



اونيورسيتي مليسيا قهغ السلطان عبد الله
UNIVERSITI MALAYSIA PAHANG
AL-SULTAN ABDULLAH



Energy Security & Chemical Engineering Congress

ENERGY SECURITY AND CHEMICAL ENGINEERING CONGRESS 2023

*Green Technological Solutions
for Sustainable World*
28th – 30th August 2023

Tentative Programme

Organizer



اونيورسيتي مليسيا قهغ السلطان عبد الله
UNIVERSITI MALAYSIA PAHANG
AL-SULTAN ABDULLAH

Centre for Research in
Advanced Fluid & Processes

Pusat Penyelidikan Bendalir & Proses Ter maju

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29 AUGUST 2023 (DAY 2)

PARALLEL SESSION 1: ROOM 1

ENVIRONMENTAL ENGINEERING/WASTE WATER/ADVANCED
MATERIAL/MATERIAL SCIENCE & ENGINEERING/HEAT
TRANSFER/PHARMACEUTICAL & DRUG DELIVERY
Chairman: Assoc. Prof. Muhammad Raza UI Mustafa

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|---------------|---|
| 15.00 – 15.15 | ESCHE 118
Dr. Shihabudheen M (Indian Institute of Technology Tirupati)
<i>Influence of Water Quality Parameters on Point-Of-use Silver-based Disinfection System: An Unrivalled Effect of Bicarbonates</i> |
| 15.15 – 15.30 | ESCE101
Miss Nur'atiah Zaini (Universiti Tenaga Nasional)
<i>Forecasting Air Pollutant Concentrations using Optimized Deep Learning: A Case Study for Kuala Lumpur, Malaysia</i> |
| 15.30 – 15.45 | ESCE056
Assoc. Prof. Muhammad Raza UI Mustafa (Universiti Teknologi PETRONAS)
<i>Application Of Artificial Neural Network (ANN) for Prediction of Acenaphthene (ACN) Removal in Wastewater</i> |
| 15.45 – 16.00 | ESCE016
Mrs. Nur Sulihatimarsyila Abd. Wafti (Malaysia Palm Oil Board)
<i>Synthesis of Biodegradable Lubricant by Continuous Enzymatic Transesterification of High Oleic Palm Methyl Ester in Packed-Bed Reactor</i> |
| 16.00 – 16.15 | ESCE020
Mr. H. M. Solayman (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Recent Progress of CQDs Modified G-C₃N₄ Photocatalyst in Dye Wastewater Treatment and Hydrogen Evolution</i> |
| 16.15 – 16.30 | ESCE105
Assoc. Prof. Mohd Bijarimi Mat Piah (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Correlation Study of Glass Transition Temperature (T_g) of Polymer Blends Using Fox Equation and Experimental Values: Critical Review</i> |
| 16.30 – 16.45 | ESCE002
Dr. Ramani Bai Varadharajan (UCSI University Kuala Lumpur)
<i>Enviro-chemical Appraisal on TDS, Ca²⁺, PO₄³⁻, Fe²⁺, and As³⁺ for Groundwater Supply and Irrigation in Klang Catchment of West Malaysia.</i> |
| 16.45 – 17.00 | ESCE153
Mr. Nasrin Abu Bakar (Malaysia Palm Oil Board)
<i>Prospect of Methane Avoidance Technologies for Palm Oil Mills</i> |

