

WSF-12 Program Overview

	21 August 2026 Friday	22 August 2026 Saturday	23 August 2026 Sunday	24 August 2026 Monday
Morning		Registration Check-in (7:30–9:00)	Registration Check-in (8:00–9:00)	Technical Visit
		Opening Ceremony	Plenary Talks	
		Plenary Talks		
		Tea Break	Parallel Sessions	
		Plenary Panel Discussion		
		Lunch Break		
		Afternoon	Registration (14:00–17:00)	Parallel Sessions
Tea Break & Poster Session	Tea Break			
	Parallel Sessions			
Parallel Sessions	Award Ceremony & Closing Remarks			
	Banquet Dinner			

Saturday, 22 August 2026								
Room No.	Lam Chik Ho Lecture Theatre Z209							
7:30–9:00	Registration Check-in							
9:00–9:30	Opening Ceremony							
9:30–10:50	Plenary Talks							
10:50–11:20	Tea Break							
11:20–12:20	Plenary Panel Discussion							
12:30–14:00	Lunch Break							
Room No.	Z211	Z210	Z405	Z406	Z414	Z204	Z409	Z208
14:00–15:30	S1	S2	S3	S4	S6	S7	S8	S10
15:30–16:15	Tea Break & Poster Session (Z206)							
16:15–18:00	S1	S2	S3	S4	S6	S7	S8	S10
19:00–20:30	Banquet Dinner							

Sunday, 23 August 2026										
Room No.	Lam Chik Ho Lecture Theatre Z209									
8:00–9:00	Registration Check-in									
9:00–10:20	Plenary Talks									
10:20–11:00	Tea Break & Poster Session (Z206)									
Room No.	Z211	Z405	Z406	Z210	Z414	Z204	Z409	Z410	Z208	Z411
11:00–12:30	S1	S3	S4	S5	S6	S7	S8	S9	S10	S11
12:30–14:00	Lunch Break									
14:00–15:30	S1	S3	/	S5	S6	S7	/	S9	/	S11
15:30–16:00	Tea Break									
16:00–16:45	S1	S3	/	S5	/	S7	/	S9	/	/
16:45–17:15	Award Ceremony & Closing Remarks									

WSF–12 Detailed Program

Opening Ceremony and Plenary Talks:

Saturday, 22 August 2026 Lam Chik Ho Lecture Theatre Z209		
CST Asia Time	Type	Title
9:00–9:30	Opening Ceremony	Prof. Dr. WANG Zuankai, Associate Vice President (Research), Dean of Graduate School at the Hong Kong Polytechnic University, Hong Kong, China
		Prof. Dr. Vivien Lu, Hong Kong Polytechnic University, Hong Kong, China
Chaired by Prof. Dr. Mark A. Bonn		
9:30–10:10	Plenary Talk	Metamaterials for Sustainability Xiaobo Yin, The University of Hong Kong, China
10:10–10:50	Plenary Talk	The transition to a circular economy – some (in)convenient truths Arnold Tukker, Leiden University, Institute of Environmental Sciences (CML), Netherlands; Netherlands Organisation for Applied Scientific Research TNO, Netherlands
10:50–11:20	Tea Break	
11:20–12:20	Plenary Panel Discussion “Connecting Sustainability Solutions Across Sectors”	Moderator: Max Bergman, University of Basel, Switzerland Plenary Panelists: Abdelbagi M. Ismail, International Rice Research Institute (IRRI), Nairobi, Kenya Katrina M. Knauer, University of Colorado Boulder, USA; National Laboratory of the Rockies (NLR), USA Mouyuan Wu, Vice President of CNPC Economics & Technology Research Institute, China Yonghai Du, Chief Innovation Officer of Hong Kong Productivity Council, Hong Kong, China NG Wai Yin, Principal Environmental Protection Officer of Environmental Protection Department (Corporate Affairs Division) Yu Hao, Beijing Institute of Technology, Beijing, China
12:20–12:35	MDPI Foundation Sustainability Awards Ceremony	Recognition of the Award Winners
12:35–14:00	Lunch Break	

Sunday, 23 August 2026 Lam Chik Ho Lecture Theatre Z209		
CST Asia Time	Type	Title
Chaired by Prof. Dr. Weiqi Zhou		
9:00–9:40	Plenary Talk	Recent advances in RuO ₂ –based electrocatalysts for acidic OER in PEMWE Zongping Shao , Curtin University, Australia
9:40–10:20	Plenary Talk	GenAI for Sustainable Urban Futures Tan Yigitcanlar , Queensland University of Technology, Australia
10:20–11:00	Tea Break & Poster Session	

Parallel Sessions:

S1. Emerging Technologies and Integrated Solutions for Sustainable, Resilient Cities and Planet

***Saturday, 22 August 2026
Room: Z211***

CST Asia Time	Speaker	Title
Chaired by Assoc. Prof. Xintao Liu		
14:00–14:30	Jianming Cai Keynote Talk	Perspective on the evolution of China's agricultural technologies and its impacts on food safety/security
14:30–14:50	Wei Huang Invited Talk	Enabling AI to understand pedestrian environments like humans
14:50–15:05	Louis Shing Him Lee Oral Presentation	Scanning our urban forest: Assessing the accuracy of mobile LiDAR scanning results of a green corridor in a Hong Kong
15:05–15:20	Clara Vite Oral Presentation	Emerging Living Wall Systems for Urban Resilience: An Integrated Technical and Economic Evaluation
15:30–16:15	Tea Break & Poster Session	
16:15–16:30	Hongbin An Oral Presentation	Enhancing Urban Infrastructure Resilience through Blockchain–Driven Quality Traceability in Underground Construction
16:30–16:45	Mona Alsomali Oral Presentation	Human Sustainability: Integrating Personal, Planetary, and Societal Wellness for a Thriving Future
16:45–17:00	Boris Kriuk Oral Presentation	Seismic Multi–Hazard Risk Mapping for Sustainable Urban Resilience Using Physics–Informed Deep Learning
17:00–17:15	Zhu Chang Oral Presentation	Research on technical pathway for retrofitting transparent envelope in the Solar Energy Enrichment Area
17:15–17:30	Kenny Louie Magalong Menor Oral Presentation	Syngas Production from Corn Stover: Investigating the Effects of Steam, Temperature, and Catalytic Loading in a Fixed–bed Reactor
17:30–17:45	Luqi Yang Oral Presentation	Longitudinal exploration of financial performance and firm characteristics on sustainability: Insights from the hospitality industry amid global crises
17:45–18:00	Qianyi Luo Oral Presentation	When Good Cities Feel Bad: The Perception Gap in Evidence–Based Urban Governance in Chinese Cities
19:00–21:00	Banquet Dinner	

