Malaysia</i>
4.30 pm – 4.50 pm	MSLA-Fabricated PEGDA-HEMA/Chitosan Hybrid Monoliths for Efficient Congo Red Adsorption	SOMChE35.173	Ms. Ashreen Norman <i>Heriot-Watt University Malaysia</i>
4.50 pm – 5.10 pm	Liquid Biphasic Flotation as a Novel Strategy for Efficient Extraction of Betalains from Beetroot	SOMChE35.174	Mr Abdirahman Yasin Ibrahim <i>UCSI University</i>
5.10 pm – 5.30 pm	Comparative Study of Extraction Methods and Phytochemical Characterization of Senna Alata Essential Oil	SOMChE35.206	Ts. Dr. Nabihah binti Abdullah <i>University College TATI</i>
5.30 pm – 5.50 pm	Phosphorus Adsorption using Lignin-derived Activated Carbon via Calcium Hydroxide Activation for Domestic Wastewater Treatment	SOMChE35.215	Ms Nurain Azman <i>Universiti Teknologi Malaysia</i>
5.50 pm – 6.10 pm	Production of Cookies from Composite Wheat and Plantain Flour using Peanut Paste as a Fat Replace	SOMChE35.148	Prof. Sunday Boladale Alabi <i>University of Uyo</i>
END OF SESSION 5			

DAY 2, TUESDAY, 8TH SEPTEMBER 2026

Session 6 – LT7 [Session chairs: Assoc Prof Ong Sze Pheng, Dr. Kanti Kumar Athankar]

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 <i>Taylor's University</i>
4.30 pm – 4.50 pm	Rapid and Precise Method for Microplastic Analysis in Malaysian Bottled Water	SOMChE35.129	Ms. Lim En Qi <i>AMTEC, UTM</i>
4.50 pm – 5.10 pm	Bioelectricity Generation from Fruit Waste in a Dual-Chamber Microbial Fuel Cell	SOMChE35.168	Ms Koh Ee Ling <i>Universiti Tunku Abdul Rahman</i>
5.10 pm – 5.30 pm	CO ₂ Capture and Sequestration: Principles and Simulation of a Supersonic Gas Conditioning System	SOMChE35.141	Mr. Xavier Henry <i>Sunway University</i>
5.30 pm – 5.50 pm	Experimental optimisation of post-combustion membrane contactor CO ₂ capture - gas-in-tube vs gas-in-shell configuration	SOMChE35.134	Dr. Hue Seng Hoe <i>Petronas Research Sdn Bhd</i>
END OF SESSION 6			

DAY 3, WEDNESDAY, 9TH SEPTEMBER 2026

Session 7 – LT5 [Session chairs: Prof. Santanu Bandyopadhyay, Dr. Edwin Lim]

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
10.20 am – 10.50 am	<i>Engineering Ecosystem: Matching Chemical & Bioreactor Solutions to Your Process Needs</i>	Keynote speaker	Mr. Johnny Lau IKA
10.50 am – 11.10 am	Demand-Reduction Inoperability Modelling in Net Zero Industrial Clusters	SOMChE35.203	Mr. Mac Joseph B. Rosales De La Salle University
11.00 am – 11.30 am	Graphical Screening of Industrial Decarbonization Options	SOMChE35.151	Prof. Dominic Foo University of Nottingham Malaysia
11.30 am – 11.50 am	Carbon-constrained multiple energy resources targeting with supply limits using the Pinch analysis approach	SOMChE35.195	Dr. Karen Kong Gah Hie Sunway University
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 Universiti Teknologi Malaysia
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 TNB Research Sdn. Bhd
END OF SESSION 7			

DAY 3, WEDNESDAY, 9TH SEPTEMBER 2026

Session 8 – LT6 [Session chairs: Prof Suzana Yusup, Dr Farihahusna Hussin]

