

23RD OCTOBER 2025

PARALLEL SESSION 1

Venue Session: Pantai Damai, Level 2

Chairperson: Yee Van Fan, Pei Ying Ong

Time	Topic	Paper ID	Paper Title
11.00 am	Low Carbon Solutions	ICLCA25.0181 Keynote	Broader Impact of Digitalisation on Decarbonisation Pathways <u>Yee Van Fan</u> *
11.15 am	Low Carbon Solutions	ICLCA25.0084	Sustainable and Smart Retrofit Solutions for the Future: Designing a 2050 Chancellor's Building at UNIMAS Campus <u>Muhammad Syukri Imran</u> *, <u>Esther Lo Jia Hui</u> , Azhaili Baharun
11.30 am	Low Carbon Solutions	ICLCA25.0131	Combining GIS Data And Ground-Based Allometric Equations For Enhanced Carbon Stock Assessment <u>Harry John</u> , Lidyana Roslan, Shanti Faridah Salleh*
11.45 am	Low Carbon Solutions	ICLCA25.0167	Modeling and Cost Analysis of Solar-Driven Hydrogen Production for Ammonia Synthesis in Malaysia Using GAMS <u>Wai Yin Wong</u> *, Kean Long Lim, Jui-Yuan Lee
12.00 pm	Low Carbon Solutions	ICLCA25.0038	Novel Hydronic Heat Exchanger for Ice Thawing Applications <u>Chee Yang How</u> , Mazura Jusoh Jusoh*, Zaki Yamani Zakaria, Aishah Rosli, Zurina Mohamad, Wan Nur Anis Amira Wan Ranizang, Afiqa Nabihah Ahmad Zaini
12.15 pm	Low Carbon Solutions	ICLCA25.0117	Bioethanol Production from Hydrolysate of Sago Starch Processing Effluent via Simultaneous Saccharification and Fermentation <u>Micky Vincent</u> *, Nurashikin Suhaili, Dayang Salwani Awang Adeni, Devagi Kanakaraju, Melissa Montalbo-Lomboy

23RD OCTOBER 2025

PARALLEL SESSION 2

Venue Session: Tupong, Level 2

Chairperson: Seungjae Lee, Haslenda Hashim

Time	Topic	Paper ID	Paper Title
11.00 am	Circular Economy	ICLCA25.0135 Keynote	Food Waste to Renewable Natural Gas: A Life Cycle Approach to Circular Economy and Climate Change Mitigation <u>Haslenda Hashim</u> *, Muhammad Afiq Zubir, Yin Lee Boon, Muhammad Iskandar Mohd Azli
11.15 am	Circular Economy	ICLCA25.0138	A Two-Step, Behavior-Driven Bottom-Up Model of Household Electricity Use Using Monte Carlo Simulation for Activity Scheduling and Probabilistic Timeline Infilling: Evidence from the 2008 China Time Use Survey <u>Qi Zeng</u> *, Yuko Kanamori, Toshihiko Masui
11.30 am	Circular Economy	ICLCA25.0169	Life Cycle Assessment Of Paper-Based Products: Prisma Review Of Process-Based, Input–Output, And Hybrid Methods <u>Nurul Shamimi Roslan</u> , Shanti Faridah Salleh*, Florianna Lendai Anak Michael Mulok, Nashley Ursula Mundi Ujai, Abderrahim Zermane
11.45 am	Circular Economy	ICLCA25.0115	Integrated Hydrogen and Energy Planning: Case Study for Sarawak Jeng Shiun Lim*, Sharifah Rafidah Wan Alwi, Zainuddin Abdul Manan, <u>Liang Hong Yap</u>
12.00 pm	Circular Economy	ICLCA25.0021	Feasibility Study and Plant Design for Biodiesel Production from Rice Bran Oil via Acid-Esterification and Base-Transesterification Tristan Roy Panaligan*, Meriyel Bañocia, <u>Jherbby Bauzon</u> , Christine Joy Dimarucut
12.15 pm	Circular Economy	ICLCA25.0118	Comparison of Boron and Carbon doping on Molybdenum substrate via CVD for Hydrogen Evolution Reaction (HER) Harunal Rejan Ramji*, <u>Dayang Amirah Nabihah Awang Tambun</u>

23RD OCTOBER 2025

PARALLEL SESSION 3

Venue Session: Samariang, Level 2

Chairperson: Juan Gao, Xiongfeng Pan

Time	Topic	Paper ID	Paper Title
11.00 am	Biodiversity and Nature-based Solution	ICLCA25.0151 Keynote	Effects of fomesafen residue in soil on Maize and microbial communities Lianzhou Shen, <u>Juan Gao</u> *
11.15 am	Biodiversity and Nature-based Solution	ICLCA25.0122	Development Of a Hybrid System for Greywater Treatment Using Biochar Filter with Integration of Water Hyacinth <u>Lennevey Kinidi</u> , Shanti Faridah Salleh*, Darren Thaddeus Rengga Hillaby, Josephine Lai, Florianna Lendai Anak Michael Mulok
11.30 am	Biodiversity and Nature-based Solution	ICLCA25.0092	Research on Incentive Subsidy Strategies for Fishery Carbon Sink Resources <u>Yanyan Guo</u> *, Hua Shang
11.45 am	Biodiversity and Nature-based Solution	ICLCA25.0100	Carbon Sequestration Potential of Biochar Derived from Satoyama-Forest in Japan <u>Satoko Kawarasaki</u> *, Shuichi Ashina
12.00 pm	Biodiversity and Nature-based Solution	ICLCA25.0014	Production of Bacteriophage L522 for Management of Bacterial Leaf Blight on Rice in Field Trial <u>Pham Do Tra My</u> , Hoang Anh Hoang*
12.15 pm	Biodiversity and Nature-based Solution	ICLCA25.0080	The Role of Indonesia's Social Forestry in Achieving Net Zero: Impacts on Society, Economy, and Environment <u>Annuri Rossita</u> *, Toshihiko Masui, Rizaldi Boer

