International Conference on Low Carbon Asia (ICLCA)

ICLCA 2026

The 12th International Conference on Low Carbon Asia

Moving the Needle to 1.5: Science, Technology, Finance, and Policy Integration to Materialise Asia's Net-Zero Transition

Conference Program

19-22 October 2026
Shanghai, China



CONTENT

04 Introduction to Organizers
04 Shanghai Jiao Tong University
05 Universiti Teknologi Malaysia

06 Conference Committee
06 Conference chairs
06 Co-chairs
06 Honorary advisors
06 Local organising committee
06 Conference secretariat

07 International Scientific Committee

08 ICLCA 2026 Conference Program

10 ICLCA 2026 Conference Schedule

38 Honorary Patron

39 Plenary Speakers
39 Academician Wen LING
40 Prof. Raimund BLEISCHWITZ
41 Prof. Joseph SARKIS
42 Prof. Toshihiko MASUI
43 Prof. Neven DUIC
44 Prof. Ruzhu WANG
45 Prof. Saleem H. ALI
46 Prof. Cheng GU

47 Green City High-level Forum

52 Topics

53 Special session
53 Special Session 1
54 Special session 2

55 Presentation Guidelines
55 Parallel Oral Sessions Guidelines
55 Poster Presentation Guidelines

55 Awards
55 Best Presentation Award
55 Best Paper Award
55 Best Poster Award
56 The Green City Award: Recognising Urban Excellence at ICLCA2026

57 General Information
57 Onsite Registration
57 Dining Arrangement

60 Conference Venue
60 Locations
61 Venue Layout

62 Accommodation

64 Transportation

65 Shuttle Bus Service

66 Internet Access

66 Transportation in SJTU Minhang Campus

66 Recommeded Apps in China

67 Post-conference Tour

70 Supporting Journals
70 Energy
70 Carbon Footprints
71 Carbon Neutrality
71 Chemical Engineering Transactions

72 Organizers

72 Co-organizers

72 Organizing units

73 Supported by

INTRODUCTION TO ORGANIZERS

Shanghai Jiao Tong University

Founded in 1896, Shanghai Jiao Tong University enjoys a history of 130 years. Today, we are a comprehensive, innovative, and international university, with 39 schools and departments. We offer programs in science and engineering, life sciences and medicine, humanities and social sciences, and interdisciplinary fields. Our university is home to more than 50,000 full-time students and over 4,000 full-time faculty members. Shanghai Jiao Tong University champions holistic excellence, emphasizing integrity, intellectual rigor, entrepreneurial spirit, and global competence. Rooted in its motto "Gratitude to Origins, Patriotism to Prosper Alma Mater," SJTU integrates cutting-edge research with real-world impact, fostering leaders who bridge tradition and innovation while upholding ethical responsibility to society.



Universiti Teknologi Malaysia

Universiti Teknologi Malaysia (UTM) is Malaysia's premier public research university focusing on engineering, science, and technology. Founded in 1904, it has grown into a globally recognized institution supporting Malaysia's innovation and talent ecosystem. Led by Vice-Chancellor Professor Ts. Dr. Mohd Shafry bin Mohd Rahim, UTM has over 30,000 students, including nearly 5,000 international students from over 100 countries. UTM has three campuses and hosts Malaysia's first Faculty of Artificial Intelligence (FAI) at its Kuala Lumpur campus. It is ranked #158 in the QS World University Rankings and leads Malaysia in five engineering and built environment disciplines. With 28 Centers of Excellence, UTM conducts high-impact research in renewable energy, water sustainability and advanced materials. Committed to the UN SDGs, it connects academic research with industrial development; its 248,000 alumni drive technological advancement globally.



CONFERENCE COMMITTEE

Conference chairs

Prof. Yong GENG, Shanghai Jiao Tong University
Prof. Chin Siong HO, Universiti Teknologi Malaysia

Co-chairs

Prof. Chew Tin LEE, Universiti Teknologi Malaysia
Prof. Haslenda HASHIM, Universiti Teknologi Malaysia
Assoc. Prof. Cheng Tung CHONG, Shanghai Jiao Tong University
Assoc. Prof. Chunjie LI, Shanghai Jiao Tong University
Prof. Sheng ZHOU, Shanghai Academy of Agricultural Sciences
Prof. Xiaobin DONG, Beijing Normal University

Honorary advisors

Prof. Dr. Henrik LUND, Aalborg University, Denmark
Prof. Dr. Neven DUIĆ, University of Zagreb, Croatia
Prof. Dr. Suzo NISHIOKA, Institute for Global Environmental Strategies (IGES), Japan
Prof. Dr. Petar Sabev VARBANOV, Széchenyi István University, Hungary
Dr. Junichi FUJINO, Programme Director, City Taskforce, Institute for Global Environmental Strategies (IGES), Japan
Dr. Tomoko ISHIKAWA, Institute for Global Environmental Strategies (IGES), Japan
Prof. Dr. Takeshi FUJIWARA, Okayama University, Japan
Prof. Dr. Xiongfeng PAN, Dalian University of Technology, China
Prof. Dr. Raymond TAN, De La Salle University (DLSU), Philippines
Assoc. Prof. Dr. LE Thi Kim Phung, Ho Chi Minh University of Technology, Vietnam
Prof. Ts. Dr. Shanti Faridah binti SALLEH, Universiti Malaysia Sarawak (UNIMAS), Malaysia

Local organising committee

Ms. Xiaoxin WU
Ms. Yili JI
Ms. Qian CHU
Ms. Ying WANG
Ms. Qing SHI
Ms. Xinyu JIAO
Ms. Ying ZHANG
Ms. Xue CHEN

Conference secretariat

Assoc. Prof. Dr. Jeng Shiun LIM
Dr. Li Yee LIM
TPr. Loon Wai CHAU
Mr. Mohd Fairus AHMAD
Dr. Pei Ying ONG
Assoc. Prof. Dr. Zurina MOHAMAD

INTERNATIONAL SCIENTIFIC COMMITTEE

Ali R. Jalili	Australia	Jeremy Gabriel Uy	Philippines
Atienza Alexander Hamilton	Philippines	Kok Sin Woon	China
Angelo Earvin Choi	Philippines	Konstantinos Moustakas	Greece
Aidee Kamal Khamis	Malaysia	Limei Gai	China
Arbanah bt. Muhammad	Malaysia	Lek Keng Lim	Malaysia
Bibhu Prasad Ganthia	India	Mae Garcillanosa	Philippines
Beatriz Belmonte	Philippines	Manimagalay Chetty	South Africa
Bohong Wang	China	Michelle Hui Ting Chieng	Malaysia
Charmaine Narvadez	Philippines	Mohd Nazri Mohd Sokri	Malaysia
Cheng Tung Chong	China	Mohd Zaki Sukor	Malaysia
Cheng Gu	China	Maria Figueroa	Denmark
Chunjie Li	China	Maria V. Migo-Sumagang	Philippines
Claudia Gutierrez Antonio	Mexico	Muslum Arici	Turkey
Gaurav Shukla	India	Nor Erniza Mohd. Rozali	Malaysia
Guo Ren Mong	Malaysia	Nurul Huda Baharuddin	Malaysia
Hesam Kamyab	Malaysia	Peng Jiang	China
Hua Shang	China	Rendy Muhamad Iqbal	Indonesia
Ivan Henderson Gue	Philippines	Salmiah Jamal Mat Rosid	Malaysia
Ján Huňady	Slovakia	Seungjae Lee	Korea
Jing Zhang	China	Sheng Zhou	China
Jiang Li	China	Steven Kuba Nuhu	Nigeria
Jian Ping Tan	Malaysia	Tan Minh Le	Vietnam
John Nico Omlang	Philippines	Tristan Roy Panaligan	Philippines
Jonalyn Ebron	Philippines	Uyen P. N. Tran	Vietnam
Joseph Ortenero	Philippines	Wongkot Wongsapai	Thailand
Josilva M. Muniandy	Malaysia	Xiaobin Dong	China
Juan Gao	China	Xue-Chao Wang	China
Kinga Biró	Thailand	Yuquan Zhang	China
Kangkang Tong	China	Zaki Yamani Zakaria	Malaysia

ICLCA 2026 CONFERENCE PROGRAM

19- 22 OCTOBER 2026

Pre-registration Day – 19 October 2026		
12:00 pm – 8:00 pm	ICLCA Registration	Hotel Platinum Hanjue
2:00 pm – 4:30 pm	SJTU Campus Tour*	SJTU Minhang
4:30 pm	Bus return to Platinum Hanjue Hotel	Hotel
Day 1 – 20 October 2026		
7:45 am	Shuttle bus pick-up from Platinum Hanjue Hotel, Ji Hotel/Hanting Hotel Depart to conference venue (SESE)	Pick-up from hotel
8:00 am	Enter Main Hall E100	School of Environmental Science and Engineering, Shanghai Jiao Tong University, E100 Hall
8:30 am	Opening Ceremony Honorary Address 1 Prof. Weidong LIU Vice President of Shanghai Jiao Tong University Honorary Address 2 Er. Seng Chuan TAN President of the World Federation of Engineering Organizations (WFEO) Honorary Address 3 Prof. Chin Siong HO Universiti Teknologi Malaysia, Chair of ICLCA 2026 Honorary Address 4 Mr. Hao ZHENG Secretary of the CPC Committee at School of Environmental Science and Engineering, Shanghai Jiao Tong University	
9:00 am	Plenary Speaker 1 Academician Wen LING (China) Chinese Academy of Engineering (China)	
9:30 am	*Green City Forum: Moving the Needle to 1.5*	
10:30 am	Tea/Coffee break/Poster session	
10:45 am	Plenary Speaker 2 Prof. Raimund BLEISCHWITZ University of Bremen (Germany)	
11:15 am	Plenary Speaker 3 Prof. Joseph SARKIS Worcester Polytechnic Institute (US)	
11:45 am	Plenary Speaker 4 Prof. Toshihiko MASUI The University of Osaka (Japan)	
12:15 pm	Plenary Speaker 5 Prof. Neven DUIĆ University of Zagreb (Croatia)	
12:45 pm	Lunch	SJTU Canteen
2:00 pm	Parallel session	Parallel session rooms
3:35 pm	Tea/coffee break/Poster session	
3:45 pm	Parallel session	
5:00 pm	Board Meeting (by invitation)	WEIDA building 205

5:50 pm	Depart to Gala dinner	SESE
6:15 pm	Gala Dinner	Academic Center SJTU
8:30 pm	Bus return to Platinum Hanjue Hotel, Ji Hotel/Hanting Hotel	Hotel
Day 2 – 21 October 2026		
7:45 am	Shuttle bus pick-up from Platinum Hanjue Hotel, Ji Hotel/Hanting Hotel Depart to conference venue (SESE)	Pick-up from hotel
8:30 am	Plenary Speaker 6 Prof. Ruzhu WANG Shanghai Jiao Tong University (China)	School of Environmental Science and Engineering, Shanghai Jiao Tong University, E100 Hall
9:00 am	Plenary Speaker 7 Prof. Saleem H. ALI University of Delaware (US)	
9:30 am	Plenary Speaker 8 Prof. Cheng GU Nanjing University (China)	
10:00 am	Tea/coffee break	
10:15 am	Parallel session	
12:35 pm	Lunch	SJTU Canteen
1:30 pm	Parallel session	Parallel session rooms
3:05 pm	Tea/coffee break	
3:15 pm	Parallel session	
5:15 pm	Closing Ceremony	SESE
5:45 pm	Bus return to Platinum Hanjue Hotel, Ji Hotel/Hanting Hotel	Hotel
Technical Tour** – 22 October 2026		
7:30 am	Gather at Platinum Hanjue Hotel lobby and depart	Platinum Hanjue Hotel Lobby
8:10 am	1.Shanghai Engineering Research Center of Low-Carbon Agriculture 2.Shanghai Wenxin Biotech Co., Ltd. (Organic waste processing plant)	Site visit
12:30 pm	Tourist site (Free & Easy)	Yuyuan Bazaar
2:30 pm	Return to Platinum Hanjue hotel	Platinum Hanjue Hotel

* For campus tour, please gather at the Platinum Hanjue Lobby at 1:50 pm, shuttle bus is provided.
**For technical tour, register on-site at the registration counter.

ICLCA 2026 CONFERENCE SCHEDULE

Tuesday, October 20 (Room E100)		
14:00-15:35	**LCS1 - Energy Storage, Power Systems & Electricity Management**	
	Chaired by: Dr. Habuer, Dr. Xue-Chao Wang	
	ICLCA26.0075 KEYNOTE	*Life Cycle Cost Analysis of Detached Residential Houses in Japan under Different Renewable Energy Penetration Scenarios*
		Habuer*, Riho Ishimoto
	ICLCA26.0039	*COMPARATIVE IMPACT OF BESS, CAES, AND PHES ON THERMAL GENERATOR COMMITMENT DYNAMICS IN RENEWABLE-DOMINATED POWER SYSTEMS*
		Abdullahi Kire Muazu, Siti Maherah Hussin*, Md Pauzi Abdullah, Dalila Mat Said, Norzanah Rosmin, Norazliani Md Sapari, Rozana Zakaria, Nur Ayeesha Qisteena Muzir
	ICLCA26.0092	*Comparative Study: Univariate vs. Multivariate Time Series Short-Term Prediction for Power Consumption of Reciprocating Cryogenic Compressors*
		Nur Izyan Zulkafli*, Muhammad Fikri Hashim, Mohamad Fani Sulaima, Mohd Hafiz Jali, Tarmizi Ahmad Izzuddin, Haslenda Hashim, Nur Saleha Jayiddin, Azmi Md Lasin, M Tarmidzi Iskandar
	ICLCA26.0108	*Optimal Sizing and Dynamic Control of a Hybrid Thermal Energy Storage System Combining Phase Change Material and Lithium-Ion Battery for Peak Load Shifting in a Cryogenic Preservation Unit*
		Jehanzaib Saleem, Hongxian Du, Jin Wang*
	ICLCA26.0151	*Redox-Targeting Aqueous Organic Flow Batteries for Advancing Long-Duration Energy Storage*
		Sida Rong, Ya Ji*
	ICLCA26.0156	*Gallium Nitride-Based New Energy Conversion Devices Based on Lattice Dynamics Engineering*
		Liang Qiu*