S1. Emerging Technologies and Integrated Solutions for Sustainable, Resilient Cities and Planet

***Sunday, 23 August 2026
Room: Z211***

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Jianming Cai		
11:00–11:30	Xintao Liu Keynote Talk	Spatial Data Science and Smart Cities in Hong Kong
11:30–11:45	Abdulaziz Aldossary Oral Presentation	Machine Learning–Based CO ₂ Emissions Forecasting: A Case Study of Gas Processing and Production Facilities
11:45–12:00	Yi Gu Oral Presentation	Disaster–Triggered Food–Sensitive Governance: Shared Community Gardens as an Emerging Urban Food Resilience Solution in Zhengzhou, China
12:00–12:15	Lyubomyr Matsekh–Ukrayinkyy Oral Presentation	Application of the Power Flow Tracing approach to determine the source of origin and CO ₂ emissions from consumed electricity
12:15–12:30	Wentao Zeng Oral Presentation	Validating Immersive Virtual Reality for Age–Friendly Daylighting Design: A Paired Real and Virtual Environment Study with Older People
12:30–14:00	Lunch Break	
14:00–14:30	Amir H. Gandomi Keynote Talk	Toward Sustainable and Resilient Cities: The Convergence of Data, AI, and Infrastructure Systems
14:30–14:45	Reazul Ahsan Oral Presentation	Beyond the Smart City: Integrating Data–Centre Urbanism into Innovative Pathways for Sustainable and Resilient Cities – Lessons from Songdo, South Korea

14:45–15:00	Thomas Lei Oral Presentation	A Comparative Assessment of Heavy Metals in Outdoor and Indoor Dust and Its Implications for Sustainable Development in Macao
15:00–15:15	Jinyoung Lee Oral Presentation	Enhancing Wellbeing in Windowless Built Environments through Synthetic Sunlight: A System-Based Emotional Design Approach
15:15–15:30	Muchaiteyi Togo Oral Presentation	The intensity and drivers of WEF insecurities – A comparative study of low-income suburbs in Harare, Zimbabwe and Soweto, South Africa
15:30–16:00	Tea Break	
16:00–16:15	Hang Yuan Oral Presentation	Intercity AI Technology Collaboration and Haze Pollution Intensity Reduction: Evidence from Chinese Cities
16:15–16:30	Jiang Li Oral Presentation	Inverted U-shaped Relationship between Technological Innovation and Triple Bottom Line-Based Measure of Agribusiness Supply Chain Sustainability: Different Strokes for Different Folks in the European Union
16:45–17:15	Award Ceremony & Closing Remarks	

S2. Resilient Urban Energy Infrastructure

*Saturday, 22 August 2026
Room: Z210*

CST Asia Time	Speaker	Title
Chaired by Assoc. Prof. Ye Guo		
14:00–14:30	Ye Guo Keynote Talk	Decentralized Market Design for Joint Energy, Carbon, and Green Certificate Markets: Achieving System-wide RPS Compliance and Equilibrium–Social Optimality Equivalence
14:30–15:00	Mouyuan Wu Keynote Talk	Building Energy Resilient Cities for Urban Safety and Sustainable Development
15:00–15:30	Yu Hao Keynote Talk	Extreme Weather Shocks and Urban Energy Infrastructure Resilience in China: Evidence from Daily Nighttime Lights
15:30–16:15	Tea Break & Poster Session	
16:15–16:45	Junhua Zhao Keynote Talk	LLM Agents for Power Systems – Human–AI coordination, techniques and paradigm shift
16:45–17:00	Suhrim Paek Oral Presentation	Resilient Urban Energy Infrastructure in Dense Asian Cities: A Comparative Study of South Korea and Singapore under Rising Heat Stress
17:00–17:15	Qingkai Chen Oral Presentation	Pathways to Zero–Carbon Coastal Development: Insights from Low–Carbon Island Practices in China
17:15–17:30	Jia Yi Ng Oral Presentation	Representing Industrial Heat at High Fidelity Is Key to Reliable Energy Infrastructure for Singapore's Net–Zero Transition
17:30–17:45	Yunchao Qi Oral Presentation	Mechanisms and Resource Efficiency Enhancement of Coal Bio–Methanation by a Corn–Stover–Biochar–Lignite Co–Loading System
19:00–20:30	Banquet Dinner	

S3. Sustainability Education and Innovative Approaches

Saturday, 22 August 2026

Room: Z405

Room: 2403

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Rustam Shadiev		
14:00–14:30	Heng Luo Keynote Talk	Bridging New Technologies with Foundational Theories: Sustainable Innovation for Student Growth
14:30–14:50	Janet K.Y. Chan Invited Talk	Bridging the Knowledge–Action Gap in Sustainability Education: From HKU Climate Ambassador to the Cross–Institutional University Climate Ambassador Program (UNICAP)
14:50–15:05	Oana–Daniela Modrogeanu Oral Presentation	Beyond Awareness: Converting Environmental Knowledge Into Pro–Environmental Behavior in Aquatic Systems
15:05–15:20	Alice Yip Oral Presentation	Molding a New Narrative: Sustainable Education and the Healing Power of Ceramics for Rheumatoid Arthritis Patients in Hong Kong
15:30–16:15	Tea Break & Poster Session	
Chaired by Assoc. Prof. Janet K.Y. Chan		
16:15–16:45	Rustam Shadiev Keynote Talk	Addressing Sustainability Challenges through Education: Integrating Situated Learning, Global Collaboration, and Emerging Technologies
16:45–17:00	Wenxuan Ma Oral Presentation	Nature–Based Sustainability Education: Multiple Pathways Linking Birdwatching to Pro–environmental Behaviour
17:00–17:15	Xiayu Li Oral Presentation	A systematic review of using AI technologies to foster teachers’ sustainable development: Insights from instructional design principles
17:15–17:30	Lenard Forbes Bien Oral Presentation	Sustainability Literacy Among Selected Local University Filipino Students: An Exploratory Survey
17:30–17:45	Hyerin Park Oral Presentation	Decarbonizing the Human Node: A Protocol-to-Play (P2P) Framework for Cultivating Carbon Agency in the AI Era
17:45–18:00	Martha Matashu Oral Presentation	Capability Approach a normative framework for contextualising the epistemology of Education for Sustainability in underdeveloped Sub Saharan Africa countries
19:00–20:30	Banquet Dinner	