23RD OCTOBER 2025

PARALLEL SESSION 4

Venue Session: Petra Jaya, Level 2

Chairperson: Deqiang Sun, Loon Wai Chau

Time	Topic	Paper ID	Paper Title
11.00 am	Low Carbon Solutions	ICLCA25.0183 Keynote	The Concept, Connotation, and Implementation Paths of Advanced Energy <u>Deqiang Sun</u> *
11.15 am	Low Carbon Solutions	ICLCA25.0087	Urban Road Diet and Pedestrian Promotion for Climate Responsive Cities <u>Jongwon Lee</u> , Sion Kim, Ilho Jeong, Serin Min, Seungjae Lee*
11.30 am	Low Carbon Solutions	ICLCA25.0093	Analysis and Scenario Evaluation of Carbon Emission Reduction Using Autonomous Freight Trucks and Delivery Robots <u>Seongjin Park</u> , Sion Kim, Juhyeon Kwak, Yongryeong Lee, Seungjae Lee*
11.45 am	Low Carbon Solutions	ICLCA25.0112	Dual Fuel-Engine Interactions: A Review of the Impact of Fuels on internal combustion Engine Emissions and Performance Huiyi Tan, Mohd Hafiz Dzarfan Othman, Jo-Han Ng, Wang Bohong, Chew Tin Lee, <u>Kai Ying Tan</u> , Wai Shin Ho, Keng Yinn Wong*
12.00 pm	Low Carbon Solutions	ICLCA25.0116	Strategic Charging and Sizing of Electric Bus Batteries under Solar Availability <u>Lek Keng Lim</u> , Zarina Ab Muis*, Wai Shin Ho
12.15 pm	Low Carbon Solutions	ICLCA25.0050	Sustainable Bioenergy Generation from Organic Waste: Harnessing the Bioelectric Potential of Combined Mango and Orange Peel Substrates in Microbial Fuel Cell Systems <u>Maria Carmela Capul</u> *, Matthew Gabriel Angelo Ramil, Gabrielle Michael Marquez

23RD OCTOBER 2025

PARALLEL SESSION 5

Venue Session: Pantai Damai, Level 2

Chairperson: Satoshi Nakai, Jeng Shiun Lim

Time	Topic	Paper ID	Paper Title
1.30 pm	Low Carbon Solutions	ICLCA25.0114 Keynote	Cultivation of a thraustochytrid using hydrolysate of brown alga <i>Sargassum fusiforme</i> for production of polyunsaturated fatty acids <u>Satoshi Nakai</u> [*] , Miki Hatanaka, Nhat Tran, Toshikazu Suenaga, Takehiko Gotoh, Wataru Nishijima, Shanti Turbi
1.45 pm	Low Carbon Solutions	ICLCA25.0051	Passive Indirect Solar Dryer Integrated With Perforated Baffles and Thermal Storage for Drying Coconut Briquettes <u>Alexander Hamilton Atienza</u> [*] , Jose Luis Bergonio, Andrea Nicole Refrea, Camille Joyce Velasco
2.00 pm	Low Carbon Solutions	ICLCA25.0058	Hydrocarbon Extraction from <i>Scenedesmus</i> sp. and Duckweed Co-Cultures Cultivated in Sewage Wastewater Using Bubble Column and Airlift Reactors <u>Nikita Singh</u> [*] , Manimagalay Maggie Chetty, Sudesh Rathilal
2.15 pm	Low Carbon Solutions	ICLCA25.0075	Study on the Innovative Trends of Hydrogen Production: Based on Patent Data Chunbo Wang, Yaqin Guo, Jie Ao, Rui Cai, <u>Wei Du</u> [*]
2.30 pm	Low Carbon Solutions	ICLCA25.0078	A Modular Intelligent Control Framework for Scalable Biohydrogen Production in Microbial Electrolysis Cells Mohd Farid Atan [*] , <u>Mohamad Afiq Mohd Asrul</u> , Andrica Claudia Henry, Hafizah Abdul Halim Yun, Ivy Ai Wei Tan, Josephine Lai, Shanti Faridah Salleh
2.45 pm	Low Carbon Solutions	ICLCA25.0082	Heat Capacities of Aqueous Polyamine (Ethylenediamine and Diethylenetriamine) Blends of Two Amine Absorbents: 2-Isopropylaminoethanol and 2-Amino-2-methyl-1-propanol Regina Entrolizo, <u>Shan Caezar Tambio</u> , Mark Edison Arzobal, Rhoda Leron [*] , Meng-Hui Li

23RD OCTOBER 2025

PARALLEL SESSION 5 (Continued)

Venue Session: Pantai Damai, Level 2

Chairperson: Satoshi Nakai, Jeng Shiun Lim

Time	Topic	Paper ID	Paper Title
3.00 pm	Low Carbon Solutions	ICLCA25.0085	Patent Status of Alkaline Water Electrolysis: A Hydrogen Production Technology <u>Chunbo Wang</u> , Wei Du, Yaqin Guo, Jie Ao, Rui Cai*
3.15 pm	Low Carbon Solutions	ICLCA25.0089	Scalable Synthesis of a Self-Silicon-Doped Sulfonated Carbon Catalyst from Oil Palm Empty Fruit Bunch Biomass for Efficient Ethyl Levulinate Production <u>Riyani Tri Yulianti</u> *, Kirrthana Krishnasamy, Mohd Asmadi, Rike Yudianti
3.30 pm	Low Carbon Solutions	ICLCA25.0096	A Systematic Review of Life Cycle Assessment Reporting Practices and Transparency for Mono-Crystalline Silicon Photovoltaic Systems <u>Hong Sheng Loh</u> , Zhen Xin Phuang, Kyle Sebastian Mulya, Chew Tin Lee, Petar Varbanov, Kok Sin Woon*
3.45 pm	Low Carbon Solutions	ICLCA25.0106	Predicting Power Consumption of Cryogenic Compressors using Multiple Linear Regression in Machine Learning Muhammad Fikri Hashim, <u>Nur Izyan Zulkafli</u> *, Mohamad Fani Sulaima, Tarmizi Ahmad Izzuddin, Mohd Hafiz Jali, Haslenda Hashim, Nur Saleha Jayiddin, Azmi Md Lasin, M Tarmidzi Iskandar
4.00 pm	Low Carbon Solutions		