Tuesday, October 20 (Room E106)		
14:00-15:35	**LCS2 - Renewable Energy Transition, Grid Decarbonization & Energy Markets**	
	Chaired by: Dr. Ali Jalili, Prof. Hua Shang	
	ICLCA26.0270 KEYNOTE	*Electrifying Chemical Industries: From AI-Driven Discovery to TRL-Ready Translation*
		Ali Jalili*
	ICLCA26.0141	*Resource Wealth to Trilemma Balance in MENA: How Renewables, Green Finance and Innovation Reshape the Equation*
		Rehab R. Esily*, Yuanying Chi, Dalia M. Ibrahiem, Nourhane Houssam, Xiaoyu Wang
	ICLCA26.0277	*Economical and Environmental Assessment of Green Hydrogen Production in China Considering Dual Storage and Provincial Share Allocation*
		Bingyi Zhao, Xiaoxiang Shi, Wei Li, Yuyang Li*
	ICLCA26.0290	*Blockchain potential in the entire life-cycle management of distributed renewable energy: A review of development, challenges and prospects*
		Lei Zhang, Peng Jiang*, Yee Van Fan, Siming You
	ICLCA26.0052	*Life cycle environmental impact assessment of China's hydropower towards carbon neutrality transition*
		Kexin Wei*, Huijuan Dong, Yong Geng
	ICLCA26.0178	*A Streamlined Life-Cycle Carbon Screening Model for Philippine Grid Decarbonisation under Renewable Expansion and Coal Phase-Down*
		Jesunino Aquino*

Tuesday, October 20 (Room E200)		
14:00-15:35	**SP1 – Sustainable Polymers, Packaging & Product Design**	
	Chaired by: Prof. Zurina Mohamad	
	ICLCA26.0267 KEYNOTE	*Recent Innovation and Functionalization of Biopolymer Absorbent Materials for Sustainable Applications*
		Zurina Mohamad*, Nur Hanis Mohd Rosmmi, Yanti Maslina Mohd Jusoh, Mazura Jusoh Jusoh, Aznizam Abu Bakar
	ICLCA26.0180	*SILVER NANOPARTICLE ANTIMICROBIAL BIOFILM FOR FOOD PACKAGING*
		Roshafima Rasit Ali*
	ICLCA26.0283	*Component Product Design and Dynamic Embodied Carbon Evaluation for Sustainable Steel Structures: Beyond Static LCA*
		Baolin Huang, Hong Zhang*, Haochen Xu
	ICLCA26.0198	*An Integrated Experimental Evaluation Framework for Carbon Sequestration in Nano-Modified Concrete*
		Jiachen Qiang, Josephine Lai*, Lee Yeeyong
	ICLCA26.0195	*Development and Characterization of a pH-Sensitive Cassava Starch/ Polyvinyl Alcohol Film Incorporating Purple Sweet Potato Anthocyanins Stabilized by Ferulic Acid for Ammonia Detection*
		Josephine Narciso*, Lugh Rence Barillo, Stephen Ross Gutierrez, Eunice Anne Virtucio
	ICLCA26.0103	*EFFECT OF EPOXIDIZED PALM OIL (EPO) AND ZINC OXIDE NANOPARTICLES (ZnO) ON TENSILE BEHAVIOUR OF POLYLACTIC ACID (PLA)*
		Mohd Hafidzal Mohd Hanafi*, Ernie Suryati Jefri, Nurul Hanim Razak, Fahmi Asyadi Md Yusof, Megat Muhammad Ikhsan Megat Hasnan, Grasianto Grasianto

Tuesday, October 20 (Room E208)		
14:00-15:35	**CE1 – Food & Biowaste Valorization and Bio-Based Resource Recovery**	
	Chaired by: Mr. Tristan Roy Panaligan	
	ICLCA26.0002 KEYNOTE	*Philippine Coconut Husk Tannins for Formaldehyde-Free Wood Adhesives: Evidence Synthesis, Gaps, and Experimental Roadmap*
		Tristan Roy Panaligan*, Irish Chenille Bruzo, Zian Andrei Valera, Gabriella Bianca Villa, Alvin R. Caparanga
	ICLCA26.0093	*Insight into Insect Protein Production and Larval Gut Microbiota from Mixed Food Waste Bioconversion by Black Soldier Fly (Hermetia illucens L.) Larvae*
		Mengyao Li*
	ICLCA26.0105	*Valorizing Food Waste into Acetone–Butanol–Ethanol via Immobilized Fermentation: Process Optimization and Metabolic Mechanism*
		Yan Sun*, Zengwei Yuan
	ICLCA26.0196	*Repeated Usability of Pickle Seasoning Liquid Waste for Cultivating Aurantiochytrium sp. to Produce Polyunsaturated Fatty Acids*
		Thi Nhat Anh Tran, Satoshi Nakai*, Takehiko Gotoh, Toshikazu Suenaga, Akira Umehara, Wataru Nishijima, Radita Putradhitama Novanda
	ICLCA26.0249	*Waste Valorization of Orange Peels and Melon Seeds into Sustainable Copper(II) Oxide Particles for Textile Dye Removal*
		Kea Lee Yap*, Koay Wern Rui, Ho Li Ngee
	ICLCA26.0019	*Optimisation of Duckweed (Lemna minor) Growth Using Box–Behnken Design for Wastewater Remediation and Bioenergy*
		Nikita Singh*, Manimagalay Maggie Chetty, Sudesh Rathilal

Tuesday, October 20 (Room E231)		
14:00-15:35	**SS1 - Emerging Hydrogen Technologies for Sustainable Systems and Applications**	
	Chaired by: Dr. William Woei Fong Chong	
	ICLCA26.0181	*Green Recycling of Lithium-Ion Battery Black Mass Using Agricultural Biomass as a Renewable Reductant*
		Guo Ren Mong*, Yue Xin, William Woei Fong Chong, Woon Gie Chong, Wei Hown Tee, Nur Aisya Affrina Mohamed Ariffin
	ICLCA26.0068	*Tribological and Interfacial Behaviour of Hindered Phenolic-Enhanced Palm-Based Pentaerythritol Ester Lubricant*
		Raudah Nordin, Jiahe Poy, Nur Aisya Affrina Mohamed Ariffin, William Woei Fong Chong*, Jo-Han Ng
	ICLCA26.0177	*Hydrogen Co-Firing in an Existing Dual-Fuel Power Plant for Efficiency Improvement and Carbon Emission Reduction*
		Dindi Wahyu Aldio*, Teddy Dahlan Manurung, Atsirur Romdhoni, Dody Azhar Hariyadi, Hedwig Lunga Sampe Pajung, Budhi Setiawan, I Putu Heriawan
	ICLCA26.0071	*Hydrogen Storage and Refueling Infrastructure for Transportation: A Comprehensive Review of Safety and Operational Challenges*
		Sieng Hong Hii, Huiyi Tan, Xue-Chao Wang, Nor Hasrul Akhmal Ngadiman, Ihab Hasan Hatif, Maria Anityasari, Hong Yee Kek, Keng Yinn Wong*
	ICLCA26.0058	*Dual-Fuel Diesel Engines for Low-Carbon Mobility: A Comparative Review of Hydrogen, Ammonia, Methane, and Biofuels on Efficiency, Emissions and Combustion Stability*
		Huiyi Tan, Xue Zhao, Guo Ren Mong, Maria Anityasari, Keng Yinn Wong*

Tuesday, October 20 (Room E100)		
15:45-17:50	**LCS3 - Solar & Hybrid RE Systems**	
	Chaired by: Dr. Jeng Shiun Lim	
	ICLCA26.0132 KEYNOTE	*MILP-Based Comparative Assessment of Data Centre Energy System Planning Across Candidate Locations: A Singapore–Malaysia Case Study*
		Huajun Zhang, Jeng Shiun Lim*
	ICLCA26.0061	*From Sunlight to Clean Water: Design a Solar-Powered, IoT-Based Greywater Treatment and Monitoring System for Small-Scale Decentralized Use*
		Maria Carmela Capul*, John Michael Panganiban
	ICLCA26.0087	*ENDPOINT-BASED LIFE CYCLE ASSESSMENT OF END-OF-LIFE SCENARIOS FOR AN ISLAND ON-GRID SOLAR PV SYSTEM IN INDONESIA*
		Diah Rahmawati*, Hadiyanto Hadiyanto, Joni Adiansyah
	ICLCA26.0148	*Performance Assessment of a Supercritical CO2 Recompression Brayton Cycle Integrated with a Parabolic Trough Solar Field*
		Wei Yang, Cheng Tung Chong*
	ICLCA26.0150	*Geothermal-Solar Hybrid Heating System Design and Performance Simulation for Crude Oil Pipelines Between Pumping Stations*
		Daizong Shi, Dongxu Han*, Bing Dong, Peng Wang, Xiaoyu Feng, Jingtai Wang
	ICLCA26.0006	*Offshore Seaweed Solar Dryer With Integrated Spiral Absorber Plate and Dehumidifier*
		Alexander Hamilton Atienza*, John Kenneth Bigata, Aldrich Buloron, Ralph Joshua Heromiano
	ICLCA26.0007	*Onshore Seaweed Solar Dryer Incorporating Conductive Mesh Tray and Heat Resistor*
		Alexander Hamilton Atienza*, Jilsen Lai Jastillana, Micko Aubrey Morato, Christian Paul Suligan

Tuesday, October 20 (Room E106)		
15:45-17:50	**CE2 – Wastewater Treatment & Pollution Remediation**	
	Chaired by: Prof. JONI ADIANSYAH, Dr. Josephine Lai	
	ICLCA26.0113 KEYNOTE	*From Diversion to Local Circularity: Life Cycle Thinking and Stakeholder-Driven Scenarios for an Integrated Waste Management Facility in Mataram, Indonesia*
		Joni Adiansyah*, Lina Mardiana, Sukuryadi Sukuryadi
	ICLCA26.0026	*Advancing Circular Economy in Palm Oil Refinery Effluent Management through Superstructure-Fuzzy-Based Design and Optimisation*
		Ryan Zhe Hse Soh, Yoke Kin Wan*
	ICLCA26.0031	*Advances in Multifunctional Magnetic Nanoparticle Coatings for Heavy Metals Adsorption and Antibiotic Degradation in Wastewater Treatment*
		Jamila Marae Amoyo, Francis Allen Foronda, Alijaeh Joshua Go, Joseph Ortenero, Angelo Earvin Sy Choi*
	ICLCA26.0091	*Alkalinity-Driven Pb(II) Removal by Oyster-Shell-Derived CaO: pH Transition, Apparent Capacity and Kinetic Behavior*
		Yong Li, Byeong-Chan Min, Dayeon Lee, Donguk Kim, Sung Wook Won*
	ICLCA26.0100	*Polyethylenimine Modification Alters the Structure-Dependent Adsorption of Activated Carbon for Anionic Dyes*
		Byeong-Chan Min, Donguk Kim, Yong Li, Dayeon Lee, Sung Wook Won*
	ICLCA26.0193	*UTILIZATION OF MULTI-LAYER BIOFILTER WITH COCONUT HUSK (COCOS NUCIFERA) AND BANANA STEM (MUSA SPP.) AS SUPPLEMENTARY SUBSTRATES IN CONSTRUCTED WETLANDS FOR DECENTRALIZED GREYWATER TREATMENT*
		Neslyn Principio*, Ralph Benedict Berbano, Mark Jiro Torres Oruga, Eric David Quitlong
	ICLCA26.0212	*Multi-Criteria Assessment of Advanced Oxidation Processes for Wastewater Treatment Using a CRITIC-TOPSIS Framework*
		Rosette Eira Camus*, Eric Halabaso, Maria Alessandra Florida, Bonifacio T. Doma, Jr.

Tuesday, October 20 (Room E200)		
15:45-17:50	**SP2 – Bio-Based Food Processing, Biomass & Sustainable Products**	
	Chaired by: Dr. Dayang Norulfairuz Abang Zaidel	
	ICLCA26.0145 KEYNOTE	*Optimizing Microwave-Assisted Sodium Chloride Treatment to Enhance Calcium Oxalate Reduction and Preserve Glucomannan Content in Amorphophallus sp.*
		Nur Anneza Sofea Zahid, Dayang Norulfairuz Abang Zaidel*, Norfazilah Muhamad, Norliza Abdul Latiff, Siti Nor Azlina Abd Rashid, Roshanida A. Rahman, Aisyah Dolit
	ICLCA26.0036	*Research on the feasibility of producing alcoholic fermented beverages from Pueraria thomsonii*
		Thanh Thi Ngoc Lan Mai*
	ICLCA26.0066	*Development of Low-Carbon Vegan Mayonnaise from Aquafaba's Lablab purpureus Stabilized with Plant Fibers*
		Nguyet Nguyen*, Thuy Dang T, Chanh Ngo T., Thuy Xuan Uyen Phan
	ICLCA26.0106	*Sustainable Valorization of Plant Biomass for Anthocyanin Recovery Using Low-CO2 Pressure-Assisted Extraction*
		Nicky Putra*, Ranjith Bose, Sathyamoorthy Manickkam, Shaikha Saeed Sultan Jaryo Al Falahi, Shamma Alfandi Hamood Mohamed Almansoori, Shaikha Ali Ahmed Shaheen Almansoori, Haslenda Hashim, Muhammad Afiq Zubir
	ICLCA26.0030	*Isolation of Lactobacillus sp. from Vietnamese fermented sour meat for application in fermented Pueraria thomsonii beverages*
		Thanh Thi Ngoc Lan Mai*
	ICLCA26.0205	*Effect of Controlled Thermal Drying on Quality Characteristics of Malaysian Konjac (Amorphophallus muelleri) Flour*
		Afiqa Nabihah Ahmad Zaini, Mazura Jusoh Jusoh*, Zaki Yamani Zakaria, Chee Yang How, Nurin Hadirah Zainal, Puteri Nurbalqis Mohd Baki, Yong Sheng Tan, Wan Nur Anis Amira Wan Ranizang
	ICLCA26.0292	*Simulation and Optimization of Biomass Gasification for Enhanced Hydrogen Yield*
		Yin Lee Boon, Muhammad Afiq Zubir*

Tuesday, October 20 (Room E208)		
15:45-17:50	**SP3 – Cleaner Production, Industrial Decarbonization & Process Integration**	
	Chaired by: Prof. Jing Zhang, Dr. Keng Yinn Wong	
	ICLCA26.0144 KEYNOTE	*CO-Promoted Polyethylene Hydrogenolysis to Liquid Fuels*
		Jing Zhang*
	ICLCA26.0034	*Smart, Lean and Green Application with Artificial Intelligence: A Paradigm for Engineering Work Process Advancement*
		Sarifah Salwa Sapani, Rozana Zakaria*, Anees Ahmed, Eeydzah Aminudin, Vikneswaran Munikanan, Nur Ainina Mustafa, Siti Maherah Hussin, M.faizal Zulkarnaini, Jawa Anak Gara, Loganathan A/l Ratana Singaram
	ICLCA26.0134	*Building the 1.5 °C Factory: A Facility-Level Framework for Low-Carbon, Resource-Efficient and Circular Production in Asia*
		Intan Nazuha Abdullah*, Dayang Norulfairuz Abang Zaidel, Fadlulah Suhaimi Mohamad, Alan Kim Wing Chong
	ICLCA26.0243	*Improvement of Oxidative Desulfurization Catalyst Recyclability Through Support Surface Treatment and Functionalization*
		Sophia June Ng, Nathaniel Dugos, Meng-Wei Wan*
	ICLCA26.0256	*Electro-Fermentation: Electrical Control of Microbial Metabolism for Sustainable Biomanufacturing*
		Yi Chen Chai, Jian Ping Tan*
	ICLCA26.0274	*Does Electricity Market Reform Reduce Industrial Electricity Intensity? Evidence from Chinese Cities*
		Yanlin Du*, Yuanying Chi, Yanzhao Zhang
	ICLCA26.0012	*Stability, Grade and Recovery Optimisation of Akwanga-Arufu Pb–Zn Ore Flotation for Cleaner Production: Effect of Frother Type*
		Steven Kuba Nuhu*, Hamound Alenezi
	ICLCA26.0271	*Biogenic CO2 for Green Methanol Production via a Modified CO2 Hydrogenation Process*
		Muhammad Firdaus Husin, Haslenda Hashim, Muhammad Afiq Zubir*

