AGENDA (Tentative)
The 32nd PPC Symposium on Petroleum, Petrochemicals, and Polymers
and
The 17th Research Symposium on Petrochemical and Materials Technology
(PPC & PETROMAT SYMPOSIUM 2026)

July 7-9, 2026

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July 7, 2026

17.00–19.00	**Onsite Registration** **Room: Mandarin AB**

July 8, 2026

7.45–8.15	**Registration** **Room: Mandarin AB**
	PART 1
08.15–08.40	**Introduction and Welcome Remarks** **Prof. Pramoch Rangsunvigit** Dean, The Petroleum and Petrochemical College **Prof. Hathaikarn Manuspiya** Director, Center of Excellence on Petrochemical and Materials Technology **Mr. Surachate Chalothorn** President of the Thai Institute of Chemical Engineering and Applied Chemistry (TIChE) **Prof. Dr. Yuttanant Boonyongmaneerat** Metallurgy and Materials Science Research Institute (MMRI)
08.40–08.55	**Opening Remarks** **Prof. Wilert Puriwat** President, Chulalongkorn University **Group Photo**
08.55-09.00	**Sponsorship Recognition**
09.00–09.30	**Plenary Session** **“Chemical Recycling, Upcycling of Polyesters by Catalysis”** **Prof. Kotohiro Nomura** Tokyo Metropolitan University, Japan Chair: Prof. Boonyarach Kitiyanan, PPC
09.30–10.00	**Break & Networking**