29 AUGUST 2023 (DAY 2)

PARALLEL SESSION 2: ROOM 2

RENEWABLE ENERGY & BIOFUELS /REACTION ENGINEERING &
CATALYSIS/ OIL & GAS/FLOW ASSURANCE IN PIPELINES

Chairman: Ir. Dr. Sabri Bin Mahmud

- 15.00 – 15.15 **ESCE117**
Dr. Ahmad Salam Farooqi (Universiti Teknologi PETRONAS)
Enhanced Syngas Production via Dry Reforming of Methane Using Ni/Zr-SBA-15 (POFA) Catalyst
- 15.15 – 15.30 **ESCE042**
Dr. Santi Chuetor (King Mongkut's University of Technology North Bangkok)
Investigation of Rice Straw for Energy Efficiency and Waste Generation by Different Pretreatment Methods for Bioethanol Production
- 15.30 – 15.45 **ESCE46**
Dr. Alinda Samsuri (Universiti Pertahanan Nasional Malaysia)
Molybdenum Oxide-Based Catalyst Towards Better Hydrogen Production: Effects of Isothermal Carburization
- 15.45 – 16.00 **ESCE051**
Miss. Nur Rahimah (Universiti Malaysia Perlis)
Optimization on Torrefaction of Palm Kernel Shell Using Response Surface Methodology
- 16.00 – 16.15 **ESCE164**
Mr. Nik Khairul Irfan Nik Ab Lah (Universiti Teknologi MARA)
Oil Sorption Effectiveness of Kenaf Fibers for Oil Spill Application
- 16.15 – 16.30 **ESCE165**
Assoc. Prof. Abdul Hadi (Universiti Teknologi MARA)
Epoxidation of Palm Oleic Acid Using Zeolite Catalyst: Effect of Oxygen Carrier and Donor on the Ring Opening
- 16.30 – 16.45 **ESCE169**
Dr. Bidattul Zainal (Universiti Tenaga Nasional)
Biochemical Methane Potential Assessment From Palm Oil Mill Wastes
- 16.45 – 17.00 **ESCE139**
Dr. Arina Sauki (Universiti Teknologi MARA)
CEC-Reduced Mud for Improved Interpretation of Shaly Sandstones

DETAILED PARALLEL
TENTATIVE

29 AUGUST 2023 (DAY 2)

PARALLEL SESSION 3: ROOM 3

MODELING & SIMULATION/SEPARATION
TECHNOLOGY/NANOTECHNOLOGY/FOOD SCIENCE
TECHNOLOGY/SAFETY AND HEALTH MANAGEMENT
Chairman: Assoc. Prof Dr Yew Ming Chian

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|---------------|--|
| 15.00 – 15.15 | ESCE019
Dr. Munawar Zaman Shahrudin (Universiti Teknologi MARA)
<i>Feasibility Analysis of Heat Integrated Distillation Columns Sequence (HIDCS)</i> |
| 15.15 – 15.30 | ESCE093
Mrs. Wan Zaiton Wan Sulaiman (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Dust Explosibility and Severity Study of Bayan and Tanito Coal</i> |
| 15.30 – 15.45 | ESCE146
Miss Noor e Hira (Universiti Teknologi PETRONAS)
<i>Dependence of Surface Orientation on Stability of Structures and Adsorption Capacity of FeOOH Adsorbent</i> |
| 15.45 – 16.00 | ESCE022
Mr. Md. Arif Hossen (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Unraveling the Effect of Various Organic Solvents on the Morphology of TiO₂ Nanotubes</i> |
| 16.00 – 16.15 | ESCE023
Miss Aamina Din Muhammad (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Influence of Anodizing Parameters in the Synthesis of TNT for CO₂ Reduction: A Review</i> |
| 16.15 – 16.30 | ESCE048
Miss Nur Syakinah Abd Halim (Universiti Teknologi PETRONAS)
<i>Surface Modification on Recycled Polyethylene Terephthalate Nanofiber Membrane via Solvent Vapor Treatment for Produced Water Filtration</i> |
| 16.30 – 16.45 | ESCE144
Dr. Suryati Bin Salleh (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Enhancing Forestry Residue Utilization through Pelletization with different Binding Agents</i> |
| 16.45 – 17.00 | ESCE131
Mr. Muhammad Irfan Khan (Universiti Teknologi PETRONAS)
<i>Integrating Geopolymerization and Alginate Encapsulation for the Development of A High-performance Adsorbent for Methylene Blue Dye Removal from Wastewater</i> |

