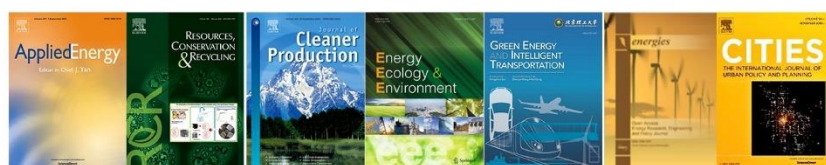


# ICEIV

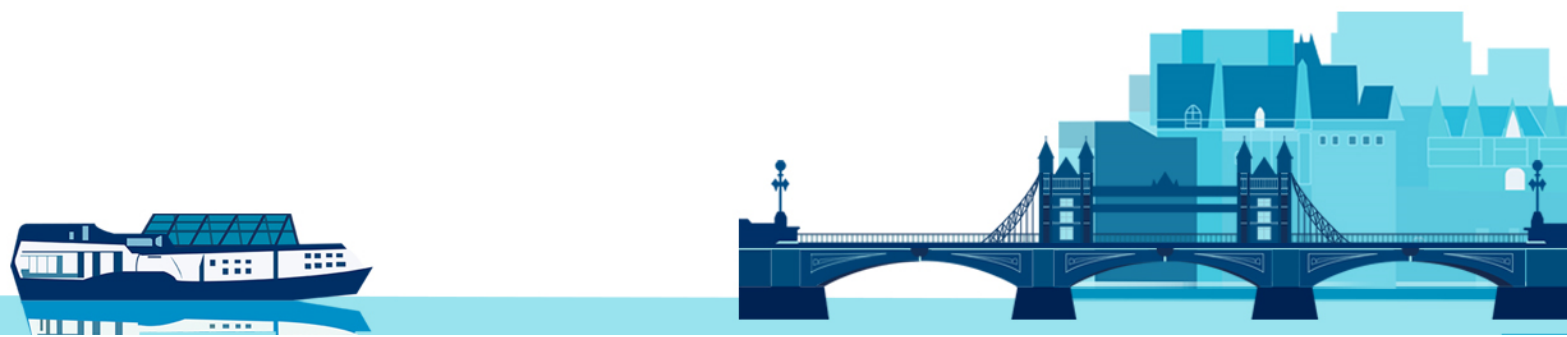
International Conference on Energy  
Storage and Intelligent Vehicles

London, UK  
Aug 14-18, 2023



# CONTENTS

- **Welcome to ICEIV 2023**
- **Acknowledgement**
- **Committees**
- **Keynote Speakers**
- **Practical Guide**
- **Speaker Guide**
- **Program at a Glance**
- **Oral Presentations**



# Welcome to ICEIV 2023

On behalf of the Organizing Committee, we are pleased to invite you to participate in the conference of the 6th International Conference on Energy Storage and Intelligent Vehicles (ICEIV2023) from Aug 14 to 18, 2023. The theme of the conference is Boosting decarbonization via innovation in Energy Storage and Intelligent transportation.

Energy storage is playing an essential role in achieving the goal of carbon neutrality. The innovation and application of energy storage technologies are of great significance to accelerate the deployment of renewable energy. The decarbonization of the transport sector is another crucial issue in the achievement of the climate goal, which can also ensure the rational, effective and sustainable evolution of human society. ICEIV is an international academic conference with high international influence and provides an excellent forum for scientists, researchers, engineers and government officials to present their latest research findings. ICEIV is an annual conference, which has been held successfully since 2017, in Stockholm, Sweden, Melbourne, Australia, Stavanger, Norway, Nanjing and Beijing, China, in 2017, 2018, 2019, 2021 and 2022.

Conference Chairs

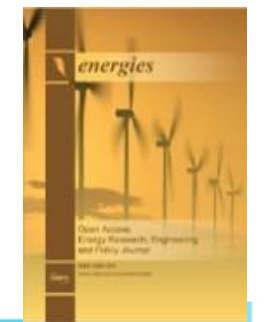
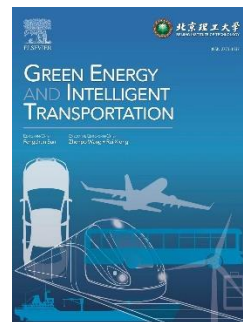
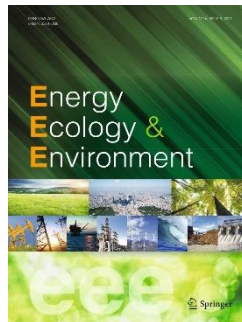
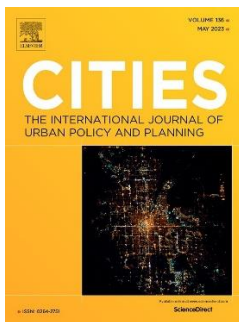
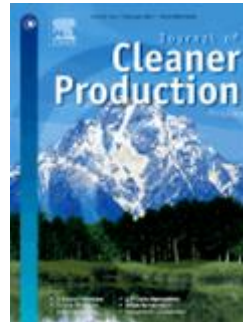
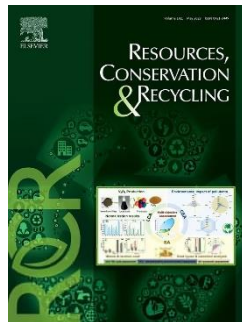
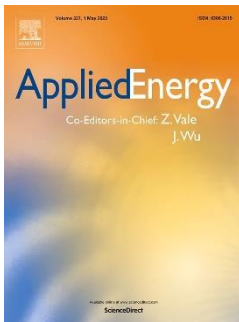
Prof. Fengchun Sun, Beijing Institute of Technology/Academician of the Chinese Academy of Engineering, China