S3. Sustainability Education and Innovative Approaches

Sunday, 23 August 2026

Room: Z405

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Heng Luo		
11:00–11:30	Thandi Mgwebi Keynote Talk	Sustainability from the margins: Why place–based universities matter for the Planet's future
11:30–11:50	Wu–Yuin Hwang Invited Talk	Effect of a sustainable and smart context–aware learning system on English writing and speaking
11:50–12:05	Allan Beng Hock Chia Oral Presentation	Sustainability Education for Reintegration: The SUSS Prison School Project as an Innovative Model for Societal Resilience
12:05–12:20	Zi Wang Oral Presentation	Learning for Sustainability Through an Animal's Eyes: Immersive Virtual Reality in Primary School Sustainability Education
12:20–14:00	Lunch Break	
14:00–14:15	Efstathios Loupas Oral Presentation	Climate Change Education and Circular Economy: The Role of Secondary Education in Promoting Sustainable Development and Resource Efficiency
14:15–14:30	Nitish Kumar Singh Oral Presentation	Developing sustainable behaviour in university students: an integration of the COM–B model and the Theoretical Domains Framework (TDF)
14:30–14:45	Harshini Suresh Oral Presentation	Embedding Planetary Health in the UK Medical Curriculum: Lessons from the Planetary Health Report Card and a Framework for Consistent Integration

14:45–15:00	Cherryl Escanilla Berin Oral Presentation	Conceptualizing An Integrative Framework of Environmental Sustainability Communication (ESC)
15:00–15:15	Ashley Thian Oral Presentation	Students as Changemakers: Fostering Interdisciplinary Engagement in Sustainable Healthcare
15:15–15:30	June Wee Oral Presentation	Dialogues for a Sustainable Tomorrow: Cultivating Critical Thinking Using Socratic Pedagogy
15:30–16:00	Tea Break	
16:00–16:20	Elena Cristina Rada Invited Talk	Edu4Plastic Innovative Education For A Regenerative Future
16:20–16:35	Grazia Ragazzi, Elena Cristina Rada Oral Presentation	
16:45–17:15	Award Ceremony & Closing Remarks	

S4. Climate Change and Socio–Ecological Systems

Saturday, 22 August 2026

Room: Z406

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Weiqi Zhou		
14:00–14:30	Daniele La Rosa Keynote Talk	Nature for sustainable cities: planning cost–effective and just solutions for urban issues
14:30–14:50	Riccardo Privitera Invited Talk	Urban nature to cope with climate change. A socio–economic investment model for nature–based solutions in cities
14:50–15:05	Oluwafemi Kehinde Akande Oral Presentation	Sanitation, Drainage and Informal Market Morphologies: Socio–Ecological Risks and Climate Adaptation Pathways in Traditional Urban Markets of Nigeria
15:05–15:20	Caryll Bern Fuchigami Oral Presentation	Community–Based Climate–Adaptive Architecture: Translating Lived Experiences into Design Guidelines for Coastal and Inland Philippine Communities
15:30–16:15	Tea Break & Poster Session	
16:15–16:45	Abdelbagi M. Ismail Keynote Talk	Enhancing Rice Climate Resilience to Sustain Productivity, Combat Rural Poverty and Ensure Food and Income Security
16:45–17:05	Mengqian Lu Invited Talk	Climate Intelligence for A Better Future: Planet, People and Prosperity
17:05–17:20	Gopikrishna Venugopal Sreelatha Oral Presentation	Mapping a Decade of LST Change in a Small Coastal Town of the Global South: Evidence from Alappuzha, Kerala
17:20–17:35	Shijia Wang Oral Presentation	Diagnosing Village Socio–Ecological Resilience: A Spatial–Media–Based Framework for Differentiated Vulnerability Identification
17:35–17:50	Mariacristina Sipala Oral Presentation	Urban trees for climate adaptation: a spatially explicit approach to identify priority areas for urban greening interventions
17:50–18:05	Haripriya Baiju Smitha Oral Presentation	Thermal Reassessment of Urban Water Bodies: A Site–Specific Study in Coimbatore
19:00–20:30	Banquet Dinner	

S4. Climate Change and Socio–Ecological Systems

Sunday, 23 August 2026

Room: Z406

CST Asia Time	Speaker	Title
Chaired by Assoc. Prof. Daniele La Rosa		

11:00–11:20	Çiğdem Coşkun Hepcan Invited Talk	Not All Schools Are Green: A Spatial Analysis of Tree Canopy Inequality and Heat Exposure in İzmir Türkiye
11:20–11:40	Huimin Liu Invited Talk	Leveraging “City Examination & Evaluation” for Improved Heat Governance: Conceptual Framework and Empirical Research
11:40–11:55	Pingping Tian Oral Presentation	Heterogeneity of residential-compound thermal environments under urban renewal in a megacity
11:55–12:10	Makgalake Pabalelo Radingoana Oral Presentation	Nature–Based Methods To Improve Domestic Greywater Quality Using Okra (<i>Abelmoschus Esculentus</i>) And Prickly Pear (<i>Opuntia Ficus–Indica</i>) Mucilage
12:10–12:25	Enggar Yustisi Arini Oral Presentation	Beyond Flood Control: A Systematic Review of Social Value Exclusion in River–based Climate Adaptation Infrastructure Across Global and Japan Contexts
12:25–12:40	Meidad Kissinger Oral Presentation	Integrated Multiyear Assessment of Urban Environmental Footprint Mitigation Potential
12:40–12:55	Oluwafemi Kehinde Akande Oral Presentation	Sanitation, Drainage and Informal Market Morphologies: Socio–Ecological Risks and Climate Adaptation Pathways in Traditional Urban Markets of Nigeria
16:45–17:15	Award Ceremony & Closing Remarks	