Tuesday, October 20 (Room E231)		
15:45-17:50	**SS2 - Low-carbon solutions and sustainable development in agricultural and forestry ecosystem**	
	Chaired by: Dr. Xianxian Zhang, Prof. Shan Yin	
	ICLCA26.0112	*Anaerobic Digestion of Rice Straw as Profitable Climate Solution Reduces Paddy Field Greenhouse gas Emissions and Produces Climate-Smart Fertilizer Under Carbon Trading Mechanisms*
		Yuanzhi Ni*
	ICLCA26.0158	*Long-term carbon budget of greenhouse gas emissions and soil carbon sequestration in rice-wheat rotation systems*
		Xianxian Zhang, Sheng Zhou*, Huifeng Sun, Cong Wang, Zheng Jiang, Jining Zhang
	ICLCA26.0179	*Low-Carbon Recycling of Spent Mushroom Substrates: Trichoderma-Mediated Compost Microbiome Restructuring for Green Control of Soil-Borne Pathogens*
		Zuopeng Lv*, Hao Tan
	ICLCA26.0038	*Contrasting mineral-organic architectures determine global soil carbon stabilization*
		Chengpeng Yuan*, Xiaoyun Xu
	ICLCA26.0025	*Research on Accounting for Emission Reduction and Sink Enhancement in Contiguous Fertile Farmland and the Realization of Carbon Value*
		Yi Manlu*

Wednesday, October 21 (Room E100)		
10:15-12:35	**LCS4 – Industrial Decarbonization, Carbon Capture & Energy Planning**	
	Chaired by: Prof. Jingjing Zhan	
	ICLCA26.0293 KEYNOTE	*Probabilistic cradle-to-gate carbon footprint of e-methanol under coupled electricity and CO2-source conditions: Comparison with published projects and an industrial-park application*
		Yuqing Liu, Hao Zhou, Jingjing Zhan*
	ICLCA26.0081	*Carbon-Constrained Multiple Energy Resource Targeting with Supply Limits and Dual Objectives for Indian Energy Sector Planning: A Pinch Analysis Framework*
		Ashna M U*, Santanu Bandyopadhyay
	ICLCA26.0157	*Comparative screening of PZ, MDEA, and AEEA as MEA additives for post-combustion CO2 capture in a bubble column reactor*
		Sebastian Albarracin Quintero, Gideon Jia De Sia, Brandon Han Hoe Goh, Pui Vun Chai, Chun Kit Ang, Cheng Tung Chong*
	ICLCA26.0183	*A study on feed stock optimization for Fluid Catalytic Cracking units based on Carbon Emission Pinch Analysis and synergistic emissions reduction via CCUS*
		Bohong Wang*, Dingding Yang, Fu Wenhao
	ICLCA26.0027	*Artificial Intelligence, Digital Finance, and Bio-Circular Economy Performance in Africa: Evidence for Sustainable Energy Transitions*
		Dhekra Ben Amara*
	ICLCA26.0149	*Numerical Simulation of a Solar–Geothermal Coupled Heating System for Oilfield Gathering and Transportation*
		Jingtai Wang, Dongxu Han*, Bing Dong, Peng Wang, Xiaoyu Feng, Daizong Shi, Yifei Wang
	ICLCA26.0190	*Research on the Integrated System of Natural Gas Pipeline Terminal Pressure Energy Recovery and Data Center Waste Heat Utilization*
		Haoyang Li, Mingyang Ji, Zhezhe Song, Yujie Chen*, Junhua Gong, Peng Wang, Dongxu Han
	ICLCA26.0015	*Integrating Low-Carbon and Circular Economy Strategies for Industrial Decarbonization in Nigeria*
		Hamound Alenezi, Steven Kuba Nuhu*

Wednesday, October 21 (Room E106)		
10:15-12:35	**LCS5 – Hydrogen, Ammonia & Integrated Energy Systems**	
	Chaired by: Dr. Kreangkrai Maneeintr, Dr. Muhammad Afiq Zubir	
	ICLCA26.0265 KEYNOTE	*Simulation on Steam Methane Reforming for Hydrogen Production Process from Natural Gas in Thailand*
		Natchanon Lohsuwan, Kreangkrai Maneeintr*
	ICLCA26.0109	*Oxygen Evolution Electrocatalysts for Seawater Electrolysis: A Review of Recent Progress in Activity, Stability, and Chloride Tolerance*
		Ranjith Bose*, Sathyamoorthy Manickkam, Nicky Putra, Hanin Awadh Ahmed Nasser Habtoor, Salma Zayed Saeed Eissa Alfalahi
	ICLCA26.0199	*Modeling and Sensitivity Analysis of Two-Bed PSA for Hydrogen Recovery from Coke Oven Gas*
		Yue Su*, Zhipeng Tan, Bohong Wang
	ICLCA26.0202	*Enhancing Ambient Ammonia Synthesis via Discharge Gap Optimization and Mesoporous MCM-41 Catalyst*
		Kai Ye, Pei Tung Goh, Pui Vun Chai, Chun Kit Ang, Cheng Tung Chong*
	ICLCA26.0221	*Optimal Scheduling of an Integrated Gas–Electricity–Hydrogen Energy System Considering Hydrogen Blending into Natural Gas*
		Liang Shen, Qingzhao Liu, Pengtao Niu, Muhao Lv, Xiaoda Liang, Chunying Liu, Liang Yongtu, Qi Liao*
	ICLCA26.0069	*Green Co-Precipitation Synthesis of Ni–YSZ Cermet Material for Hydrogen-Based Energy Devices*
		Thanh Luan Nguyen, Son Nguyen, Viet Tran*
	ICLCA26.0060	*Waste to Energy: Development of a Small-Scale Odor Controlled Methane Digester With Thermoelectric Generator-Based System*
		Maria Carmela Capul*, Bea Angela Pasia, Reign Anthony Payawal

Wednesday, October 21(Room E200)		
10:15-12:35	**LCS6 – Alternative Fuels, Combustion & Vehicle Systems**	
	Chaired by: Prof. Angelo Earvin Sy Choi	
	ICLCA26.0016 KEYNOTE	*Strategies for Deep Desulfurization of Tire-Derived Fuels Toward Euro 5 Compliance*
		Anela Maree Jardin, Nathaniel Dugos, Meng-Wei Wan, Angelo Earvin Sy Choi*
	ICLCA26.0049	*Synthesis of Decarbonization Pathways for LNG Fleet*
		Jaya Prasanth Rajakal, Mohammad Al-Korbi, Dhabia Al-Mohannadi*
	ICLCA26.0172	*Safety Operating Boundary Analysis of Hydrogen-Blended Natural Gas Pipeline Networks under Intermittent Hydrogen Injection Conditions*
		Bo Zhao, Peng Wang*, Hongqing Li, Dongxu Han, Yujie Chen, Yuanping Yang, Dongliang Sun
	ICLCA26.0261	*Flame dynamics and spectral characteristics of partially cracked NH3 swirl flames*
		Junhui Zhou*
	ICLCA26.0276	*Catalytic Deoxygenation of Periplaneta americana Oil for Biojet Fuel Hydrocarbons*
		Brandon Han Hoe Goh*
	ICLCA26.0291	*2D Time-Resolved Laser-Induced Incandescence Measurement of Soot Characteristics in ATJ-SKA/Jet A-1 Blended Pool Flames*
		Zihan Feng*, Cheng Tung Chong, Jinning Zhang, Bo Tian
	ICLCA26.0224	*Developing a Smart Fuel Quality Analyzer: Multi-sensor Adulterant Detection and Fuel Classification Using Random Forest*
		Lorraine Ianne Almazora, Zeri Rondilla, Alex Timothy Tan, Monette Loy-A*

Wednesday, October 21(Room E208)		
10:15-12:35	**SP4 – Advanced & Functional Materials for Energy, Carbon and Bio-Based Applications**	
	Chaired by: Dr. Jian Ping Tan	
	ICLCA26.0266 KEYNOTE	*Ionic liquid-engineered crystalline graphene oxide: impact of anion structure on CO2/CH4 separation of PEBAX mixed matrix membrane*
		Kah Mun Leong, Swee Tiam Tan, Jian Ping Tan, Peng Chee Tan*, Shareena Fairuz Abdul Manaf
	ICLCA26.0046	*Effect of Processing Parameters on the Formation and Optimization of YSZ Nanoparticles via Sol–Gel Method*
		Anh Kien Le, Minh Tri Huynh, Tuan Viet Tran, Ngoc Nam Lam*
	ICLCA26.0128	*Comparative Effects of Salt-pH and Ultrasound Treatments on the Functional and Foaming Properties of Okra Protein*
		Suk Khe Low, Mei Ching Tan*, Nyuk Ling Chin
	ICLCA26.0139	*Tailoring Lateral Sizes of Ionic Liquid Functionalized Graphene Oxide in Pebax Mixed Matrix Membrane for Efficient Carbon Capture*
		Jia Huei Ho, Kah Mun Leong, Peng Chee Tan*
	ICLCA26.0247	*Comparative Evaluation of Unwashed and n-Hexane-Washed Mangosteen Peel Extracts as Green Corrosion Inhibitors for CT3 Steel in Sulfuric Acid Solution*
		Thi My Hien Bach*, Thi Lieu Nguyen
	ICLCA26.0040	*Hemoglobin from Hermetia illucens exerts antibacterial activity by targeting bacterial membranes*
		Xiangyi Wei*, Dehong Yang, Yongping Huang
	ICLCA26.0001	*Engineering Trade-offs in Nanofiller-Reinforced Bioplastics: Degradation Pathways, Stability, and End-of-Life Performance*
		Tristan Roy Panaligan*, Azriel Tagunicar, Erika Arcilla, Johnmarc Asan, Lugh Rence Barillo, Stephen Ross Gutierrez
	ICLCA26.0080	*Study on the effects of steam blanching and osmotic dehydration conditions on the quality of soft-dried papaya (Carica papaya L.)*
		Tong Thi Anh Ngoc*, Nguyen Duc Tung, Hoang Thi Tuyet Suong, Phan Nguyen Trang

Wednesday, October 21(Room E231)		
10:15-12:35	**SP5 – Sustainable Business, Resource Efficiency & Carbon Management**	
	Chaired by: Dr. Kok Sin Woon	
	ICLCA26.0273 KEYNOTE	*Integrated Systems Analysis and Life Cycle Assessment in Low-Carbon Development*
		Kok Sin Woon*
	ICLCA26.0137	*How Does China's Unified National Market Affect the Supply Chain Resilience of New Energy Enterprises?*
		Xiaoyu Wang*, Yuanying Chi, Rehab R. Esily
	ICLCA26.0194	*Energy Management System Implementation as a Low-Carbon Strategy in Philippine Manufacturing: Evidence from a 2021 Baseline Survey*
		Jomar Oblea*, Gallego, Jr. Marianito
	ICLCA26.0281	*The Integrated System EBM and Carbon Irreversibilization—1 Ton of Irreversibilized Carbon Has the Effect of 2 Tons of Emission Reduction*
		Lining Zhang*
	ICLCA26.0257	*From Baseline Compliance to Low-Carbon Performance: A Literature-Based Comparison of Energy Management System Practices in Manufacturing*
		Jomar Oblea*, Edrian Manalong
	ICLCA26.0089	*A Hyperledger Fabric-Based Framework for Animal Disease Traceability in the Food Supply Chain*
		Jonalyn Ebron*, John Paulo A. Buan, Lois Jeffrey A. Desembrana, Emmanuel Jacob C. Ellana
	ICLCA26.0090	*Forecasting Carbon Emissions Using Deep Learning: A Time Series Case Study of a Food Manufacturing Plant*
		Jonalyn Ebron*, Harvy M. Caballa, Jeffrey L. Cuevas, Marvin Christianelle C. Nievera
	ICLCA26.0216	*Dynamic Material Flow and Embodied Carbon Co-analysis of Critical Metals in China's Power System: A Multi-scenario Markov Chain Approach*
		Yi Zheng, Jie Chen, Yan Zhao, Yuquan Zhang*

Wednesday, October 21 (Room E100)		
13:30-15:05	**LCS7 – Transport Electrification, Mobility & Carbon Management**	
	Chaired by: Dr. Ilho Jeong, Dr. Guo Ren Mong	
	ICLCA26.0284 KEYNOTE	*Understanding Multiscale Walkability and Pedestrian Mobility in Seoul*
		Ilho Jeong, Seongjin Park, Jongwon Lee, Sion Kim, Seungjae Lee*
	ICLCA26.0238	*Carbon Emission Prediction and Carbon Quota Allocation in China's Transportation Industry*
		Xinran Gao*
	ICLCA26.0285	*Road Freight Electrification and Competing Supply Chains: A CGE Analysis of China*
		Fangzhou Dai, Runsen Zhang*
	ICLCA26.0152	*Comparative Study of Numerical Solution Methods for Oil–Gas Multiphase Pipeline Flow*
		Yifei Wang, Dongxu Han*, Jingtai Wang, Daizong Shi, Bing Dong
	ICLCA26.0024	*Decarbonizing Urban Transport: A Scalable IoT-Integrated Framework for Efficient Battery Fast-Charging and Life-Cycle Extension*
		Catherine Salvador*, Julian Leigh Paloma, Toby Villavicencio
	ICLCA26.0070	*Facile Synthesis of Hierarchical Zinc Cobalt Hydroxide (ZnCo(OH)4) Assisted Nanocomposites for Efficient Photocatalytic CO□ Reduction to Fuels*
		Beenish Tahir, Muhammad Tahir*, Naveen Kumar