23RD OCTOBER 2025

PARALLEL SESSION 6

Venue Session: Tupong, Level 2

Chairperson: Shang Hua, Jian Ping Tan

Time	Topic	Paper ID	Paper Title
1.30 pm	Circular Economy	ICLCA25.0091 Keynote	Integrating Electrofermentation with CO ₂ Utilization for Sustainable Succinic Acid Biosynthesis <u>Jian Ping Tan</u> *
1.45 pm	Circular Economy	ICLCA25.0044	Sustainable Tofu Production Using Lime Juice And Tamarind Extract: Natural, Low-Carbon Alternatives To Synthetic Coagulant <u>Thiep Vo V.</u> , Ngoc Ho B., My Ngo T.t., Phuc Luu M., Tran Nguyen N.b., Nguyet Nguyen*
2.00 pm	Circular Economy	ICLCA25.0024	The novelty method for biofilm made from the gel of <i>Kappaphycus alvarezii</i> in Vietnam <u>Thanh Thi Ngoc Lan Mai</u> *
2.15 pm	Circular Economy	ICLCA25.0108	Flame Spray Pyrolysis Synthesis of FeNi/TiO ₂ Bimetallic Catalyst for Catalytic Deoxygenation in Biojet Fuel Production <u>Jianxing Zhang</u> , Brandon Han Hoe Goh, Jo-Han Ng, Cheng Tung Chong*
2.30 pm	Circular Economy	ICLCA25.0137	Green Steel Production Using Mass Balance Approach <u>Muhammad Afiq Zubir</u> *, Shahrulnizar Mohd Alias, Yee Chian Gan, Haslenda Hashim
2.45 pm	Circular Economy	ICLCA25.0156	Integrated Process Simulation and Feasibility Assessment of a Butyl Acrylate Manufacturing Plant from Acrylic Acid and n-Butanol in the Philippines <u>Tristan Roy Panaligan</u> *, Jan Michael Cleofas, Jasper Allen Gonzales, Jhon Russell Romero

23RD OCTOBER 2025

PARALLEL SESSION 6 (Continued)

Venue Session: Tupong, Level 2

Chairperson: Shang Hua, Jian Ping Tan

Time	Topic	Paper ID	Paper Title
3.00 pm	Circular Economy	ICLCA25.0164	Computational Fluid Dynamics Analysis of Ammonia (NH ₃) Selective Catalytic Reduction in Semicircular Ring-baffled Fluidized Bed Reactor <u>Brylle Reovince Rosales</u> [*] , Daniela Bag-Ao, Christine Cabrera, John Humphrey Ogad
3.15 pm	Circular Economy	ICLCA25.0003	Wheat Germ in Sourdough Fermentation: A Sustainable Approach to Reducing Food Waste <u>Nguyet Huynh</u> , Nguyet Nguyen, Nguyet Nguyen [*]
3.30 pm	Circular Economy	ICLCA25.0023	Challenges and Prospects of Chitosan-based Cosmetics as Safe and Sustainable Products for Swimmers Trieu T.h. Le, <u>Max P. Carter</u> , Nga Nguyen Hoang Do, Phung Thi Kim Le [*]
3.45 pm	Circular Economy	ICLCA25.0025	The processing of antibiotic resistant bacterial resources from Sludge in the cattle wastewater through plant extract in Vietnam <u>Thanh Thi Ngoc Lan Mai</u> [*]
4.00 pm	Circular Economy		

23RD OCTOBER 2025

PARALLEL SESSION 7

Venue Session: Samariang, Level 2

Chairperson: Joni Adiansyah, Kok Sin Woon

Time	Topic	Paper ID	Paper Title
1.30 pm	Biodiversity and Nature-based Solution	ICLCA25.0026 Keynote	Sustainable Agriculture Using Biochar Soil Application: A Life Cycle Assessment Approach <u>Joni Adiansyah</u> *, Axel Derian, Diah Rahmawati
1.45 pm	Biodiversity and Nature-based Solution	ICLCA25.0193	Ultrasonication-Enhanced High-Energy Emulsification for Improved Physicochemical Properties of Mangosteen Pericarp Nanoemulsion <u>Dayang Norulfairuz Abang Zaidel</u> *, Nor Azizah Mohammad
2.00 pm	Biodiversity and Nature-based Solution	ICLCA25.0185	Revitalizing Cultural Heritage through Calligraphy: Architectural and Spatial Strategies for Preservation and Education <u>Hong Yu Choo</u> *, Aiman Mohd Rashid, Fadhlina Binti Ahmad @ Taufik
2.15 pm	Biodiversity and Nature-based Solution	ICLCA25.0056	Farming model design and evaluation biological activity of Vermiwash worm (Eudrilus eugeniae) Huynh Ngoc Oanh, Tam-Anh D Nguyen, Loi H H P Pham, Le Thi Thuy Tien, My-Dung Hoang, Thu Huynh, Phuc Hoang-Bui, <u>Thanh Truc Tran</u> *
2.30 pm	Biodiversity and Nature-based Solution	ICLCA25.0043	Optimization of Pectin Extraction from Dragon Fruit Peel Using Cellulase Enzyme and Microwave-Assisted Method Hoang Nguyen, <u>Thanh Truc Tran</u> *
2.45 pm	Biodiversity and Nature-based Solution	ICLCA25.0098	A Soft Clustering and Machine Learning-Based Framework for Latent Phase Mapping in Poultry Litter Composting <u>Malvin Ma</u> , Xiao Qi Ng, Yew Woh Hui, Norsharina Md Saad, Jian Ding Tan, Rui Zhi Yap, Jian Ping Tan*

