



# PYROASIA 2025

10 - 12 DECEMBER 2025  
PATTAYA, THAILAND



## PYROASIA2025 Program Overview

11 December 2025 (Oral Presentation)

11 December 2025			
Time	Room 1	Time	Room 2
08:45 - 09:15	PYROASIA2025 Opening Ceremony		
09:15 - 10:00	<u>Plenary Speaker (PL1)</u> - Professor Toshiaki Yoshioka Topic: The value of pyrolysis in resource circulation		
10.00 - 10.30	<u>Keynote Speaker (KL1)</u> - Professor Guoqing Guan Topic: Catalytic upgrading of bio-oil over hydrophobically modified zeolite catalysts with hollow structure		
10.30 - 10.45	Coffee Break/Poster session		
10.45 - 11.05	<u>Invited speaker (INV1)</u> – Prof. Kalpit Shah Topic: Pilot-Scale Pyrolysis of Biosolids, Biosolids–Canola Straw Blends, and FOGO Using PYROCO™ technology	10.45 - 11.05	<u>Invited speaker (INV6)</u> - Dr. Patchiya Phanthong Topic: Py-GC/MS and UV/Py-GC/MS for evaluation of EVA degradation behavior via UV-accelerated deterioration test under various environmental factors
11.05 - 11.35	<u>KL sponsor 1</u> - Dr. Sathrugnan Karthikeyan (Frontier Laboratories) Topic: Benefits of Analytical Pyrolysis system in advancing Applied Pyrolysis Research	11.05 - 11.35	<u>KL sponsor 2</u> - Dr. Takaya Satoh (JEOL) Topic: Comprehensive characterization of pyrolysis oil using GCxGC-TOFMS, FD-TOFMS, and blank tube FI-TOFMS
11.35-11.50	<u>OC1</u> - Dr. Deepak Kumar Ojha Topic: Methane Pyrolysis for Co-Production of Hydrogen and Graphitic Carbon	11.35-11.50	<u>OC4</u> - Dr. Zhuze Shao Topic: Comparative pyrolytic upcycling of PBAT over CaO, MgO, and ZnO under fast and slow pyrolysis
11.50-12.05	<u>OC2</u> - Shivani Agnihotri Topic: Enhancing pyrolysis efficiency: Investigating bubble dynamics in fluidised Beds with vertical tubes	11.50-12.05	<u>OC5</u> - Professor Sungyup Jung Topic: Role of Carbon Dioxide in the Conversion of Hydrocarbon during Plastic Pyrolysis over Supported Ni catalyst

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Time	Room 1	Time	Room 2
12.05-12.20	<b>OC3</b> - Awosu Emmanuel Ikechukwu Topic : Enhancement of Isoprene Yield through Rapid Pyrolysis of Liquid Isoprene Rubber	12.05-12.20	<b>OC6</b> - Sumin Pyo Topic: Catalytic Pyrolysis of Superabsorbent Polymer from Gel Ice Packs into High-Value Chemicals
12.20-13.15	<b>Lunch Break</b>		
13.15-14.00	<b>Plenary Speaker (PL2)</b> - Prof. Dr. Tharapong Vitidsant Topic: Selective raw materials for prospective products via pyrolysis		
14:00-14:20	<b>Invited speaker (INV2)</b> - Dr. Sonil Nanda Topic: Pyrolytic Valorization of Hydrolyzed Fermentation Residues to Produce High-Value Bio-oil and Biochar	14:00-14:20	<b>Invited speaker (INV3)</b> – Dr. Sathrugnan Karthikeyan Topic: Development of low and ultra trace range calibration standards for micro and nano gram levels microplastics analysis using Py-GCMS
14:20-14:40	<b>Invited speaker (INV5)</b> – Dr. Hendrix Yulis Setyawan Topic: Advancing Biogas Technology with Biochar-Based Additives: A Sustainable Approach	14:20-14:40	<b>Invited speaker (INV9)</b> – Prof. Young-Min Kim Topic: Analytical Advances and Challenges in Microplastic Detection in Food: Emphasis on Py-GC/MS
14:40-14:55	<b>OC7</b> - Pikesh Kumar Topic: Bifunctional Metal–Biochar Catalysts Enabling 5-HMF Production from <i>Melocanna baccifera</i> in a Biphasic Solvent System	14:40-14:55	<b>OC11</b> - Suchetna Kushwah Topic: Unraveling the Effect of Temperature on Marine Macroalgae Pyrolysates via Py-GC/MS Analysis for Bio-Valorization



