

# SCHEDULE

## **6<sup>th</sup> Conference on Emerging Energy and Process Technology 2017 (CONCEPT 2017)**

*Venue: Double Tree by Hilton, Johor Bahru, Malaysia*

*Date: 27<sup>th</sup> – 28<sup>th</sup> November 2017*

## Monday, 27<sup>th</sup> November 2017

08.00 – 08.30 am	Registration	
08.30 – 08.45 am	Safety Briefing	
08.45 – 09.15 am	Welcoming Remarks: Assoc. Prof. Ir. Dr. Mimi Haryani Hassim (Chairman of CONCEPT2017) Opening Speech: Prof. Dr. Arshad Ahmad (Director, Institute of Future Energy) <b>Venue: Ballroom 2</b>	
09.15 – 09.45 am	Keynote 1: <b>Prof. Dr. Hirokazu Sugiyama</b> Chairperson: <b>Prof. Dr. Aishah Abd Jalil</b> Keynote Title: <b>Research Needs and Opportunities for Process Systems Engineering in Pharmaceutical Manufacturing</b> <b>Venue: Ballroom 2</b>	
09.45 – 10.15 am	Keynote 2: <b>Prof Dr. Raymond Girard R.Tan</b> Chairperson: <b>Assoc. Prof. Ir. Dr. Mimi Haryani Hassim</b> Keynote Title: <b>Process Integration for Carbon Management Networks</b> <b>Venue: Ballroom 2</b>	
10.15 – 10.45 am	Morning Tea Break	
<b>SESSION 1</b> 4 Parallel Session (15 min/Presenter + 15 min Q&A) <b>10.45 am – 01.00 pm</b>		
Session 1 - P1: Renewable Energy & Green Chemistry (REGC) Venue: Ballroom 2 Session Chairman: Assoc. Prof. Dr. Mohamed Wijayanuddin Ali		
Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	REGC-P1-01	Preliminary Result for Reaction Kinetic of Heterogeneous System of Epoxidation Vegetables Oil <i>Mohd Jumain Jalila, Intan Suhada Azmib, Arif Aminuddin Ahmad Zulkifli, Mohamad Helmi Mohd Asbi</i>
11.00 am – 11.15 am	REGC-P1-02	The Effect of Hydrogen Enrichment on Biogas Combustion Characteristics <i>Suhaimi M.S.*, Saat A., Abd.Wahid M., Ghazali A.D.</i>
11.15 am –	REGC-P1-03	Ultrasonic Assisted Transesterification of Rubber Seed Oil: Optimization of Process Parameters <i>Huong Trinh, Suzana Yusup*, Yoshimitsu Uemura</i>

11.30 am		
11.30 am – 11.45 am	REGC-P1-04	Biodiesel Production from Palm Mill Effluent (POME) using Immobilized Lipase in PVA-Alginate-Sulfate Matrix  <i>Nabilah Zulkefli, Nor Badzilah Hasan, Nor Azimah Mohd Zain</i>
11.45 am – 12.00 pm	REGC-P1-05	Simulation and Optimization of Chorella Vulgaris Gasification Using Aspen Plus  <i>Siti Nur Atikah Mahamud, Razif Harun*</i>
12.00 pm – 12.15 pm	REGC-P1-06	Synthesis of TiO <sub>2</sub> Nanotube Arrays by Anodization for Photoanode in Hydrogen Cell  <i>Nyein Nyein, Tan Wan Kian, Go Kawamura, Atsunori Matsuda and Zainovia Lockman*</i>
12.15 pm – 12.30 pm	REGC-P1-07	Biochars Production from Sago (Metroxylon Spp) using Batch Electrical Furnace Reactor  <i>Jakaria Ramblia, Wan Azlina Wan Abd Karim Ghanib, Mohamad Amran Mohd Salleh</i>
12.30 pm – 12.45 pm	REGC-P1-08	Torrefaction of Pelletized Oil Palm Empty Fruit Bunches under Mild-Severe Conditions  <i>Bemgba Bevan Nyakuma, Arshad Ahmad*, Anwar Johari, Tuan Amran Tuan Abdullah, Olagoke Oladokun, Aliyu Abdul-Hammeed Bello, Habib Alkali, Ali Hussein Ali Al-Shatri</i>
12.45 pm – 01.00 pm	REGC-P1-QA	Q & A

**Session 1 - P2: Process System Engineering 1 (PSE 1)**

Venue: Meeting Room 2

Session Chairman: Assoc. Prof. Dr Zainura Zainon Noor

Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	PSE1-P2-01	Novel Debottlenecking Approach for Biomass Supply Chain: P-graph Application  <i>Bing Shen How*, Kok Hui Chong, Devi Ponniah Ganga, Tiong Kean Tan, Tze Tin Yeoh, Hon Loong Lam</i>
11.00 am – 11.15 am	PSE1-P2-02	An Improved Douglas's Model for the Synthesis of an Integrated Biorefinery  <i>Su-Yi Tey, Sie Shing Wong, Jian An Lam, Norman Q. X. Ong, Dominic C. Y. Foo, Denny K.S. Ng</i>
11.15 am – 11.30 am	PSE1-P2-03	Optimisation and Debottlenecking of Biomass Processing Network  <i>Xin Ye Tey, Wendy Pei Qin Ng,*, Hon Loong Lam, Pek Ing Au, Kah Haw Law</i>
11.30 am – 11.45 am	PSE1-P2-04	A Systematic Methodology for Environmental Benign Design of Integrated Product-Process System  <i>Jecksin Ooi, Denny K. S. Ng, Nishanth G. Chemmangattupalappil*</i>
11.45 am – 12.00 pm	PSE1-P2-05	Choice Probabilities Among Residents in Selecting Types of Housing Using Multinomial Logistic Model in Johor, Malaysia  <i>Noor Yasmin Zainun*, Ahmad Rizal Alias*</i>
12.00 pm – 12.15 pm	PSE1-P2-06	Sensitivity Analysis for Optimization of Brine Purification Process  <i>Muhammed Anwar Abu Bakara,c, Arshad Ahmadb,c,*, Mukri Haruna</i>