23RD OCTOBER 2025

PARALLEL SESSION 7 (Continued)

Venue Session: Samariang, Level 2

Chairperson: Joni Adiansyah, Kok Sin Woon

Time	Topic	Paper ID	Paper Title
3.00 pm	Biodiversity and Nature-based Solution	ICLCA25.0195	Crop rotation affects soil physicochemical properties, enzyme activity and rhizosphere soil microbial communities in Polygonatum cyrtonema Hua cropping <u>Zhou Duanxu</u> *
3.15 pm	Biodiversity and Nature-based Solution	ICLCA25.0148	Food Carbon-Water Pinch Analysis and Dietary Substitution for Carbon and Water Savings <u>Bingjie Xie</u> *, Bohong Wang
3.30 pm	Biodiversity and Nature-based Solution	ICLCA25.0159	Design Implementation of AI-assisted Variable Lighting System for the Optimal Growth of Lactuca sativa 'Olmétie' in a Hydroponic Vertical Indoor Farm <u>Mae Garcillanosa</u> *, Chester John Valles, Brian Migel Salita, Matthew Villena
3.45 pm	Biodiversity and Nature-based Solution	ICLCA25.0015	Design and Implementation of a Computer Vision System Using Convolutional Neural Networks for Sustainable Quality and Maturity Assessment of Bell Peppers <u>Mae Garcillanosa</u> *, Marc Andreau Blastique, Selwin Mathew Papag, Jericho Louise Jay Villaluz, Ronnier Franz Torres
4.00 pm	Biodiversity and Nature-based Solution		

23RD OCTOBER 2025

PARALLEL SESSION 8

Venue Session: Petra Jaya, Level 2

Chairperson: Cheng Tung Chong, Hazrul Mohamed Basri

Time	Topic	Paper ID	Paper Title
1.30 pm	Low Carbon Solutions	ICLCA25.0132 Keynote	Cracked Ammonia: A Sustainable Hydrogen Vector for Clean Power <u>Cheng Tung Chong</u> *
1.45 pm	Low Carbon Solutions	ICLCA25.0081	Thailand's Economy-wide Implications of Delaying Carbon Emissions Peak to 2030: An NDC Pathway to Net-Zero by 2050 <u>Salony Rajbhandari</u> *, Toshihiko Masui, Bundit Limmeechokchai
2.00 pm	Low Carbon Solutions	ICLCA25.0147	Carbon Storage Technology and Monitoring Strategies for Malaysia: A Review <u>Nabilla Afzan Abdul Aziz</u> *, Nur Atikah Mohidem
2.15 pm	Low Carbon Solutions	ICLCA25.0161	Polyaniline as a Selective Adsorbent for NO2, SO2 and H2S: Thermal Influence and Gas – Specific Trends <u>Linh Nguyen</u> *
2.30 pm	Low Carbon Solutions	ICLCA25.0165	Environmental Trade-offs of Battery Electric and Gasoline Vehicles in China: A Life Cycle Assessment Considering Regional Power Grids and Cold Climate Effects <u>Sining Ma</u> *
2.45 pm	Circular Economy	ICLCA25.0194	Sustainable PLA/EFB Biocomposites Advanced with Green Plasticizers Enhancing Mechanical and Structural Integrity Muhamad Alif Haikal Mohd Aseri, <u>Nurul Hanim Razak</u> *, Luqman Chuah Abdullah, Iffa Farais Fazli, Mohd Hafidzal Mohd Hanafi

23RD OCTOBER 2025

PARALLEL SESSION 8 (Continued)

Venue Session: Petra Jaya, Level 2

Chairperson: Cheng Tung Chong, Hazrul Mohamed Basri

Time	Topic	Paper ID	Paper Title
3.00 pm	Circular Economy	ICLCA25.0040	From Waste to Resource: A SWOT Evaluation of Organic Waste Composting for Sustainable Waste Management in Cameron Highlands Mohammad Ruzi Mat Selek, <u>Siti Norliyana Harun</u> [*] , Marlia Mohd Hanafiah, Mazidah Mazri
3.15 pm	Circular Economy	ICLCA25.0146	Recovery of Indium from Etching Wastewater using Supported Liquid Membrane with Strip Dispersion with Vegetable Oil as Diluent. <u>Ngan Thi Tuyet Dang</u> , Son Nghiem Xuan [*] , Da-Ming Wang, Kien Trung Tran
3.30 pm	Circular Economy	ICLCA25.0172	Exploring the Research Hotspots and Frontiers of Consumer Behavior in Aviation Carbon Offset—Based on Bibliometric Research <u>Zhijian He</u> [*] , Syamsul Herman Mohammad Afandi, Shaufique Fahmi Ahmad Sidique, Sining Ma
3.45 pm	Circular Economy	ICLCA25.0012	Removal of Orthophosphates in Simulated Municipal Wastewater by Adsorption using Activated Carbon from Banana (<i>Musa acuminata balbisiana</i>) Pith Impregnated with Ca ²⁺ from Egg Shells <u>Eden Erasga</u> [*] , Nikki Toni Rose Abdon, Princess Mae Ceres, Jan Paolo Maceren
4.00 pm	Circular Economy	ICLCA25.0071	Public Attitudes and Actions Towards Renewable Energy in the EU countries: A Micro-Level Analysis During the Energy Crisis <u>Ján Huňady</u> [*] , Maria Stachova