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Time	Room 1	Time	Room 2
14:55-15:10	<b>OC8</b> - Miss Pattreeya Panpian Topic: Catalytic upgrading of bio-oils from biomass using copper-doped modified hybrid meso-microporous HZSM-5@AlKIT-6 catalyst.	14:55-15:10	<b>OC12</b> - Abubakar Muhammad Hammari Topic: Fixed-Bed Column Adsorption with ANN Modeling for Antibiotic Removal from Wastewater on Modified Cellulose Nano-crystals Derived from Waste Paper
15:10-15:25	<b>OC9</b> - Savankumar Patel Topic: Role of Carbon Dioxide on Biogas Pyrolysis over Biosolids-Derived Biochar Catalyst	15:10-15:25	<b>OC 13</b> - Ranjeet Kumar Mishra Topic: Thermo-Catalytic Co-Pyrolysis of waste Pista Nut Shells and Polystyrene: Effect of Temperature and catalyst loading on pyrolysis products yield and its properties
15:25-15:40	<b>OC10</b> - Ms. Devy Ulandari Topic: Unveiling the Biochar Potential of Chicken Manure through Differential Thermal Gravimetric Analysis	15:25-15:40	<b>OC14</b> - Jihyeon Seo Topic: Sustainable Valorization of Waste Wet Wipes via Catalytic Pyrolysis
15:40-15:55	<b>Coffee Break/poster session</b>		
15:55-16:25	<b>Keynote Speaker (KL2)</b> – Professor Shogo Kumagai Topic: Co-Pyrolysis of Plastics, Biomass, and Petroleum: Recent Advances and Current Developments		
16:25-16:45	<b>Invited speaker (INV4)</b> – Prof. Arshad Salema Topic: Ranking of biomass based on physicochemical and thermogravimetric analysis in a CO <sub>2</sub> environment	16:25-16:45	<b>Invited speaker (INV8)</b> - Dr. Ichi Watanabe Topic: Understanding and Mitigation of Abnormal Peak Shapes Appearing for Pyrolyzates with Mid-Boiling Points in Pyrolysis-GC/MS



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Time	Room 1	Time	Room 2
16:45-17:05	<p><b>Invited speaker (INV7)</b> – Dr. Suchithra Thangalazhy Gopakumar</p> <p>Topic: Prediction of Biochar Properties and the Role of Biochar in the Co-Digestion of Palm Oil Mill Effluent</p>	16:45-17:05	<p><b>Invited speaker (INV10)</b> - Professor Jechan Lee (<i>VDO presentation</i>)</p> <p>Topic: Monomer Recovery from Plastic Wastes via Pyrolysis on MSW Incinerator Bottom Ash Catalyst under Reactive Greenhouse Gas Atmosphere</p>
17:05-17:20	<p><b>OC15</b> - Professor Sanjeev Yadav</p> <p>Topic: FAAE-rich bio-oil production via fast co-pyrolysis of extractive rich waste biomass</p>	17:05-17:20	<p><b>OC20</b> - Dr. Masahiro Hashimoto</p> <p>Topic: Non-Targeted Analysis of Air Pollutants Using Thermal Desorption GC-HRTOFMS with Machine Learning Structural Analysis</p>
17:20-17:35	<p><b>OC16</b> - Professor Shushil Kumar</p> <p>Topic: Direct thermal liquefaction of agro-biomass residues to produce bio-crude</p>	17:20-17:35	<p><b>OC21</b> - Dr. Vaishakh Nair</p> <p>Topic: Application of Machine Learning and RSM Studies of Aeracanut Husk Biochar for Wastewater Remediation</p>
17:35-17:50	<p><b>OC17</b> - Dr. Busigari Rajasekhar Reddy</p> <p>Topic: Effect of Coal Rank and Biomass Torrefaction on the Preparation of Carbon Nanomaterials through Microwave-Assisted Pyrolysis</p>	17:35-17:50	<p><b>OC22</b> - Shreya G Prasad</p> <p>Topic: Exploring the Role of Catalyst Characteristics in Co-Pyrolysis of Biomass and Plastics Using Machine Learning Techniques</p>
17:50-18:05	<p><b>OC18</b> - Haneul Shim</p> <p>Topic: Catalytic pyrolysis of Ginkgo biloba fruit for the production of valuable hydrocarbons using ZSM-5 catalysts</p>	17:50-18:05	<p><b>OC23</b> - Dr. Chinta Sankar Rao</p> <p>Topic: Integrating Thermogravimetric Analysis and Machine Learning for Kinetic and Thermodynamic Evaluation of Bio-Sludge Pyrolysis</p>