12.15 pm – 12.30 pm	PSE1- P2-07	Investigation on The Stickiness Factor for The Thresher Operation in Palm Oil Mill Industry  <i>Salleh S. F. *, Saree S., Sanaullah K., Sawawi M., Rajaee N.</i>
12.15 pm – 12.30 pm	PSE1- P2-08	Beamforming Networks for Multi-Beam Antenna Applications Towards Fifth Generation (5G) Technology  <i>Nazleen Syahira Mohd Suhaimi and Norhudah Seman*</i>
12.45 pm – 01.00 pm	PSE1- P2-QA	Q & A
<b>Session 1 - P3: Frontier Material (FM)</b> <b>Venue: Meeting Room 3</b> <b>Session Chairman: Assoc. Prof. Dr. Anwar Johari</b>		
Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	FM- P3-01	Characterization of La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3</sub> Ceramic Powder Produced via Solid State Reaction  <i>Haikal Mustafa*, Ammar Mohd Akhir, Sharifah Aisyah Syed A. Kadir, Ahmad Fauzi Ismail</i>
11.00 am – 11.15 am	FM- P3-02	Improved Vanadium Barrier Properties of GN115 Membrane for Vanadium Redox Flow Battery  <i>Saidatul Sophia Sha'rani, Ebrahim Abouzari Lotf*, Arshad Ahmad, Mohamed M. Nasef, Roshafima Rasit Ali</i>
11.15 am – 11.30 am	FM- P3-03	The Thermal Properties of Graphene Reinforced Polystyrene  <i>Baharom M.H, Mat Desa M.S.Z. *, Izhab I., Sulaiman S.Z., Yusop M.</i>
11.30 am – 11.45 am	FM- P3-04	Photocatalytic Carbon Dioxide Reduction to Cleaner Fuels Over Nickel and Montmorillonite Modified TiO <sub>2</sub> Nanocatalyst  <i>Beenish Tahir*, Muhammad Tahir, Nor Aishah Saidina Amin</i>
11.45 am – 12.00 pm	FM- P3-05	Negatively Charged Anti-fouling Polyethersulfone Membrane incorporated with Zinc-Iron Oxide Nanoparticle for Colour Removal of Aerobically Treated Palm Oil Mill Effluent  <i>M N Subramaniam, P S Goh*, Y H Tan, S J Chiong, W J Lau, B C Ng , A F Ismail , J Y Chuahb, S O Lai</i>
12.00 pm – 12.15 pm	FM- P3-06	Phosphonic Acid Functionalized Graphene Oxide Nanocomposite Membrane for High Temperature Proton Exchange Membrane Fuel Cells  <i>Ebrahim Abouzari Lotf*, Mohamed M. Nasef, Masoumeh Zakeri, Mikio Miyake, Arshad Ahmad, Adnan Ripin</i>
12.15 pm – 12.30 pm	FM- P3-07	Oxidative Coupling of Methane Over Mn <sub>x</sub> O <sub>y</sub> -Na <sub>2</sub> WO <sub>4</sub> Catalyst: Evaluation of Mass Transfer Among Different Structured Supports  <i>Y. Gambo, A.A. Jalil *, S. Triwahyono</i>
12.30 pm – 12.45 pm	FM- P3-08	Web Based Remote Monitoring System for Vehicle Parking Space  <i>Zamri M.N., Nor N.S.M. *, Zawawi F.M.</i>
12.45 am – 01.00 pm	FM- P3-QA	Q & A

**Session 1 - P4: Process Safety and Industrial Hygiene (PSIH)**

**Venue: Meeting Room 4**

**Session Chairman: Dr. Norafneeza Norazahar**

Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	PSIH-P4-01	Traditional and Emerging Industrial Hygiene Practices in Occupational Setting  <i>Wan Sabrina Wan Mohamad</i>
11.00 am – 11.15 am	PSIH-P4-02	Managing Incident Investigation for Process Safety Management Compliance  <i>Noor Diana Abdul Majid, Azmi Mohd Shariff and Dzulkarnain Zaini</i>
11.15 am – 11.30 am	PSIH-P4-03	Retrospective of Boiler Incident and Patterns Identification  <i>Syed Mahyuddin Syed Mustafar*, Sherif Abdulbari Ali, Zulkifli Abd Rashid, Azil Bahari Alias</i>
11.30 am – 11.45 am	PSIH-P4-04	Hazard Prevention Strategy for Early Phase of Process Design  <i>Syaza I. Ahmad*, Haslenda Hashim, Mimi H. Hassim,</i>
11.45 am – 12.00 pm	PSIH-P4-05	Probability Analysis of Offshore Oil And Gas Pipeline Using Bayesian Networks Approach  <i>Sulaiman N. S. *, Tan H.</i>
12.00 pm – 12.15 pm	PSIH-P4-06	Numerical Simulation of The Influences of Current and Ocean Acidification on Leakage of Bubble CO <sub>2</sub> From Shallow Subsea CO <sub>2</sub> Storage  <i>Loi H.H.P.P., Risza R.*</i>
12.15 pm – 12.30 pm	PSIH-P4-07	Pool Fire Burning Characteristics of Palm, Soy and Coconut Biodiesels  <i>Meng Choung Chiong, Zhe Yong Teyo, Jo-Han Ng, Manh-Vu Tran, Agustin Valera-Medina, Cheng Tung Chong*</i>
12.30 pm – 12.45 pm	PSIH-P4-08	Inherent Safety Level Assessment at Preliminary Design Stage: A Case Study of Toxic Release  <i>Dzulkarnain Zaini, Azmi Mohd Shariff</i>
12.45 am – 01.00 pm	PSIH-P4-QA	Q & A
01.10 – 02.00 pm	Lunch	
	Venue: Makan Kitchen	