Prof. Chengming Zhang, Harbin Institute of Technology, China

Prof. Rui Xiong, Beijing Institute of Technology, China



# Acknowledgement



# Committees for ICEIV 2023

## Conference Chairs

Prof. Fengchun Sun	Beijing Institute of Technology/Academician of the Chinese Academy of Engineering, China
Prof. Chengming Zhang	Harbin Institute of Technology, China
Prof. Rui Xiong	Beijing Institute of Technology, China

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# Keynote Speakers for ICEIV 2023



**Prof. Bani Anvar**  
University College  
London (UCL), UK

**Title: *From Science Fiction to Reality: Human-Centered Interfaces for Autonomous Vehicles***

**Bio:** Bani Anvari is Full Professor of Intelligent Mobility at the Centre for Transport Studies at University College London (UCL). She is Founder and Director of Intelligent Mobility @ UCL (IM@UCL), a full-size driving simulator, funded and supported by Ansible Motion, the EPSRC and DfT. As a civil engineer, Bani Anvari graduated with an MSc in Advanced Architectural Studies from the Bartlett School of Architecture (UCL). Her PhD research at Imperial College London focused on a new microscopic model for shared space schemes. Before she joined UCL, Bani Anvari was a faculty member at the University of Southampton.

**Abstract:** In this keynote, the speaker delves into the evolution of human-machine interfaces for autonomous vehicles. She discusses how science fiction has influenced interface design and highlight the shift towards human-centered approaches that prioritize passenger comfort, safety, and engagement.



**Prof. Kangli Wang**  
Huazhong University of  
Science and  
Technology, China

**Title: *Liquid metal batteries for grid-level energy storage***

**Bio:** Dr. Kangli Wang is currently a Professor in the School of Electrical and Electronic Engineering at Huazhong University of Science and Technology. Her research focuses on advanced materials and devices for energy storage and conversion. She has developed novel batteries for grid-scale electrical energy storage, such as low-cost and long-lifespan liquid metal batteries, Na-ion batteries, and aqueous Zn-ion batteries. She has authored more than 100 papers in prestigious scientific journals including Nature, and holds 39 Chinese patents and 1 US patent. In 2016, she was awarded “The National Science Fund for Excellent Young Scholars”.

**Abstract:** With the gradual increase of intermittent renewable energy sources such as wind and solar energy integrated into the grid, large-scale energy storage technology has become an essential part of the future power system. Electrochemical energy storage has emerged as the predominant approach due to its flexibility and efficiency. Nevertheless, conventional batteries, such as lithium-ion batteries and lead-acid batteries, inherently suffer from certain capacity decay mechanisms, making them difficult to satisfy the service life requirements (20-30 years) of grid-level energy storage. Liquid metal batteries innovatively adopt liquid metal as positive and negative electrodes, and inorganic molten salts as electrolytes, which essentially circumvent the irreversible structural changes of electrodes and the undesired parasitic reactions between the electrode and the electrolyte, theoretically possessing an infinite cycle life, which is highly suitable for grid-level stationary energy storage. However, the practical implementation of liquid metal batteries still faces certain obstacles, such as low energy density, low discharge voltage, high operating temperature, etc. This talk will present a more detailed introduction and our research progress on liquid metal batteries, such as enhancing energy density and lowering the operating temperature, etc. These efforts significantly promote the development and practical application of liquid metal batteries.



# Keynote Speakers for ICEIV 2023

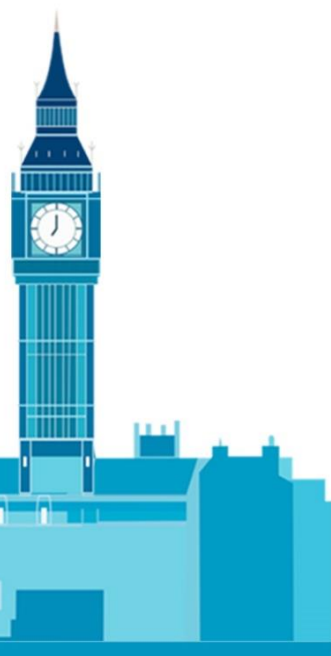


**Prof. Rui Xiong**  
Beijing Institute of  
Technology, China

**Title:** *Artificial intelligence and big data enable rapid prediction of battery life*

**Bio:** Rui Xiong received the Ph.D. degree in mechanical engineering from Beijing Institute of Technology. He is a Professor and director of the Joint Laboratory for Advanced Energy Storage and Application, at the Beijing Institute of Technology, Beijing, China. His research interests include Intelligent electrified vehicles, energy storage, batteries, and machine learning. Dr. Xiong is an IET Fellow. He has been continuously selected as the HIGHLY CITED RESEARCHER from Clarivate Analytics from 2018 to 2022. He was recipients of the First Prize of Natural Science Award of the Ministry of Education of China (2nd awardee), China Automobile Industry Technology Invention Award (2nd awardee) and China Electrotechnical Society Technology Invention Award (1st awardee). He is the Founding Director of the Energy Storage System and Equipment Technical Committee of China Electrotechnical Society. He serves as Founding executive Editor-in-Chief for the new journal Green Energy and Intelligent Transportation, Associate Editors for the IEEE Transactions on Intelligent Transportation System and Applied Energy. He is also the Founding Chair of the International Conference on Energy storage and electric Intelligent Vehicles (ICEIV).