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Time	Room 1	Time	Room 2
18:05-18:20	<u>OC19</u> - Hoesuk Yim Topic: Catalytic copyrolysis of woody biomass and waste plastics: mechanistic insights into selective BTX production	18:05-18:20	<u>OC24</u> - Sirivibha S P Topic: Exploring the Influence of Clay-Based Catalyst Characteristics on Plastic Pyrolysis Oil Yield Using Machine Learning Approaches
18:20-19:00	Poster Session/evaluation		
19:00-21:30	<u>Conference Dinner</u>		

## 12 December 2025 (Oral Presentation)

12 December 2025			
Time	Room 1	Time	Room 2
08:30-9:15	<p><b>Plenary Speaker (PL3)</b> - Professor Charles Chunbao XU Topic: Microwave-assisted Pyrolysis of Waste Plastics for Liquid Fuel Production</p>		
9:15-9:45	<p><b>Keynote Speaker (KL3)</b> – Professor Vinu Ravikrishnan Topic: A Holistic Approach to Wind Turbine Blade Recycling &amp; Wastes from Wind Turbine Blade Manufacturing via Thermochemical and Solvothermal Processes</p>		
9:45-10:05	<p><b>Invited speaker (INV12)</b> – Prof. Vaibhav V. Goud Topic: Process optimization of hydrothermal conversion of defatted algal slurry for integrated co-production of sugars and biocrude oil</p>	9:45-10:05	<p><b>Invited speaker (INV11)</b> – Professor Pankaj Tiwari Topic: Thermal recycling of glass fiber-reinforced polymer composites</p>
10:05-10:20	<p><b>OC25</b> - Dr. N. Siva Mohan Reddy Topic: Fe-Catalyzed Hydrothermal Valorization of Tetra Pak Waste for Biofuel and Value-Added Products</p>	10:05-10:20	<p><b>OC28</b> - Kuntalika Das Topic: CFD-based model development for entrained flow reactors for coal gasification</p>
10:20-10:35	<p><b>OC26</b> - Mr. Muhammed Anzil P. K. Topic: Sustainable management of invasive <i>Mucuna bracteata</i> through thermochemical conversion: Kinetic and Thermodynamic Analysis</p>	10:20-10:35	<p><b>OC29</b> - Mr. Manikandan P M Topic: Exploring the Thermochemical Potential of Cashew Agro-Residues: Non-Isothermal Kinetics, Analytical Pyrolysis, and Hydrothermal Liquefaction</p>
10:35-10:50	<p><b>OC27</b> - Dr. Md. Kamrul Islam <i>(VDO presentation)</i> Topic: One-pot oxidative conversion of lignocellulosic biomass over bimetallic catalyst in a mixed solvent system</p>	10:35-10:50	<p><b>OC30</b> - Ms. Avita Agarwal Topic: Performance Study of Nano-structured Orange Peel derived Porous Carbon Electrode for Energy Storage Applications</p>
10:50-11:05	<p><b>Coffee Break</b></p>		