## SESSION 2

4 Parallel Session (15 min/Presenter + 15 min Q&A)

**02.00 pm – 04.30 pm**

**Session 2 - P1: Renewable Energy 2 (RE2)**

**Venue: Ballroom 2**

**Session Chairman: Dr. Tuan Amran Tuan Abdullah**

Time	Paper ID	Paper Title / Authors
02.00 pm – 02.15 pm	RE2- P1-01	Degradation Behavior of GN 115 Membrane in Vanadium Redox Battery <i>Wan Nur Atika Wan Ibrahim, Ebrahim Abouzari-lotf*, Arshad Ahmad, Mohamed M. Nasef, Roshafima Rasit Ali</i>
02.15 pm – 02.30 pm	RE2- P1-02	Design, Testing and Development of a Solar Powered Ice-Making Machine <i>W.Z. Wan Omar*, S. Mohanaruban, A. Belhocine, N. Nasir, N. Othman, T. Mat Lazim, M.N.M. Jaafar</i>
02.30 pm – 02.45 pm	RE2- P1-03	Influence of Coal Bottom Ash Treatment Parameters on Methane and Carbon Dioxide Production in Palm Kernel Shell Gasification in TG-MS <i>Patrick D. O., Yusup S. *, Osman N. B., Zabiri H., Shahbaz M.</i>
02.45 pm – 03.00 pm	RE2- P1-04	Enhancement of Isobutanol Production Yields in Saccharomyces Cerevisiae Wild Strain <i>Ramli N.A., Rahman A.R. *, Illias R.M.</i>
03.00 pm – 03.15 pm	RE2- P1-05	Study of Parasitic Energy Losses in Photovoltaic System with Dual-Axis Solar Tracker Located at Different Latitudes <i>M.H. Tana, T.K. Wangb, C.W. Wongb, B.H. Limb, T.K. Yewb, W.C. Tanb, A.C. Laib, K.K. Chongb*</i>
03.15 pm – 03.30 pm	RE2- P1-06	Evaluation of Phosphoric Acid Doped Radiation Grafted Membranes in Fuel Cell Under Low Humidity and High Temperature <i>Nadia Samae</i>
03.30 pm – 03.45 pm	RE2- P1-07	Biodiesel Sustainability: The Global Impact of Potential Biodiesel Production on the Energy-Water-Food (EWF) Nexus <i>Ting Yu Loe, Zhe Yong Teyo, Jo-Han Ng, Cheng Tung Chong, Su Shiung Lam, Wen Tong Chong</i>
03.45 pm – 04.00 pm	RE2- P1-08	Syngas Mixture Effects on Combustion Stability and Emissions in a Premixed Swirl Flame Combustor <i>Lian Ming Goh, Jo-Han Ng, Cheng Tung Chong, Nor Afzanizam Samiran, Mohammad Nazri Mohd Jaafar, Agustin Valera-Medina</i>
04.00 pm – 04.15 pm	RE2- P1-QA	Q & A

**Session 2 - P2: Sustainable Process Operation (SPO)**

**Venue: Meeting Room 2**

**Session Chairman: Dr. Roshafima Rasit Ali**

Time	Paper ID	Paper Title / Authors
02.00 pm – 02.15 pm	SPO-P2-01	Effects of Oil Substrate Supplementation On Production of Prodigiosin by <i>Serratia Marcescens</i> for Dye Sensitized Solar Cell <b><i>Nor Hasmaliana Abdul Manas*, Chong Li Yee, Azham Zulkharnain, Dayang Salyani Abang Mahmud, Muhammad Kashif</i></b>
02.15 pm – 02.30 pm	SPO-P2-02	Cocopeat and Rice Huskas an Alternative Grow Bed Media to Leca in Aquaponics System <b><i>Nur Syahmi Izzati Ali Othman, Mohd Johari Kamaruddin*, Anwar Johari, Mimi Haryani Hashim and Muhamad Nur Iqbal Ismail</i></b>
02.30 pm – 02.45 pm	SPO-P2-03	Fermentation of Microalgae Biomass through Mild Acid Pre-Treatment <b><i>Kenneth Teo S.K., Derek Chan J.C., Lee K.T., Toh P.Y., Chng L.M.*.</i></b>
02.45 pm – 03.00 pm	SPO-P2-04	Optimization of Titanium Recovery from Water Treatment Sludge using Response Surface Methodology <b><i>Ooi T.Y.*, Nor Syahidah Z., Mohd Fadhil M.D., Yong E.L., Shahabaldin R., Nur Azmira Z., Shreeshivadasan C., Azlan A.R., Arham A.</i></b>
03.00 pm – 03.15 pm	SPO-P2-05	Human Scalp Hair (HSH) Waste as an Alternative in Reducing Invasive Activity of Wild Hog: A Preliminary Study <b><i>Johan Sohaili, Nur Suraya Kamsano*, Mohd. Fadhil Md Din, Shantha Kumari Muniyandi, and Nur Sumayyah Supian</i></b>
03.15 pm – 03.30 pm	SPO-P2-06	Integration of Carbon Accounting and Sustainability Index for Palm Oil Mills <b><i>Nabila Farhana Jamaludin, Haslenda Hashim, Zarina Ab Muis*</i></b>
03.30 pm – 03.45 pm	SPO-P2-07	New Heuristics for more Flexible Maximum Energy Recovery Heat Exchanger Network Design <b><i>Ainur Munirah Hafizan, Sharifah Rafidah Wan Alwi*, Zainuddin Abd Manan, Jiří Jaromír Klemeš, Mohd Kamaruddin Abd Hamid</i></b>
03.45 pm – 04.00 pm	SPO-P2-08	Identify Energy Savings Opportunities from Operational “Self-help “and “Quick Fix” Optimization Approaches <b><i>Hashim K. M, Ng K. S and Hassim H.M</i></b>
04.00 pm – 04.15 pm	SPO-P2-09	Optimizing the Collection and Transportation of Municipal Solid Wastes in Iskandar Malaysia <b><i>Alkali, H., *Johari, A., Hashim, H., Oladokun, O. A., Nyakuma, B. B., Aliyu, B. A., Shatri, A.</i></b>
04.15 pm – 04.30 pm	SPO-P2-QA	<b>Q &amp; A</b>