S5. Sustainable Urban Landscapes and Low–Carbon Mobility

Sunday, 23 August 2026

Room: Z210

Room: 2270

CST Asia Time	Speaker	Title
Chaired by Dr. Michael West Mehaffy		
11:00–11:30	Bin Jiang Keynote Talk	AI for Architecture: From Style–Driven Generation to Structure–Guided Design
11:30–11:45	Kajal Chaudhary Oral Presentation	Machine Learning–Based Analysis of Range Anxiety in Electric Vehicle Drivers for Smart and Sustainable Mobility
11:45–12:00	Qian Cao Oral Presentation	Autonomous Public Transit for Low–Carbon Smart Cities: A Co–Governance and Safety–Oriented Perspective
12:00–12:15	Mark Jesson Labarinto Ronquillo Oral Presentation	Bagiantayo: Rethinking Barangay Basketball Courts as Social Cores in Dense Urban Communities
12:30–14:00	Lunch Break	
Chaired by Prof. Dr. Bin Jiang		
14:00–14:30	Michael W. Mehaffy Keynote Talk	Assessing Sustainable Urbanism in 2026: Progress, Remaining Barriers, and Pathways Forward
14:30–14:50	Chaosu Li Invited Talk	Urban mobility resilience under heat extremes: Evidence from bike–sharing travel in New York
14:50–15:05	Wenting Yan Oral Presentation	When Green Infrastructure Fails Along Older Adults’ Daily Walking Routes: Thermal Discontinuities and Mobility Inequality in Low–Carbon Active Travel
15:05–15:20	Mesfin Achemo Oral Presentation	Informing Urban Environmental Management through the Perceived Multifunctionality of Urban Renewal Landscapes in Addis Ababa
15:30–16:00	Tea Break	
16:00–16:15	Guanqi Wang Oral Presentation	Multi–scale Coupling Diagnosis of Walking–based Food and Physical Activity Environments in High–density Ageing Communities: Evidence from Tianjin, China
16:15–16:30	Ziyun Ye Oral Presentation	Study on Quality Improvement of Non–Motorized Travel Environment Based on Self– Collected Street View Data and Deep Learning: A Case Study Based on Changsha
16:30–16:45	Xueqing Huang Oral Presentation	Green Mobile Edge Computing for Autonomous Electric Vehicles: A Sustainable Smart City Framework for Integrated Transportation, Computing, and Energy Systems
16:45–17:15	Award Ceremony & Closing Remarks	

S6. Circular Economy and Resource Efficiency

Saturday, 22 August 2026
Room: Z414

CST Asia Time	Speaker	Title
Chaired by Assoc. Prof. Giovanni De Feo		
14:00–14:30	Xiaowei Li Keynote Talk	Enhanced humification and reduced odor emission of biogas residues from anaerobic digestion of municipal kitchen waste through improved aerobic composting process
14:30–15:00	Katrina M. Knauer Keynote Talk	Rethinking Plastic Waste: Innovations in Recycling Technologies and Recyclable-by-Design Materials
15:00–15:15	Lisa S. Mcneill Oral Presentation	Mend the Gap: Encouraging Circular Fashion Practices via Consumer Engagement with Community Clothing Repair Initiatives
15:15–15:30	Kristine Mae Tandet Bagapuro Oral Presentation	From Waste to Wings: A Life Cycle Assessment of Non-Standard Coconut Oil (NSC-CNO) as a Feedstock for Sustainable Aviation Fuel (SAF) in the Philippines
15:30–16:15	Tea Break & Poster Session	
16:15–16:45	Chunbao Xu Keynote Talk	Hydrothermal Technologies for Resourceful Utilization of Biomass & Organic Solid Wastes
16:45–17:00	Ada Castellucci Oral Presentation	Social Life Cycle Assessment for the evaluation of bio-hazardous healthcare waste management systems: global and local perspectives
17:00–17:15	Najoua Zhar Oral Presentation	Circular Economy Transition in the Arab Region: From Policy Ambition to Implementation Gaps
17:15–17:30	Fredrik Lindblad Oral Presentation	Circular Construction Supply Chains: Integrating AI and Life Cycle Assessment for Resource Efficiency
17:30–17:45	Shuxi Wang Oral Presentation	Feasibility of Acid Solution Pretreatment for Enhancing Fragmentation Efficiency in Autoclaved Aerated Concrete Recycling
19:00–20:30	Banquet Dinner	

S6. Circular Economy and Resource Efficiency

Sunday, 23 August 2026
Room: Z414

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Xiaowei Li		
11:00–11:30	Giovanni De Feo Keynote Talk	From Sustainability Narratives to Life–Cycle Evidence: Eco–Efficiency Assessment of Bottled Water Packaging Systems
11:30–11:50	Anna Mazzi Invited Talk	Life Cycle Assessment of Photovoltaic End–of–Life: Mitigating Environmental Impacts through Innovative Recycling.
11:50–12:05	Parinphorn Chunlapoon Oral Presentation	Developing Circular Economy Indicators for Non–Infectious Medical Plastics: A Hospital–Level Framework and Preliminary Application in Thailand
12:05–12:20	Adhitya Balakrishnan Oral Presentation	From Waste to Value: A Circular Maturity Framework for Agricultural Waste Systems in Dairy Farming
12:20–12:35	Amanda Alexandra Cañar Melo Oral Presentation	Quantifying food waste in institutional food systems: a circular economy perspective on resource efficiency
12:30–14:00	Lunch Break	
Chaired by Assoc. Prof. Elena Cristina Rada		
14:00–14:20	Marco Ragazzi Invited Talk	Perspectives Of (Bio)Waste–To–Energy And Circular Economy
14:20–14:35	Jiaqi Li Oral Presentation	Ecological Quality Assessment and Mining Impact Quantification in Coal–Bearing Hill Areas of Northern Villages: A Case Study of the Changhe Basin
14:35–14:50	Kate Honey Oral Presentation	Circular Rhetoric, Linear Reality: Textile Waste and the Political Economy of Circularity in Australia