**Abstract:** Lithium-ion batteries are widely used in electric vehicles and electrochemical energy storage, and have become an important technical support for the achievement of the global double carbon target. The innovation of battery materials has facilitated the rapid iterative upgrade of battery system technology. At the same time, the battery management method that relies on complete testing has encountered serious challenges. The performance of the refined life model based on testing has declined sharply in the application of new batteries. The emergence of battery life prediction provides a new possibility for rapid and test-independent prediction. The report will focus on the research of AI in life prediction.



# Practical Guide

## Venue Information

The venue of ICEEE/ICEIV is Clayton Hotel Chiswick. The hotel is on the popular Chiswick High Road, which offers boutique shops, restaurants and vibrant bars. The Clayton Hotel Chiswick is less than 1.5 miles from Kew Gardens and 0.2 miles from Gunnersbury Tube Station and the M4 motorway. The hotel offers modern air-conditioned luxury rooms, a stylish bar and restaurant, meeting facilities and a gym. Guest rooms include a flat-screen TV, work desk, safe and small lounge area. Bathrooms all have a bath with shower or walk-in shower and a hairdryer.

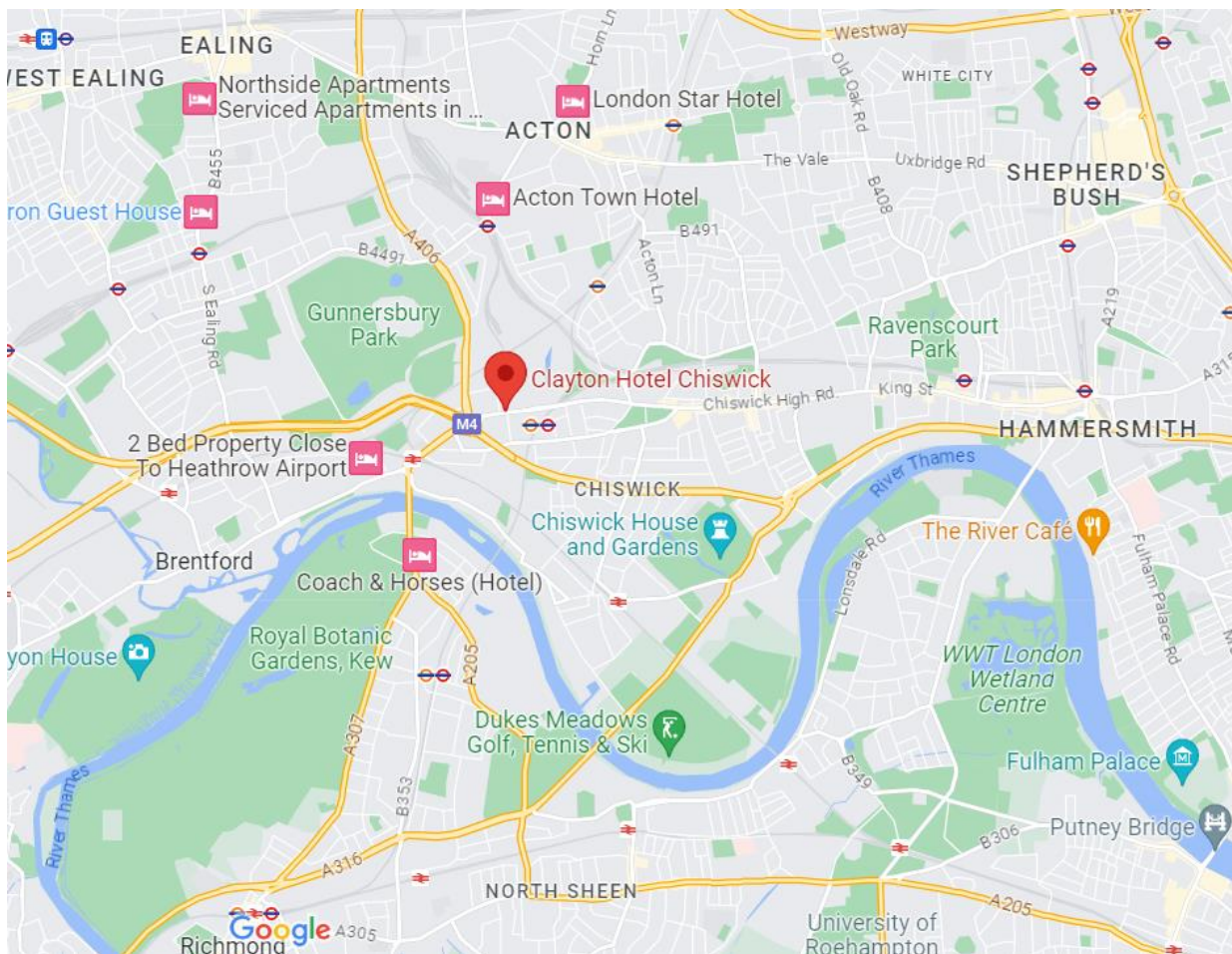
Clayton Hotel Chiswick, Tel: +44 20 8996 5200, Email: [info.chiswick@claytonhotels.com](mailto:info.chiswick@claytonhotels.com)  
626 Chiswick High Road, London, Greater London, United Kingdom, W4 5RY

## Getting to the hotel

From Heathrow Airport: Heathrow Airport to Clayton Hotel Chiswick.