**Session 2 - P3: Environmental Protection (EP1)**

**Venue: Meeting Room 3**

**Session Chairman: Dr. Nurfatehah Wahyuni Che Jusoh**

Time	Paper ID	Paper Title / Authors
02.00 pm – 02.15 pm	EP1- P3-01	Water Footprint Assessment of Rice Production from LCA Perspective <i>Nurfarhain Mohamed Rusli, Zainura Zainon Noor and Shazwin Mat Taib</i>
02.15 pm – 02.30 pm	EP1- P3-02	Measuring the performance of solid waste management: A review on the utilisation of indicators <i>Lee, C.I.S., Noor, Z Z. *, Yusuf, R.O.</i>
02.30 pm – 02.45 pm	EP1- P3-03	Energy Efficiency Study, Comparing, Commercial grade Propane/Butane blend; Refrigerant grade Propane and Chlorodifluoromethane, investigated in a Psychrometric Chamber <i>J.H. Koh, Z. Zakaria, D. Veerasamy.</i>
02.45 pm – 03.00 pm	EP1- P3-04	Production and Characterization of Bio Catalytic Enzyme Produced from Fermentation of Pineapple Dregs and its Influence on Aquaculture Sludge Solubilisation <i>M. Fatma Syahirah &amp; R. Nazaitulshila*</i>
03.00 pm – 03.15 pm	EP1- P3-05	Design and Application of Silica Micro-Clusters for Microalgae Separation <i>Tan K.Y., Chng L.M., Leong S.S., Masrul M.c Lim J.K., Chan D.J.C.b, Toh P.Y.*</i>
03.15 pm – 03.30 pm	EP1- P3-06	Impact of Nitrogen Oxides on Air Quality in Urban Setting <i>Ho Wai Shin*, Liu Wen Hui, Nurul Adila Abu Hassan, Aminullah Mohtar, Ahmad Muzammil Idris, Maisarah Mazalan, Mimi Haryani Hassim</i>
03.30 pm – 03.45 pm	EP1- P3-07	Environmental Degradation Assessment of Diesel Blending Production Using Life Cycle Analysis <i>Hafizan C, Noor Z. Z. *, Hussein N.</i>
03.45 pm – 04.00 pm	EP1- P3-08	An Analytical Modeling Approach for Performance Evaluation of Electrostatic Precipitator (Esp) <i>Shanti Faridah Salleh, Afrasyab Khan, Cirilo Nolasco Hipolito, Lennevey Kinidi</i>
04.00 pm – 04.15 pm	EP1- P3-09	One-Step Synthesis of Magnetic Activated Carbons for Dye Removal: Process Optimization, Characterization and Adsorption Equilibrium <i>Lee Lin Zhi, Tang Shu Hui, Muhammad Abbas Ahmad Zainia*</i>
04.15 pm – 04.30 pm	EP1- P3-QA	Q & A



<b>Session 2 - P4: Power System (PS)</b> <b>Venue: Meeting Room 4</b> <b>Session Chairman: Dr. Saharudin Haron</b>		
Time	Paper ID	Paper Title / Authors
02.00 pm – 02.15 pm	PS-P4-01	The Integration of Electric Vehicle with Power Generation Sector: A Scenario Analysis Based on Supply and Demand  <i>Ramli A.F., Muis Z.A.*, Ho W.S., Idris A.M.</i>
02.15 pm – 02.30 pm	PS-P4-02	The optimization of effective parameters for electrodeposition of reduced graphene oxide through Taguchi method to evaluate the charge transfer  <i>Pooria Moozarm Nia*, Pei Meng Woi, Yatimah Alias, Ebrahim Abouzari-lotf, Arshad Ahmad, Mohamed M. Nasef</i>
02.30 pm – 02.45 pm	PS-P4-03	Voltage Fluctuation and Harmonic Emission Related to Light Emitting Diodes  <i>Tan Teck Ying, Dalila binti Mat Said</i>
02.45 pm – 03.00 pm	PS-P4-04	Analysis on the Effect of Distribution Capacitors Operation Towards Total Harmonic Distortions (THD) In Distribution Network Test System  <i>Zaris I.M.Y., Dalila M.S.*,</i>
03.00 pm – 03.15 pm	PS-P4-05	Mathematical Algorithm for Unsynchronized Partial Discharge Measurement on Power System Distribution Line  <i>M. Ishak Liyana, *M. Isa, C.C Yij, M.I. Yusoff, S. H. K. Hamadi, S. M. Mukhtar, M. N. K. Hafizi Rohani, B. Ismail</i>
03.15 pm – 03.30 pm	PS-P4-QA	Q & A
04.30 pm – 05.00 pm		Afternoon Tea Break and End of Day 1