24TH OCTOBER 2025

PARALLEL SESSION 9

Venue Session: Pantai Damai, Level 2

Chairperson: Angelo Earvin Sy Choi, Tristan Roy Panaligan

Time	Topic	Paper ID	Paper Title
10.15 am	Low Carbon Solutions	ICLCA25.0008 Keynote	Catalyst Support Strategies: Encapsulation of Polyoxometalate Catalysts in Magnetic Particles in Oxidative Desulphurization Andrey Clarice Gelogo, <u>Angelo Earvin Sy Choi</u> [*] , Nathaniel Dugos, Meng-Wei Wan
10.30 am	Low Carbon Solutions	ICLCA25.0160	Utilizing Soybean and Corn Residue for Bioethanol Production <u>Hong Tran Thi</u> [*] , Diem Do-Quy
10.45 am	Low Carbon Solutions	ICLCA25.0166	Bifunctional ZnxCoyS Catalyst Materials for Alkaline Water Splitting Reactions <u>Kee Shyuan Loh</u> [*]
11.00 am	Low Carbon Solutions	ICLCA25.0186	Multi-period natural gas pipeline scheduling optimisation integrated with LNG cold energy cascade utilization <u>Wen Zhao</u> [*] , Bohong Wang
11.15 am	Low Carbon Solutions	ICLCA25.0187	Economic Perspective for Renewable Natural Gas from Food Waste <u>Haslenda Hashim</u> [*] , Muhammad Afiq Zubir, Muhammad Iskandar Mohd Azli, Yin Lee Boon
11.30 am	Low Carbon Solutions	ICLCA25.0120	The Impact of Tariff Changes on China's Carbon Trading Market <u>Huang Guangnan</u> [*]

24TH OCTOBER 2025

PARALLEL SESSION 9 (Continued)

Venue Session: Pantai Damai, Level 2

Chairperson: Angelo Earvin Sy Choi, Tristan Roy Panaligan

Time	Topic	Paper ID	Paper Title
11.45 am	Low Carbon Solutions	ICLCA25.0030	Leveraging Data-Driven Techniques for Dynamic Modeling of a Solar Photovoltaic Thermal-Powered Carbon Capture System <i>Norhuda Abdul Manaf*</i> , <i>Noor Fatina Emelin Nor Fadzil</i> , <i>Ali Abbas</i> , <i>Noor Fatina Emelin Nor Fadzil</i>
12.00 pm	Low Carbon Solutions	ICLCA25.0144	Fourth Generation Biodiesel: A Review on Technology Development, Challenges, and Future Directions <i>Nur Atikah Mohidem*</i> , <i>Nabilla Afzan Abdul Aziz</i>
12.15 pm	Low Carbon Solutions	ICLCA25.0145	Development and Characterization of Stretchable Conductive Composites for Sustainable and Energy-Efficient Electronic Applications <i>Mizah Binti Ramli*</i> , <i>Nur Hazwani Binti Mokhtar</i> , <i>Mohd Nur Azmi Bin Nordin</i> , <i>Mohamad Shukri Bin Zakaria</i> , <i>Mariam Md Ghazaly</i>

24TH OCTOBER 2025

PARALLEL SESSION 10

Venue Session: Tupong, Level 2

Chairperson: Zurina Mohamad, Ibrahim Yakub

Time	Topic	Paper ID	Paper Title
10.15 am	Circular Economy	ICLCA25.0065 Keynote	Electron Beam Crosslinking of Glycerol-Plasticized Tilapia Gelatin for Enhanced Biopolymer Film Performance <u>Zurina Mohamad</u> , Mohd Shahrulnizam Ahmad*, Aznizam Abu Bakar, Roshafima Rasit Ali, Mazura Jusoh
10.30 am	Circular Economy	ICLCA25.0060	Low-Fat Vietnamese Sausage (Lap Xuong) Formulated with Passion-Fruit Peel Pectin as a Sustainable Fat Replacer <u>Dat T. Huynh</u> , Uyen P. N. Tran*
10.45 am	Circular Economy	ICLCA25.0074	Enhancing the Texture and Stability of Low-Fat Yogurt Using Inulin and Durian Rind-Derived Low-Methoxyl Pectin Loan T. H. Pham, <u>Uyen P. N. Tran</u> *
11.00 am	Circular Economy	ICLCA25.0090	Enhancing Surface Properties of Dual-Step Activated Defatted Spent Coffee Ground Biochar: Effects of CO2 and Activating Conditions <u>Khim May Ooi</u> , Jian Ping Tan, Shareena Fairuz Abdul Manaf, Kian Fei Yee*
11.15 am	Circular Economy	ICLCA25.0133	Optimization of Mechanical Properties in Sago Cellulose-based Biodegradable Films for Sustainable Packaging Jessica Jane Anak Donald, Josephine Lai Chang Hui*, Mohd Farid Atan, <u>Sherena Saree</u>

24TH OCTOBER 2025

PARALLEL SESSION 10 (Continued)