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
10.20 am – 10.50 am	<i>Advancing lubrication with esters: bridging sustainability and performance</i>	Keynote speaker	Dr. Yen Yee Chong Oleon Port Klang
10.50 am – 11.10 am	Establishing the Economic Value of Empty Fruit Bunch to Inform Valorisation Pathways in Palm Oil Mills	SOMChE35.208	Ms. Hemavathi Silvamany SD Guthrie Research Sdn Bhd
11.00 am – 11.30 am	Hydrothermal operations of palm empty fruit bunch fibers for value added products	SOMChE35.126	Assoc Prof. Suchithra Thangalazhy-Gopakumar University of Nottingham Malaysia
11.30 am – 11.50 am	Investigating the Effects of Ultrasound Stimulation to Optimise Microalgae Growth and Biomass Composition for Biofuels	SOMChE35.188	Ms. Cheah Zhi Wei Monash University Malaysia
11.50 am – 12.10 pm	Evaluation of Household Food Waste Co-composting with Biochar	SOMChE35.160	Assoc. Prof. Lau Phei Li University of Nottingham Malaysia
12.10 pm – 12.30 pm	Mechanistic Elucidation of Microbial Priming via Coupled Cybernetic and Population Balance Modelling of Organic Matter Degradation Dynamics	SOMChE35.183	Mr. Joel Yow Sun Ee Taylor's University
END OF SESSION 8			

DAY 3, WEDNESDAY, 9TH SEPTEMBER 2026

Session 9 – LT7 [Session chairs: Dr. Anis Suhaila Shuib, Dr Tan Peng Chee]

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
10.20 am – 10.50 am	<i>Evaluation of total suspended solids removal in coal mine wastewater by chemical and electrochemical methods</i>	Keynote speaker	Assoc. Prof. Gulnaziya Issabayeva <i>Universiti Tunku Abdul Rahman</i>
10.50 am – 11.10 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 <i>OLEOLOGY Asia Sdn Bhd</i>
11.00 am – 11.30 am	Influence of Inoculum Source on Biogas Production and Kinetic Behaviour during Anaerobic Digestion of Food Waste	SOMChE35.194	Mr. Loh Wai Hong <i>University of Nottingham Malaysia</i>
11.30 am – 11.50 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 <i>Sunway University</i>
11.50 am – 12.10 pm	A Review of Methane Yield from Anaerobic Digestion of Food Waste in Tropical Asia	SOMChE35.157	Mr. Ivan Chong Zhao Jer <i>University of Nottingham Malaysia</i>
12.10 pm – 12.30 pm	Evaluation of Menthol:Lauric Acid Hydrophobic Deep Eutectic Solvent in The Removal of Malachite Green from Water	SOMChE35.179	Mr. Sim Wei Jun <i>Universiti Tunku Abdul Rahman</i>
END OF SESSION 9			

DAY 3, WEDNESDAY, 9TH SEPTEMBER 2026

Session 10 – LT5 [Session chairs: Prof Dominic Foo, Dr Jacksin Ooi]

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
2.15 pm – 2.35 pm	Data-Driven Process Safety Analytics Using Multimodal Machine Learning on OSHA Severe Injury Reports	SOMChE35.146	Dr. Senthil Kumar Arumugasamy <i>University of Nottingham Malaysia</i>
2.35 pm – 2.55 pm	A Statistically Informed Machine Learning Framework for Robust Air Quality Forecasting	SOMChE35.139	Mr Xin Ming Tan <i>Sunway University</i>
2.55 pm – 3.15 pm	Enhancement of Energy Efficiency for Chilled Water Networks in Existing University Building	SOMChE35.211	Dr. Dalila Alias <i>Sunway University</i>
3.15 pm – 3.35 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 <i>Swinburne University of Technology Sarawak</i>
3.35 pm – 3.55 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 <i>Taylor's University</i>
END OF SESSION 10			

DAY 3, WEDNESDAY, 9TH SEPTEMBER 2026

Session 11 – LT6 [Session chairs: Dr. Nur Rahimah Binti Said, Assoc Prof Lau Phei Li]