## Tuesday, 28<sup>th</sup> November 2017

08.00 – 09.00 am	Registration
09.00 – 09.30 am	<p><b>Keynote 3: Prof. Dr. Takayuki Saito</b>  <b>Chairperson: Dr. Tuan Amran Tuan Abdullah</b></p> <p><b>Keynote Title: Novel Application of Low-Frequency Ultrasound in Chemical Engineering Processes: Particle Flocculation By 20-kHz-Ultrasound Irradiation in Water</b></p> <p><b>Venue: Ballroom 2</b></p>
09.30 – 10.00 am	<p><b>Keynote 4: Mr. Muhammad Juffri Harun</b>  <b>Chairperson: Dr. Umi Aisah Asli</b></p> <p><b>Keynote Title: Petronas Floating LNG Satu – The Experience and Challenges</b></p> <p><b>Venue: Ballroom 2</b></p>
10.00 – 10.45 am	<p>Poster Presentation &amp; Morning Tea Break</p> <p><b>Venue: Ballroom 1</b></p>
<p><b>POSTER PRESENTATION</b></p> <p><b>10.00 am – 10.45 am</b></p>	
<b>Paper ID</b>	<b>Paper Title / Authors</b>
PP-D2-01	Effective Occupational Safety and Health (OSH) Reduce an Occupational Accident <i>Nizar Bin Jusoh and Mohammad Wijayanuddin Ali</i>
PP-D2-02	Systematic Occupational Health Assessment Framework for Early Design Stage of Chemical Process <i>Swee L. Phneah, Mimi H. Hassim, Denny K. S. Ng</i>
PP-D2-03	Indoor Air Quality Certification with Star Rating Standard for Shopping Centres In Malaysia <i>Ernie Widhyharti Ismanto, Mimi Haryani Hassim, Zairul Akmar Mosmin, Kamarizan Kidam, Tuan Amran Tuan Abdullah</i>
PP-D2-04	Aromatic Polymer Based Anion Exchange Membranes for Vanadium Redox Flow Battery <i>Nur Anati Bazilah Daud, Ebrahim Abouzari Lotf, Mohamed M. Nasef, Arshad Ahmad</i>
PP-D2-05	Simulation of CO <sub>2</sub> Separation from Natural Gas by Pressure Swing Adsorption - a Review <i>Siti Nur Aishah Mohd Haris, Arshad Ahmad, Adnan Ripin, Tuan Amran Tuan Abdullah, Ebrahim Abouzari Lotf, Mohamed M. Nasef</i>
PP-D2-06	Tetragonal Stabilization of Microwaved-Silica Doped Mesoporous Zirconia Nanoparticles in Ammonium Hydroxide for Enhanced Bisphenol a Degradation <i>N.S. Hassan, A.A. Jalil*, S. Triwahyono, M. Mohamed</i>

PP-D2-07	Electrogenerated TiO <sub>2</sub> /Mesostructured Silica Nanoparticles for Photodecolourization of Congo Red <i>Rahman, A.F.A., Jalil, A.A. *, Triwahyono, S., Mohamed, M. A.A. Abdulrasheed</i>
PP-D2-08	Carbon Materials as Visible Light Driven Photocatalyst for Degradation of P-Chloroaniline <i>N.F. Khusnun, A.A. Jalil*, S. Triwahyono, M. Asmadi</i>
PP-D2-09	Decision Making Tool for The Assessment and Selection of Active Ingredients in Chemical Product Design Based on Safety and Health Aspects <i>Raslan R., Hassim M.H., Ng K. S. D., Chemmangattupalappil N. G., Ahmad A.</i>
PP-D2-10	Synthesis of Thin Film Composite Polyaniline as Visual Hydrogen Detector <i>Alister G. Willis* And Saharudin Haron</i>
PP-D2-11	Ultrasound Aided Radiation Induced Grafting of Glycidyl Methacrylate onto Activated Carbon Fibers <i>Nur Afifah Zubair, Ezzat Chan Abdullah, Ting Teo Ming, Mohamed Mahmoud Nasef and Ebrahim Abouzari-Lotf*</i>
PP-D2-12	Proposed System for Biohydrogen Purification using Chemical Absorption Process <i>Nor Azira Abdul Muin and Umi Aisah Asli*</i>
PP-D2-13	Regeneration Study of Fibrous Silica KCC-1 For CO <sub>2</sub> Methanation <i>Hamid M.Y.S., Triwahyono S., Jalil A. A.</i>
PP-D2-14	Monitoring and Visualization Of Solar PV Thermal Flow Via Interpolation Techniques <i>Feras Amjed Hafiz, Go Yun li, Rodney Tan, Yap Tze Chuen</i>
PP-D2-15	Estimation of Global Solar Radiation using Sunshine Based Empirical Models for Putrajaya, Malaysia. <i>Andrew Kwaji Musa, Go Yun li, Saqaff Alkaff Ahmed Abdulrahman</i>
PP-D2-16	Effect of Hydrogen Spillover to the Cyclohexane Isomerization over Different Supports <i>S.M. Izan , S. Triwahyono, A.A. Jalil , Z.A. Majid</i>
PP-D2-17	Modeling and Performance Analysis of New PVT System Implementing Twin Transparent Panels <i>Michael Isaac Abakam, Saqaff A. Alkaff, Go Yun li</i>
PP-D2-18	PSA Technologies and The Way Forward for More Efficient CO <sub>2</sub> Removal at Onsite Offshore Platform <i>Amirah A. Norani and Arshad Ahmad</i>
PP-D2-19	Taguchi Method Assisted Optimization of Amine Content in Solid CO <sub>2</sub> Adsorbent <i>Noor Ashikin Mohamad, Ebrahim Abouzari Lotf*, Pooria Moozarm Nia, Mohamed M. Nasef, Arshad Ahmad, TAT Abdullah</i>
PP-D2-20	Advancing Energy Performance in Oil And Gas Industry through Systematic Implementation of Energy Efficiency Programs by Applying an Operational Excellence (OE) Model <i>Hashim K. M, Ng K. S And Hassim H.M</i>
PP-D2-21	Bioelectricity Production from Soil Microbial Fuel Cell Using Exoelectrogenic Bacteria: Preliminary Study <i>Saleh, S.R.A, Asli, U.A.A,B*, Johari, Aa , Khamis, A.K.C</i>

PP-D2-22	Implementation Of PV Tracking For Locations near and Away from the Equator <i>Saqaff A. Alkaff, Nikesh H. Shamdasani, Go Yun li, Vinod Kumar Venkiteswaran</i>
PP-D2-23	Geothermal Energy in Vietnam: A Critical View On Potentials, Policies, and The Current Status <b>Nguyen Trinh Hoang Anh*</b> , Nguyen Ton Phong
PP-D2-24	Nanocomposite SnO <sub>2</sub> /Multi-Walled Carbon Nanotube (Mwcnt) For Efficient Dye-Sensitized Solar Cells (Dssc) <i>Zainudin S.N.F., Abdullah H. *, Markom M., And Ahmad M.</i>
PP-D2-25	<b>Electrochemical Synthesis of CuOMSN Nanoparticles as Efficient Photocatalyst for Simultaneous Decolorization of Simulated Dyes Wastewater</b> Jusoh, N.W.C.*; Jalil, A.A., Ali, R.R., Miyake, M. and Shameli. K
PP-D2-26	<b>Silver Nano-Particles Antimicrobial Pineapple Peel Fiber Based Biocomposite for Green Packaging</b> R. R. Ali, W.A. W. A. Rahman, N.W.C. Jusoh, M. Miyake, E. A. Lotf and K. Shameli