29 AUGUST 2023 (DAY 2) PARALLEL SESSION 1 (VIRTUAL)

Chairman: IR. TS. DR. NORAZLIANIE BINTI SAZALI

Co-chairman: DR. NURUL NADIA BINTI MOHD ZAWAWI

Microsoft Team Link: <https://shorturl.at/dqrGI>

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|---------------|---|
| 15.00 – 15.15 | ESCE099
Ir. Baiyang Jiang (Universiti Malaysia Pahang)
<i>Long-Term Trends in The Environmental Air Quality in Chengde, China</i> |
| 15.15 – 15.30 | ESCE100
Ir. Baiyang Jiang (Universiti Malaysia Pahang)
<i>Study on the Current Situation and Pathways for Promoting the Industrial Development of Atractylodes Chinensis in the Context of Rural Revitalization</i> |
| 15.30 – 15.45 | ESCE102
Miss Mehna Najeem.A (University Hindustan)
<i>Use of Industrial Sludge as a Brick Ingredient: A Review</i> |
| 15.45 – 16.00 | ESCE109
Dr. Rendra Panca Anugraha (Institut Teknologi Sepuluh Nopember)
<i>Techno-Economic Analysis of Green Ammonia with Hydropower Source in Indonesia</i> |
| 16.00 – 16.15 | ESCE113
Dr. Lee Muei Chng (Universiti Tunku Abdul Rahman)
<i>Sustainable Approach to Synthesis Carboxymethylcellulose Using Ultrasonic-Assisted Extracts from Lignocellulose Feedstock</i> |
| 16.15 – 16.30 | ESCE115
Mrs. Yang Tuo Ying (SEGi University)
<i>Micro-grid Structure Optimization and Energy Management: A Review on Techniques and Algorithms</i> |
| 16:30-16:45 | ESCE108
Mr. Ahmad Shauqi Safuan Muhamad (Universiti Malaysia Pahang)
<i>Design It Right, Maintain It Right and Operate It Right - Which Element Contributes Mostly to Process Safety Incidents?</i> |
| 16:45-17:00 | ESCE036
Dr. Nor Hazren Abdul Hamid (Universiti Tun Hussein Onn Malaysia)
<i>Performance and Fouling Assessment of Neolamarckia Cadamba Nanofibrillated Filter Paper in a Cross-Flow Filtration System for Decolorization of Methyl Orange</i> |

DETAILED PARALLEL
TENTATIVE

29 AUGUST 2023 (DAY 2) PARALLEL SESSION 2 (VIRTUAL)

Chairman: PROF. DR. TS. JOLIUS BIN GIMBUN
Co-chairman: DR. NURUL NADIA BINTI MOHD ZAWAWI
Microsoft Team Link:

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|---------------|--|
| 15.00 – 15.15 | ESCE145
Mrs. Siti Zaharah Roslan (UiTM Shah Alam)
<i>Combustion Reactivity of Hydrochar Obtained from Hydrothermal Carbonization of Sewage Sludge through Thermogravimetric Analysis</i> |
| 15.15 – 15.30 | ESCE065
Dr. Syamimi Saadon (Universiti Putra Malaysia)
<i>Assessing Beta-type Stirling Engine Capacity to Recover Heat for Low-temperature Applications</i> |
| 15.30 – 15.45 | ESCE028
Miss Dona Petrus (Universiti Malaysia Sabah)
<i>Quality Prediction of Low Temperature Dried Food Product Using Artificial Neural Network: A Short Review</i> |
| 15.45 – 16.00 | ESCE161
Dr. Wan Zairani Wan Bakar (Universiti Teknologi MARA)
<i>Potential of Clay Mineral as Adsorption Base in Carbon Capture Storage (CCS) Technology</i> |
| 16.00 – 16.15 | ESCE110
Miss Siddhika Mohan (SIES Indian Institute of Environmental Management)
<i>Assessment of Impacts and Barriers Related to Large Scale Solar Energy Development Projects</i> |
| 16.15 – 16.30 | ESCE070
Miss Soraya Tamara (Petronas)
<i>Design Safety Requirement for Carbon Capture & Storage Facility (CCS)</i> |

30 AUGUST 2023 (DAY 3)

PARALLEL SESSION 1: ROOM 1

TRACK 1: ENVIRONMENTAL ENGINEERING/WASTE
WATER/ADVANCED MATERIAL/MATERIAL SCIENCE &
ENGINEERING/HEAT TRANSFER/PHARMACEUTICAL & DRUG
DELIVERY