14:50-15:05	Shuyun Chng Oral Presentation	Closing the Loop: A Systematic Approach to Closed-Loop Manufacturing for Industrial Deployment
15:05–15:20	Jiahao Lai Oral Presentation	Motif–Selective EPS Editing in Iron–Based Sludge Dewatering
16:45–17:15	Award Ceremony & Closing Remarks	

S7. Renewable Energy and Smart Grids

Saturday, 22 August 2026

Room: Z204

CST Asia Time	Speaker	Title
Chaired by Assoc. Prof. Chuanshuai Dong		
14:00–14:30	Jianheng Chen Keynote Talk	Harnessing Machine Learning and Radiative Cooling for Low–Energy Buildings
14:30–15:00	Yimo Luo Keynote Talk	Comparative Study on Electrical Performance of Full–Cell and Half–Cell Bifacial PV Modules under Partial Shading Conditions
15:00–15:20	Quan Gong Invited Talk	Synergistic Integration of Radiative Cooling and Bifacial Photovoltaics for High-Density Rooftop Energy Generation and Cooling Load Reduction
15:20–15:35	Shiyu Ba Oral Presentation	Assessing renewable energy capacity credibility for sustainable development: A spatiotemporal analysis of 31 Chinese provinces based on Thermal Power Capacity Equivalent
15:30–16:15	Tea Break & Poster Session	
16:15–16:45	Jia Liu Keynote Talk	Thermal–electrical–daylight performance study and optimization design of photovoltaic vacuum glazing for high–rise buildings
16:45–17:05	Yijie Zhang Invited Talk	Comparative study of different solar photovoltaics installation types concerning energy and environmental impacts in urban areas
17:05–17:25	Tengfei Li Oral Presentation	Intelligent management optimization algorithm for net–zero energy building energy systems based on dynamic prediction
17:25–17:40	Emmanuel Villaruel Oral Presentation	Deoxygenation Effectivity during Co–processing of Coconut Oil and Kerosene with Subsequent Isomerization
17:40–17:55	Ji Zhu Oral Presentation	The Developmental State, Energy Security, and Carbon Lock–in: Structural Drivers and Constraints on Renewable Energy Deployment in Egypt
19:00–20:30	Banquet Dinner	

S7. Renewable Energy and Smart Grids

Sunday, 23 August 2026

Room: Z204

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Jianheng Chen		
11:00–11:30	Chuanshuai Dong Keynote Talk	Electrically Reconfigurable Phase Change Gly/Hydrogel for Solar–thermal Battery
11:30–11:50	Shanshuo Xing Invited Talk	Efficient Operation Optimization for Heterogeneous All–parallel Chiller Plant under Real–Time Demand Response Assisted by Convex Surrogate Models
11:50–12:10	Jihong Pu Invited Talk	Spectral regulation of energy–efficient windows with biomass dyes
12:10–12:25	Dimitar Kolev Oral Presentation	Investigation of a latent thermal storage for increasing the efficiency of a solar system

12:30–14:00	Lunch Break	
14:00–14:30	Jinlong Ma Keynote Talk	Strategic Imperatives for Sustainable Energy for AI Infrastructure
14:30–15:00	Tian You Keynote Talk	Multi-energy complementary energy geo-structures
15:00–15:15	Linghe Ye Oral Presentation	An Ex-ante LCA-based Integrated Environmental Impact Analysis Method for Renewable Energy Grids Applicable to Long-Term Future Scenario Analysis
15:15–15:30	Georgios Pardalis Oral Presentation	Much Ado About Smart Grids: Governance Frictions in Renewable Energy Integration
15:30–16:00	Tea Break	
16:00–16:15	Zongxian Wang Oral Presentation	Assessment of Photovoltaic Power Generation Potential and Development Strategies for Urban Buildings
16:15–16:30	Xiaochen Ma Oral Presentation	Energy, economic and environmental assessments of a polypropylene core indirect evaporative cooling system for energy recovery under hot and humid climate conditions
16:30–16:45	Justine Osei-Owusu Oral Presentation	Hybrid Simulation and Machine Learning Framework for Predictive Energy Modeling and Smart Grid Optimization in Commercial Buildings
16:45–17:15	Award Ceremony & Closing Remarks	

S8. Policy Frameworks for Equitable Green Transitions

*Saturday, 22 August 2026
Room: Z409*

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Zongshi Chen		
14:00–14:30	Zongshi Chen Keynote Talk	Research on the Impact of Media Attention on Corporate ESG Performance and Greenwashing Behavior
14:30–14:50	Katarzyna Turoń Invited Talk	CalmMobility: Why Governance Posture, Not Technology, Decides the Fate of Low-Carbon Mobility Transitions
14:50–15:05	Faith Muthoni Macharia Oral Presentation	From Regional Policy to Urban Practice: Legal and Institutional Pathways for Circular Economy and Equitable Green Transitions in East Africa
15:05–15:20	Zaneta Stasiskiene Oral Presentation	Bridging Territorial Inequalities in Green Transition: A Multi-Level Governance Model for a Municipal Innovation Center in Lithuania
15:20–15:35	Olufunmilola Adetayo Obakin Oral Presentation	Spatial Governance and Environmental Health Challenges in Traditional Markets: Evidence for Inclusive Urban Policy Reform in Nigeria
15:30–16:15	Tea Break & Poster Session	
16:15–16:45	TSANG Po Keung Eric Keynote Talk	Green Schools Globally
16:45–17:00	Lei Bei Oral Presentation	Formation, Evolution, and Flow of Carbon Emissions in Chinese Sectors: Production and Consumption Perspectives
17:00–17:15	Robby Soetanto Oral Presentation	Blue-Green Infrastructure (BGI) implementation roadmap: lessons learnt from policy development in Indonesia
17:15–17:30	Hisham Malaika Oral Presentation	Why Many “Sustainable” New Cities Fail: Rethinking Viability Assessment in 21st-Century Greenfield Urban Development
17:30–17:45	Dewi Permatasari Oral Presentation	Industrial Sustainability Transition Readiness: Practitioner-Based Insights on Organisational Capability and Governance Challenges in Emerging Economies
17:45–18:00	Hosung Son Oral Presentation	What drives automotive small and medium-sized enterprises to introduce environmental innovation? From the perspectives of government supports and climate change impacts