By bus: Bus N9, from Heathrow Terminal 5 to Thorney Hedge Road (Stop K).

By taxi: black cabs, licensed minicab





# Speaker Guide

- 1. Authors should give a 25-minutes presentation.**
- 2. Question and answer for each presentation would last 5 minutes.**
- 3. The recommended aspect ratio of the projector screen is 16:9.**
- 4. There is no template for the presentation.**





北京理工大学  
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# GREEN ENERGY AND INTELLIGENT TRANSPORTATION

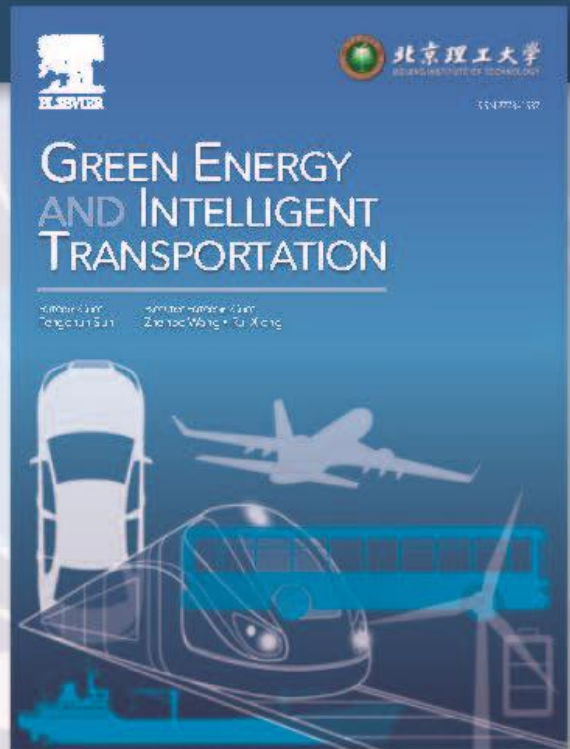
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## Editor-in-Chief:

Professor Fengchun Sun  
Beijing Institute of Technology,  
Beijing, China

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- Intelligent and sustainable transportation system
- Application of artificial intelligence in transportation
- Innovative charging infrastructures
- New materials and lightweight technology in transportation
- Sustainability of green transportation (including carbon neutrality)

## Highlighted Papers

- **Advancing electric vehicle technology in China: China builds on its position as a leader in battery-powered electric vehicles with research and development on many fronts**
- **A cool spin on electric motors: Incorporating cooling pipes into the heart of electric motors could improve power and efficiency**
- **Reducing reliance on rare-earth elements in electric vehicles: researchers in China and Singapore have reviewed alternative technologies that could reduce dependence on rare-earth metals when manufacturing electric vehicles**
- **Onboard data mining for safe, efficient lithium batteries in electric vehicles: researchers propose data-driven method for modelling battery state estimations, cutting out reliance on labs**
- **Collaboration with personalisation: how to avoid driving conflict in connected automated vehicles**



\*The Article Publishing Charge (APC) fee of USD 1950 will be covered by Beijing Institute of Technology Press Co., Ltd for articles submitted by 31st December 2024.

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

Prof. Dr. Rui Xiong

Prof. Dr. Marco Marengo

## Message from the Editor-in-Chief

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# Program at a Glance

**CITY LOCATION & TIME ZONE: LONDON, Conf. Time**

<b>Registration Time: Aug 14, 14:00 - 16:00; Aug 15, 08:30 - 14:00</b>	
<b>Registration Room: Griffin Suite</b>	
<b>Day 1: August 15</b>	
<b>Conference Room: Chiswick Ballroom</b>	
<b>Opening Ceremony of ICEIV 2023</b>	
09:00-09:10	Welcome from ICEIV 2023 Conference Chair Prof. Fengchun Sun
09:10-09:15	Introduction to ICEIV 2023 Prof. Chengming Zhang
09:15-09:20	Publish open access with Green Energy and Intelligent Transportation Dr. Ning Xu
09:20-10:05	Keynotes: From Science Fiction to Reality: Human-Centered Interfaces for Autonomous Vehicles Prof. Bani Anvar
<b>10:05-10:30</b>	<b>TEA/COFFEE BREAK</b>
10:30-11:15	Keynotes: Liquid metal batteries for grid-level energy storage Prof. Kangli Wang
11:15-12:00	Keynotes: Distributed Low-carbon Energy System Integrating Solar Energy and Fossil Fuels Prof. Yong Hao
<b>12:00-13:30</b>	<b>LUNCH</b>
<b>Session Room: Gunnersbury Suite, Burlington Suite, Devonshire Suite, Hogarth Suite, Chiswick Ballroom</b>	
13:30-17:00	PARALLEL SESSIONS
<b>Day 2: August 16</b>	
<b>Session Room: Gunnersbury Suite, Burlington Suite, Devonshire Suite, Hogarth Suite, Bedford Suite</b>	
08:30-10:00	PARALLEL SESSIONS
<b>10:00-10:30</b>	<b>TEA/COFFEE BREAK</b>
10:30-12:00	PARALLEL SESSIONS
<b>12:00-13:30</b>	<b>LUNCH</b>
13:30-15:00	PARALLEL SESSIONS
<b>15:00-15:30</b>	<b>TEA/COFFEE BREAK</b>
15:30-17:30	PARALLEL SESSIONS
<b>18:00</b>	<b>BANQUET</b>