Chairman: Assoc. Prof. Pang Yean Ling

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|---------------|--|
| 08:30 – 08:45 | ESCE 063
Dr. Muhammad Rashid Shamsuddin (Universiti Teknologi PETRONAS)
<i>Metal Organic Framework (MOF) as Effective Adsorbent for Heavy Metal Removal</i> |
| 08:45 – 09:00 | ESCE124
Mr. Shaik Mahamad Allabakshi (Indian Institute of Technology Tirupati)
<i>Photo-plasma: A sustainable way to reduce the scavenging effect of radicals by salts in textile wastewater treatment</i> |
| 09:00 – 09:15 | ESCE116
Assoc. Prof. Pang Yean Ling (Universiti Tunku Abdul Rahman)
<i>Comparison of Coagulation, Fenton's and Photocatalytic Processes for Removal of Textile Industry Wastewater</i> |
| 09:15 – 09:30 | ESCE044
Mr. Prabu Rajandran (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Column Adsorption Studies on Carbazole Removal from Aqueous Solution Using β-Cyclodextrin Functionalized Rice Husk Biochar</i> |
| 09:30 – 09:45 | ESCE010
Assoc. Prof. Syed Mohd Saufi bin Tuan Chik (Universiti Malaysia Pahang Al-Sultan Abdullah)
<i>Comparison of Negatively and Positively Charged Thin Film Nanocomposite Membranes for Boron Removal</i> |
| 09:45 – 10:00 | ESCE086
Assoc. Prof. Yew Ming Chian (Universiti Tunku Abdul Rahman) <i>Development of Advanced Fire Rated Board for the Fire Protection Duct System</i> |

30 AUGUST 2023 (DAY 3)

PARALLEL SESSION 1: ROOM 1

TRACK 2: ENVIRONMENTAL ENGINEERING/WASTE
WATER/ADVANCED MATERIAL/MATERIAL SCIENCE &
ENGINEERING/HEAT TRANSFER/PHARMACEUTICAL & DRUG
DELIVERY

Chairman: Ts. Dr. Nasratun binti Masngut

- 10:15 – 10:30 **ESCE155**
Miss Farah Nurizzati Mislar (Universiti Teknologi MARA)
Effect of Drying Methods and Crosslinking Mechanism of Calcium Chloride and Sulfuric Acid on Alginate/Carboxymethyl Cellulose Blends
- 10:30 – 10:45 **ESCE005**
Dr. Badhrulhisham Abdul Aziz (Universiti Malaysia Pahang Al-Sultan Abdullah)
Rare Earth Industry: The Game Changer in Green Technology – A Review with Bibliometric Touch
- 10:45 – 11:00 **ESCE013**
Dr. V. Ramani Bai (UCSI University Kuala Lumpur)
Constructing a Test Model of a Sustainable Greywater Drainage System for Recycling and Reuse
- 11:00 – 11:15 **ESCE103**
Prof. Sabumon Pothanakandathil Chacko (Vellore Institute of Technology (VIT))
Decolorization of High Concentrations of Azo Dye Methyl Red using Sulphidogenesis Process
- 11:15 – 11:30 **ESCE015**
Dr. Siti Maznah Kabeb (Universiti Malaysia Pahang Al-Sultan Abdullah)
Effect of Green Filler Loading on Mechanical and Thermal Properties of Epoxy Reinforced Composite
- 11:30 – 11:45 **ESCE001**
Dr. Nurul Huda binti Mudri (Agensi Nuklear Malaysia)
Physicochemical Analysis of Jatropha Oil-based Microcapsule for Self-healing Coating Application
- 11:45 – 12:00 **ESCE098**
Mr. Aftab Hussain Arain (Universiti Teknologi PETRONAS)
Development of a Novel Eco-Friendly Biodiesel-Based Drilling Fluid for Efficient Drilling in Unconventional Shale Formations
- 12:00 – 12:15 **ESCE035**
Dr Siti Fatimah Salleh (Petronas Research Sdn Bhd)
CFD Simulation of the Heat Transfer Process in a Herringbone Plate Heat Exchanger
- 12:15 – 12:30 **ESCE076**
Miss Nur Hikmah Semawi (Universiti Teknologi Mara)
Thermal Degradation Mechanism for Controlled Combustion of Rice Dusts in Malaysia

DETAILED PARALLEL
TENTATIVE

DETAILED PARALLEL
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30 AUGUST 2023 (DAY 3)