Wednesday, October 21 (Room E106)		
13:30-15:05	**LCS8 – Energy Systems, Thermal Processes & Sustainability Assessment**	
	Chaired by: Prof. Manimagalay Maggie Chetty	
	ICLCA26.0021 KEYNOTE	*A techno-economic assessment of biofuel production from agricultural, food, and solid wastes*
		Manimagalay Maggie Chetty, Sumeshan Shunmugam*, Amir Mohammadi
	ICLCA26.0153	*Study on thermal molecular pressure differentials based on molecular dynamics simulations*
		Mingchao Hou, Dongxu Han*, Haiyang Zhang, Dongliang Sun, Qi Wang
	ICLCA26.0272	*Decoding the reporting quality and credibility of solar photovoltaics life cycle assessment via a harmonized dual-standard review framework*
		Zhen Xin Phuang, Hong Sheng Loh, Runqian Cao, Kok Sin Woon*
	ICLCA26.0275	*Energy Marketization and Firm Energy Intensity: Evidence from China's Electricity Market Reform*
		Guangyuan Wang*, Yuanying Chi, Yanzhao Zhang
	ICLCA26.0085	*Two-Dimensional Numerical Assessment of Blade Count Variations in Savonius Hydrokinetic Turbines with Positive Overlap*
		Muhyiddin Mohammed*, Shamsul Sarip, Sa'Ardin Abdul Aziz
	ICLCA26.0083	*Kinetics of Peroxidase Inactivation and Bioactive Compound Degradation in Hybrid Pumpkin During Hot Water Blanching*
		Tong Thi Anh Ngoc*, Nguyen B. Pham, Hoa T. Ma

Wednesday, October 21(Room E200)		
13:30-15:05	**BNS1 – Biodiversity, Ecosystem Services & Nature-Based Solutions**	
	Chaired by: Prof. Nan Hui, Ms. Kristine Joyce Ortiz	
	ICLCA26.0268 KEYNOTE	*The Beta-Biodiversity Hypothesis: Vegetation Heterogeneity, Microbial Communities Homogenization, and Urban Health*
		Nan Hui*
	ICLCA26.0054	*Graphene-Assisted Screen-Printed Interdigitated Electrode Sensor for Low-Cost Multiparameter Water Quality Monitoring and Statistical Trend Forecasting*
		Kristine Joyce Ortiz*, Gerome Arellano, Eligius Daniel Permejo, Gabriel Angelo Tamayo
	ICLCA26.0104	*Determination of Water Quality, Heavy Metals, and Anthropogenic Activities in Mariveles Bay, Bataan*
		Paul John Tiangco*
	ICLCA26.0029	*Nickel Bioaccumulation in Fish from Mining Contaminated Rivers in Narra, Palawan, Philippines*
		Liwayway Acero*, Dennis Billones
	ICLCA26.0101	*Soil Respiration Measurement Using a Low-Cost Static Chamber for Nature-Based Carbon Studies*
		Harry John*, Shanti Faridah Salleh
	ICLCA26.0222	*Electro-Culture via DC Electrical Stimulation and Magnetic-Field Exposure: Effects on Seed Germination and Growth of Brassica Rapa Var. Pekinensis*
		Catherine Salvador*, Cesar Manalo, Jhoe Russel Postrado, Elias James Urriquia

Wednesday, October 21(Room E208)		
13:30-15:05	**CJ1 – Climate Justice, Climate Risk, Finance & Carbon Governance**	
	Chaired by: Dr. Pei Ying Ong, Prof. Xiongfeng Pan	
	ICLCA26.0033 KEYNOTE	*Balancing Low-Carbon Operation and Resilience in Zero-Carbon Energy Hub Networks: A Systematic Review*
		Bohong Wang*, Jing Huang
	ICLCA26.0041	*Malaysia's Country-Specific Emission Factors (CSEFs) for Greenhouse Gas Inventory in Oil and Natural Gas Systems*
		Nabila Farhana Jamaludin*
	ICLCA26.0051	*Climate Variability Risk, Climate Finance and Armed Conflicts in Sub-Saharan Africa*
		Kabiru Umar*
	ICLCA26.0116	*Integrating Satellite and Ground-Based Air Pollution Geospatial Data: Assessing the Role of Machine Learning Amid the Growing Availability of Satellite Observations*
		Narissara Nuthammachot*
	ICLCA26.0142	*Forecasting SDG Targets and Assessing Carbon Budgets: A Global Analysis Based on the Water-Energy-Waste (WEW) Nexus*
		Zhengqi Liu, Kok Sin Woon*
	ICLCA26.0223	*Population Trajectories and Systemic Net-Zero Carbon Transition of a Global Megacity*
		Yifan Wang, Kangkang Tong*

Wednesday, October 21(Room E231)		
13:30-15:05	**IT1 – Governance, Behaviour & Inclusive Net-Zero Transition**	
	Chaired by: Dr. Ján Huňady, Mr. Loon Wai Chau	
	ICLCA26.0227 KEYNOTE	*Institutional Trust and the EU's Twin Transitions: Public Support for Green vs. Digital Funding*
		Ján Huňady*, Maria Stachova
	ICLCA26.0135	*From Environmental Disclosure to Carbon Intensity: Assessing Low-Carbon Transition Pathways in the Digital Sector*
		Thomas Calvet*, Didier Desponds, Béatrice Lesdésert
	ICLCA26.0215	*Provincial Dynamics and Explainable Forecasting of Food-Consumption Water Footprints among Rural Residents in China*
		Bingjie Xie*, Bohong Wang
	ICLCA26.0218	*Supporting Low-Carbon Aviation through Voluntary Carbon Offsetting: Evidence from Chinese Air Travellers*
		Zhijian He*, Syamsul Herman Mohammad Afandi, Shaufique Fahmi Ahmad Sidique
	ICLCA26.0095	*Rethinking the sustainability of ownership through lifestyle and ecosystem changes*
		Darius Corbier*, Julie Metta, Hazel Pettifor, Maureen Agnew
	ICLCA26.0187	*Income-Level Differences in Sustainable Development Goal 7 Progress: Drivers, Disparities, and 2030 Projections*
		Ning Gao, Chew Tin Lee*, Yee Van Fan, Pei Ying Ong, Kok Sin Woon, Li Yee Lim

Wednesday, October 21 (Room E100)		
15:15-17:05	**LCS9 – Low-Carbon Cities, Urban Resilience & Environmental Sensing**	
	Chaired by: Prof. Jin-Hua Xu, Dr. Zhen Guo	
	ICLCA26.0170 KEYNOTE	*Congestion relief underpins the societal value of bike sharing*
		Jin-Hua Xu*
	ICLCA26.0245	*Intelligent Urban Microclimate Sensing and Decision Support for Sustainable Spatial Governance: An Evaluation Framework for Low-Carbon Districts and Public-Space Optimisation*
		Kailai Zhang*
	ICLCA26.0121	*The Occurrences of Atmospheric Microplastics at Different Elevations in a High-Rise Residential Building in Kuala Lumpur, Malaysia*
		Nur Aqilah Samsukamal, Nor Ruwaida Jamian*, Sirosini Segar, Norfatiha Ishak, Dewika Naidu Munisamy Naidu, Sara Yasina Yusuf, Mohammad Khalid, Siti Nur Khadijah Aishah Ibrahim, Khairunnisa Mohd Paad
	ICLCA26.0217	*How to Integrate Low-Carbon Development and Resilience Building in Chinese Cities ?*
		Aimin Li*
	ICLCA26.0035	*How Does the Digital Economy Promote Agricultural Carbon Reduction? A Qualitative Study of the Yangtze River Economic Belt*
		Zhen Guo, Chin Siong Ho, Feng Zhao, Gabriel Hoh Teck Ling*, Mohamad Fadhli Rashid, Lisheng Liu
	ICLCA26.0203	*Predictive Model for the Gasification of Sugar Cane Bagasse Using Deep Neural Learning and Process Simulation*
		Maribel Songsong*, Jesunino Aquino, Jian Carlo Guevarra, Ariane Ysabel Mitra, James Christian Pacia, Bonifacio T. Doma, Jr.
	ICLCA26.0228	*IoT-Enabled Boat-Based System for Water-Quality-Based Prediction and Non-Chemical Control of Mosquito Larvae in Urban Canals*
		Kiel Gonzales, Larraine Lois Lapaz, Christian Noriel Serrano, Monette Loy-A*

Wednesday, October 21 (Room E106)		
15:15-17:05	**LCS10 – Low-Carbon Fuels, Bioenergy & Fuel Processing**	
	Chaired by: Prof. HASLENDA HASHIM	
	ICLCA26.0073	*Advances in Mixing-Assisted Oxidative Desulfurization of Actual and Alternative Fuel Oils: A Review*
		Mia Patricia Manalo, Eliza Janel Tan, Lio Josepat Domingo, Cary Albert Chan, Angelo Earvin Sy Choi*
	ICLCA26.0074	*Oxidant Selection and Performance in Ultrasound-Assisted Oxidative Desulfurization (UAOD) of Liquid Fuels: A Review*
		James Bryan Cagas, Francis Ethan Arellano, Gian Paolo Bernardo, Angelo Earvin Sy Choi*
	ICLCA26.0244	*Processing Rice Straw Biomass to Improve The Efficiency of Bioethanol Production*
		Hong Tran Thi*, Quy-Diem Do
	ICLCA26.0037	*Comparative Exergoenvironmental Analysis of the Direct and Indirect Conversions of Natural Gas to Methanol using Aspen HYSYS Simulation*
		Nurudeen Salahudeen*, Omar Umar Ahmed, Adamu Abubakar Rasheed, Ahmed Fate Ali, Ibrahim Abdullahi, Amir Ibrahim Bako
	ICLCA26.0206	*Clustering and Competitive Dynamics Enhanced Carbon Emission Pinch Analysis for Low carbon Transition of Regional Energy Systems*
		Limei Gai*, Xu Wang, Wenkuo Chen, Bohong Wang, Dominic Foo, Jeng Shiun Lim, Petar Sabev Varbanov, Chunyan Si
	ICLCA26.0017	*Thermodynamic Analysis of Pyrolysis Reactions of Naphthalene, Hexamethyldisiloxane, 2-ethyl-naphthalene and 1-octanamine, N-methyl-N-octyl*
		Wan Nur Anis Amira Wan Ranizang, Muhammad Syahmi Baharum, Zaki Yamani Zakaria*, Mazura Jusoh Jusoh, Mohd Asmadi Mohammed Yussuf, Suhaila Sapari, Chee Yang How, Afiqa Nabihah Ahmad Zaini

Wednesday, October 21(Room E200)		
15:15-17:05	**CE3 – Recycling, Plastics & Circular Energy Materials**	
	Chaired by: Dr. Joseph Ortenero, Dr. Kinga Biró	
	ICLCA26.0059 KEYNOTE	*A Systematic Review of Electric Vehicle Battery Recycling Technologies, Policy Frameworks, and Circular Economy Pathways in Asia*
		Michael Buenly Owogowog, Christopher Welbourne Ferrer, John Joseph Tolentino, Joseph Ortenero*
	ICLCA26.0072	*LCA-Informed Environmental Allocation for High-Quality Recycling Decisions in Crystalline Silicon PV Modules*
		Chunyan Si*, Kok Sin Woon, Monika Dokl, Yee Van Fan, Lidija Čuček
	ICLCA26.0162	*Environmental Assessment of Digital Battery Passport Implementation Using Life Cycle Assessment*
		Kinga Biró*, Ádám Török
	ICLCA26.0200	*Towards a circular low-carbon energy system: metal constraints, retirement flows and recycling economics in China's wind power expansion*
		Yan Zhao, Yuquan Zhang*
	ICLCA26.0229	*An Intelligent Eco-Brick Reverse Vending Machine for Automated Eco-Brick Verification Supporting Circular Plastic Waste Recovery*
		Kristine Joyce Ortiz*, Mykah Edrich Baclig, Jonathan Gaygon, Yancy Rolda
	ICLCA26.0014	*Multimodal Data Fusion for Plastic Identification Using Image Processing and Dual Sensors for Sustainable Waste Management*
		Mae Garcillanosa*, Julius Vincent Yapsangco, Neil Ivan Abaquita, Jerome Christian Manuel
	ICLCA26.0076	*Extraction of Bromelain from Cau Duc Pineapple (Ananas Comosus (L.) Merr.) By-Products for Milk Hydrolysis*
		Tuan Anh Nguyen, Chi Thanh Ho, Thai Danh Luu, Thi Tuyet Nhung Do, Van Song Toan Vo, Chi Nhan Tran*

Wednesday, October 21(Room E208)		
15:15-17:05	**CE4 – Circular Systems, Construction & Urban Material Flows**	
	Chaired by: Ms. Maria Figueroa, Prof. Chew Tin Lee	
	ICLCA26.0237 KEYNOTE	*Impacts of Urban Circular and Collaborative Models Aimed at Ecological Transition and Decarbonisation of Cities*
		Maria Figueroa*, Marco Antonini
	ICLCA26.0211	*Bulk material transitions in Chinese cities reveal uneven pathways to circularity and decarbonization*
		Guochun Huang*
	ICLCA26.0251	*Contextualising Circular Office Fit-Out Value Chains: A Mechanism-Based Perspective—Lessons from Australia*
		Mohsen Ahmadi*, Tuba Kocaturk, Abid Hasan
	ICLCA26.0241	*A Comparative Assessment of Acoustic Performance, Greenhouse Gas Emissions, and Cost for Louvre*
		Runqian Cao, Penglin Zhang, Zhilong He, Kok Sin Woon*
	ICLCA26.0079	*Bridging Construction Waste Management Plans and Circular Economy: A Bibliometric Analysis and Science Mapping*
		Nur Sya`fiqa Binti Jamaluddin, Norhafezah Kasmuri*, Eeydzah Aminudin, Nurul Fariha Nurul Fariha, Zafira Nadia Maaz
	ICLCA26.0192	*Life Cycle Assessment-Based Environmental Comparison of Portland Cement and Geopolymer Concrete*
		Neslyn Principio*, Joseph Berlin Juanzon
	ICLCA26.0184	*CFD-DEM Simulation of Macroplastic and Sediment Transport in Sump-Type Manholes under Simulated Philippine Rainfall Conditions*
		Brylle Reovince Rosales*, Erika Arcilla, April Joy Gonzales, Jerica Omalin

Wednesday, October 21(Room E231)		
15:15-17:05	**BNS2 – Sustainable Agriculture, Soil & Smart Farming**	
	Chaired by: Dr. Chunjie Li, Prof. Juan Gao	
	ICLCA26.0147 KEYNOTE	*A Decade of Aquaponics Research: Key Insights, Challenges, and Opportunities*
		Chunjie Li*
	ICLCA26.0097	*Straw-Derived Amendments Mitigate Fomesafen Carryover Injury to Subsequent Maize in Mollisols: Field Evidence and Life Cycle Sustainability Assessment*
		Juan Gao*
	ICLCA26.0239	*Formulation and Physicochemical Characterization of Granulated Oil Palm Empty Fruit Bunch Biochar as a Slow-Release Fertilizer*
		Muhammad Arieff Haikal Ezaidin, Nor Alafiza Yunus*, Haslenda Hashim, Tridansh Bahadur Pandey, Chang Lin Jason Cheng
	ICLCA26.0204	*Can Public Supervision Promote Multi-Stakeholder Trading of Blue Carbon Resources? A Comparative Analysis Based on Three-Party and Four-Party Evolutionary Game Models*
		Hua Shang, Yanyan Guo*
	ICLCA26.0013	*Image-Based Soil pH Classification Using Machine Learning for Soil Health Monitoring in Sustainable Agriculture*
		Mae Garcillanosa*, Patricia Ysabel Bermudez, Christian James Calunia, Emil Aaron Garcia
	ICLCA26.0082	*Influence of Agitated Maceration Condition on the Polyphenol and Flavonoid Content of Water Caltrop (Trapa natans L.) peels*
		Nha Tuan Vi, Nha Tran Vi, Thi Tuyet Nhung Do, Chi Nhan Tran*