Venue Session: Tupong, Level 2

Chairperson: Zurina Mohamad, Ibrahim Yakub

Time	Topic	Paper ID	Paper Title
11.30 am	Circular Economy	ICLCA25.0141	An Overview of Coastal Erosion Protection Structures <u>Michelle Hui Ting Chieng</u> [*] , Rafeah Wahi, Ahmad Beng Hong Kueh, Norazlina Bateni, Florianna Lendai Anak Michael Mulok
11.45 am	Circular Economy	ICLCA25.0149	From Fabrication to Application: Electrospun Chitosan/PVA Nanofiber Films for Water and Wastewater Treatment Kien Anh Le, Huy Nguyen Thi Anh, Viet Tran Thanh, <u>Nga Nguyen Hoang Do</u> , Trang Quynh Chu, Phung Thi Kim Le [*]
12.00 pm	Circular Economy	ICLCA25.0175	A Study Review on Mechanical Properties of Polylactic Acid (PLA) with Plasticizer Vegetable Based and Composite Material <u>Mohd Hafidzal Mohd Hanafi</u> [*] , Ernie Suryati Jefri, Nurul Hanim Razak, Muhammad Zaidan Abdul Manaf, Fahmi Asyadi Md Yusof, Syazwan Hanani Meriam Suhaimy, Grasianto Grasianto
12.15 pm	Circular Economy		

24TH OCTOBER 2025

PARALLEL SESSION 11

Venue Session: Samariang, Level 2

Chairperson: Manimagalay Maggie Chetty, Farid Atan

Time	Topic	Paper ID	Paper Title
10.15 am	Circular Economy	ICLCA25.0086 Keynote	Optimising Biogas Production from the Anaerobic Co-digestion of Primary Sewage Sludge with Intermediate Landfill Leachate using Response Surface Methodology Denzil Estrice*, <u>Manimagalay Maggie Chetty</u>
10.30 am	Circular Economy	ICLCA25.0088	Environmental Burden of Household Plastic Waste Management under Municipality-Level Policy Adaptation: A Case Study of Okayama City, Japan. <u>Habuer</u> *, Haruka Sato, Takeshi Fujiwara
10.45 am	Circular Economy	ICLCA25.0097	A Bio-Based Solution: Repurposing Rice Straw to Control Bacterial Leaf Blight with Pseudomonas fluorescens <u>Xiao Qi Ng</u> , Malvin Ma, Yuana Agustin, Yew Woh Hui, Shareena Fairuz Abdul Manaf, Nur Syakina Jamali, Norsharina Md Saad, Jian Ping Tan*
11.00 am	Circular Economy	ICLCA25.0123	The Role of Government in Circular Economy for Timber Waste Management on Construction Sites: A Review <u>Muhammad Alfarizi</u> , Nur Izieadiana Abidin*
11.15 am	Circular Economy	ICLCA25.0127	Nutrient Capture and Circular Solutions: Zinc Chloride Activated Bamboo Biochar for Aquaculture Wastewater Nitrate Recovery Beh Yu Hao, <u>Sumathi Sethupathi</u> *, Yamuna Munusamy

24TH OCTOBER 2025

PARALLEL SESSION 11 (Continued)

Venue Session: Samariang, Level 2

Chairperson: Manimagalay Maggie Chetty, Farid Atan

Time	Topic	Paper ID	Paper Title
11.30 am	Circular Economy	ICLCA25.0129	Removal of Nitrate from Simulated Groundwater using Chitosan as Coagulant Aid in Electrocoagulation Process <u>Brylle Reovince Rosales</u> *, Ezra Canicon, Gabriel Sayson, Chad Umantod
11.45 am	Circular Economy	ICLCA25.0052	Design and Assessment of a Dual Stage Crusher for Gypsum Recovery From Plasterboard Residue Recycling <u>Alexander Hamilton Atienza</u> *, Riahleen Ramos, Dean Jarius Tuiza, Medard Francis Yapsangco
12.00 pm	Circular Economy	ICLCA25.0143	Liquid – Liquid Equilibrium between Aqueous and Organic Copper Solutions <u>Ngan Thi Tuyet Dang</u> *, <u>Son Nghiem Xuan</u> , Kien Trung Tran, Huong Lan Phung, Dat Manh Phan, Than Thanh Dang
12.15 pm	Circular Economy	ICLCA25.0073	Quenerhiya: A Community-Centered Waste-to-Energy Complex in Payatas, Quezon City <u>Alvin Tejada</u> *, Lance Miguel Lagundi, Jhon Tyrhone Herbosa, Charles Tolentino, Wilfredo Gacutan

24TH OCTOBER 2025

PARALLEL SESSION 12

Venue Session: Petra Jaya, Level 2

Chairperson: Chi Nhan Tran, Muhammad Afiq Zubir

Time	Topic	Paper ID	Paper Title
10.15 am	Low Carbon Solutions	ICLCA25.0077 Keynote	Comparative study of conventional and microwave blanching on peroxidase activity and color of Ehretia asperula leaves Minh Vuong Kieu, Uyen Nhi Le, Thai Danh Luu, Yanbin Hua, <u>Chi Nhan Tran</u> *
10.30 am	Low Carbon Solutions	ICLCA25.0010	Inverted-U relationship between technological innovation and triple bottom line-based measure of agribusiness supply chain sustainability: Different strokes for different folks in the European Union Xiongfeng Pan, <u>Li Jiang</u> *
10.45 am	Low Carbon Solutions	ICLCA25.0083	Hydrogen-Natural Gas Co-Blending: Performance Analysis with CFD and Static Mixers Wai Shin Ho*, <u>Nur Aina Najwa Mohd Nor Azman</u> , Haslenda Hashim, Keng Yinn Wong
11.00 am	Low Carbon Solutions	ICLCA25.0163	An IoT-Integrated Multi-Sensor And AI System for Real-Time Monitoring and Forecasting of Water Quality: A Case Study at Cabuyao City, Philippines <u>Jonalyn Ebron</u> *
11.15 am	Low Carbon Solutions	ICLCA25.0130	CFD-Based Performance Optimization of Overlap Ratio in Savonius Hydrokinetic Turbines for Riverine Energy Systems <u>Muhyiddin Mohammed</u> *, Shamsul Sarip, Sa'Ardin Abdul Aziz