PARALLEL SESSION 2: ROOM 2

**TRACK 1: RENEWABLE ENERGY & BIOFUELS /REACTION
ENGINEERING & CATALYSIS/ OIL& GAS/FLOW ASSURANCE IN
PIPELINES**

Chairman: Assoc. Prof. Dr. Bawadi Abdullah

- 08:30 – 08:45 **ESCE114**
Assoc. Prof. Steven Lim (Universiti Tunku Abdul Rahman)
Synthesis of Carbon Acid Catalyst via Ultrasound-Assisted Direct Glycerol-Free Biodiesel Production
- 08:45 – 09:00 **ESCE014**
Mrs. Nur Azreena Idris (Malaysian Palm Oil Board)
Production of Renewable Diesel from Palm Fatty Acid Distillate using Modified-zeolite Based Catalyst
- 09:00 – 09:15 **ESCE031**
Mr. Pollawat Charoenkool (King Mongkut's University of Technology North Bangkok)
Evaluation of Integrated Hydrothermal-Organosolv Pretreatment for Lignocellulosic Biomass Fractionation
- 09:15 – 09:30 **ESCE125**
Assoc. Prof. Dr. Bawadi Abdullah (Universiti Teknologi PETRONAS)
Techno-economic Analysis for Dry Reforming Methane Over Nickel Alumina Catalyst to Produce Syngas
- 09:30 – 09:45 **ESCE073**
Dr. Bamidele Victor Ayodele (Universiti Teknologi PETRONAS)
Synthesis and Characterization of Graphene Oxide Supported Co-Ni Catalyst for Valorization of Petroleum Sludge to Value-Added Products
- 09:45 – 10:00 **ESCE058**
Dr. Mohd Zulkifli Mohamad Noor (Universiti Malaysia Pahang Al-Sultan Abdullah)
The Development of Nanoparticle Transport in Porous Medium for Fluid Flow Formation Movement Using CFD

30 AUGUST 2023 (DAY 3)

PARALLEL SESSION 2: ROOM 2

TRACK 2: RENEWABLE ENERGY & BIOFUELS /REACTION
ENGINEERING & CATALYSIS/ OIL& GAS/FLOW ASSURANCE IN
PIPELINES

Chairman: Assoc. Prof. Ts. Dr. Hermadina binti Setiabudi

- 10:15 – 10:30 **ESCE133**
Mrs. Norazliza Md. Tahir (PETRONAS KLCC)
Flaring reduction through Flare Gas Recovery unit - Design and Operational Challenges
- 10:30 – 10:45 **ESCE168**
Dr. Mohd Zaki Zainal Abidin (Universiti Teknologi MARA)
Characterizing Low Wax Content Systems Using Differential Scanning Calorimeter (DSC) and Spectroscopy
- 10:45 – 11:00 **ESCE160**
Dr. Norasyikin Ismail (Universiti Malaysia Pahang Al-Sultan Abdullah)
Enhancing Crude Oil Emulsion Separation: Investigating the Influence of Emulsion Properties on Microwave Demulsification
- 11:00 – 11:15 **ESCE072**
Miss. Siti Nur Syaza Abdul Rahman (Universiti Teknologi PETRONAS)
Study on the Preliminary Assessment of Polyhydroxyalkanoates (PHA) Extraction on the Chlorella Vulgaris sp. Microalgae using Supercritical CO₂ Fluid Extraction (sCO₂E) – Taguchi Approach
- 11:15 – 11:30 **ESCE112**
Mr. Azuan Abdul Latif (TNB Research Sdn. Bhd)
Overview and Challenges of Renewable Natural Gas Development in Malaysia from Organic Food Waste
- 11:30 – 11:45 **ESCE030**
Miss Amalia Isna Rahmawati (Universiti Teknologi PETRONAS)
Fabrication and Characterization of Fe/ZnO Photoanode Using Electrodeposition for Improved Photoelectrochemical Water Splitting Performance
- 11:45 – 12:00 **ESCE034**
Mr. Muhammad Syaamil Saad (Universiti Teknologi PETRONAS)
Study on Electrochemical Properties of TEA.PS-BF₄ Carbon Based Electrode in Proton Exchange Membrane (PEM) System
- 12:00 – 12:15 **ESCE172**
Dr. Mohd. Razali Shamsuddin (Universiti Malaysia Sabah)
Performance of NiO Doped on Alkaline Sludge From Waste Photovoltaic Industries For Catalytic Dry Reforming of Methane