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Time	Room 1	Time	Room 2
11:05-11:25	<b>Invited speaker (INV13)</b> – Prof. Songbo He Topic: Ex-situ catalytic pyrolysis of glycerol to bio-based benzene, toluene, and xylenes	11:05-11:25	<b>OC34</b> - Dr. Mahendra Chinthala Topic: Co-pyrolysis of bituminous coal (BC) with different agro-residues: kinetics and pretreatment effects
11:25-11:40	<b>OC31</b> - Miranti Budi Kusumawati Topic: Influence of Heating Methods on the Synergistic Effect of Vacuum Residue and Tall Oil Co-Pyrolysis	11:25-11:40	<b>OC35</b> - Abhishek Kumar Topic: Thermal Pyrolysis-Assisted Synthesis of Hierarchical Porous Carbon from Bamboo Waste for Enhanced Supercapacitors
11:40-11:55	<b>OC32</b> - Dr. Le Kim Hoang Pham Topic: One-pot synthesis of NiCo/Zeolite derived from rice husk for catalytic pyrolysis of coconut coir to aromatic hydrocarbon	11:40-11:55	<b>OC36</b> - Dr. Mohammad Forrukh Hossain Khan Topic: Prospects of Rare Earth Element Recovery from Coal Fly Ash Generated by thermal power-plants of Bangladesh
11:55-12:10	<b>OC33</b>	11:55-12:10	<b>OC37</b>
12:10-12:40	<b>Keynote Speaker (KL4)</b> – Professor Kaustubha Mohanty Topic: Bio-oil Production via Co-Hydrothermal Liquefaction of Dairy Wastewater Grown Microalgae and Dairy Sludge: Synergistic effect and Sustainable Energy Generation		
12:40-12:55	Closing Ceremony Award		



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Thammasat University Research Unit  
Bioenergy  
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## PYROASIA2025 – Poster Session

Poster code	Registration code	Presenter Name	Topic
PT1	PT-AN-001	Mr. Deepraj Sarkar	Fabrication and Characterization of Starch-Based Bioplastics with Waste Flower Extract for Food Packaging Applications
PT2	PT-AP-001	Amit Tiwari	Synthesis of biochar from microwave assisted co-pyrolysis of tea waste and coal for supercapacitor application
PT3	PT-AN-002	Ms. Nawaporn Permsombut	Optimization and Kinetic Study of Used Lubricant Oil Pyrolysis for Diesel-like Fuel Production Using a Semi-Batch Reactor
PT4	PT-AP-002	Ms. Tanushka Florence Panicker	Thermo-catalytic co-pyrolysis of waste biomass and plastic: Process parameter optimization and characterization of liquid fuel
PT5	PT-AP-004	Anuradha K	Production and characterisation of biochar derived from co-pyrolysis of waste biomass and plastic for material application
PT6	PT-AN-005	Dr. Sachin Kuriachan E	Kinetic Analysis of Glass Fiber Reinforced Polymer Composite Pyrolysis Using the Distributed Activation Energy Model
PT7	PT-AP-005	Sonal Vithoba Tarkar	Potential of green adsorbent derived from waste lignin for pollutant removal
PT8	PT-AN-006	Miss Chutikarn Pradit	Enhancement of microplastic analysis through PY-GCMS using SBA-15 adsorbent
PT9	PT-AP-008	Minchul Shin	Machine Learning Study for Prediction of Oil and Gas Yields from Pyrolysis of Mixed Plastic Waste



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Poster code	Registration code	Presenter Name	Topic
PT10	PT-AP-009	Beomseok Son	Pyrolysis-Electrochemical Upgrading of Lignocellulosic Biomass Waste
PT11	PT-AP-010	Mr. Ilyass Belrhazi	Catalytic Pyrolysis of HDPE over Metal-Impregnated Zeolites for the Production of Aromatic Hydrocarbons
PT12	PT-AP-011	Natacha Phetyim	Chlorine Reduction Approaches for Cleaner Pyrolytic Fuels from Waste Engine Oil and Mixed Plastics
PT13	PT-AP-012	Rinlada Sirisangsawang	Upgrading Waste Tyre Pyrolysis Oil via Metal Oxide Catalysts for Cleaner Fuel Production
PT14	PT-AP-013	BINAY KUMAR TRIPATHY	Production and characterisation of biochar from waste lignocellulosic biomass for wastewater treatment
PT15	PT-AP-014	Mr. Naveen Kumar Karri	Simultaneous Syngas Production Enhancement and Carbon dioxide Reduction in Microwave-Assisted Co-Pyrolysis of CaCO <sub>3</sub> and Rice Husk
PT16	PT-AP-015	Dr. Hemanth Kumar Tanneru	Microwave-assisted Pyrolysis of Mixed Plastic Waste: Role of Interactions on liquid Yields and Quality
PT17	PT-AP-017	Dr Anurita Selvarajoo	Graphene-Enhanced Biochar Produced via Pyrolysis for Water Treatment: A Systematic Review of Adsorption Mechanisms and Performance



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