PART 2						
	Session: Petromat **Chair:** ..... **Room**: Budsaba	**Session 1:** AI Digital Tools for Process & Materials Engineering **Chair:** Dr. Treerat Vacharanukrauh, PPC **Room:** Kannika	**Session 2:** Cutting-Edge Catalysis **Chair:** Prof. Bunjerd Jongsomjit, CU **Room:** Karaked	**Session 4:** Frontier Materials for Future Energy **Chair:** Asst. Prof. Junjuda Unruangsri, CU **Room:** Rodsukon	**Session 5:** Advanced Functional Materials **Chair:** Dr. Nitikorn Ditthawat, MUT Dr. Phimchanok Sakunpongpitiporn, MUT **Room:** Mandarin A	**Session 7:** Emerging Net-Zero Technologies **Chair:** Dr. Chitiphon Chuaicham, CU **Room:** Pornphairin
10.00-10.30	Session: PETROMAT Project Progress Report "Postdoctoral and Postgraduate Researchers Incubation Project through the Center of Excellence Platform for Future Industry (Year 6)" [Grant Number B13F690029] (Presented in Thai) **Prof. Hathaikarn Manuspiya** The Petroleum and Petrochemical College, Chulalongkorn University **with the Project's Postdoctoral Fellows**	"Theoretical Perspective on Electronic Factors Promoting C-C Coupling for CO2 Reduction Reaction on Graphyne Surface" **Dr. Kaito Takahashi** Sirindhorn International Institute of Technology (SIIT)	"Phosphorus-Enhanced Supported Metal Catalysts: A Leap in Selective CO_2 to CO Conversion" **Prof. Tetsuya Shishido** Tokyo Metropolitan University	"Amorphous Materials for Next-Generation Batteries" **Assoc. Prof. Jie Zhao** College of Smart Materials and Future Energy, Fudan University	"Designing color by dye-nanospace interactions" **Prof. Makoto Ogawa** Institute for Aqua Regeneration, Shinshu University	"Phase-separation-based CO_2 capture from air and catalytic CO_2 conversions using base polyoxometalates" **Prof. Seiji Yamazoe** Tokyo Metropolitan University
10.30–11.00		"Evolution of drilling fluid rheology: Historical perspectives and current trends" **Dr. Bùi Thanh Bình** PetroVietNam University	"Harnessing Pore Architecture and Functional Design in Metal-Organic Frameworks for High-efficiency Ammonia Separation" **Dr. Shih-Yuan Chen** National Institute of Advanced Industrial Science and Technology	"Lithiated Organic Coverages on SiOx Anodes: Promoting Li_2O Formation and Suppressing Lithium Silicate Growth for Stable Lithium-Ion Batteries" **Prof. Fu-Ming Wang** National Taiwan University of Science and Technology	"....." **Assoc. Prof. Wei Han** The Hong Kong University of Science and Technology	"Bio-enhanced Hydrogen Production and Carbon Mineralisation in Mafic-Ultramafic Rocks" **Prof. Hamid Roshan** University of New South Wales
11.00–11.10		"....." **Dr. Cindy Dianita** Universitas Indonesia	"Ash particles from biomass residue: Mechanistic understanding of biomass ash adhesion at high temperatures" **Dr. Genki Horiguchi** National Institute of Advanced Industrial Science and Technology	"Preparation of conductive carbon from softwood kraft lignin and its application" **Prof. Yasumitsu Uraki** Hokkaido University	"Polyspectral Volumetric Printing – Reshaping the Future of Precision & Multimaterial Manufacturing" **Assoc. Prof. Aminul Islam** Technical University of Denmark	"....." **Assoc. Prof. Chenhao Sun** University of New South Wales
11.10–11.20			"Half-Titanocene Catalysts Bearing Unsymmetrical Imidazolin-2-Iminato Ligands for Ethylene/Cyclic Olefin Copolymerization" **Ketsanee Jantawan**, TMU			
			Session 3: Sustainable and Green Materials **Chair:** Prof. Peerasak Paoprasert, TU Assoc. Prof. Sarute Ummartyotin, TU			
11.20–11.30						"Valorization of bauxite mining waste for various applications" **Dr. Arif Hidayat** Universitas Islam Indonesia
11.30–11.40		"Machine Learning in Flow Assurance: Gas Hydrate mitigation" **Assoc. Prof. Dr. Bhajan L. Rahanu** Universiti Teknologi PETRONAS (UTP)	"Fiber Production Technologies Oriented Toward Environmental Sustainability" **Prof. Takeshi Kikutani** Tokyo Institute of Technology	"Cellulose as a Versatile Source for Bioproducts" **Prof. Mochamad Chalid** Universitas Indonesia	"Development of Multifunctional Bi-Layer Electrospun PLA/CMNP and PVA/Aloe vera Nanofibers for Advanced Wound Dressing Applications" **Dilanka Dimuthu,** PPC	
11.40–11.50		"Solid-liquid equilibrium and kinetic-adjusted modeling for the fractional crystallization of long-chain fatty acids in tert-butanol" **Mr. Tinn Nakdee** CU			"Plant-Mediated Preparation of Zn/Hydroxyapatite and Antibacterial Activity Examination" Mr. Galih Dwiki Ramanda, Institut Teknologi dan kesehatan Muhammadiyah Kalimantan Barat	"Enhancing Climate Resilience and Flood Disaster Prevention in Strategic Industries through SIHYDRO: An IoT-Based Digital Environmental Intelligence Platform" **Mr. Muhammad Rayhan,** Persero
11.50–12.00		"Privacy-Preserving Federated Learning Framework for Distributed Chemical Process Optimization " **Mr. Teetat Pipattaratonchai** Triumdom Suksa	"Enzymatic Hydrolysis of Pectin to Pectic Oligosaccharide: Utilization of Lime Peel Waste" **Asst. Prof. Satit Phiyanalinmat**, CMU	"Functionalization of regenerated cellulose membrane for electrodialytic separation of Nickel and Iron via assisting chloride coordination" Assoc Prof. Ganjar Fadillah, UII	"Plant-Mediated Synthesis of Cu_2O Nanoparticles as Potential Antibacterial Agent" **Ms. Ashliha Latifatuni'sa**, UII	"Comparative Life Cycle GHG and Exergy Analysis of Hydrogen Production from Municipal Solid Waste via Gasification and Chemical Looping Gasification in Thailand" **Mr. Tanawat Charunratchata**, KU
12.00–13.30	**Lunch**					