# Program at a Glance

Day 1: August 15							
	Meeting Room	1 Gunnersbury Suite	2 Burlington Suite	3 Devonshire Suite	4 Hogarth Suite	5 Bedford Suite	6 Chiswick Ballroom
PARALLEL SESSIONS	13:30-15:00	Energy and Energy Economics I	Ecology and environment I	Ecology and environment II	Energy and Energy Economics II		
	15:00-15:30	TEA/COFFEE BREAK					
	15:30-17:00	Energy and Energy Economics I	Ecology and environment I	Ecology and environment II	Energy and Energy Economics II		
Day 2: August 16							
	Meeting Room	1 Gunnersbury Suite	2 Burlington Suite	3 Devonshire Suite	4 Hogarth Suite	5 Bedford Suite	6 Griffin Suite
PARALLEL SESSIONS	08:30-10:00	Energy and Energy Economics I	Ecology and environment I	Ecology and environment II	Energy Storage and Intelligent Vehicles I	Energy Storage and Intelligent Vehicles II	
	10:00-10:30	TEA/COFFEE BREAK					
	10:30-12:00	Energy and Energy Economics I	Ecology and environment I	Ecology and environment II	Energy Storage and Intelligent Vehicles I	Energy Storage and Intelligent Vehicles II	
	12:00-13:30	LUNCH					
	13:30-15:00	Energy and Energy Economics I	Ecology and environment I	Ecology and environment II	Energy Storage and Intelligent Vehicles I	Energy Storage and Intelligent Vehicles II	
	15:00-15:30	TEA/COFFEE BREAK					
	15:30-17:30		Ecology and environment I		Energy Storage and Intelligent Vehicles I	Energy Storage and Intelligent Vehicles II	
	18:00	BANQUET					



# Program at a Glance

Day 1: August 15								
	Meeting Room	1 Gunnersbury Suite	2 Burlington Suite	3 Devonshire Suite	4 Hogarth Suite	5 Bedford Suite	6 Chiswick Ballroom	
<b>PARALLEL SESSIONS</b>	Sessions	Energy and Energy Economics I	Ecology and environment I	Ecology and environment II	Energy and Energy Economics II			
	13:30-14:00	57	1	12	13			
	14:00-14:30	87	2	18	62			
	14:30-15:00	125	4	127	64			
	15:00-15:30	<b>TEA/COFFEE BREAK</b>						
	15:30-16:00	67	74	108	120			
	16:00-16:30	70	77	61	121			
	16:30-17:00	75	41	7				
Day 2: August 16								
	Meeting Room	1 Gunnersbury Suite	2 Burlington Suite	3 Devonshire Suite	4 Hogarth Suite	5 Bedford Suite	6 Griffin Suite	
<b>PARALLEL SESSIONS</b>	Sessions	Energy and Energy Economics I	Ecology and environment I	Ecology and environment II	Energy Storage and Intelligent Vehicles I	Energy Storage and Intelligent Vehicles II		
	08:30-9:00	56	5	34	46	63		
	09:00-9:30	89	23	21	10	69		
	09:30-10:00	53	25	24	8	28		
	10:00-10:30	<b>TEA/COFFEE BREAK</b>						
	10:30-11:00	123	42	35	93	45		
	11:00-11:30	79	107	19	30	91		
	11:30-12:00	65	58	20	81	17		
	12:00-13:30	<b>LUNCH</b>						
	13:30-14:00	124	119	90	15	88		
	14:00-14:30	110	94	50	32	31		
	14:30-15:00	80		85	118	40		
	15:00-15:30	<b>TEA/COFFEE BREAK</b>						
	15:30-16:00		82		27	37		
	16:00-16:30		96		76	103		
16:30-17:00				83	112			
17:00-17:30				126	106			