Tuesday, October 20 (next to E100)	
Poster presentation	
ICLCA26.0043	*Revisiting Coastal Land Carrying Capacity for Sustainable Tourism and Coastal Resilience Planning: Evidence from Sepanjang Beach, Indonesia*
	Farid Zulfa Fakhruddin*
ICLCA26.0047	*State-Level Greenhouse Gas Inventory and Decarbonisation Pathways Towards Net Zero in Johor, Malaysia*
	Toh Sing Yee*, Gabriel Hoh Teck Ling, Loon Wai Chau, Rohayu Abdullah, Nurul Izzah Hassan, Nadia Hanie Sofea Samsor, Jamirsah Nurzuliza, Chin Siong Ho
ICLCA26.0048	*Chemical Safety in Circular Economy: Global Evidence from PBDEs*
	Guangbin Zhong, Ying Zhu*
ICLCA26.0063	*Durian Rind Pectin/Poly(Vinyl Alcohol) Composite System for Moisture Retention and NPK Delivery in Sprout Cultivation*
	Uyen D. H. Huynh, Khoa H. A. Pham, Anh H. Nguyen, Xuyen T. M. Tran, Anh P. T. Lam, Thanh T. H. Nguyen, Uyen P. N. Tran*
ICLCA26.0065	*Sustainable Production of Naturally Formed Tiliacora triandra Gels: Linking Microstructure, Texture, and Water Retention*
	Thuy Dang T, Nguyet Huynh, Nguyet Nguyen*
ICLCA26.0107	*Numerical investigation of phase change heat transfer in a spherical thermal energy storage unit*
	Urooj Khaqan, Layiq Zia, Jehanzaib Saleem, Jin Wang*
ICLCA26.0115	*Comparative Study and Analysis of Insulator Carbon Footprint Based on Life Cycle Assessment*
	Ni Ni*, Jingyue Huang, Yong Wang, Yifan Pu

Tuesday, October 20 (next to E100)	
Poster presentation	
ICLCA26.0119	*Effects of Winter Cover Crop Rotations on Soil Carbon Pools in Paddy Rice Ecosystems*
	Cong Wang, Zheng Jiang, Huifeng Sun, Jining Zhang, Xianxian Zhang, Sheng Zhou*
ICLCA26.0120	*Labile and recalcitrant biochar carbon simultaneously stabilised soil organic carbon and enhanced vegetable yield*
	Jining Zhang*, Xingyue Wang, Cong Wang, Zheng Jiang, Huifeng Sun, Xianxian Zhang, Sheng Zhou
ICLCA26.0146	*Optically Regulated Vertical Agrivoltaics for Low-Carbon Precision Agriculture and Sustainable Land Use*
	Haoyu Ma, Zhiguo Lu, Jacob Wekalao, Xinyu Zhang*
ICLCA26.0155	*Modelling reactive-transport controls on plume-scale tetrachloroethylene reduction during nanoscale zero-valent iron injection*
	Yajie Shang*, Ying Zhu
ICLCA26.0159	*Scenario Analysis on Multi-Objective Optimized Management of Rice-Wheat Rotation System*
	Dongjie Chen, Shenghui Han*, Xianxian Zhang, Wen Zhang, Yongqiang Yu, Sheng Zhou
ICLCA26.0160	*Towards Sustainable Agriculture: Coupling Aquatic Plants and Organic Carbon Media for Co-Reduction of Drainage Pollution and Greenhouse Gas Emissions*
	Naxin Cui*
ICLCA26.0189	*Electrolyte Optimization for Li-O2 batteries*
	Martijn Mekkering*
ICLCA26.0207	*Chitin Dehydration by a Dissolution-dehydration Effect*
	Xi Chen*
ICLCA26.0208	*Comparative Urban Decarbonisation Pathways in Contrasting Malaysian Cities: Insights from Seremban and Penang Island*
	Nadia Hanie Sofea Samsor*, Nurul Izzah Hassan, Sing Yee Toh, Loon Wai Chau, Rohayu Abdullah, Siti Hajar Misnan, Chin Siong Ho

Tuesday, October 20 (next to E100)	
Poster presentation	
ICLCA26.0226	*Holistic Assessment of a Low-Carbon Dormitory Through Energy Retrofit and Social Impacts in Central China*
	Yun Liang Niu, Azhaili Bin Baharun*, Mohd Afzan Bin Mohamed, Chew Tin Lee, Chin Siong Ho, Ying Bei Niu
ICLCA26.0248	*Preparation of Cellulose Acetate from Waste Printing Paper*
	Quy-Diem Do*, Huong Do, Hong Tran Thi, Quoc-Bao Viet Tran, Vo Cong Thanh
ICLCA26.0250	*Enhancing the luminous performance of ZnSe quantum dots with Cu doping for rapid detection of heavy metal ions Pb2+*
	Diem Bui Thi*
ICLCA26.0254	*Cellulase-Assisted Extraction of Bioactive compounds from Karonda (Carissa carandas L.) Fruit: Optimization, Antioxidant Activity, and Antimicrobial Potential*
	Uyen D. H. Huynh, Thanh T. H. Nguyen, Anh P. T. Lam, Uyen P. N. Tran*
ICLCA26.0262	*Sustainable Route of Ethylene Carbonate Production via CO2 Carboxylation: Process Development, Process Integration, and Economic Analysis*
	Wei Lin Ng*
ICLCA26.0263	*Agricultural land-management switching enhances crop production sustainability: Mechanisms and Synergies*
	He Peng, Yifan Gu*, Yufeng Wu, Xin Yang, Yuxian Hong, Ming Yang
ICLCA26.0264	*Environmental Impact Source Apportionment and Regulation Mechanism in the Zinc Industry: A Life Cycle Material Metabolism Perspective*
	Xin Yang, Yifan Gu*, Yufeng Wu, He Peng, Yuxian Hong, Ming Yang
ICLCA26.0230	*Simulated Thermal and Carbon Emissions Performance of Mycelium Bio-insulation for Green Building Retrofit*
	Yun Liang Niu, Azhaili Bin Baharun*, Mohd Afzan Bin Mohamed, Pei Ying Ong, Loon Wai Chau, Ying Bei Niu, Ze Hua Wei, Li Yee Lim

HONORARY PATRON



Er. Seng Chuan TAN

President of the World Federation of Engineering Organizations (WFEO)

Er. Seng Chuan Tan holds a Bachelor of Engineering (Civil) and Master of Science (Building Science) from the National University of Singapore. He is a Professional Engineer (Civil) and Chartered Engineer (Environment & Water) registered in Singapore, National Environment Agency accredited GHG Lead Verifier, GRI Certified Sustainability Professional and a Senior Practicing Management Consultant (Sustainability) Certified by Singapore Business Advisors and Consultants Council.

His professional experiences cover the sectors of Sustainability, Climate Change, Environmental, Water, Energy, Built Environment & Infrastructure, Chemical and Petrochemical, Oil & Gas and other Industrial projects in Asia Pacific region.

Er. Tan holds various positions in the early part of his career. In 2010, he was appointed as Director of CH2MHill responsible for the operation and development of the water and environmental services business in the Asia Pacific Region. In 2015 he joined Ramboll Environ (Asia Pacific) as Regional Managing Director leading the development and implementation of company strategies across offices in Asia Pacific. Presently, he serves as Managing Director of TEMBUSU Asia Consulting Pte Ltd, a leading sustainability consultancy company in Asia focus on the development and implementation of United Nation Sustainability Development Goals. TEMBUSU Asia is accredited by Singapore Accreditation Council (SAC) and Asia Carbon Institute (ACI) accredited Validation & Verification Body.

Er. TAN is the Emeritus President of the Institution of Engineers, Singapore (IES) where he served as President from 2006 to 2008; he also served as President of the Federation of Engineering Institutions of Asia and the Pacific (FEIAP) from 2007 till 2011, Chairman of the Asia Pacific Economic Cooperation (APEC) Engineers Coordinating Committee and member of the International Engineering Alliance (IEA) Governing Board from 2015 to 2019. Presently he serves as President of the World Federation of Engineering Organization (WFEO) and Chairman of Chartered Engineering Board in Singapore.

Seng Chuan Tan was elected to the position of President-Elect at the Federation's General Assembly in Prague, Czech Republic in October 2023 and became President at the General Assembly in Shanghai on 17 October 2025.

PLENARY SPEAKERS



Academician Wen LING
Academician of the Chinese Academy of Engineering, President of Shandong Association for Science & Technology.
China

Biography

He used to be the CEO of Shenhua Group and China Energy, Vice Governor of Shandong Province. He is one of the first generation of systems engineering doctors and postdoctoral researchers in China. He has long been committed to applying systems engineering theories to solve major engineering problems and has won the National Science and Technology Progress Award several times, the Gold Award of the National Excellent Industrial Design Award, and the National Outstanding Contribution Award for Industry-University-Research Cooperation. He was rewarded as National Model Worker, National Model Worker in Finance, National Outstanding Postdoctoral Fellow, etc.

Title: Magnetic Levitation Energy-Saving Technology Boosts Industrial Decarbonization

Abstract:

Against the backdrop of global green and low-carbon development, industrial decarbonization has become a key pathway for countries to achieve carbon peaking and carbon neutrality. Upgrading industrial equipment technology is an important decarbonization pathway. Magnetic levitation energy-saving equipment formed by magnetic levitation energy-saving technology has become an important technical support for the low-carbon transformation of industry. At present, magnetic levitation energy-saving technology is accelerating its industrialization and scenario-based application. Through source-based carbon reduction and process-based carbon reduction, a number of mature and replicable energy-saving solutions have been formed. With the further advancement of global green development, magnetic levitation energy-saving technology will usher in new developments in equipment renewal, technological upgrading, and scenario expansion.

PLENARY SPEAKERS



Prof. Raimund BLEISCHWITZ
Leibniz Centre for Tropical Marine Research (ZMT) &
University of Bremen
Germany

Biography

Raimund Bleischwitz is a distinguished expert in global sustainable resources and natural resource governance, with extensive experience in the fields of the blue and circular economy. As Scientific Director at the Leibniz Centre for Tropical Marine Research (ZMT) and Professor of Global Sustainable Resources at the University of Bremen, he leads interdisciplinary research on sustainable resource use, resource efficiency, and the governance of natural resources. His work has made significant contributions to international environmental policy, particularly on the resource nexus, critical raw materials, and the links between resource management, climate change, and security. An internationally recognized scholar, he has advised governments, international organizations, and policy makers on sustainability transitions and resource governance. As an Honorary Professor at UCL Bartlett School of Environment, Energy and Resources, he continues to contribute to global debates on sustainable development and evidence-based resource policies.

Title: Blue Solution Pathways to Close the Emission Gap

Abstract:

UNEP's recent Emission Gap Report suggests the world is set to transgress the planetary boundary of 1.5°C global warming. However, coordinated efforts can still limit warming at a peak slightly above, manage resilience and return to a safe operating space. The ocean could be a strong ally for such efforts. The contribution addresses the ability of coastal ecosystems, in particular in the tropics, to absorb and store carbon. Such blue solution pathways could also address biodiversity losses and other challenges. They should be co-designed with multiple actors, locally on the ground and with like-minded governments and business. A multipolar world of innovative blue regions is emerging, with new alliances and a role for good Sino-EU relations. Interdisciplinary research with impacts will be pivotal for such endeavour.

PLENARY SPEAKERS



Prof. Joseph SARKIS
Worcester Polytechnic Institute
USA

Biography

Joseph Sarkis is Professor of Management at Worcester Polytechnic Institute (WPI). His research focuses on sustainable operations and supply chain management, circular economy, digitalization, and regenerative systems. He has published extensively on sustainability and technology in leading international journals and has been, for 10 years, a Highly Cited Researcher recognized by Clarivate Analytics. Professor Sarkis has served in numerous editorial and academic leadership roles. His current interdisciplinary research connects management, engineering, technology, and environmental sustainability, with a particular emphasis on how organizations and supply chains can move beyond conventional efficiency and decarbonization toward more resilient and regenerative systems. He is an active international collaborator and is active in the Future Earth Circular Economy Working group and the Greening of Industry Network. Amongst his many visiting scholar positions he served as the Rachel Carson Visiting Scholar at Chatham University and the Chair d'Excellence in Circular Economy, Technology and Logistics at the Université Polytechnique Hauts-de-France.

Title: Beyond Net Zero: Reimagining Industry, Technology, and Supply Chains

Abstract:

The global transition toward net zero will likely reshape industries, technologies, and supply chains around the world. Yet achieving net-zero emissions, while essential, may not be sufficient to address the broader environmental and systemic challenges facing economies and societies. This address explores what comes beyond net zero. Specifically, a transition toward regenerative systems that restore, renew, and strengthen the socio-ecological systems on which economic activity depends. It examines how industry can move beyond incremental efficiency improvements toward regeneration and even nature-positivity. We touch upon technology's role including artificial intelligence, digitalization, and advanced analytics that can enable more transformative change. Industrial systems including supply chains will also need to evolve from mechanisms of resource consumption toward systems that support regeneration and contribute positively to nature including carbon negativity. Drawing on emerging research and thought in regenerative business, sustainable operations, and supply chain management, we propose a broader vision of the low-carbon transition—one that connects going beyond decarbonization with resilience, circularity, innovation, and long-term ecosystem regeneration.

PLENARY SPEAKERS



Prof. Toshihiko MASUI
The University of Osaka and National Institute for Environmental Studies (NIES)
Japan

Biography

Prof. Toshihiko Masui received Ph.D. (Engineering) from the University of Osaka in 1997. He started his research career as a Researcher at the NIES in 1998. After serving as a Senior Researcher, Section Head, and Division Director, he transferred to the University of Osaka in October 2025, and assumed his current position at NIES. He also served as a Visiting Professor at Institute of Science Tokyo. At NIES, he has been engaged in developing the Asia-Pacific Integrated Model (AIM), an integrated assessment model, and quantifying future scenarios using AIM. He is evaluating Japan's decarbonization scenarios with his colleagues.