### SESSION 3

4 Parallel Session (15 min/Presenter + 15 min Q&A)

**10.45 am – 01.00 pm**

#### Session 3 - P1: Renewable Energy 3 (RE3)

Venue: Ballroom 2

Session Chairman: Dr. Ruzinah Isha

Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	RE3-P1-01	Combustion and Emission Characteristics of Palm, Soy and Coconut Methyl Esters under Swirling Spray Flame Conditions <i>Meng Choung Chiong, Jo-Han Ng, Mohammad Nazri Mohd Jaafar, Agustín Valera-Medina, Cheng Tung Chong*</i>
11.00 am – 11.15 am	RE3-P1-02	Evaluation of Microwave-Derived EFB Biochar as Potential Solid Fuel for Power Generation <i>Atiyah Ameenah ., Wan Azlina W.A.K.G.*, Mohamad Amran M.S.,</i>
11.15 am – 11.30 am	RE3-P1-03	Process Safety Consideration for First Design of Hydrogen Production by Gasification of Empty Fruit Bunch <i>Siti Suhaili Shahlan, Kamarizan Kidam, Tuan Amran Tuan Abdullah, Mohamad Wijayanuddin Ali</i>
11.30 am – 11.45 am	RE3-P1-04	BIOMANETICS: Biomass Devolatilization Kinetics Simulation Tool <i>Oladokun O., Ahmad A. , Abdullah T.A.T, Nyakuma B.B, Achimugu P., Bello A.A, Al-Shatri A.H., Alkali H., Al-Shanini A., Khalil M.A., Mohd Nor S.H.</i>
11.45 am – 12.00 pm	RE3-P1-05	Effect of various pretreatment methods on sugar and ethanol production from cellulosic water hyacinth <i>Shahabaldin RezanianAzlan Abdul Rahman, Mohd Fadhil Md Din, Shazwin Mat Taib, Eeydzah Aminudin, Shreshivadasan Chelliapan, Hesam Kamyab, Hiroshi Takahashi, Nickholas Anting</i>

12.00 pm – 12.15 pm	RE3- P1-06	Condenser Waste Heat Recovery for Organic Rankine Cycle in Total Site Heat Integration <i>Norhafiza Kamarudin, Peng Yen Liew*, Nurfatehah Wahyuni Che Jusoh, Wai Shin Ho, Jeng Shiun Lim</i>
12.15 pm – 12.30 pm	RE3- P1-07	Semi-Empirical Model of Jet Fire for Radiant Heat Estimation <i>Nur Shahidah Ab Aziz, Rafiziana Md.Kasmani*</i>
12.30 pm – 12.45 pm	RE3- P1-08	Effect of Tio <sub>2</sub> Loading on Fibrous Silica Zsm-5 For Photodegradation of Acetaminophen <i>Aziz, F.F.A., Jalil, A.A. *, Triwahyono, S., Mohamed, M., Hassan, N.</i>
12.45 pm – 01.00 pm	RE3- P1-QA	Q & A

**Session 3 - P2: Occupational Safety and Health & Process Safety and Industrial Hygiene (OP)**

Venue: Meeting Room 2

Session Chairman: Dr. Umi Aisah Asli

Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	OP- P2-01	The Evolution of Risk Assessment <i>Ir. Hj. Mohd. Khalil Ishak</i>
11.00 am – 11.15 am	OP- P2-02	A Port-Stream Based Equation Oriented Modelling Of Complex Distillation Column: A Dividing Wall Column Case Study <i>R. Idris, N. Harun, M.R. Othman*</i>
11.15 am – 11.30 am	OP- P2-03	A Review of Human Factors Qualitative Analysis Tools <i>Norafneeza Norazahar</i>
11.30 am – 11.45 am	OP- P2-04	Specific Absorption Rate (SAR) Tissue-Equivalent Liquid in the Quantification of Electromagnetic Field Exposure to Human: Its Fundamental and Review <i>Mohd Sollehudin Md Said and Norhudah Seman*</i>
11.45 am – 12.00 pm	OP- P2-05	Hybrid Tool for Occupational Health Risk Assessment and Fugitive Emissions Control in Chemical Processes Based on the Source, Path and Receptor Concept <i>Yousef A. Alhamdani, Mimi H. Hassim*, Shaik M. Salim, Paul Sharrat, Aishah A. Jalil</i>
12.00 pm – 12.15 pm	OP- P2-06	Embrace Living Safety Concept to Raise Proactiveness Within Company's Safety Performance and Culture <i>Taram Satiraksa Wan Abdullah, Ramlan Abdul Aziz, Mohd. Kamaruddin Abd. Hamid*</i>
12.15 pm – 12.30 pm	OP- P2-07	Pesticide Exposure for Oil Palm Plantation Workers: Wipe Sampling of Acephate <i>Ismail, I., Saharuddin, M.I.S, Roslan, M.N.F</i>
12.30 pm – 12.45 pm	OP- P2-08	Process Safety Consideration for Herbal Processing Industry <i>Mohamad Fazli Masri*, Kamarizan Kidam, Norsuhaila M. Pilus, Al-Razeed Zamri</i>