19:00–20:30	Banquet Dinner
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S8. Policy Frameworks for Equitable Green Transitions

Sunday, 23 August 2026
Room: Z409

CST Asia Time	Speaker	Title
Chaired by Asst. Prof. Vincent Kok Sin Woon		
11:00–11:30	Kok Sin Woon Keynote Talk	Net–Zero Warming Municipal Solid Waste Systems to Meet Global Climate Targets
11:30–11:45	Mpinane Flory Senekane Oral Presentation	Thinking sustainable communities: Acting regulatory frameworks for Alexandra community in Gauteng South Africa.
11:45–12:00	Daren Zong Loong Tan Oral Presentation	Singapore Emission Factors Registry as a Foundation for Equitable Supply Chain Decarbonisation
12:00–12:15	Windhula Gammanpila Oral Presentation	Equitable Electricity Transitions in Sri Lanka: A Sustainability Index Incorporating Battery Energy Storage
16:45–17:15	Award Ceremony & Closing Remarks	

S9. Sustainable Economic Models and Green Finance

Sunday, 23 August 2026
Room: Z410

Room: 2410

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Huaping Sun		
11:00–11:30	Hui Hu Keynote Talk	A big data approach to measure Chinese green patents' quality over 1985–2023
11:30–11:50	Artie Ng Invited Talk	Economics of AI and Sustainability in Industry 5.0: Intelligent Business Models
11:50–12:05	Xiaodong Lai Oral Presentation	ESG Information Disclosure Impact on Emission Reductions in High Emission Enterprises: Evidence from a Multiple–Time–Point Difference–in–Differences Model Analysis
12:05–12:20	Zhi Wang Oral Presentation	Green Tax Reform and the Cost of Equity: Evidence from China's "Fee–to–Tax" Reform
12:20–12:35	Aditya Naskar Oral Presentation	Addressing Fragmented Sustainability Data Standards through BI Driven Analytics
12:30–14:00	Lunch Break	
Chaired by Prof. Dr. Hui Hu		
14:00–14:30	Huaping Sun Keynote Talk	Cross–regional Spot Trading Empowers Enterprise's green innovation: Asymmetric Mechanism from the Perspective of Market Competition and Demand Scale
14:30–14:45	Justice Mundonde Oral Presentation	Climate change and the Financing of Infrastructure Public–Private Partnerships in Emerging and Low–Income Economies
14:45–15:00	Fangfang Zhou Oral Presentation	Green Mergers and Acquisitions and Green Revenue: Evidence from Technological and Market Mechanisms
15:00–15:15	Zhihui Chen Oral Presentation	The effect of Venture Philanthropy on Social businessesScaling and financial sustainability
15:15–15:30	Xiaoyang Zhao Oral Presentation	A Hybrid Decision–Making Framework for ESG Evaluation in Offshore Wind Power: Methodological Construction andEmpirical Validation
15:30–16:00	Tea Break	
16:00–16:15	Robynne Jones Oral Presentation	Human Rights Risk and ESG Materiality in UK Extractive Firms

16:15–16:30	Jude Iggyo Ali Oral Presentation	Renewable Energy Transition, Maritime Connectivity and Manufacturing–Led Structural Transformation in Africa
16:30–16:45	Junyu Wang Oral Presentation	The Green Key: Green Finance and Carbon–Pollution DualLock-in
16:45–17:15	Award Ceremony & Closing Remarks	

S10. Tourism, Culture, Heritage and Hospitality: Global Strategies for a Sustainable Future

Saturday, 22 August 2026
Room: Z208

Room: 2208

CST Asia Time	Speaker	Title
14:00–14:10	Industry Panel	Moderator: Mark A. Bonn Industry Panelists: Rita Kung: Mystic Island Winery, Owner and CEO Jessica Naomi Fong: Common Farms, Founder & CEO
14:10–14:50	Rita Kung Industry Panelist	Sustainable practices of viticulture, winemaking and/or ESG aspects of our winery
14:55–15:30	Jessica Naomi Fong Industry Panelist	TBD
15:30–16:15	Tea Break & Poster Session	
Chaired by Prof. Dr. Mark A. Bonn		
16:15–16:35	Roshis Krishna Shrestha Invited Talk	Rethinking self–determination in Indigenous tourism
16:35–16:50	Yifei Gao Oral Presentation	Unveiling the Causal Complexity of Cultural Experience in Technology–Enabled Tourism Performing Arts: A Configurational Approach Using fsQCA
16:50–17:05	Agus F. Abdillah Oral Presentation	Participatory Governance and Community Resilience in Digital Governance Transformation: Evidence from Lasem’s Heritage Tourism Community
17:05–17:20	Qixin Wei Oral Presentation	The Front and Backstage of Coastal Sustainability: A Reconstruction of Qingdao’s Urban Landscape Narrative Driven by Dramatic Theory and a Large Language Model
17:20–17:35	Roxane Bless Arsing Oral Presentation	Benguet Craftmanship: Ibaloi Architectural Identity through Building Methodologies in Kapangan and Kabayan
17:35–17:50	Rongjin Tian Oral Presentation	Who Flies More, Pays More? Heterogeneous Compensatory Effects of Air Travel on Pro–Environmental Willingness to Pay
17:50–18:05	Jeffrey Dela Cruz Oral Presentation	Context–sensitive Assessment of Tourism Carrying Capacity Fostering Sustainable Tourism: the case of the Rising Surfing Capital of the North
19:00–20:30	Banquet Dinner	

S10. Tourism, Culture, Heritage and Hospitality: Global Strategies for a Sustainable Future