PART 3						
	Session: Petromat **Chair:** ..... **Room:** Budsaba	**Session 6:** Energy Landscape Transformation **Chair:** Assoc. Prof. Teerawat Sema, CU **Room:** Kannika	**Session 3:** Sustainable and Green Materials **Chair:** Assoc. Prof. Sasiradee Jantasee, RMUTT **Room:** Karaked	**Session 5:** Advanced Functional Materials **Chair:** Dr. Nithiwach Nawaukkaratharnant, CU **Room:** Rodsukon	**Session 5:** Advanced Functional Materials **Chair:** Assoc. Prof. Stephan Thierry Dubas, PPC **Room:** Mandarin A	**Session 7:** Emerging Net-Zero Technologies **Chair:** Asst. Prof. Nutchapon Chiarasumran, KU **Room:** Pornphairin
13.00–13.30		"Catalytic Transformation of Triglycerides and Fatty Acids into Sustainable Biofuels" **Prof. Taufiq Yap Yun Hin** Universiti Putra Malasia	"Advanced Functional Carbohydrate Biomaterials for Medical Applications." **Prof. Ravin Narain** University of Alberta	"A unified mechanistic framework for drug release from polymeric materials: the Multicomponent Interactive Release (MIR) model" **Prof. Pitt Supaphol** PPC	"....." **Assoc. Prof. Daniel Crespy** VISTEC	"....." **Assoc. Prof. Zhenyuan Yin** Tsinghua Shenzhen International Graduate School
13.30–14.00		"....." **Dr. Rajnish Kumar** Indian Institute of Technology Madras	"....." **Prof. Masanobu Naito** National Institute for Materials Science	"Colloidal building blocks for advanced materials" **Prof. Beniamino Sciacca**	"....." **Prof. Dr. Adrian Evan Flood** VISTEC	"Accelerated Carbon Mineralisation: Bridging Fundamental Mechanisms with Scalable Climate Solutions" **Dr. Apurav Krishna Koyande** Universiti Teknologi PETRONAS (UTP)
14.00-14.10	Special Lecture and Workshop "Accelerating Deep-Tech Innovation into Sustainable Impact" **Mr. Alistair D'rozario** Arakus Black Co., Ltd. and **Mr. Narith Phadungchai** KP Venture Partners Co., Ltd.	"Organic Waste-to-Energy in Southeast Asia: Pathways for Methane Reduction and Renewable Energy" **Assoc. Prof. Andante Hadi Pandyaswargo** Waseda University	"FeCl3–Amine Catalyzed Transesterification for Quantitative Chemical Recycling of PET Wastes" **Dr. Kanticha Jaiyen**, TMU	"Photocatalyst of Hydroxyapatite-supported Co_3O_4 prepared from Snail Shell for Degradation of Dye-Contaminated" **Mr. Raihan Baihaqi**, UII	"Hydrophilic Macromolecular Immobilisation and Release as a Route to Surface Engineering of High-Performance Materials" **Asst. Prof. Gareth Ross** Naresuan University	"....." **Dr. Ibrahim bin Yakub** Universiti Malaysia Sarawak
14.10-14.20			"Techno-Economic Evaluation of Butadiene Production from Bioethanol" **Kanokporn Pongjunla** CU	"Light-Responsive Cyclodextrin/Azobenzene-Based Supramolecular Hydrogels" **Mr. Henry Chukwunenye Ndibe**, CU		
14.20-14.30		"Stress Corrosion Cracking of Aluminum in Chloride-Containing Solution" **Assoc. Prof. Dr. Eng. Sri Hastuty, S.T., M.T.** Universitas Pertamina	"Characterization of Carbon Fiber-Reinforced Polybenzoxazine Composites for Self-Lubricating Performance" **Ms. Rungnapa Boonchaimart** SWU	"Magnetic Biochar Derived from Orange Peel Waste for Laboratory Wastewater Treatment" **Ms. Solekah**, UII	"Biomimetic Hot-Melt Adhesive using Galloyl-grafted Polypropylene for Multi-substrates" **Dr. Paripat Kraisornkachit,** National Institute for Material Science	
14.30-14.40			"Fabrication of Foam Ceramics from Lignite Bottom Ash for Construction Material Applications" **Mr. Chhich Thai** CU	"Upcycling of Chicken Bone Waste as Raw Material for the Preparation of Hydroxyapatite-supported Fe_2O_3 Photocatalyst Upcycling of Chicken Bone Waste as Raw Material for the Preparation of Hydroxyapatite-supported Fe_2O_3 Photocatalyst" **Ms. Septiana Intan Permata**, UII		"Enhancing Asset Reliability Through AI-Driven Control Valve Monitoring" **Assoc. Prof. Ir. Dr. Haslinda binti Zabiri** Universiti Teknologi PETRONAS (UTP)
14.40-14.50		"Geoscience Pathways to Geologic Hydrogen Exploration in ASEAN" **Prof. Ir. Eddy Ariyono Subroto** Universitas Pertamina	"Thermo-Mechanical Devulcanization of Ground Tire Rubber by Twin-Screw Extrusion: Effect of TESPT and Processing Conditions" **Ms. Sochetra Sen**, CU	"Conversion of chicken bone waste into magnetic photocatalyst of CuFe2O4-supported hydroxyapatite for dye degradation under UV-illuminated photocatalytic treatment" **Mr. Ibnu Maulana**, UII	"$NiFe_2O_4$-Modified Hydroxyapatite using Chicken Bone Waste as Photocatalyst for Bromophenol Blue Removal" **Ms. Zakiyya Salma Hamidah**, UII	
14.50-15.00			"Direct Air Capture Using Free-Flowing Silica-Hybrid Deep Eutectic Solvent Powder" **Mr. Jerald Tupaz Villarmino** CU			
Break						
PART 4						
	Poster Presentation & Evaluation					