Title: The Asia-Pacific Integrated Model (AIM) and its application to the development of scenarios for achieving decarbonized society

Abstract:

This presentation will introduce the research project to develop the AIM (Asia-Pacific Integrated Model) and explain how the AIM is being applied to quantify the scenarios for achieving a decarbonized society in some Asian countries including Japan. In addition to presenting the results of numerical analyses, I will also show the importance of promoting capacity building among researchers in model and scenario development, and enhancing model and scenario literacy among all stakeholders. In Japan, the pathways achieving the net-zero GHG emissions by 2050 have been assessed using the AIM/Enduse model, which selects technologies under exogenously given energy service demand, the AIM/MOGPM, which evaluates future electricity plans, and the AIM/CGE, which illustrates the macroeconomic impacts of GHG reduction measures. These models have quantified the contributions of energy service demand, energy efficiency improvement, electrification, decarbonized energy sources, and negative emissions measures. The AIM is being developed in collaboration with the Asian countries such as Thailand, Indonesia, and Malaysia, and in some of these countries, the AIM is contributing to the formulation of their NDCs (Nationally Determined Contributions) and LT-LEDS (Long-Term Low GHG Emission Development Strategies). Realizing the decarbonized society in all countries requires collaboration among all stakeholders including researchers, policymakers, businesses, citizens and international organizations

PLENARY SPEAKERS



Prof. Neven DUIĆ
University of Zagreb
Croatia

Biography

Prof. dr. sc. Neven Duić, full professor at University of Zagreb has published more than 200 papers in journals referenced in SCI. He is a Coordinating Lead Author of the IPCC Seventh Assessment Report (WGIII Chapter 14), vice-president of the Croatian Academy of Engineering, Deputy Editor-in-Chief of journal Energy and Editor-in-Chief of Journal of Sustainable Development of Energy, Water and Environment Systems – JSDEWES. He is organising SDEWES conference series. He was coordinator of over 40 international research projects. He has been recognised as one of top 2% cited scientists, by research team at Stanford. His main areas of interests are energy policy and planning, energy economics, sustainable development and climate change mitigation.

Title: The Role of Carbon Capture and Utilization in Low Carbon Future

Abstract:

Transition to decarbonised energy systems is becoming more attractive with fall of investment costs of renewables and volatile prices and political insecurity of fossil fuels. The renewable energy resources are bountiful, especially wind and solar, while integrating them into current energy systems is proving to be a challenge. The limit of cheap and easy integration for wind and solar has been reached in many countries and we are entering new phase of electrification of nearly everything. While most of energy use can be electrified, we will still need some feedstocks and fuels, and some of them will need carbon. Since recycling fossil carbon has generally too low carbon efficiency, most of carbon needed will come from biomass and maybe direct air carbon capture. While sustainable aviation fuel will be used for air transport, methanol will be used for maritime transport as a main feedstock for chemical industry.

PLENARY SPEAKERS



Prof. Ruzhu WANG
Shanghai Jiao Tong University
China

Biography

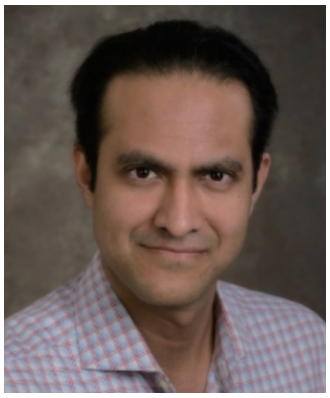
Ruzhu Wang is a Chair Professor at Shanghai Jiao Tong University, Director of the Institute of Refrigeration and Cryogenics, and Director of the MOE Solar Energy Engineering Research Center. He received his BEng, MEng and PhD degrees from Shanghai Jiao Tong University and was promoted to full professor in 1994. His research focuses on low-grade thermal energy utilization, sorption refrigeration, high-temperature heat pumps, heat-moisture decoupling, and atmospheric water harvesting. Professor Wang pioneered heat-mass recovery adsorption cycles, variable-effect and variable-stage absorption chillers, as well as heat pumps integrated with desiccant-coated heat exchangers that nearly double air conditioning COP. His air-source heat pump technologies have been fully industrialized, and he has led the formulation of national standards for heat pump water heaters and heat pump steam generators. He has published more than 600 SCI papers in prestigious journals including Science, Joule, Energy & Environmental Science and Nature Communications, with close to 40,000 citations and an h-index of 95. He owns over 150 patents and has been conferred three national research awards (2nd prize) in natural science, invention and technological progress respectively. As the first Chinese recipient of a series of world-class honors such as the Global Energy Prize, IIR Gustav Lorentzen Medal and IEA Rittinger Heat Pump Award and etc., he also acts as Editor-in-Chief of Energy and Vice president of the IIR E2 Heat Pump Commission, leading global technical pathways for industrial decarbonization powered by heat pump technologies.

Title: Heat decarbonation via heat pumps

Abstract:

Heat pumps serve as a pivotal technical route for thermal decarbonization, which upgrades low-grade environmental and waste heat into high-grade heating or cooling energy. Massive underutilized low-temperature thermal resources—such as ambient air heat, shallow geothermal energy, solar heat and industrial waste heat—exceed above one billion tons of standard coal equivalent in China per year, whereas conventional conversion methods suffer from extremely low efficiency. This paper elaborates an integrated technical system for high-efficiency low-grade heat utilization. Thermally driven adsorption chillers and variable-stage absorption chillers achieve cooling output driven by 45–150 °C waste heat. Optimized air-source heat pumps supply domestic hot water and stable heating in frigid zones; water vapor compression heat pumps produce 120–150 °C industrial steam as a clean substitute for coal-fired boilers. Desiccant-coated heat exchangers based heat pump realize independent heat-moisture control, nearly doubling air-conditioning COP. Practical projects covering steel mills, data centers and rail transit demonstrate prominent carbon reduction and economic benefits. Relevant national standards have been formulated. Endorsed by the International Institute of Refrigeration, heat pumps provide scalable electrification solutions to slash carbon emissions from buildings and industries and accelerate global carbon neutrality.

PLENARY SPEAKERS



Prof. Saleem H. ALI
University of Delaware and University of New South Wales
USA & Australia

Biography

Saleem H. Ali is Distinguished Professor of Geography at the University of Delaware (USA). He also serves as Lead for Critical Metals at the United Nations University INWEH and Martin Green Fellow at UNSW in Australia. In 2026 he was also awarded the Alexander von Humboldt Research Award in Germany. Before embarking on an academic career, Prof. Ali worked as an environmental health and safety professional at General Electric Corporation. Born in New Bedford, Massachusetts (USA), Dr. Ali grew up in Lahore, Pakistan until his college years, receiving his bachelor's degree in chemistry from Tufts University and his master's and Ph.D. degrees in environmental planning at Yale University and MIT, respectively. His laurels include being a National Geographic Explorer, with field experience in more than 170 countries and all continents; being selected as a "Young Global Leader" by the World Economic Forum. Professor Ali's books include Sustainability: A Very Short Introduction (Oxford) Soil to Foil: Aluminum and the Quest for Industrial Sustainability (Columbia) Earthly Order: How Natural Laws Define Human Life (Oxford) and Treasures of the Earth: Need, Greed and a Sustainable Future (Yale).

Title: Minerals for Carbon Capture and Utilization Technologies

Abstract:

The world's transition from a fossil-fuel-driven society to a future net-zero or negative carbon dioxide emission society will require a significant scale-up of technologies to capture and convert CO2 to low carbon intensity fuels and chemicals. The deployment of "Power-to-X" technologies at gigawatt scales necessary to impact CO2 emissions and replace existing fossil-fuel-dependent processes will require vast quantities of raw materials and minerals. Many of the materials required in Power-to-X systems, such as rare earth metal yttrium and iridium, differ from those used to construct and operate petroleum-hydrocarbon-based processes for the last 100 years. Thus, electrolyzer manufacturers and mineral producers face significant challenges in matching supply to the growing demand. Asia is at the forefront of innovations in this regard alongside Australia through major research initiatives which will be profiled in this talk.

PLENARY SPEAKERS



Prof. Cheng GU
Nanjing University
China

Biography

Cheng Gu is a distinguished professor at Nanjing University. He is also the recipient of Yangtze River Distinguished Professor of the Ministry of Education, National Excellent Young Scientists Fund, and Chief Scientist of National Key R&D Programs. He was awarded the honorary title of "Jiangsu Advanced Individual for Returned Overseas Scholars" in 2025. His research mainly focuses on the systematic scientific research on in-situ interfacial characterization, transformation mechanisms, and interfacial regulation for efficient adsorption and degradation of emerging contaminants. He has published more than 200 papers in influential international academic journals in environmental science, among which 30 papers were published in Environmental Science & Technology. His research achievements have been applied by environmental protection enterprises in China and the United States, and have been selected as one of the Top Ten Typical Cases of Cross-border Patent Transformation for Technology Applications by the China National Association of Patent Attorneys. He has won the second prize in the global International Challenge for New Technologies of Organic Fluorine Compound Treatment hosted by the U.S. Environmental Protection Agency, the Excellent Low-carbon Energy Project Award at the 10th China International Fair for Trade in Technologies, the highest Special Grand Gold Medal at the 2025 Geneva Inventions Exhibition and the Gold Medal of China International Invention Exhibition. He was awarded the First Prize of the 2025 Jiangsu Environmental Protection Science and Technology Award.

Title: Construction of Confined Systems for Efficient Degradation of PFASs

Abstract:

Recently, perfluoroalkyl substances (PFASs) have received great attention from both academia and industry due to their persistence and health risks, which are considered as the most persistent organic contaminants in the environment. Here, a simple ternary self-assembled micelle composite, consisting of photosensitive substance (indole acetic acid (IAA)), cationic surfactant-cetyltrimethylammonium bromide and contaminant and a binary composite, only including PFAS and hydrated electron source chemical were developed, respectively. In the micelle system, owing to the rapid hydrated electron transfer from IAA to PFAS in the micelle, PFAS degradation and defluorination were greatly enhanced even under ambient conditions. After 2.5 h UV-irradiation, the perfluorooctanoic acid concentration decreased from 10 mg L-1 to ~60 ng L-1, which is below the drinking water health advisory level of US EPA. Meanwhile, the dissolved organic carbon content of the reaction solution was also reduced to ~3 mg L-1, due to the quick settlement and automatic separation of the micelle. Furthermore, the newly developed composite was also adaptable to a wide pH range (pH 4~8), attributing to the barrier created by the ternary micelle system. The binary composite further simplified the above ternary system, only including PFAS and hydrated electron source chemical. The system exhibited high efficiency for utilization of hydrated electrons to decompose PFASs. By comparing the degradation processes of PFOA in the presence of 7 indole derivatives with different chemical properties, we could conclude that the reaction efficiency was dependent on not only the yield of hydrated electrons, but also the interaction between PFOA and indole derivative. Among these derivatives, indole showed the highest degradation performance due to its relatively high ability to generate hydrated electrons. More importantly, indole could form a hydrogen bonding with PFOA to accelerate the electron transfer. Our studies would deepen our understanding for design of hydrated electron based techniques to treat PFAS-containing wastewater. This conceptually new advanced reduction technique represents a major breakthrough towards PFASs rapid destruction and efficient usage of hydrated electrons, and might also shed light on other environmental applications.

GREEN CITY HIGH-LEVEL FORUM

Localisation to Realisation: Aligning Urban Economics, Spatial Policy, and Regional Execution for Asia's Net-Zero Transition

A signature and longstanding hallmark of the International Conference on Low Carbon Asia (ICLCA) series, the High-Level Forum (HLF) serves as a dedicated platform that uniquely brings together leading scientists, city leaders, and executive policymakers. By bridging empirical research, municipal governance, and public administration, the HLF embodies ICLCA's foundational commitment: **transforming scientific insights into statutory policy, viable market instruments, and measurable ground-level impact.**

Under the conference banner of ***"Moving the Needle to 1.5: Science, technology, finance, and policy integration to materialise Asia's net-zero transition"***, this year's forum tackles the critical bottleneck between **high-level ambition and ground-level execution**. While international treaties and national pledges define the macro targets, the actual transition is won or lost locally—within city master plans, housing markets, and regional investment pipelines.

The forum traces a clear pathway of realisation across three essential pillars:

Scientific Modelling & Spatial Planning: Professor Ho Chin Siong (Director, UTM-Low Carbon Asia Research Centre) shares strategies for translating empirical greenhouse gas modelling and low-carbon blueprints into enforceable municipal spatial planning and local council action plans.

Urban Economics & Market Realities: Professor Chen Jie (Distinguished Professor & Department Head, School of International and Public Affairs (SIPA), Shanghai Jiao Tong University) addresses the micro-economic drivers, housing policies, and market incentives needed to mobilise private real estate capital toward deep decarbonization without compromising affordability.

Regional Delivery & Financial Mobilisation: Mr. Syed Norul Shahril Syed Nasir (CEO, Johor Sustainability Centre) examines the institutional mechanisms required to aggregate local green projects, de-risk emerging technologies, and unlock private climate financing for scalable municipal execution.

Through an interactive, solutions-driven dialogue, the panel will explore actionable frameworks for emerging Asian cities navigating rapid growth under carbon constraints. The session will also highlight cross-border synergies, examining how platforms like ICLCA facilitate practical technology transfer and institutional partnerships between host city Shanghai's mature urban decarbonisation ecosystem and dynamic urban corridors across Southeast Asia.

FORUM PANELISTS



Prof. Chin Siong HO
Director of UTM-Low Carbon Asia Research Centre
Universiti Teknologi Malaysia
Malaysia

Prof. Dr. Ho Chin Siong graduated with a Bachelor's Degree in Urban Regional Planning from UTM, Master's Degree in Construction Management from Heriot Watt University, United Kingdom, Doctor of Engineering in System Information Engineering from Toyohashi University of Technology, Japan and attended the ASEAN Senior Management Development Program at Harvard Business School (Malaysia).

He specializes in low-carbon and smart cities, urban sustainability, urban and environmental modelling, transportation and housing planning and management. He previously served as Project Manager for the Development of Low Carbon Society for the Asian Region and has done much notable research on the Low Carbon Cities Development Programme for Kuala Lumpur City Hall, Putrajaya Corporation, Pengerang City and local authorities within Iskandar Malaysia region.

Currently, in addition to being Professor of the Faculty of Built Environment and Surveying, UTM, he holds: Professorial Chair (Penang Island Urban Development) at Universiti Sains Malaysia (USM) Penang, Director of the UTM-Low Carbon Asia Centre (SATREPS programme by JICA/JST Japan), Head of RCE Iskandar, Malaysia (RCE global network, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)). He is also the Team Leader for Muar Local Plan 2030, 8 Pilot Malaysian Cities of Global Covenant of Mayors (GCOM Brussels), Principal Research for Low Carbon and Renewable Energy of Kuala Lumpur Local Plan 2040, Wangsa Maju Kuala Lumpur Carbon Neutral Growth Centre Action Plan 2050 and team leader for South East Asia Digitization Project Case study Smart Carbon Neutral City Kuala Lumpur 2050 with Pacific Northwest National Laboratory (PNNL) USA.