DETAILED PARALLEL
TENTATIVE

30 AUGUST 2023 (DAY 3)

PARALLEL SESSION 3: ROOM 3

TRACK 1: MODELING & SIMULATION/SEPARATION
TECHNOLOGY/NANOTECHNOLOGY/FOOD SCIENCE
TECHNOLOGY/SAFETY AND HEALTH MANAGEMENT
Chairman: Assoc Prof. Dr. Sumaiya Zainal Abidin

- 08:30 – 08:45 **ESCE054**
Prof. Chantaraporn Phalakornkule (King Mongkut University of Technology North Bangkok)
Application of Intermittent Nitrogen Purge in Vacuum Pressure Swing Adsorption Process for Biogas Upgrading with Zeolite Adsorbent
- 08:45 – 09:00 **ESCE074**
Miss Wan Nur Athirah Mazli (Universiti Teknologi PETRONAS)
Enhancing Stability of Glycerol as Surfactant for Beauty Product via Solvent-Aided Crystallization
- 09:00 – 09:15 **ESCE104**
Dr. Izni Atikah Abd Hamid (SEGi University & Colleges)
Mass Transfer Behavior of Papaya Leaves Oil in Combined Microwave and Solvent Extraction Method
- 09:15 – 09:30 **ESCE053**
Miss Yashini K.Selvanathan (Universiti Malaysia Pahang Al-Sultan Abdullah)
Isolation and Characterization of Acetic Acid Bacteria from Pineapple Peel for a Starter Culture in Acetic Acid Production
- 09:30 – 09:45 **ESCE071**
Mr. Muhammad Daniyal Lim (Universiti Teknologi MARA)
A review of efficiency, sustainability, and economic considerations of chlorogenic acid extraction methods.
- 09:45 – 10:00 **ESCE089**
Miss Nurmaryam Aini Hashim (Universiti Malaysia Pahang Al-Sultan Abdullah)
Influence of Air-Dry Flow Rate in Spray Drying Process of Commercial Fish Oil

30 AUGUST 2023 (DAY 3)

PARALLEL SESSION 3: ROOM 3

TRACK 2: MODELING & SIMULATION/SEPARATION
TECHNOLOGY/NANOTECHNOLOGY/FOOD SCIENCE
TECHNOLOGY/SAFETY AND HEALTH MANAGEMENT

Chairman: Assoc Prof. Ir. Dr. Chin Siew Choo

- 10:15 – 10:30 **ESCE159**
Dr. Fahd Alakbari (Universiti Teknologi PETRONAS)
A highly accurate machine learning model for the prediction of the uniaxial compressive strength (UCS) for sandstone rocks
- 10:30 – 10:45 **ESCE087**
Mr. Numan Abdul Hadi (Universiti Malaysia Pahang Al-Sultan Abdullah)
Experimental and Modeling Study for Continuous Extraction of Palm Oil From Sterilised Palm Fruit Using Organic Solvents
- 10:45 – 11:00 **ESCE162**
Mrs. Anis Mansor (Universiti Teknologi MARA)
Mathematical Modeling, Simulatin and Optimization of Low-Density Polyethylene (LDPE) in High Pressure Tubular Reactor
- 11:00 – 11:15 **ESCE163**
Miss Zafirah Supion (Universiti Teknologi MARA)
Modelling and Profit Maximization of Low-Density Polyethylene (LDPE) in Industrial High Pressure Tubular Reactor
- 11:15 – 11:30 **ESCE050**
Miss Aliya Nurzafira Nor Zaidi (Universiti Teknologi PETRONAS)
Study on the Effect of Choline Serine Deep Eutectic Solvents (DES) on the Solubility of CO₂
- 11:30 – 11:45 **ESCE094**
Assoc. Prof. Herma Dina Binti Setiabudi (Universiti Malaysia Pahang Al-Sultan Abdullah)
Silica-rich Waste as an Effective Scaffold for Hydrogen Storage: A Review
- 11:45 – 12:00 **ESCE081**
Ir. Dr. Mohd Sabri Bin Mahmud (Universiti Malaysia Pahang Al-Sultan Abdullah)
Dechlorination of Crude Palm Oil by using Strong Alkaline Buffer Solution
- 12:00 – 12:15 **ESCE107**
Assoc Prof. Sumaiya Zainal Abidin (Universiti Malaysia Pahang Al-Sultan Abdullah)
Optimization of Alumina Production from Aluminium Dross as a Potential Low-cost Waste-derived Adsorbent