24TH OCTOBER 2025

PARALLEL SESSION 12 (Continued)

Venue Session: Petra Jaya, Level 2

Chairperson: , Chi Nhan Tran, Muhammad Afiq Zubir

Time	Topic	Paper ID	Paper Title
11.30 am	Low Carbon Solutions	ICLCA25.0020	Advancements in ZSM-5 Catalytic Torrefaction of Microalga Chlorella sp. for Biochar Production <u>Baron Magdaraog</u> , Aristotle Ubando*, Wei-Hsin Chen
11.45 am	Low Carbon Solutions	ICLCA25.0072	Beyond the Flame: Environmental Life Cycle Insights into Biogas Utilization <u>Kinga Biró*</u> , Kok Sin Woon, Ninh Ho Ngoc
12.00 pm	Low Carbon Solutions	ICLCA25.0121	Evaluating the Thermal Performance of a Living Wall: A Case Study <u>Rosmina A Bustami*</u> , Ahmad Adzhar Mohd Khairulzaim, Darrien Y. S. Mah, Norazlina Bateni, Nurhayati Nurhayat
12.15 pm	Low Carbon Solutions	ICLCA25.0134	Exploring the Effect of Zeolite/ Activated Carbon Variation in Filtration Media for Peat Water Treatment <u>Khairul Anwar Mohamad Said*</u> , Shaiza Asif, Nurhaziqah Mazelan, Md. Rezaur Rahman, Sinin Hamdan, Kelvin K. K. Kuok

24TH OCTOBER 2025

PARALLEL SESSION 13

Venue Session: Pantai Damai, Level 2

Chairperson: Joseph Ortenero, Farah Zaini

Time	Topic	Paper ID	Paper Title
1.30 pm	Low Carbon Solutions	ICLCA25.0192 Keynote	Advanced Photocatalytic Treatment of Ciprofloxacin Using Ultrasound-Fabricated Cu-MOF/Chitosan/Hydroxyapatite Composite Kyle Angelique Bautista, Eugene Josh Mata, Chris Diane Mercado, Ron Jasper Placio, Allan Soriano, Ruji Vicente Rubi, <u>Joseph Ortenero</u> *, Vergel Bungay
1.45 pm	Low Carbon Solutions	ICLCA25.0011	DPSIR Framework for Carbon Pricing: A Systematic Review and DEMATEL Analysis of Cambodia Case <u>Sesil Bou</u> , Soksreymeng Sdok, Fidero Kuok*, Michael Angelo B. Promentilla
2.00 pm	Low Carbon Solutions	ICLCA25.0153	Provincial Climate Policy Uncertainty and Differentiated ESG Greenwashing: Evidence from Chinese A-share Companies <u>Zhuotao Lu</u> , Seona Park*
2.15 pm	Low Carbon Solutions	ICLCA25.0094	Exploring EU Member States' Resilience in Meeting 2030 Energy and Climate Targets <u>Min Yee Chin</u> , Adam Lin, Kinga Biró, Ján Huňady, Yee Van Fan, Kok Sin Woon*
2.30 pm	Low Carbon Solutions	ICLCA25.0191	Human-Centric Carbon Management in Action: A Multi-Case Study of Low-Carbon Renovation in Shanghai Xiaoqiong Ma, <u>Yaxi Han</u> *
2.45 pm	Low Carbon Solutions	ICLCA25.0054	A system dynamics approach in mitigating the environmental impact of the aviation sector <u>Jeremy Gabriel Uy</u> *, Jayne Lois San Juan, Charlle Sy
3.00 pm	Low Carbon Solutions		

24TH OCTOBER 2025

PARALLEL SESSION 14

Venue Session: Tupong, Level 2

Chairperson: Zaki Yamani Zakaria, Yanuar Zulardiansyah Arief

Time	Topic	Paper ID	Paper Title
1.30 pm	Circular Economy	ICLCA25.0017 Keynote	Fuel Oil Blended Stock (FOBS) Valorisation: Thermodynamic Modelling of Pyrolysis to Hydrogen Wan Nur Anis Amira Wan Ranizang, <u>Zaki Yamani Zakaria</u> *, Mazura Jusoh, Mohd Asmadi Mohammed Yussuf
1.45 pm	Circular Economy	ICLCA25.0079	Enabling Global Trade of Green Shipping Fuels through Life Cycle Optimization in Economic and Environmental Aspects <u>Yuxin Zhou</u> *, Chew Tin Lee, Kok Sin Woon
2.00 pm	Circular Economy	ICLCA25.0037	Biomass Waste-Based Hydrogen Production: A Review of Its Potential in Malaysia <u>Muhammad Yamin Bin Mohd Sharohhuddin</u> , Marlia Mohd Hanafiah*, Jing Wen Chong
2.15 pm	Circular Economy	ICLCA25.0042	Efficiency of Waste Mussel Shells (<i>Perna viridis</i>) as Adsorbents for Ammonia (NH ₃) and Phosphate (PO ₄ ³⁻) in Lake Water Treatment <u>Charisse Angelique Escobal</u> *, Marydel Tandoc, Kayla Faye Capinig, Mhecaella Paras, Tristan Gabriel Escuadro
2.30 pm	Circular Economy	ICLCA25.0045	Understanding the Plastic Flow and Circularity in Nairobi City, Kenya. <u>Ian Mwai</u> *, Takeshi Fujiwara

24TH OCTOBER 2025

PARALLEL SESSION 14 (Continued)