FORUM PANELISTS



Prof. Jie CHEN
Distinguished Professor, School of International and Public Affairs (SIPA)
Shanghai Jiao Tong University
China

Professor Jie Chen is Distinguished Professor & Head of the Department of Public Economics and Social Policy at the School of International and Public Affairs (SIPA), Director of Centre for Housing and Urban-Rural Development (CHURD), Shanghai Jiao Tong University (SJTU). He obtained a PhD in economics from Uppsala University (2005), master's degree in economics from University of Oslo (2001), and bachelor's degree in economics from Fudan University (1997). He used to work as faculty at Institute for Housing and Urban Research (IBF) at Uppsala University (2006-2007), Fudan University (2007-2013) and Shanghai University of Finance and Economics (2013-2018). His major research area is urban and housing-related studies. He has been China's representative on UN-Habitat Inter-governmental Open-ended Expert Working Group of Adequate Housing for all since 2024. He is vice Chairman of China Institute of Real Estate Appraisers and Agents, Co-director of UCRN(Urban China Research Network), a member as well as vice-secretary China Urban Forum 100, a steering member of Asia-Pacific Network of Housing Research (APNHR) and vice chairman of Regional Science Association (RSA) China Chapter. He was on Trust Board of Urban Studies Foundation (USF) between 2016 and 2022. Professor Chen has received nine national-level research grants including one NSFC-ESRC joint funding. He serves as an active policy advisor for China's central and local governments and is a member of the consulting expert commission of China's Ministry of Housing and Urban-Rural Development (MOHURD). He has also worked as senior consultant for many international organizations including World Bank and Asian Development Bank. He has been on the list of Clarivate World-wide Highly Cited Researchers (cross-field) since 2025, on the list of Stanford World Top 2% scientist (regional and urban planning) since 2023 and on the list of Elsevier highly-cited scholar in mainland China (public administration) since 2020.

FORUM PANELISTS



Syed Norul Shahril SYED NASIR
Chief Executive Officer
Sustainable Johor
Malaysia

Haji Syed Norul Shahril is the Chief Executive Officer of Sustainable Johor and the Johor Bahru Land Administrator at the Johor Bahru Land Office.

He holds a Master of Science in Land Administration and Development from Universiti Teknologi Malaysia (UTM) and a Bachelor's Degree in Actuarial Science from Universiti Kebangsaan Malaysia (UKM). He is an active member of the Johor State Administrative Officers Association and serves as a Board Member of the Johor State Administrative Officers Cooperative (JCS) Berhad. Additionally, he shares his expertise as an instructor for the Postgraduate Professional Diploma in Land Management at the Johor State Administrative Service Academy.

Syed Norul has served in the Johor civil service and practiced land and district administration for 17 years, beginning his career in 2009. He specializes in land development, land disposal, enforcement, technical land matters, and district management.

Over his extensive career in public service, he has actively worked across multiple districts and state offices to implement effective land management policies in the State of Johor. His key leadership roles have included serving as the Land Administrator for Johor Bahru (2024–2026), Kota Tinggi (2022–2024), and Kulai (2020–2022). Previously, he was the Principal Assistant Director (Disposal, Enforcement & Technical) at the Johor State Land and Mines Office, and held Assistant Land Administrator and Assistant District Officer roles in Pengerang, Segamat, and Batu Pahat.

FORUM MODERATOR



TPr Loon Wai CHAU
Co-Director of UTM-Low Carbon Asia Research Centre
Universiti Teknologi Malaysia
Malaysia

Chau Loon Wai is Senior Lecturer of Urban Design, Co-Director of the UTM-Low Carbon Asia Research Centre (UTM-LCARC), and Head of the Low Carbon Asia Research Group (LCARG), Universiti Teknologi Malaysia.

He is also a Registered Town Planner (TPr) under the Board of Town Planners Malaysia (LPBM), and Corporate Member of the Malaysian Institute of Planners (MIP). He cofounded and sits on the Standing Committee of the MIP Urban Design Centre, and also serves on the MIP Sustainability and Resilience Committee.

Over the past 15 years, Loon Wai has actively worked with over 20 Malaysian cities, regions and states in developing and implementing low carbon society (LCS) policies and climate action plans (CAP) using the “science to action” or S2A approach, including Iskandar Malaysia, Kuala Lumpur, Putrajaya, Johor Bahru, Iskandar Puteri, Petaling Jaya, Penang Island, Seremban and Kuching, and the State of Johor. He has shared widely the experiences and knowledge gained over the years in various national and international events, including at official and side events of the annual UNFCCC Conference of the Parties (since COP 18).

More recently, Loon Wai has been engaged as senior expert and national think tank member by international agencies including the European Commission Joint Research Centre (JRC), the Global Covenant of Mayors for Climate and Energy (GCoM), the International Urban Cooperation (IUC) Asia, and the Institute for Global Environmental Strategies (IGES) to work on subnational as well as regional climate action planning in Malaysia and Southeast Asia.

TOPICS

1. Low-carbon solutions (Technology, policy & implementation)

· Advancements in energy efficiency & renewable energy
· Transitioning to low-carbon energy systems
· Low-carbon urban planning & smart cities
· Sustainable transportation & mobility innovation
· Carbon markets, climate finance & policy development
· Governance, policy & business models for net zero

2. Circular economy & sustainable production (Innovation, business & society)

· Waste management & circular economy strategies
· Material innovation & sustainable product design
· Greener manufacturing & industrial decarbonization
· Resource efficiency in supply chains & business operations
· Consumer behavior, green marketing & sustainable lifestyles

3. Biodiversity & nature-based solutions (Ecology, conservation & social resilience)

· Biodiversity conservation & ecosystem services
· Ecosystem restoration & climate adaptation strategies
· Nature-based climate mitigation (e.g., Blue carbon, reforestation)
· Urban nature-based solutions & green infrastructure
· Sustainable agriculture, land use & indigenous knowledge
· Community engagement, education & social transformation

4. Climate justice & inclusive transition (Equity, culture & sustainable development)

· Climate justice, equity & just transition strategies
· Indigenous & local knowledge in climate solutions
· Social innovation & community-led sustainability projects
· Public awareness, behavioral change & education
· Climate risks, resilience & adaptation in vulnerable communities

SPECIAL SESSION 1

Emerging Hydrogen Technologies for Sustainable Systems and Applications

This special session focuses on the development and deployment of emerging hydrogen-based technologies across sustainable systems, including transport, energy generation, and industrial applications. It aims to bridge engineering innovation with life cycle and systems-level assessment, addressing both technological performance and environmental impact. Contributions are invited on hydrogen production pathways (e.g., electrolysis, thermochemical processes, and waste-to-hydrogen routes), storage and distribution strategies, and end-use technologies such as hydrogen internal combustion engines (H2ICE), fuel cells, and hybrid energy systems. Emphasis is placed on real-world integration challenges, including system efficiency, material durability, infrastructure readiness, and operational constraints. In line with the objectives of the International Conference on Low Carbon Asia, the session strongly encourages studies incorporating life cycle assessment (LCA), techno-economic analysis (TEA), and sustainability evaluation frameworks. Contributions that link component-level innovations (e.g., fuels, lubricants, materials) to system-wide environmental performance and circularity are especially welcome. The session aims to foster interdisciplinary dialogue to support scalable, low-carbon hydrogen solutions, particularly in regions undergoing rapid energy transition. This session is supported by the Institute for Sustainable Transport (IST), Universiti Teknologi Malaysia, with a focus on sustainable mobility and hydrogen-based transport systems in tropical and developing regions.

Session Chair: Associate Professor Ir Dr William Chong Woei Fong

Supported by

Institute for Sustainable Transport
IST-HICoE

SPECIAL SESSION 2

Low-carbon solutions and sustainable development in agricultural and forestry ecosystem

Agricultural and forestry ecosystems play a critical role in global carbon cycling, yet they face increasing pressures from greenhouse gas emissions, non-point source pollution, land degradation, and residue accumulation. Addressing these challenges requires integrated low-carbon solutions that balance productivity, environmental health, and climate resilience. This session broadens the traditional focus from agricultural systems to include forestry ecosystems, emphasizing synergies between carbon reduction, carbon sequestration, pollution control, and resource recycling. The scope of this session covers mechanistic understanding and technological innovations for low-carbon management in both farmland and forest systems. Key aspects include: (1) greenhouse gas mitigation pathways from crop-livestock systems and forest soils; (2) enhancing carbon sinks through agroforestry, biochar application, and sustainable forest management; (3) controlling non-point source pollution from fertilizers and pesticides using edge-of-field and riparian buffer techniques; (4) valorizing agricultural and forestry residues into bioenergy, biochar, or compost; and (5) restoring degraded soils and water environments via phytoremediation and microbial technologies. The objectives are to systematically analyze interactive mechanisms among carbon mitigation, sink enhancement, pollution abatement, and waste valorization within integrated agricultural–forestry landscapes, and to summarize feasible technical pathways and policy-supported management strategies. Expected contributions include providing theoretical support and practical references for low-carbon, circular, and ecologically sustainable development across agricultural and forestry ecosystems. Ultimately, this session aims to facilitate multi-benefit coordination—reducing emissions, controlling pollution, restoring ecology, and securing long-term ecosystem services.

Session chairs: Shan Yin, Xianxian Zhang

Supported by

PRESENTATION GUIDELINES

Parallel Oral Sessions Guidelines

1. Oral presenters shall prepare a PowerPoint presentation (16:9 aspect ratio). Please save your presentation to a USB flash drive and copy it to the laptop in your session room approximately **15 minutes** prior to your session. Please test your slides for font and video compatibility in advance.
2. All presentations must be delivered in **English**.
3. Presentation Time Allocations
Plenary Lecture: 30 minutes (including Q&A)
Keynote Speech: 20 minutes (including Q&A)
Regular Oral Presentation: 15 minutes (including Q&A)
Presenters must strictly adhere to the time limits.

Poster Presentation Guidelines

Presenters shall **print their posters** and bring them to the conference venue for mounting on the designated poster boards.
1. Dimensions: A1 size
2. Language: English only
3. Graphics Requirements: All figures and photographs must be high-resolution and visually clear.

Presenters may mount their posters on 20 Oct 2026, between 7:30- 8:30 am, at the poster exhibition area (next to E100).

AWARDS

The following awards will be presented at the **Closing Ceremony** of ICLCA 2026. All winners will receive a certificate and a prize.

Best Presentation Award

Best Paper Award

Best Poster Award

The Green City Award: Recognising Urban Excellence at ICLCA 2026

As the world increasingly urbanises, cities stand at the forefront of the global transition toward environmental sustainability and climate resilience. In honour of this critical role, the International Conference on Low Carbon Asia (ICLCA) proudly inaugurates the Green City Award to recognise municipalities and institutions that demonstrate exceptional commitment and tangible progress in sustainable urban development.

This prestigious accolade will be formally presented at ICLCA2026 in Shanghai, taking centre stage during the highly anticipated Green City Forum on 20th October 2026. The forum serves as a premier gathering for mayors, policymakers, urban planners, environmental advocates and academics to exchange actionable insights and celebrate milestones in low-carbon urban pathways.

The Green City Award celebrates cities that have moved beyond mere pledges, honouring their ongoing efforts and steadfast leadership in driving ecological change. It specifically acknowledges outstanding contributions to sustainable, low-carbon, and green urban development. Key areas of recognition include the integration of renewable energy grids, the expansion of green infrastructure, the optimization of sustainable public transit, and the implementation of forward-thinking policies that prioritize environmental balance alongside social equity and economic growth.

By spotlighting these pioneering cities and institutions, the award aims to do more than just celebrate past achievements. It is designed to inspire a collaborative, global movement, encouraging other municipalities and institutions to adopt proven best practices and accelerate their own green transformations. The honourees recognised at the Green City Forum will serve as vital blueprints for future resilience, demonstrating that thriving, modern urban centres can coexist harmoniously with a healthy planet, while also centring on people and prosperity.

Join us in Shanghai at ICLCA2026 as we celebrate the urban visionaries who are actively paving the way for a sustainable, low-carbon future.

GENERAL INFORMATION

Onsite Registration

Date	Registration hours	Location
19 October	12:00 – 20:00	Shanghai Minhang Platinum Hanjue Hotel
20 October	7:30 – 17:00	School of Environmental Science and Engineering, SJTU
21 October	8:00 – 13:30	School of Environmental Science and Engineering, SJTU
Onsite Payment: For on-site registration, accepted payment methods include RMB cash, WeChat Pay, Alipay and card payment.		

Dining Arrangement

Date	Time	Meal	Location
20 October 2026	12:45-14:00	Lunch	SJTU Canteen: Canteen 1, Canteen 2, Canteen 3, Yulan Yuan, Halal Restaurant (next to Canteen 1).
	18:15-20:30	Gala Dinner	Restaurant on the 2nd Floor of Academic Exchanges Center of SJTU
21 October 2026	12:30-13:30	Lunch	SJTU Canteen: Canteen 1, Canteen 2, Canteen 3, Yulan Yuan, Halal Restaurant (next to Canteen 1).

Note:

1. Meal vouchers will be distributed to participants during on-site check-in.
2. Volunteer will guide the participants to HALAL restaurant. Please gather at the foyer of the conference building at 12:45 pm on 20 OCT, and 12:30 pm on 21 OCT.
3. The meal voucher is not exchangeable for money. No cash change will be given. The participant may be charged extra if the value of the food exceeds that of the voucher.
4. The relative position of the canteens is shown in the figure.



Position of the canteen relative to the conference venue

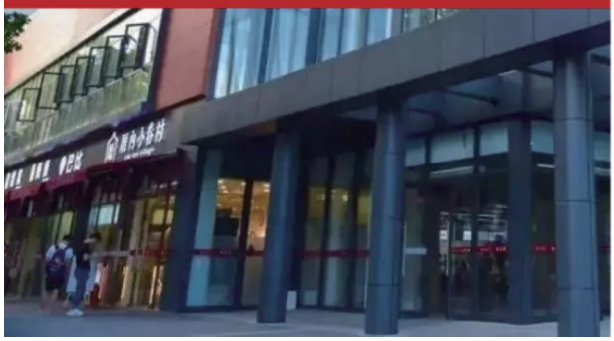
Canteen 1



Canteen 2



Yulan Yuan



Canteen 3



Halal Restaurant
(Next to Canteen 1)



Canteens that can accept the meal vouchers

CONFERENCE VENUE

Locations

ICLCA 2026 will be held at the School of Environmental Science and Engineering (SESE), Shanghai Jiao Tong University, 800 Dongchuan Road, Minhang District, Shanghai, China.

Scan the QR code to explore SJTU campus online.