# Oral Presentations (15 Aug)

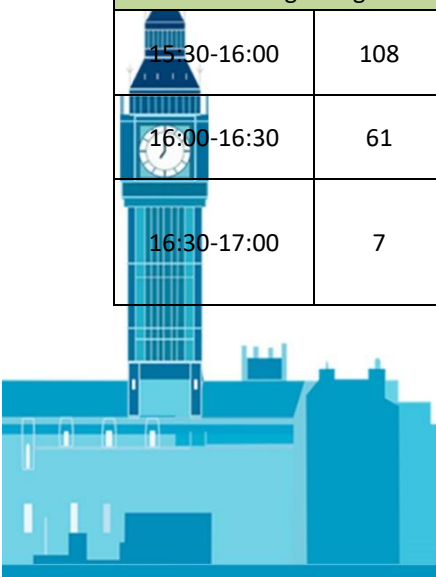
Conference Room: Gunnersbury Suite			
Session Title: Energy and Energy Economics I			
Chair: Qie Sun			
Time	Paper ID	Author	Paper Title
13:30-14:00	57	Fumi Harahap, Anissa Nurdiawati, Davide Conti, Sylvain Leduc et al.	Renewable marine fuel production for decarbonised maritime shipping: pathways, policy measures and transition dynamics
14:00-14:30	87	Vivian Cárdenas-Galindo and Liz Varga	Advanced Metering Infrastructure in Smart Grids: Towards a More Efficient and Sustainable Energy System
14:30-15:00	125	Beibei Dong and Hailong Li	AI Dynamic Modelling of CO <sub>2</sub> Capture from Waste-fired Combined Heat and Power Plants
15:00-15:30	TEA/COFFEE BREAK		
Chair: Jin Yang			
15:30-16:00	67	Maoquan Huang, Qie Sun and Mu Du et al.	Enhancing PV Efficiency through Scalable Radiant Cooling with Optimized Randomly Doped Particle Structures
16:00-16:30	70	Pengzhu Lin, Jing Sun, Maochun Wu and Tianshou Zhao	A multiscale model for proton exchange membrane fuel cells with order-structured catalyst layers
16:30-17:00	75	Bowen Yang, Dafang Wang and Beike Yu	Electrochemical Sensing-Based Internal Temperature Estimation for Lithium-ion Battery
Conference Room: Hogarth Suite			
Session Title: Energy and Energy Economics II			
Chair: Qie Sun			
Time	Paper ID	Author	Paper Title
13:30-14:00	13	Song Chai and Jin Yang	Can public opinion persuade the government to strengthen the use of environmental regulation policy tools? Evidence from policy texts
14:00-14:30	62	Xiaoli Zhao and Zewei Zhong	The impact of renewable energy growth on the cost of hydrogen production from water electrolysis
14:30-15:00	64	Qingxi Huang, Biao Feng, Jun Gao, Miaoxun Zhou and Qie Sun et al.	Economic evaluation of a compressed carbon dioxide energy storage power station for load shifting
15:00-15:30	TEA/COFFEE BREAK		
Chair: Cuiping Ma			
15:30-16:00	120	Rende Dai, Tangfeng Lv, Zhiyong Li et al.	Design and Typical Application of Solar-storage Integrated System for Tailings Ecological Restoration
16:00-16:30	121	Ruiqiu Yao, Hao Xie, Chengsheng Wang, Xiandong Xu, Dajun Du, Liz Varga and Yukun Hu	A microgrid day-ahead optimal operation framework with liquid air energy storage by hybrid IGDT-STA algorithm





# Oral Presentations (15 Aug)

Conference Room: Burlington Suite			
Session Title: Ecology and Environment I			
Chair: Saige Wang			
Time	Paper ID	Author	Paper Title
13:30-14:00	1	Meiyu Guo	Assessment of CO <sub>2</sub> Fracturing in China's Shale Oil Reservoir: Fracturing Effectiveness and Carbon Storage Potential
14:00-14:30	2	Shixiong Liu, Qi He, Andrew Sudmant et al.	Typology of the Socio-Economic Characteristics of China's Cities: Towards a Categorization of Livable Cities
14:30-15:00	4	Jingyi Guo and Ling Wang	Mapping Spatiotemporal changes in the value of ecosystem services in the Yongding River Basin, China
15:00-15:30	TEA/COFFEE BREAK		
Chair: Delin Fang			
15:30-16:00	74	Weiqi Fu and Yixi Su	Marine Phytoplankton for Sustainable Development
16:00-16:30	77	Yushuang Li and Jinhui Li	A strategy for sustainable development: An analysis of China's 'Zero Waste City' construction project
16:30-17:00	41	Guoxing Zhang, Yang Gao, Bin Su, Zhanglei Chen and Yi Zhang	Environmental policy intensity and corporate green innovation in China
Conference Room: Devonshire Suite			
Session Title: Ecology and Environment II			
Chair: Delin Fang			
Time	Paper ID	Author	Paper Title
13:30-14:00	12	Delin Fang	Modified linkage analysis for water-land nexus driven by interregional trade
14:00-14:30	18	Chenxing Wang	Information resource system of green ecological city and big data share & exchange platform
14:30-15:00	127	Piyu Ke and Zhu Liu	Carbon Monitor Europe, a near-real-time and country-level monitoring of daily CO <sub>2</sub> emissions for European Union and the United Kingdom
15:00-15:30	TEA/COFFEE BREAK		
Chair: Chenxing Wang			
15:30-16:00	108	Boyang Chen, Yu Liu and Wenxuan Hou	Spatiotemporal Carbon Sequestration by Forests among Counties and Grids in China
16:00-16:30	61	Yuxuan Li, Luiza C. Campos and Yukun Hu	Three-dimensional numerical simulation of the thermal response of sludge under microwave heating
16:30-17:00	7	Yang Liu, Yuchen Zhang, Xiaoli Zhao, Rongda Zhang and Arash Farnoosh	Decarbonizing China's Iron and Steel Industry: Policy Interactions and Technology Pathways



