PART 2

	Session 1: AI Digital Tools for Process & Materials Engineering **Chair:** Dr. Ratchanon Piemjaiswang, CU **Room:** Mandarin A	**Session 2:** Cutting-Edge Catalysis **Session 4:** Energy Landscape Transformation: Renewable Generation, Storage, and Conversion **Chair:** Prof. Boonyarach Kitiyanan, PPC **Room:** Karaked	**Session 3:** Advanced Materials Innovation **Session 4:** Energy Landscape Transformation: Renewable Generation, Storage, and Conversion **Chair:** Dr. Rongrong Cheacharoen, MMRI Dr. Satita Thiangtham, MUT **Room:** Kannika	**Session 5:** Carbon & Sustainability Solutions for a Net-Zero Future **Chair:** Asst. Prof. Pichaya In-na, CU **Room:** Pornphairin	**Session 6:** The 9th Shanghai-Kyushu-Yeungnam (SKY2025) Symposium **Room:** Budsaba	**Session 7:** Workshop on Water 2025, by Shinshu University **Room:** Rodsukon
10.00-10.30	"A Synergy of AI and Physics-Based Modeling for pH Prediction in Tubular Reactor" **Assoc. Prof. Chanin Panjapornpon** Kasetsart University	"Metal–Organic Framework Materials for Energy-Efficient Ammonia Separation" **Dr. Shih-Yuan Chen** National Institute of Advanced Industrial Science and Technology (AIST)	"Li1.3Al0.3Ti1.7(PO4)3 Solid Electrolytes Synthesized by a Microwave-assisted Hydrothermal Reaction for Li all-solid-state Battery Applications" **Prof. Wei-Ren Liu** Chung Yuan Christian University	"Harnessing Clathrate Hydrates for Energy-Efficient Produced Water Management" **Assoc. Prof. Nagu Daraboina** The University of Tulsa		
10.30–11.00	"B-doped fullerene as a high-performance metal-free electrocatalyst for CO reduction reaction" **Prof. Jun Nakamura** The University of Electro-Communications (UEC Tokyo)	"Preparation and hybridization of titania particles to control the photocatalytic reactions" **Prof. Makoto OGAWA** Shinshu University	"Investigations of organic coverage (OC) design on lithium-ion battery and the beyond" **Prof. Fu-Ming Wang** National Taiwan University of Science and Technology	"Decoding Decarbonization through Clathrate Hydrates" **Prof. Praveen Linga** National University of Singapore		
11.00–11.30	"Informatics-based materials engineering and process optimization" **Mr. Omobayashi Kota** Hitachi High-Tech (Thailand) Ltd.	"Positioning Philippine Palm Oil in Southeast Asia's Renewable Energy Transition" **Asst. Prof. Ashraf R. Khater** University of Negros Occidental-Recoletos Asean	"Biochar-Based Catalytic Platforms: Turning Organic Waste into Functional Materials for Environmental Decontamination" **Dr. He Zhang** University of Shanghai for Science and Technology	"Thailand CCUS Alliance (TCCA): Driving CCUS Technology for Carbon Neutrality and Net-Zero Emission Goals **Dr. Kajornsak Faungnawakij** NANOTEC, NSTDA		
11.30–11.45	"Integration of Process Simulation and Metaheuristic Optimization for Economic Enhancement in Oil and Gas Processing Systems" **Dr. Truong Thanh Tuan** Petrovietnam University Asean	"Novel Synthesis of SrTiO3/g-C3N4 photocatalysts for enhanced photocatalytic hydrogen evolution" **Ms. Chiramet Thatsanakunphan** CAO1	"A Novel Hydrothermal Synthesis Process of MIL-53(Al) using Bamboo Biochar as a Sustainable Precursor for CO_2 Adsorption" **Mr. Pisit Phayutcharoenkun** MATO1	"What is NetZero? Why CCUS is important? How sustainable is this route?" **Prof. Rajnish Kumar** Indian Institute of Technology Madras		
11.45-12.00		"Systematic Variation of Oxygen Reduction Reaction Activity with the Number of Nitrogen Dopants in Iron Azaphthalocyanine" **Mr. Takayuki Morishima** CAO2	"ZIF-8 Derived Hierarchical N, S-Doped Carbon Nanocomposites with Embedded Metal Sulfides and Gold Nanoparticles for Label-Free Electrochemical CA-125 Detection" **Dr. Nattharika Runprapan** MATO2			
12.00-12.15	"Data-Driven NARX Modeling and MPC Control for Nonlinear CSTR Systems" **Mr. Kritsana Suwanamad** AIO1			"Development of Decarbonization Technologies in Indonesia to reach Net Zero Emission Goals" **Dr. Muhammad Mufti Azis** Asean Universitas Gadjah Mada		
12.15-12.30						
12.00–13.30	**Lunch**					