DETAILED PARALLEL
TENTATIVE

30 AUGUST 2023 (DAY 3)

PARALLEL SESSION 1 (VIRTUAL)

Chairman: PROF. IR. TS. DR. KUMARAN A/L KADIRGAMA

Co-chairman: DR. NURUL NADIA BINTI MOHD ZAWAWI

Microsoft Team Link: <https://shorturl.at/IDHMW>

08:30 – 08:45

ESCE004

Dr. Fiona Ling Wang Min (Universiti Malaysia Sabah)

A Short Review on Flow Enhancement in Microfluidics

08:45 – 09:00

ESCE011

Dr. Suzana Yusup (TNB Research)

Influence of Air Staging Ratio on Ash Compositions in Ammonia Co-Firing

09:00 – 09:15

ESCE018

Mr. Shamsuri Rasidi (Universiti Tun Hussein Onn Malaysia)

Numerical Study of Curved Diffuser Performance by Means of Installing Woven Wire Mesh

09:15 – 09:30

ESCE021

Mrs. Nor Asikin Awang (Universiti Teknologi Malaysia)

Adsorptive Removal Of Pb(II) By Layered Double Hydroxide: Effect Of Synthesis Conditions

09:30 – 09:45

ESCE167

Dr. Ramnarong Wanison (Chiang Mai University)

Exploring the Effects of Flash Cryogenic Freezing on the Performance of Sodium-Ion Batteries

09:45 – 10:00

ESCE142

Mr. Sohail Ahmed (Universiti Teknologi Petronas)

Screening of Amino Acid based ILs for Enhanced Solubility of Permethrin using the COSMO-RS Approach

30 AUGUST 2023 (DAY 3) PARALLEL SESSION 1 (VIRTUAL)

Chairman: PROF. IR. TS. DR. KUMARAN A/L KADIRGAMA

Co-chairman: DR. NURUL NADIA BINTI MOHD ZAWAWI

Microsoft Team Link: <https://shorturl.at/IDHMW>

- 10:15 – 10:30 **ESCE025**
Mrs. Nur Aqilah Mohd Razali (Universiti Teknologi Malaysia)
Light-driven Graphitic Carbon Nitride (G-C₃N₄) and Light-Storing Tungsten Trioxide (WO₃) for Wastewater Treatment via Photocatalytic Process
- 10:30 – 10:45 **ESCE026**
Dr. Wan Norharyati Wan Salleh (Universiti Teknologi Malaysia)
Surface Modification of Nanocomposite Membrane via Spray Coating for Oily Wastewater Treatment
- 10:45 – 11:00 **ESCE027**
Mr. Sengthong Lee (King Mongkut's University of Technology North Bangkok (KMUTNB))
Enhanced Nitrogen Removal in Anammox Process using Biochar Prepared from Sugarcane Bagasse and Earleaf Acacia Leaf
- 11:00 – 11:15 **ESCE029**
Mrs. Siti Zu Nurain Ahmad (Universiti Teknologi Malaysia)
Synthesis of Magnetic Zeolitic Imidazolate Framework-8 Modified Graphene Oxide and its Application in Lead Removal
- 11:15 – 11:30 **ESCE032**
Dr. Norshela Mohd Noh (Universiti Tun Hussein Onn Malaysia)
Quantifying the Uncertainty of the Wti Crude Oil Price in the Phase Covid -19
- 11:30 – 11:45 **ESCE033**
Mr. Syahir Mansor (Universiti Teknologi Malaysia)
A New Class of Phase Change Material Compositated with Mxene for Thermal Battery
- 11:45 – 12:00 **ESCE043**
Dr. Chiam Chel Ken (Universiti Malaysia Sabah)
Surface Modification of Meltblown Polypropylene Membrane by Titanium Dioxide for Oil/Water Separation