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
2.15 pm – 2.35 pm	Sustainable Valorisation of Moringa oleifera and Palm Kernel Expeller for Poultry Feed	SOMChE35.178	Dr. Ong Sze Pheng <i>University of Nottingham Malaysia</i>
2.35 pm – 2.55 pm	Effect of Salt and Sugar Additives on Okra Protein Functionality and Cake Hardness	SOMChE35.185	Ms. Low Suk Khe <i>Xiamen University Malaysia</i>
2.55 pm – 3.15 pm	Green Extraction of Semi-Polar Volatile Compounds from Salvia Officinalis Leaves	SOMChE35.152	Ms. Hooi Soong Ling <i>Sunway University</i>
3.15 pm – 3.35 pm	Operational Strategies and Kinetic Tuning of Ternary Alkali Nitrate-Promoted MgO Sorbents for Low-Concentration CO ₂ Capture	SOMChE35.216	Dr Yeow Hong Yap <i>Universiti Tunku Abdul Rahman</i>
3.35 pm – 3.55 pm	Investigating the Impact of Initial Concentration and Cycle Frequency on the Efficiency of Progressive Freeze Concentration	SOMChE35.212	Assoc. Prof. Mazura Jusoh <i>Universiti Teknologi Malaysia</i>
END OF SESSION 11			

DAY 3, WEDNESDAY, 9TH SEPTEMBER 2026

Session 12 – LT7 [Session chairs: Assoc Prof Chan Yi Jing, Dr. Ayu Haslija Abu Bakar]

TIME	PRESENTATION TITLE	PAPER ID	PRESENTER
2.15 pm – 2.35 pm	Palm Oil-Based Tocotrienols Double Emulsion Encapsulation Using Needle-Based Microfluidic Device	SOMChE35.149	Prof. Ren Yong <i>University of Nottingham Ningbo</i>
2.35 pm – 2.55 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 <i>Xiamen University Malaysia</i>
2.55 pm – 3.15 pm	Binary Adsorption of Calcium and Cobalt onto Porous Graphene-based Composite	SOMChE35.167	Prof. Lee Lai Yee <i>University of Nottingham Malaysia</i>
3.15 pm – 3.35 pm	Regeneration and Reuse of Activated Carbon for Dye Adsorption under Ambient Conditions Using Dilute Chemical Solutions	SOMChE35.162	Dr. Anis Suhaila Shuib <i>Universiti Teknologi PETRONAS</i>
3.35 pm – 3.55 pm	Application of Graphene Oxide Aerogel for the Continuous Removal of Iron and Aluminium	SOMChE35.166	Prof. Gan Suyin <i>University of Nottingham Malaysia</i>
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 <i>Swinburne University of Technology Sarawak Campus</i>
Managing Conflicting Goals between Carbon Trading Stakeholders using Quality-Driven Carbon Credit Pinch Analysis	SOMChE35.156	Ms. Delia Cheng Yi Shi <i>Swinburne University of Technology Sarawak Campus</i>
Temperature-inferred stoichiometric ratio control in extractive-reactive distillation	SOMChE35.132	Mr. Xuan Liang Choo <i>Sunway University</i>
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 <i>TNB Research</i>
Process Integration of Dark Fermentation and Microbial Electrolysis Cell to Enhance Hydrogen Production from Palm Oil Mill Effluent	SOMChE35.142	Mr. Yong Kai Yu <i>Sunway University</i>
Prediction and Optimisation of Food Waste Anaerobic Digestion Using Artificial Neural Network and Genetic Algorithm	SOMChE35.198	Assoc. Prof. Chan Yi Jing <i>University of Nottingham Malaysia</i>
Liquid-Liquid Extraction for the Separation of Binary Mixture Composed of Acetonitrile and Benzene with Emim-Based Ionic Liquids	SOMChE35.130	Dr. lanatul Khoiroh <i>University of Nottingham Malaysia</i>
Design of Optimal Lubricants through Computer-Aided Approach	SOMChE35.213	Mr. Chong Xian Zhuang <i>Sunway University</i>
END OF SESSION		

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