12.45 pm – 01.00 pm	OP- P1-QA	Q & A
<b>Session 3 - P3: Environmental Protection 2 (EP2)</b> <b>Venue: Meeting Room 3</b> <b>Session Chairman: Dr. Ebrahim Abouzari Loft</b>		
Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	EP2- P3-01	Ambient Air+C269:C286 Quality Investigation and Health Risk Assessment During Haze and Non-Haze Periods in Johor Bahru, Malaysia  <i>Hanafi N.H., Hassim M.H.,*, Noor Z.Z, Johari A, Ahmad A</i>
11.00 am – 11.15 am	EP2- P3-02	Isotherm, Kinetics and Thermodynamics of Methylene Blue Dye Adsorption onto Co2-Activated Pyrolysis Tyre Powder  <i>Mohd Shafiq Hakimi Mohd Shaid, Muhammad Abbas Ahmad Zaini, Noor Shawal Nasri</i>
11.15 am – 11.30 am	EP2- P3-03	Occurrence of Pharmaceutical and Personal Care Products in Commercial Green Mussel ( <i>Mytilus Viridis</i> ) Cultured at The Estuary of Sungai Melayu, Johor, Malaysia  <i>Muhammad Arif Haikal Bin Mohamad Hanafi, Yong Ee Ling*</i>
11.30 am – 11.45 am	EP2- P3-04	Theoretical and Experimental Comparison of Mr-Deduster Pilot Plant Performance  <i>Norelyza Hussein*, Mohd Rashid, Nur Hasyimah, Che Hafizan, Nur Syamimi, Khalida Muda, Nor Ruwaida</i>
11.45 am – 12.00 pm	EP2- P3-05	Two-Stage Anaerobic Digestion for Raw Palm Oil Mill Effluent Treatment: Start-Up Process  <i>Khairunnisa, Abdul Halim; Ee Ling, Yong*; Sumaeth Chavadej; Yu-You, Li</i>
12.00 pm – 12.15 pm	EP2- P3-06	Degradation of Bisphenol A (BPA) In Household Water by Photocatalytic Dual Layer Hollow Fiber (DLHF)  <i>Roziana Kamaludin, Mohd Hafiz Dzarfan Othman*, Siti Hamimah Sheikh Abdul Kadir, A.F. Ismail, Mukhlis A Rahman, Juhana Jaafar</i>
12.15 pm – 12.30 pm	EP2- P3-07	Investigating The Occurrence of Ppcps in Domestic Wastewater Treatment Plant in Johor Bahru, Johor, Malaysia  <i>Yacob H., Ismail S.H., Yong E.L. *, Hee-Young, K., Oh, J-E.</i>
12.30 pm – 12.45 pm	EP2- P3-08	Effect of pH on Photocatalytic Degradation of Ibuprofen Using Fibrous Silica Titania  <i>Fauzi, A.A., Jalil, A.A. *, Mohamed, M, Triwahyono, S. M. Ibrahim</i>
12.45 pm – 01.00 pm	EP2- P3-QA	Q & A

**Session 3 - P4: Process System Engineering 2 (PSE2)**

**Venue: Meeting Room 4**

**Session Chairman: Dr. Saharudin Haron**

Time	Paper ID	Paper Title / Authors
10.45 am – 11.00 am	PSE2- P4-01	Systematic Algebraic Approach for Retrofit of Palm Oil Milling Process <i>May May Tan, Viknesh Andiappan, Mimi H. Hassim, Yoke Kin Wan,*</i>
11.00 am – 11.15 am	PSE2- P4-02	A New Intensified and Sustainable Process for The Recovery of Palm Oil from Spent Bleaching Earth Based on Supercritical Fluid Extraction <i>W.A. Oladosu ,Z.A.Manan*, S.R.Wan Alwi</i>
11.15 am – 11.30 am	PSE2- P4-03	Retrofit of Heat Exchanger Network with Process Changes using Streams Individual Heat Curves <i>Y.Q. Lai, Zainuddin A. Manan*, S.R. Wan Alwi</i>
11.30 am – 11.45 am	PSE2- P4-04	Microwave-assisted Spray Drying: Mathematical Modelling And Experiments <i>Bello Aliyu Abdulhammeed, Arshad Ahmad*, Adnan Ripina,b, Ali Al-Shatri, Bemgba Bevan Nyakuma, Olagoke Oladokun, Habib Alkali</i>
11.45 am – 12.00 pm	PSE2- P4-05	Sensor Fault Detection and Isolation Using Unknown Input Observer in Multicomponent Distillation Column <i>Ali Hussein Ali Al-Shatri, Arshad Ahmad*, Aliyu Abdul-Hammeed Bello, Bemgba Bevan Nyakuma, Olagoke Oladokun, Habib Alkali</i>
12.00 pm – 12.15 pm	PSE2- P4-06	Evaluating on a Minimum Approach Temperature in Sub-Ambient Processes Using New Numerical Exergy Problem Table Algorithm (EX-PTA) <i>Muhammad Nurheilmi Hamsani, Peng Yen Liew*, Timothy G. Walmsley, Sharifah Rafidah Wan Alwi</i>
12.15 pm – 12.30 pm	PSE2- P4-07	Total Site Centralised Water Integration with Regeneration Unit <i>Ahmad Fikri Ahmad Fadzil, Sharifah Rafidah Wan Alwi*, Zainuddin Abd Manan, Jiří Jaromír Klemeš</i>
12.30 pm – 12.45 pm	PSE2- P4-08	Interaction Analysis of Thin Layer Polyamide Formation by Reaction of TMC And MPD on The Pervaporation Membrane by Dynamic Molecular Simulation <i>Jusoh W.Z.A.W. , Rahman S. A. *, Ahmad A. L. Mokhtar N. M.</i>
12.45 pm – 01.00 pm	PSE2- P4-QA	Q & A
01.00-02.00 pm	Lunch	
	Venue: Makan Kitchen	