Sunday, 23 August 2026
Room: Z208

CST Asia Time	Speaker	Title
Chaired by Dr. Roshis Krishna Shrestha		
11:00–11:30	Anthony Cheung Keynote Talk	Bridging Heritage and Sustainability: Rethinking Governance for a Resilient Tourism Future
11:30–11:50	Leonard A. Jackson Invited Talk	Who Benefits When Tourism Turns Green? Governance, Elite Capture, and SDG 10 in Sustainable Hospitality

11:50–12:05	Ruiwen Li Oral Presentation	Digital Activation and Sustainable Dissemination of Shehuo Culture in Gansu: An Empirical Analysis Based on the DID Model
12:05–12:20	Haotian Zheng Oral Presentation	The Mechanisms and Sustainable Development Pathways of the Digital Economy in Empowering Tourism Economic Resilience in the Yellow River Basin
12:20–12:35	Alyssandrea Angela Espinueva Oral Presentation	Cultural Imprints in Built Form: Uncovering La Trinidad, Benguet's Architectural Identity
16:45–17:15	Award Ceremony & Closing Remarks	

S11. Inclusive Strategies for Water Quality Improvement, Ecological Restoration and Water Resource Management

***Sunday, 23 August 2026
Room: Z411***

Room: 2411

CST Asia Time	Speaker	Title
Chaired by Prof. Dr. Jun Hou		
11:00–11:30	Gang Lu Keynote Talk	Toxicity Prediction of Byproducts from Fenton/Fenton-like Oxidation of Nitrogen-Containing Heterocyclic Emerging Contaminants: Based on Key Structural Features and Machine Learning
11:30–11:45	Max Bergman Oral Presentation	Local insights and national frameworks for restoring urban lakes in Bengaluru
11:45–12:00	Vinita Sangwan Oral Presentation	Hybrid Wavelet–Fuzzy–Random Forest Model for Groundwater Sodium Adsorption Ratio (SAR) Prediction for Irrigation Water Quality Assessment
12:00–12:15	Frans Hendrik De Beer Oral Presentation	Closing the Investigative Gap in Urban Water Resilience: A Multi–Criteria Screening Algorithm for Direct Potable Reuse in Vryburg, South Africa
12:15–12:30	Matohlang Pascalina Pilane Oral Presentation	Assessing the Social Pillar of Sustainable Water Use in South African Agriculture: A Socio–Hydrological Approach Integrating Water Footprints and a Partial Equilibrium Model
12:30–12:45	Monu Verma Oral Presentation	Post-synthetically modified hollow covalent organic frameworks for ultra-rapid removal of per- and polyfluoroalkyl substances
12:30–14:00	Lunch Break	
Chaired by Prof. Assoc. Prof. Gang Lu		
14:00–14:15	Xupeng Jiang Oral Presentation	Simulation and Dynamic Assessment of Urban Water Metabolism Using an ABM–SD Coupled Model: A Case Study of Beijing
14:15–14:30	Siyanda Nkwenkwe Oral Presentation	Seasonal and Spatial Variability of Spring Water Quality: Implications for Sustainable Water Security in Rural South Africa
14:30–14:45	Zonghao Liu Oral Presentation	Structural and Electronic Features–Integrated Machine Learning Framework for High–Throughput Prediction of Organic Pollutant Reactivity
14:45–15:00	Tsholofelo Cynthia Mojodo Oral Presentation	Technical Modelling for Sedimentation Management and Storage Capacity Enhancement in the Tzaneen B81B Quaternary Catchment Area, South Africa: An Inclusive Governance and Socio–Ecological Approach
15:00–15:15	Seemole Johanna Tleane Oral Presentation	Advancing Groundwater Remediation through Nanotechnology: Situation Analysis for Implementation
16:45–17:15	Award Ceremony & Closing Remarks	

Poster List

No.	Presenter	Title
<i>S1. Emerging Technologies and Integrated Solutions for Sustainable, Resilient Cities and Planet</i>		
1	Stephanie Grace Leksono	Optimising Visual Comfort, Energy Performance, and Embodied Carbon in Classrooms Through Table Material Selection
2	Xiaoyu Chen	Geometry-Guided Block-wise 3D Gaussian Splatting for Large-Scale Urban Reconstruction
3	Gang Wang	Climate-responsive energy-saving performance of PCM-integrated building envelopes under future climate scenarios
4	Daniela Dzhonova-Atanasova	Performance evaluation by energy and exergy analysis of a latent thermal storage
5	Oluwafemi Kehinde Akande	Integrating Bioclimatic Indoor Environmental Design Strategies for Sustainable Neurological Patient Recovery in Tropical Healthcare Facilities
6	Yan Han	Assessing Land Availability Potential for Utility-Scale Wind and Solar Power in China: A Multi-Scenario Spatial Analysis
7	Hong Ki Sung	A 3D GeoHash-Based Spatial Framework for Real-Time Urban Object Interaction and Predictive Analysis
<i>S2. Resilient Urban Energy Infrastructure</i>		
8	Clarence Jhay, Zeean Raphaelle Mandapat	Convertible Spaces: Adaptable Evacuation Centers as Flood-Resilient Strategy in Calasiao, Pangasinan
<i>S3. Sustainability Education and Innovative Approaches</i>		
9	Takehiro Hatakeyama	Shaping Sustainable Community Futures in Tanegashima, Japan: From Dialogue to Action through a Boundary Object
10	Chuhan Chen	Generative AI-augmented pedagogy and sustainable innovative behavior: The roles of critical artificial intelligence literacy, collaborative efficacy, and responsible learning climate
11	Bogdan Nikolov	Forming environmental behavior through training in sustainable waste management
12	Bahaa' Makhoul	Blended Learning for Sustainable Academic Literacy Development in Arabic Middle Schools: Differential Effects Across Reading Ability Levels
13	Tenigbade Yewande Odu	Advancing Sustainability Competencies in Built Environment Education: Evidence from Learning Challenges in Real Estate Valuation Courses in Nigerian Universities
<i>S4. Climate Change and Socio-Ecological Systems</i>		
14	Roger Delamou	Socioeconomic and ecological Values of Mangrove Ecosystems in the Kapatchez delta, Western Guinea
15	Timothy Yu Yang Tian	Regional Land-Use Projection and Agricultural Development Potential Assessment Based on Markov Chain and Generalized Additive Models
16	Jianjun Sheng	Ecosystem Service Valuation in Plateau Lake Basins: A Multidimensional Accounting Framework with Empirical Verification
17	Gopikrishna Venugopal Sreelatha	Multi-Dimensional Assessment of Urban Flood Vulnerability in Kochi: A Decadal Perspective Using GIS and Remote Sensing
<i>S5. Sustainable Urban Landscapes and Low-Carbon Mobility</i>		
18	Meili Feng	Configuration of Urban Green Infrastructure Shapes Carbon Mitigation Efficiency: Evidence from China and the UK's Port Cities
19	Zizhuo Zhang	Research on Short-term Traffic Flow Prediction Based on Graph Latent Similarity
<i>S6. Circular Economy and Resource Efficiency</i>		
20	Tomasz Majka	Polymer-asphalts – the future for plastic waste management