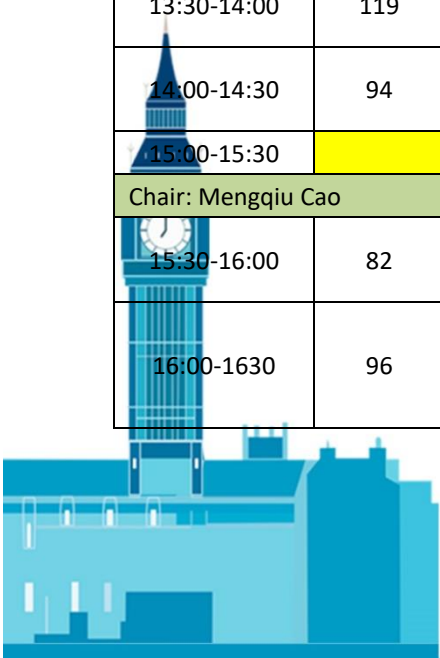
# Oral Presentations (16 Aug)

Conference Room: Gunnersbury Suite			
Session Title: Energy and Energy Economics I			
Chair: Jin Yang			
Time	Paper ID	Author	Paper Title
08:30-9:00	56	Fumi Harahap, Dilip Khatiwada, Abhijith Kapothanillath et al.	Building integrated framework for assessing biogas-based circular solutions in the Nordics
09:00-9:30	89	Kyriaki Galopoulou and Liz Varga	The Role of Digital Twins in Energy Transition
09:30-10:00	53	Congyu Wang, Cuiping Ma, Hewen Zhou and Qie Sun	Assessing the flexibility of coal-based CHP plants in different heating modes
10:00-10:30	TEA/COFFEE BREAK		
Chair: Qie Sun			
10:30-11:00	123	Liang Wang, Jone Dambås, Nikalet Everson et al.	Effect of pyrolysis atmosphere on biochar production from spruce bark, needle, twig and forest residue
11:00-11:30	79	Han Yu, Yi He, Ruiqiu Yao, Yukun Hu et al.	Energy-rich process gases management for an integrated steel plant with AI-assistance
11:30-12:00	65	Shuo Wang, Hewen Zhou, Hailong Li and Qie Sun	A techno-economic assessment of a waste-fired combined heat and power plant integrated with post-combustion CO <sub>2</sub> capture
12:00-13:30	LUNCH		
Chair: Cuiping Ma			
13:30-14:00	124	Liang Wang, Maria Olsen and Alba Dieguez Alonso	Investigation of CO <sub>2</sub> on Pyrolysis of rye straw at different temperatures
14:00-14:30	110	Chunsheng Wang, Mutian Li, Yuan Cao and Yukun Hu	SOC Estimation Method Based on Fusion of Data-Driven Method and Model-Based Filtering Method: Arithmetically Optimized LSTM Network and Adaptive Unscented Kalman Filter
14:30-15:00	80	Chaoyi Guo, Yetong Li, Xiaoyi Long, Kai Wu and Hancheng Dai	Introducing the issue of inequal economic burden into carbon tax policy at provincial and sectoral level: a computable general equilibrium simulation



# Oral Presentations (16 Aug)

Conference Room: Burlington Suite			
Session Title: Ecology and Environment I			
Chair: Saige Wang			
Time	Paper ID	Author	Paper Title
08:30-9:00	5	Dawei Lu, Yuming Huang and Weichao Wang	Budget and source tracing of pollutants based on digital technique
09:00-9:30	23	Lei Wang	A comprehensive life cycle assessment framework focusing on ecotoxicity: a case study of bio-tape using ionic liquids as solvents
09:30-10:00	25	Ru Guo and Guanghui Shao	Carbon endowment evaluation and simulation for achieving carbon neutrality
10:00-10:30	TEA/COFFEE BREAK		
Chair: Wen-Long Shang			
10:30-11:00	42	Guoxing Zhang, Zhanglei Chen, Bin Su, Yang Gao and Yan Nie	Environmental policy intensity reveals U.S. environmental governance processes, political polarization trends, and long-term emission mitigation effectiveness
11:00-11:30	107	Wen-Long Shang, Yishui Chen, Qing Yu, Xuewang Song and Washington Ochieng	Spatio-temporal Analysis of Carbon Footprints for Urban Public Transport Systems Based on Smart Card Data
11:30-12:00	58	Waqar Muhammad Ashraf, Ramdayal Panda, Prashant Ram Jadhao, Kamal Kishore Pant and Vivek Dua	Machine learning based metal recovery from the waste printed circuit boards of mobile phones for circular economy and sustainable environment
12:00-13:30	LUNCH		
Chair: Qing Yang			
13:30-14:00	119	Mengqiu Cao	How Street Greenery Facilitates Active Travel for University Students
14:00-14:30	94	Yueran Duan	Time variability and evolution of knowledge convergence in solar energy field
15:00-15:30	TEA/COFFEE BREAK		
Chair: Mengqiu Cao			
15:30-16:00	82	Guimei Zhao and Yong Geng	Investigating the trade efficiency of antimony in China
16:00-16:30	96	Yang Xie, Mengdan Zhao, Yuqiang Zhang	Spatial Distribution of Air Quality and Human Health Benefits from Different Mitigation Technology Scenarios under 2-Degree Target- A Provincial Level Study in China