Session	Venue
Main hall for opening ceremony, plenary speeches, closing ceremony	Main building E100
Parallel session rooms	Main building level 1: E100, E106 Main building level 2: E200, E208, E231 Weida building: 205
Board meeting room	Main building E104

Venue Layout





Weida Building
Next to The School of Environmental Science and Engineering (SESE)



ACCOMMODATION

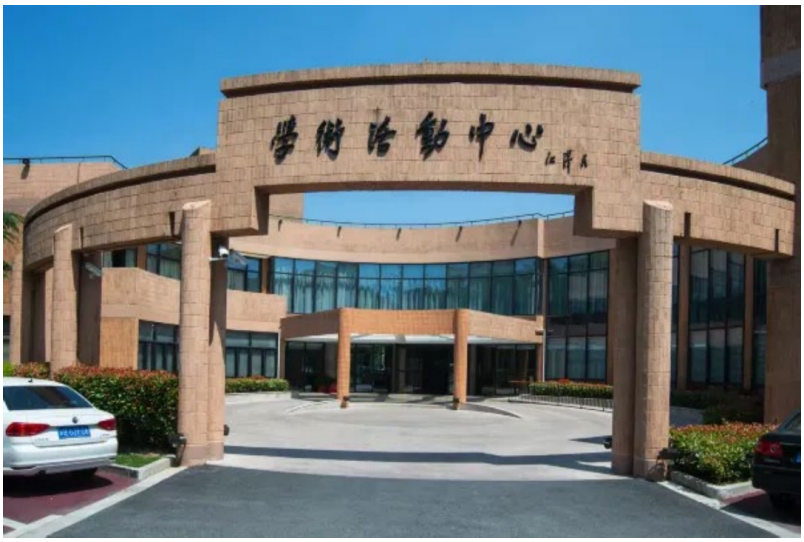
1. Shanghai Minhang Platinum Hanjue Hotel (上海闵行白金汉爵大酒店)
Address: No.1577 Humin Road, Minhang District, Shanghai, China (上海市闵行区沪闵路 1577 号)



2. Ji Hotel (Shanghai Jiaotong University Dongchuan Road) (全季酒店上海交大东川路酒店)
Address: No. 445, Hu-Min Road, Minhang District, Shanghai, China (上海闵行区沪闵路 445 号)



3. Academic Exchanges Center of SJTU (上海交大学术活动中心宾馆)
Address: 800 Dongchuan Road, Minhang District, Shanghai, China (上海市闵行区东川路 800 号) (On campus)



4. HanTing Hotel (Shanghai Jiaoda Dongchuan Road Subway Station) (汉庭酒店 (上海交大东川路地铁站店)
Address: Intersection of 445 Hu-Min Road and Dongchuan Road, Minhang District Shanghai, China (上海市闵行区沪闵路 445 号与东川路交叉口）



TRANSPORTATION

· Getting to Minhang Campus, SJTU:

By taxi:

· From Pudong International Airport (PVG): 60 minutes, CNY 200-250.

· From Hongqiao International Airport (SHA): 35 minutes, CNY 70-100.

By subway:

· **From Pudong International Airport (PVG):** Take Metro Line 2, transfer (at People's Square Station 人民广场站) to Metro Line 1, and transfer (at Xinzhuang Station 莘庄站) to Metro Line 5, and get off at Dongchuan Road Station 东川路站 (to Siyuan Gate 思源门) or Jianchuan Road Station 剑川路站 (to North Gate 1).

· **From Hongqiao International Airport (SHA):** Take Metro Line 10 (at Terminal 2), transfer (at South Shaanxi Road Station 陕西南路站) to Metro Line 1, and transfer (at Xinzhuang Station 莘庄站) to Metro Line 5, and get off at Dongchuan Road Station 东川路站 (to Siyuan Gate 思源门) or Jianchuan Road Station 剑川路 (to North Gate 1 北一门).

· Getting to hotels:

· **Shanghai Minhang Platinum Hanjue Hotel** is located near Jianchuan Road Metro Station, just a 200-meter walk from Exit 1.

· **Ji Hotel** and **HanTing Hotel** are located near Dongchuan Road Station, just a 700-meter walk from Exit 3.

· **The Academic Exchange Center of SJTU** is located on the Minhang Campus of Shanghai Jiao Tong University, 300 meters from Siyuan Gate.

SHUTTLE BUS SERVICE



Shuttle buses will be available during the conference.

The timetable is as follows:

Date	Departure Time	Route
19 October	14:00	Platinum Hanjue Hotel → SJTU Minhang Campus → Return
20 October	07:45	Platinum Hanjue Hotel → SESE, SJTU
		Ji Hotel/Hanting hotel → SESE, SJTU
	17:50	SESE, SJTU → Academic Exchanges Center of SJTU
	20:30	Academic Exchanges Center of SJTU → Platinum Hanjue Hotel
		Academic Exchanges Center of SJTU → Ji Hotel/Hanting hotel
21 October	07:45	Platinum Hanjue Hotel → SESE, SJTU
		Ji Hotel/Hanting Hotel → SESE, SJTU
	17:45	SESE, SJTU → Platinum Hanjue Hotel
		SESE, SJTU → Ji Hotel/Hanting hotel
22 October	07:30	Platinum Hanjue Hotel → Shanghai Engineering Research Center of Low-Carbon Agriculture
	09:30	Shanghai Engineering Research Center of Low-Carbon Agriculture → Shanghai Wenxin Biotechnology Co., Ltd.
	11:45	Shanghai Wenxin Biotechnology Co., Ltd. → Yuyuan Bazaar
	14:30	Yuyuan Bazaar → Platinum Hanjue Hotel

INTERNET ACCESS

· WIFI: SJTU-Guest
User name: ICLCA_2026
Password: ICLCA2026SJTU

TRANSPORTATION IN SJTU MINHANG CAMPUS

Option 1: On foot (short distances)
Option 2: Shared bicycle (longer distances)



RECOMMEDED APPS IN CHINA

WeChat
(For Social Networking)

Alipay
(For payment in China)

Baidu Maps
(For Navigation)

Dianping
(Help you find delicious food nearby)

POST-CONFERENCE TOUR

The post-conference tour is open to all ICLCA participants. Participants will need to register for the post-tour event. Seats are limited, please register for the event before the deadline.

Date: 22 Oct 2026 (Thur)
Time: 7:30 am - 2:30 pm
Depart from: Shanghai Minhang Platinum Hanjue Hotel
Return to: Shanghai Minhang Platinum Hanjue Hotel
Capacity: 40 participants (First come, first served)
Fee: RMB 100/person (Payable at registration desk)
Visiting sites: See below

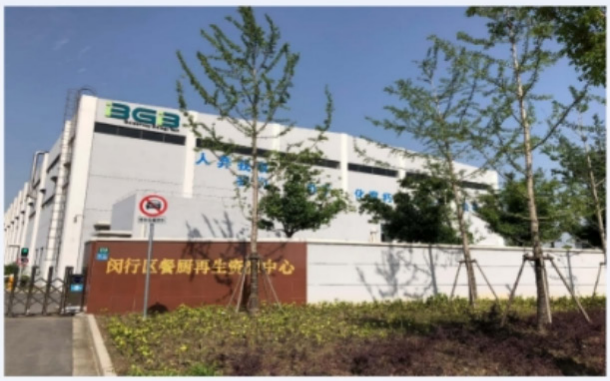
1.Shanghai Engineering Research Center of Low-Carbon Agriculture





Shanghai Engineering Research Center of Low-Carbon Agriculture is dedicated to addressing China's major strategic decision of achieving "carbon peak and carbon neutrality." The Center strives to break through key technologies in low-carbon agriculture, promote the translation of low-carbon technological achievements, build a platform for domestic and international exchange and cooperation, and lead the promotion and application of low-carbon agricultural technologies.
Guided by the principle of "stable and high-yield production, emission reduction and carbon sequestration, resource recycling, and ecological friendliness," and positioned as "rooted in Shanghai, facing the nation, and looking toward the world," the Center conducts long-term positioning experiments. The Center focuses on key technology research and development and engineering applications in areas such as greenhouse gas emission reduction, farmland soil carbon sequestration, non-point source pollution control, waste resource utilization, integrated ecological planting and breeding, and production environment remediation. The Center has established R&D and experimental bases covering approximately 9.3 hectares, including facilities for rice field greenhouse gas emission reduction, farmland soil carbon sequestration, non-point source pollution control, agricultural waste resource recycling, aquatic germplasm resource bank, river purification engineering and ecological restoration, and lakeside vegetation restoration and habitat cultivation.

2.Shanghai Wenxin Biotechnology Co., Ltd. (Organic waste processing plant)







Wenxin Company focuses on the resource utilization of organic waste and application of its derived products. Adhering to the philosophy of “Take what others discard, turn waste into wonder; cultivate quality land with quality products, transform resources into value,” the company leverages technology to enhance environmental safety and soil health, achieving safe and high-value utilization of organic waste resources. By the end of 2025, the company had disposed of over 1.5 million tons of various types of urban and rural organic waste. Its main products are sold across more than ten provinces and cities in China and exported to countries such as South Korea, Malaysia, and Thailand. Fertilizer products, including bio-organic fertilizers and soil conditioners, have been applied to over 26,667 hectares of land cumulatively. Feed products have replaced over 100,000 tons of soybean meal. Through continuous delivery of products and technologies, Wenxin Company has built a strong reputation within the industry and among its customers.

Processing capacity: 400 t/d of food waste (from restaurants and canteens) + 200 t/d of household kitchen waste + 35 t/d of waste cooking oil

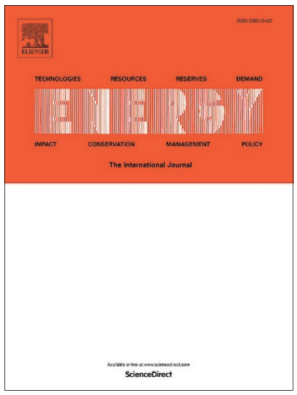
3.Yuyuan Bazaar



Yu Garden, built in the Ming Dynasty (1368AD - 1644AD), is a pleasant and well-preserved classical Chinese garden. Yuyuan Bazaar is located next to Yu Garden, with beautiful Chinese architecture and design coupled with hundreds of shops selling pieces of jewelry, silk, antiques, arts, crafts, souvenirs, and local snacks. It offers a good opportunity to see real Chinese life. The market is also fun to explore at night with all the eaves of the building lit up.

SUPPORTING JOURNALS

Energy



Energy is an international, multi-disciplinary journal in energy engineering and research, and a flagship journal in the Energy area. The journal aims to be a leading peer-reviewed platform and an authoritative source of information for analyses, reviews and evaluations related to energy. The journal covers research in mechanical engineering and thermal sciences, with a strong focus on thermal energy and integrated energy systems, energy planning and energy management. The journal also welcomes papers on related topics such as energy conservation, energy efficiency, biomass and bioenergy, renewable energy, energy storage, energy in buildings, and on economic and policy issues, provided such topics are within the context of the broader multi-disciplinary scope of Energy. However, any pure transfer or process level energy research may not be suitable for the scope of this journal, such as combustion, fuels, heat transfer, fluid flow, wind turbine, hydro pump, and energy resources mining etc.

Website: https://www.sciencedirect.com/journal/energy

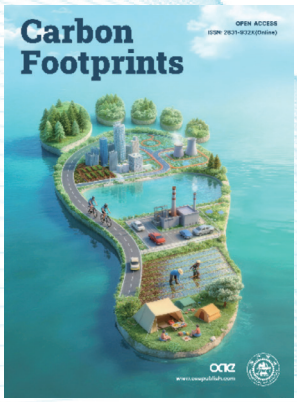
2025 Impact Factor:

10.1, JCR Q1

Indexed in

SCIE, Scopus

Carbon Footprints





Carbon Footprints **(CF)** is an international, gold open-access journal committed to advancing quantitative and qualitative understanding of: Greenhouse-gas and air-pollutant emissions (CO2, CH4, N2O, particulate matter, etc.); Low-carbon energy transitions and related technologies; Interactions between carbon, energy use, air pollutants, and socio-environmental systems. The journal illuminates the patterns, drivers, and mitigation pathways of carbon and pollutant footprints across natural, urban, industrial, and economic systems.

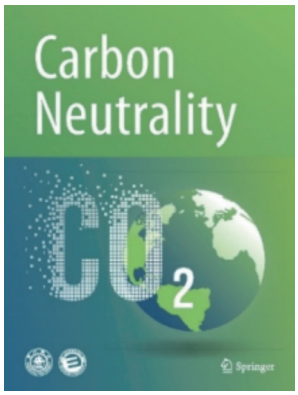
Website: https://www.oaepublish.com/cf

ICLCA 2026 special issue: https://www.oaepublish.com/specials/cf.10483

Indexed in

ESCI, Scopus, Lens, Google Scholar, ASCI

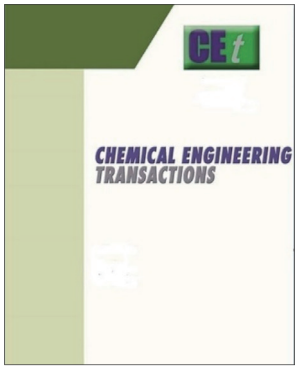
Carbon Neutrality



Carbon Neutrality is an international, multi-disciplinary academic journal jointly launched by Shanghai Jiao Tong University and Springer Nature. By publishing highest-quality original research and review papers in the fields of low carbon technology, environmental governance and carbon management, Carbon Neutrality aims to establish itself as a flagship and leading international journal in the low-carbon field and to build an international academic exchange platform for cutting-edge net-zero carbon research.

Website: https://www.springer.com/journal/43979
2025 Impact Factor:
11.2, JCR Q1
Indexed in
ESCI, EI, Scopus, CAS and DOAJ

Chemical Engineering Transactions



Chemical Engineering Transactions **(CET)** aims to be a leading international journal for publication of original research and review articles in chemical, process, and environmental engineering. CET began in 2002 as a vehicle for publication of high-quality papers in chemical engineering, connected with leading international conferences. In 2014, CET opened a new era as an internationally-recognised journal. Articles containing original research results, covering any aspect from molecular phenomena through to industrial case studies and design, with a strong influence of chemical engineering methodologies and ethos are particularly welcome. We encourage state-of-the-art contributions relating to the future of industrial processing, sustainable design, as well as transdisciplinary research that goes beyond the conventional bounds of chemical engineering. Short reviews on hot topics, emerging technologies, and other areas of high interest should highlight unsolved challenges and provide clear directions for future research.
Website: https://www.cetjournal.it/index.php/cet
Indexed in
Scopus, Google Scholar

ORGANIZERS

上海交通大學 SHANGHAI JIAO TONG UNIVERSITY

UTM UNIVERSITI TEKNOLOGI MALAYSIA

ASCEND 2030

CO-ORGANIZERS

Shanghai Academy of Agricultural Sciences

Beijing Normal University

ORGANIZING UNITS

China-UK Low Carbon College, Shanghai Jiao Tong University

School of Environmental Science and Engineering, Shanghai Jiao Tong University

UTM-Low Carbon Asia Research Centre

Shanghai Engineering Research Center of Low-Carbon Agriculture

Faculty of Geographical Science, Beijing Normal University

Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

SUPPORTED BY

World Federation of Engineering Organizations
Fédération Mondiale des Organisations d'Ingénieurs

Institute for Sustainable Transport
IST-HICoE

ITEWA
INNOVATIVE TEAM
FOR ENERGY WATER & AIR

SPONSOR

UNTUK MASYARAKAT BERBUDAYA

Organizers :

Co-organizers :

Organizing units :

UTM-Low Carbon Asia Research Centre

Shanghai Engineering Research Center of Low-Carbon Agriculture

Supported by :