21	Natália Čeryová	Upcycling Grape Pomace into Functional Biscuits: Enhancing Nutritional Quality within a Circular Food System
22	Judita Lidikova	Fatty Acid Profile of Grape Pomace: Implications for Nutritional Quality and Valorization in Food Systems
23	Slaveya Petrova	Relationship between behavioral trends, household practices, and policies in Bulgaria regarding sustainable waste management
24	Saedaseul Moon	Optimizing End-of-Life Battery Diagnosis and Sales Strategies via Deep Reinforcement Learning: A Circular Economy Approach
25	Qingkai Chen	Carbon Footprint and Resource Efficiency Optimization of Municipal Solid Waste: Low-Carbon Circular Governance for Coastal Tourist Cities
26	Edward Ren Kai Neo	Towards More Effective Closed-Loop Production of Polymer Blends: AI-enabled Profiling with Hyperspectral Imaging
27	Shingo Matsui	Comparative life cycle assessment of open-field farming and vertical farming for the lettuce production in Japan
28	Fei Han	Regenerable NH ₄ Cl system enabling complete recovery of metals from spent NCM cathodes
29	Zhiwei Jin	Waste Biomass Valorization for Cadmium Remediation and Sustainable Water Treatment
30	Oldrich Sucharda	Sustainable Concrete in the Circular Economy
31	Dinh-Tien Luong	Circular Economy as Climate Adaptation in the Semiconductor Supply Chain: Pathways for a Resilient Future
32	Jazbia Shirin	Size-dependent impacts of polystyrene microplastics and heavy metals on soil microbiomes and spring onion health
33	Apostolos Tsoumanis	From Residues to Biostimulants: Life-Cycle-Oriented Development of Extract-Based Formulations from Mediterranean Biomass
S7. Renewable Energy and Smart Grids		
34	Leijia Liu	WIAE-Transformer for Multivariate Probabilistic Forecasting of Green Electricity Demand
35	Bence Hernádi	Compressed Air Energy Storage Implementation in Abandoned Mines: The Case of Selmechánya
S8. Policy Frameworks for Equitable Green Transitions		
36	Banghui Li	Governing the Blue Transition: Identifying Policy-Relevant Environmental Indicators for Equitable Offshore Wind Development
37	Shanglin Du	The oversight paradox in construction industry: How AI in public procurement oversight Weakens corporate social responsibility's contribution to resource efficient eco-Innovation
38	Katarzyna Turoń, Andrzej Kubik	Analyzing the Longevity of Urban Mobility Innovations for Sustainable Development
S9. Sustainable Economic Models and Green Finance		
39	Ana Lyvia Tabosa da Silva	Life Cycle Costing Methodologies for Aluminium Bridges: A Comparative Assessment
S10. Tourism, Culture, Heritage and Hospitality: Global Strategies for a Sustainable Future		
40	Shanglin Du	Digital Activation for Sustainable Revitalization in China's ShuDao Heritage Corridor: Collaboration, Co-Creation, and Governance
41	Jieyuan Zheng	Examining Geographic and Environmental Factors Behind Rural Tourism Development in Shiquan County, China
S11. Inclusive Strategies for Water Quality Improvement, Ecological Restoration and Water Resource Management		
42	Qianqian Tang	Electron transfer mediated activation of periodate by contaminants to generate 1O ₂ by charge-confined single-atom catalyst
43	Shuiping Yu	Enhanced Refractory Organics Removal from Chemical Industrial Park Wastewater by an Ozone Catalytic Oxidation-Biological Aerated Filter Coupled Process: Performance, Mechanism and Engineering Validation
44	Jiachuang Shao	Electrospun PEI/PVA nanofiber adsorbents for selective Cr(VI) enrichment and chromium salt recovery from electroplating wastewater

45	Chengshin Jang	Integrating reverse quantitative microbial risk assessment with disability-adjusted life years for risk-based river environmental and recreational management
46	Edwin M. Pino-Vargas	The Use of Mining Tailings Water for Agriculture: A Perspective from the Approach of Water Quality and Proposals for Sustainable Water Management in Pampa Sitana, Tacna, Peru
47	Stavros G. Pouloupoulos	Sustainable Valorization of Apricot Stones into Hydrochar: Mercury Removal from Wastewater via Green Hydrothermal Carbonization
48	Catalina Iticescu	Support for the Danube: A machine learning approach for sustainable water monitoring
49	Stefan Petrea	Support for integrated monitoring of the Danube: An analytical framework based on auto-ML for water and sediment quality monitoring in the Sulina branch
50	Yin Mengying	Accelerating N ₂ H ₄ (ads) formation by frustrated Lewis pairs in an oxyhydroxide for electrocatalytic ammonia oxidation into N ₂
51	Quanzhi Zhang	Interfacial Electronic Regulation of Nano-confined Co Catalyst for Singlet Oxygen Dominated Water Purification
52	Sheng Lu	Defect-Engineered Sulfur-Based Photothermal Catalysts for Sustainable Energy Conversion and Water Remediation
53	Luca Adami	Adaptive Biochar Pathways for Soil Health Living Labs: Lessons from Three Italian iCOSHELLs Demonstration Sites