**SESSION 4**

4 Parallel Session (15 min/Presenter + 15 min Q&A)

**02.00 pm – 04.00 pm**

**Session 4 - P1: Renewable Energy 4**

**Venue: Meeting Room 2**

**Session Chairman: Dr. Pooria Moozarm Nia**

Time	Paper ID	Paper Title / Authors
02.00 pm – 02.15 pm	RE4-P1-01	Characterization of The Phosphoric Acid Doped Polybenzimidazole for Electrolysis Applications <i>Mohd Fadhzir Ahmad Kamaroddin, Nordin Sabli*, Tuan Amran Tuan Abdullah, Adnan Ripin, Arshad Ahmad, Luqman Chuah Abdullah, Shamsul Izhar</i>
02.15 pm – 02.30 pm	RE4-P1-02	Lignin-Treated-Trichloromethylsilane as Oil Absorbent in Oil Spill Water Treatment <i>Azhar N. A. *, Majid R. A. *, Rahman W.A.W, Adrus N.</i>
02.30 pm – 02.45 pm	RE4-P1-03	Potential of bacterial pigments as sensitizers dye-sensitized solar cell (DSSC) application <i>Azham Zulkharnain, Yonas Mehari Tesfamariam, Wan Hasalehah Wan Ali, Nor Hasmaliana Abdul Manas</i>
02.45 pm – 03.00 pm	RE4-P1-04	Hybrid Power System Design Considering Safety and Resilience <i>Jamaluddin K., Wan Alwi S.R. *, Manan Z.A., Hamzah K.b, Klemes J.J.</i>
03.00 pm – 03.15 pm	RE4-P1-05	Modification on the Characterization Method for Landfilled MSW in Malaysia <i>Iqbal Tahir, Rozainee Taib*, Ng Pang Soon, Faiz Elham</i>
03.15 pm – 03.30 pm	RE4-P1-06	Pretreatment and Fractionation of Oil Palm Frond by Ozonolysis Process for Enhancing Reducing Sugar <i>Wan Nor Nadyaini Wan Omar, *Nor Aishah Saidina Amin</i>
03.30 pm – 03.45 pm	RE4-P1-07	Comprehensive Analysis of Active and Passive Daylighting Contribution Towards Power Savings in an Office Room <i>Nneka Obianuju Onubogu, Kok-Keong Chong</i>
03.45 pm – 04.00 pm	RE4-P1-QA	Q & A

**Session 4 - P2: Sustainable Process Operation & Environmental Protection (SE)**

**Venue: Meeting Room 3**

**Session Chairman: Dr. Mohd Johari Bin Kamruddin**

Time	Paper ID	Paper Title / Authors
02.00 pm – 02.15 pm	SE-P2-01	Integrated Process via Big Data for Earthquake <i>Leong Wai Yie, Choo Kok Wah</i>



02.15 pm – 02.30 pm	SE-P2-02	Process Intensification of Post-Combustion CO <sub>2</sub> Capture from Cement Plant Flue Gas  <b>Nguyen Quang Minh, Agus Saptoro*, Wendy Pei Qin Ng</b>
02.30 pm – 02.45 pm	SE-P2-03	Charcoal characterization and application in solar evaporator for seawater desalination  <b>Jamil.R, Kan W.E. Isha R*,</b>
02.45 pm – 03.00 pm	SE-P2-04	Optimization of Textile Sludge Based Activated Carbon Using a Novel Composite Activating Agent for Dye Removal  <b>Tang Shu Hui, Lee Lin Zhi, Muhammad Abbas Ahmad Zaini</b>
03.00 pm – 03.15 pm	SE-P2-05	Effect of Nitric Acid Oxidation on Activated Carbon Monolith Supported Metal Oxides Based Catalyst  <b>S. Kiman, W.A. Wan Ab Karim Ghani, T.S.Y. Choong and R. Umer</b>
03.15 pm – 03.30 pm	SE-P2-06	Enhancing Gas Separation Performance of Graphene Oxide-Incorporated Poly Hollow Fiber Membranes Through Surface Coating  <b>Roslan R.A., Lau W.J., Karim Z.A., Goh P.S., Hasbullah H., Ismail A.F.</b>
03.30 pm – 03.45 pm	SE-P2-QA	<b>Q &amp; A</b>

**Session 4 - P3: Environmental Protection 3 (EP3)**

Venue: Meeting Room 4

Session Chairman: Prof. Dr. Chong Kok-Keong

Time	Paper ID	Paper Title / Authors
02.00 pm – 02.15 pm	EP3-P3-01	Tetragonal Stabilization of Microwaved-Silica Doped Mesoporous Zirconia Nanoparticles (SZ) In Ammonium Hydroxide for Enhanced Bisphenol a Degradation  <b>N.S. Hassan, A.A. Jalil*, S. Triwahyono, M. Mohamed</b>
02.15 pm – 02.30 pm	EP3-P3-02	Development of aerobic granules in Sequencing Batch Reactor system for treating high temperature domestic wastewater  <b>Mohd Hakim Ab Halim , Aznah Nor Anuar*, Zaini Ujang, Mustafa M. Bob</b>
02.30 pm – 02.45 pm	EP3-P3-03	Creating Climate-Disaster Resiliency in Calamianes Group of Islands (BUSUANGA, CORON, AND CULION)  <b>Glenn Banaguas*, Raeyan Ramos, Marlon Co, John Matthew Glico, Victor Angelo Fuentesbella, Angelo Mari Regalado, Steve Du, Don Jansen Dy, Alec Chiu Wan, Marz Angelo Wisco, Austin Yatco, Christian Pangilinan, Karina Bernert, Demiee Grace Sy, Sharlene Yao, Celandine Javier, Jeanette Sabocojan, Alyana Zen Rodriguez</b>
02.45 pm – 03.00 pm	EP3-P3-04	Decision making tool for assessing process hazard and risk based on Process Flow Diagrams: Process Design of Biorefineries  <b>Muhammad F. Husin, Mimi H. Hassim, Denny K. S. Ng,</b>
03.00 pm – 03.15 pm	EP3-P3-05	Minimum Ignition Energy of Engineered Nanomaterials  <b>Siti Hawa Nabilah Binti Zahari, Risza Binti Rusli*</b>

03.15 pm – 03.30 pm	EP3- P3-06	P-Xylene Improvement in Toluene Disproportionation by Fibrous Silica Beta Zeolite <i>N.N.M Ghani, A.A.Jalil*, M.A.A. Aziz, S.Triwahyono S. Athiwalam</i>
03.30 pm – 03.45 pm	EP3- P3-QA	Q & A
04.00 – 05.00 pm		Closing Caremony & Afternoon Tea Break Venue: Ballroom 2