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TENTATIVE

30 AUGUST 2023 (DAY 3) PARALLEL SESSION 2 (VIRTUAL)

Chairman: ASSOC. PROF. IR. TS. DR. DEVARAJAN A/L
RAMASAMY

Co-chairman: NURUL AZRA BINTI BAKARUDDIN

Microsoft Team Link: <https://shorturl.at/isXY3>

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| 08:30 – 08:45 | ESCE127
Miss Nurul Izzati Mohd Noor Azli (Universiti Teknologi MARA)
<i>Health Risk Assessment and CAMD of Electrospun Nanofiber Formulations for Diabetes Treatment</i> |
| 08:45 – 09:00 | ESCE140
Dr. Nur Hidayah Mat Yasin (Universiti Malaysia Pahang)
<i>Chitosan and Polyethylene Glycol Hydrophilic Plasticizer-Based Films: Preparation and Physicochemical Characterization</i> |
| 09:00 – 09:15 | ESCE147
Miss Carla Goncalves De Oliveira Sarmiento (Universiti Malaysia Sabah)
<i>Effect of Bamboo Biochar-coal Blend on Combustion Characteristic and CO₂ Emissions</i> |
| 09:15 – 09:30 | ESCE141
Miss Siti Hajar Omar (Universiti Malaysia Pahang)
<i>Study on Mechanical and Barrier Properties of Iron Cellulose/PLA Composite Film</i> |
| 09:30 – 09:45 | ESCE148
Miss Vivian Ell Fera (Universiti Malaysia Sabah)
<i>Synergistic and Physicochemical Effect of Blended Polymeric Drag Reducing Agent (DRA) Review on Synergistic and Physicochemical Effect on Blended Polymeric Drag Reducing Agents (DRAs)</i> |
| 09:45 – 10:00 | ESCE149
Dr. Emma Suali (Universiti Malaysia Sabah)
<i>Elongational Viscosity of Chitosan and its Effect on Drag Reduction</i> |

30 AUGUST 2023 (DAY 3) PARALLEL SESSION 2 (VIRTUAL)

Chairman: DR. SUDHAKAR KUMARASAMY

Co-chairman: NURUL AZRA BINTI BAKARUDDIN

Microsoft Team Link: <https://shorturl.at/isXY3>

- 10:15 – 10:30 **ESCE150**
Dr. Shier Nee Saw (Universiti Malaya)
Computational Fluid Dynamics Simulation of Coughed Droplets in Tertiary Education Settings
- 10:30 – 10:45 **ESCE166**
Mrs. Nurul Aimi Ghazali (Universiti Teknologi MARA)
Improving Drilling Fluid Performance in High-Temperature Environments Through Modified Biopolymer Deflocculant Optimization
- 10:45 – 11:00 **ESCE060**
Dr. Yuttana Mona (Chiang Mai University)
Power Generation Prediction for Renewable Energy Fuel Using Multiple Linear Regression: A Case Study of Thailand
- 11:00 – 11:15 **ESCE066**
Dr. Hanizura Hassan (Universiti Teknologi MARA)
Co-Pyrolysis of Sugarcane Bagasse and Polyethylene Terephthalate Waste: Influence of Reaction Temperature on Product Distribution and Synergistic Effect
- 11:15 – 11:30 **ESCE068**
Mr. Murtaza Haider Syed (Universiti Malaysia Pahang)
Potential Applications of Nanocellulose Loaded Chitosan-PLA Based Biocomposite
- 11:30 – 11:45 **ESCE082**
Professor Renanto (Institut Teknologi Sepuluh Nopember)
Analysis of Solar Thermal Energy Integration in the Industry as An Effort To Reduce CO₂ Emission
- 11:45 – 12:00 **ESCE097**
Ir. Mohd Azahar Mohd Ariff (Universiti Teknologi MARA)
Maximizing Production of Methanol in Catalytic Reactor Using Ant Lion Based Optimization

DETAILED PARALLEL
TENTATIVE



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