Adelaide University-Universiti Teknologi PETRONAS Joint Research Roundtable - Program

A – Adelaide Time (ACDT); **M** – Malaysia Time (MYT)

PROGRAM

CHAIRS

Associate Professor Woei Saw, School of Chemical Engineering, Adelaide University

Associate Professor Suriati Sufian, Chemical Engineering Department, UTP

TIME	DESCRIPTION
10 mins	**Welcome and Opening**
13:30 – 13:33 ACDT / 11:00 – 11:03 MYT	**Welcome** Associate Professor Woei Saw, Co-chair, Adelaide University
13:33 – 13:39 ACDT / 11:03 – 11:09 MYT	**Opening Remarks** Professor Jessica Gallagher, Deputy Vice Chancellor (International and External Engagement), Adelaide University Professor Ir. Dr. Hilmi Mukhtar, Vice President Partnership & Ecosystem Building, UTP
13:39 – 13:40 ACDT / 11:09 – 11:10 MYT	**Introduce Session and Presentations** Associate Professor Suriati Sufian, Co-chair, UTP
32 mins	**Theme: Sustainable Green Transition**
13:40 – 13:44 ACDT / 11:10 – 11:14 MYT	**Presentation 1**: ***Translating fundamental materials research into clean energy tech*** Professor Drew Evans, College of Engineering and IT, Adelaide University
13:44 – 13:48 ACDT / 11:14 – 11:18 MYT	**Presentation 2**: *Microalgae and Sustainability: From Cultivation to Applications* Dr. Lam Man Kee, Chemical Engineering Department, UTP
13:48 – 13:52 ACDT / 11:18 – 11:22 MYT	**Presentation 3**: *Sustainable Polymer Production via Rare-Earth Catalyzed CO_2 Conversion for the Green Transition* Dr. Zulkifli Merican Aljunid Merican, Applied Science Department, UTP
13:52 – 13:56 ACDT / 11:22 – 11:26 MYT	**Presentation 4**: *Case studies of energy and emission reduction in the industry* Dr. Tim Lau, School of Electrical and Mechanical Engineering, Adelaide University
13:56 – 14:00 ACDT / 11:26 – 11:30 MYT	**Presentation 5**: *Hydrogen Gas Capture and Storage using Ionic Liquids, Deep Eutectic Solvents and Metal Organic Frameworks / Covalent Organic Frameworks* Dr. Aliyu Adebayo Sulaimon, Petroleum Engineering Department, UTP
14:00 – 14:04 ACDT / 11:30 – 11:34 MYT	**Presentation 6**: *Multiscale physics of geological CO_2 and hydrogen storage* Professor Pavel Bedrikovetski, School of Chemical Engineering, Adelaide University
14:04 – 14:08 ACDT / 11:34 – 11:38 MYT	**Presentation 7**: *Utilizing microalgae for green transition in biohydrogen and biochemical sectors* Dr. Lim Jun Wei, Applied Science Department, UTP
14:08 – 14:12 ACDT / 11:38 – 11:42 MYT	**Presentation 8**: *Efficient high fidelity simulation of steep breaking ocean waves* Dr. Mohamed Latheef, Civil & Environmental Engineering Department, UTP

15 mins	**Discussion and Q&A session (Sustainable Green Transition)**
14:12 – 14:27 ACDT / 11:42 – 11:57 MYT	Facilitated by Associate Professor Suriati Sufian, Co-chair, UTP
16 mins	**Theme: Hydrogen**
14:27 – 14:31 ACDT / 11:57 – 12:01 MYT	**Presentation 9**: *Materials to convert light into chemicals* Dr. Cameron Shearer, School of Physics, Chemistry and Earth Sciences, Adelaide University
14:31 – 14:35 ACDT / 12:01 – 12:05 MYT	**Presentation 10**: *Utilization of Ionic Liquids in improving Hydrogen Production via AWE and PEM* Dr. Nik Abdul Hadi B. Sapiaa @ Md Nordin, Chemical Engineering Department UTP
14:35 – 14:39 ACDT / 12:05 – 12:09 MYT	**Presentation 11**: *Analysis of helium/hydrogen generation in the Amadeus Basin* Dr. Cecilia Loyola, School of Physics, Chemistry and Earth Sciences, Adelaide University
14:39 – 14:43 ACDT / 12:09 – 12:13 MYT	**Presentation 12**: *Hydrogen production from natural gas pyrolysis* Dr. Zhiwei Sun, School of Electrical and Mechanical Engineering, Adelaide University
10 mins	**Discussion and Q&A session (Hydrogen)**
14:43 – 14:53 ACDT / 12:13 – 12:23 MYT	Facilitated by Associate Professor Woei Saw, Co-chair, Adelaide University
16 mins	**Theme: AI and Quantum Computing**
14:53 – 14:57 ACDT / 12:23 – 12:27 MYT	**Presentation 13**: *New computational methods to screen hydrogen storage materials* Dr. Jack Evans, School of Physics, Chemistry and Earth Sciences, Adelaide University
14:57 – 15:01 ACDT / 12:27 – 12:31 MYT	**Presentation 14**: *Towards Physics-Informed Quantum Machine Learning for Plasma-Mediated Chemistry & Material Interactions* Dr. Eric Ho Tatt Wei, Electrical & Electronics Engineering Department, UTP
15:01 – 15:05 ACDT / 12:31 – 12:35 MYT	**Presentation 15**: *Distributed Edge Inference for Autonomous Agents with Mixture of Experts* Dr. Yee Wei Law, School of Electrical and Mechanical Engineering, Adelaide University
15:05 – 15:09 ACDT / 12:35 – 12:39 MYT	**Presentation 16**: *Evolutionary Dynamical Approaches to Neural Network Training* Dr. Siti Nurlaili Bt Karim, Computing Department, UTP
10 mins	**Discussion and Q&A session (AI and Quantum Computing)**
15:09 – 15:19 ACDT / 12:39 – 12:49 MYT	Facilitated by Associate Professor Suriati Sufian, Co-chair, UTP
6 mins	**Funding Mechanisms**
15:19 – 15:25 ACDT / 12:49 – 12:55 MYT	***Funding Opportunities: Malaysia, Australia and Internal Funding*** Associate Professor Woei Saw, Co-chair, Adelaide University
5 mins	**Wrap-Up, Closing Remarks and Next Steps**
15:25 – 15:30 ACDT / 12:55 – 13:00 MYT	Associate Professor Suriati Sufian, Co-chair, UTP
	END OF PROGRAM