Venue Session: Tupong, Level 2

Chairperson: Zaki Yamani Zakaria, Yanuar Zulardiansyah Arief

Time	Topic	Paper ID	Paper Title
2.45 pm	Circular Economy	ICLCA25.0047	Multi-Objective Optimization of Medical Waste Management With Scheduling Considerations Jayne Lois San Juan*, <u>Hans Daineal Tan</u> , Ailene Joy Elano, Rafael David Jurilla, Sean Lloyd Lim
3.00 pm	Circular Economy	ICLCA25.0069	Deciphering the interrelationship between externality cost and geospatial effect on circular plastic waste value chain via hybrid P-graph framework <u>Zhen Xin Phuang</u> , Kok Sin Woon*

24TH OCTOBER 2025

PARALLEL SESSION 15

Venue Session: Samariang, Level 2

Chairperson: Jin-Hua Xu, Seona Park

Time	Topic	Paper ID	Paper Title
1.30 pm	Climate Justice & Inclusive Transition	ICLCA25.0174 Keynote	Trade-off between Policy Effectiveness and Social Costs: What Green Power Trading Policy Mix Is Most Recommended? <u>Jin-Hua Xu</u> *, Xueying Wang
1.45 pm	Climate Justice & Inclusive Transition	ICLCA25.0157	Assessing Future Drought Extremes and Their Impact on Hydropower Vulnerability in Sarawak <u>Zulfaqar Sa'Adi</u> *, Zulkifli Yusop, Nor Eliza Alias, Zainura Zainon Noor, Ricky Anak Kemarau, Muhammad Wafiy Adli Ramli, Shamsuddin Shahid, Stanley Anak Suab, Md. Abdullah Al Mamun Hridoy, Andleeb Masood
2.00 pm	Climate Justice & Inclusive Transition	ICLCA25.0113	Advancing Community Awareness and Behavioural Change in Miri's Transition from Local Agenda 21 to SDGs <u>Khalid Zanudin</u> *, Kiky Kirina Abdillah, Yusfida Ayu Abdullah, Bemen Wong Win Keong, Arnold Puyok
2.15 pm	Climate Justice & Inclusive Transition	ICLCA25.0170	Malaysia's Role in ASEAN Climate Diplomacy: Advancing Climate Justice and Low-Carbon Development <u>Dayangku Norasyikin Awang Tejuddin</u> *
2.30 pm	Climate Justice & Inclusive Transition	ICLCA25.0107	Empowering Circular Economy Education Through Student-Led Sustainability Initiatives in Rural Sarawak <u>Florianna Lendai Michael</u> *, Shanti Faridah Salleh, Josephine Lai Chang Hui, Lennevey Kinidi, Hana Hamidi, Victoria Jonathan, Helmi Sumilan

24TH OCTOBER 2025

PARALLEL SESSION 15 (Continued)

Venue Session: Samariang, Level 2

Chairperson: Jin-Hua Xu, Seona Park

Time	Topic	Paper ID	Paper Title
2.45 pm	Circular Economy	ICLCA25.0119	Coping with the impacts of energy insecurity on well-being and housing conditions: Insights from the lived experiences of individuals and households in urban Hong Kong <u>Laurence Delina</u>
3.00 pm	Circular Economy	ICLCA25.0124	Analysis of Fracture Behaviour on PLA Specimen with Varied Lattice Structures <u>Mohamad Syazwan Zafwan Mohamad Suffian</u> *, Siti Shuhadah Shamsul Anuar, Syahiir Kamil, Marlynna Sarkawi

24TH OCTOBER 2025

PARALLEL SESSION 16

Venue Session: Petra Jaya, Level 2

Chairperson: Chunsheng Hu, Mazura Jusoh

Time	Topic	Paper ID	Paper Title
1.30 pm	Biodiversity and Nature-based Solution	ICLCA25.0128 Keynote	Soil Microbes And The Carbon To Nitrogen Ratio Indicate Priming Effects Across Terrestrial Ecosystems <u>Chunsheng Hu</u> *
1.45 pm	Circular Economy	ICLCA25.0179	Hybrid Pinch-Analysis and MILP-Based Optimization for Energy and Water Recovery in a Bioethanol Plant <u>Jesunino Aquino</u> *, Bonifacio T. Doma, Jr.
2.00 pm	Circular Economy	ICLCA25.0013	Evaluation of Mucilage from Saluyot (Corchorus olitorius) as Natural Coagulant for the Removal of Crystal Violet Dye from Simulated Textile Wastewater <u>Eden Erasga</u> *, Norally Mae Avila, Katricia Chua, Marian Germaine Salvador
2.15 pm	Circular Economy	ICLCA25.0173	Predictive Analytics for Industrial Sustainability: A BiLSTM-Based Carbon Emission Forecasting Model <u>Jonalyn Ebron</u> *
2.30 pm	Circular Economy	ICLCA25.0070	Mathematical Programming-Based Approach for Recycling Technology Allocation in Textile Waste Systems Raymond R. Tan, <u>Joanna Tess Manuel</u> *, John Frederick Tapia

24TH OCTOBER 2025

PARALLEL SESSION 16 (Continued)

Venue Session: Petra Jaya, Level 2

Chairperson: Chunsheng Hu, Mazura Jusoh

Time	Topic	Paper ID	Paper Title
2.45 pm	Biodiversity and Nature-based Solution	ICLCA25.0158	Kinetic Analysis of Nutrient Release from Food Waste Compost and Leachate for Enhancing Chilli (<i>Capsicum frutescens</i> L.) <u>Nur Farzana Ahmad Sanadi</u> , Li Yee Lim, Pei Ying Ong*, Kok Sin Woon, Meng Choung Chiong
3.00 pm	Biodiversity and Nature-based Solution	ICLCA25.0027	Optimizing CO2-Based Mosquito Control via Anaerobic Plant Fermentation and Molasses Dose Recommendation Luis Niño Bautista, Rodam Jr Lopez, John Louis Zaño, <u>Kristine Joyce Ortiz</u> *

End of Schedule