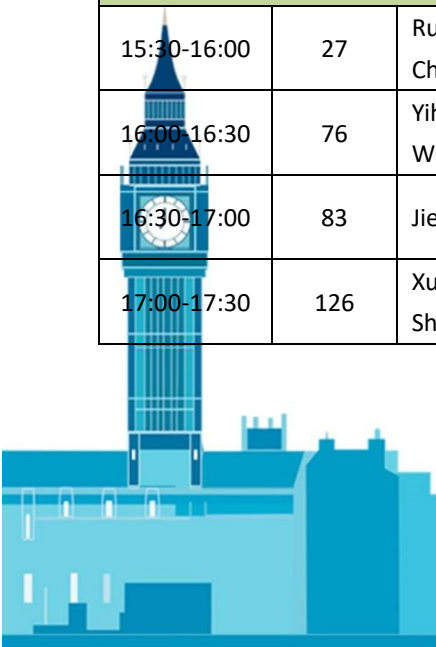
# Oral Presentations (16 Aug)

Conference Room: Devonshire Suite			
Session Title: Ecology and Environment II			
Chair: Enyi Yu, Tao Cao			
Time	Paper ID	Author	Paper Title
08:30-9:00	34	Yunqi Sun, Niting Zheng, An Deng and Qing Yang	Research of Power Generation and Emission Reduction Potential of Hybrid Solar Thermal-Biomass Plants Based on Comprehensive Evaluation Model
09:00-9:30	21	Saige Wang, Qiaowen Lu, Honglin Zhong and Bin Chen	The synergistic role of solar PV integration into the unit commitment of the energy-soil-vegetation nexus in desert region
09:30-10:00	24	Cuncun Duan, Dan Song and Bin Chen	Modeling and optimizing urban water system from the water-energy nexus perspective: a case study of Beijing, China
10:00-10:30	TEA/COFFEE BREAK		
Chair: You-hua Chen			
10:30-11:00	35	Yuwei Cao, Wenxuan Ren and Qing Yang	Environmental Life Cycle Assessment of Fuel Cell Heavy-duty Trucks Based on Green Hydrogen Supply Chains
11:00-11:30	19	Tao Cao and Masahiro Sugiyama	Prospects of industrial decarbonization through regional supply chain relocation: a case study of the iron & steel sector
11:30-12:00	20	You-Hua Chen, Chan Wang and Bing Chen	Hybrid agricultural subsidy design for promoting the coordination development between food security and environmental protection
12:00-13:30	LUNCH		
Chair: Yuanchao Hu			
13:30-14:00	90	Xiaohan Dong, Weiwei Wu, Linghui Xie, Jian Li Hao and Xiaonan Tang	Towards zero waste: Chinese school students' perspective on campus waste
14:00-14:30	50	Jun Cao, Songshan Cao and Hualun Zhu	Structural changes of Ca/Mg/Al hydrotalcite-like compounds with preparation conditions and their effects on simultaneous HCl and CO <sub>2</sub> adsorption
14:30-15:00	85	Yuanchao Hu	Urban agriculture in China can provide 30% of the vegetable needs with comparable greenhouse gas emissions



# Oral Presentations (16 Aug)

Conference Room: Hogarth Suite			
Session Title: Energy Storage and Intelligent Vehicles I			
Chair: Xiaoyu Li, Haijun Ruan			
Time	Paper ID	Author	Paper Title
08:30-9:00	46	Xiaoyu Li, Zihan Zhou, Yong Tian and Jindong Tian	A Rapid Diagnosis Method for Lithium Ion Battery Leakage Based on Ultrasonic Guided Waves
09:00-9:30	10	Jiaxin Li, Chengming Zhang and Yingnan Wang	Analysis and Optimal Design of a High Power Density YASA Machine
09:30-10:00	8	Zewei Zhong, Zeng Yun and Zhao Xiaoli	Improving the social benefits of electric vehicle smart charging by balancing economy and decarbonization
10:00-10:30	TEA/COFFEE BREAK		
Chair: Hong Liang, Yong Tian			
10:30-11:00	93	Hong Liang, Renjing Gao and Yunfei Zhang	ONLINE DETECTION OF MICRO SHORT CIRCUIT IN LITHIUM-ION BATTERY INDUCED BY MECHANICAL DAMAGE
11:00-11:30	30	Chenxu Wang, Rui Xiong, Jiahuan Lu, Jinpeng Tian et al.	Battery fault diagnosis based on fault equivalent circuit model and deep learning
11:30-12:00	81	Wang Yingnan and Zhang Chengming	Research on propulsion motor system based on series-parallel switching of winding
12:00-13:30	LUNCH		
Chair: Mei Yan			
13:30-14:00	15	Mei Yan and Hongyang Xu	Long-term school bus driving cycles construction considering passenger prediction
14:00-14:30	32	Yue Sun, Rui Xiong, Cheng Chen and Jiahuan Lu	Cloud-based state of health estimation based on real-world data of electric vehicles
14:30-15:00	118	Mengqiu Cao	City for people: An investigation of travel mode choice for residents living in metro station areas in Beijing and London
15:00-15:30	TEA/COFFEE BREAK		
Chair: Shanshan Guo			
15:30-16:00	27	Rui Xiong, Zhengyang Li, Cheng Chen and Jinpeng Tian	Research on Low Temperature Polarization Characteristics of Lithium-ion Battery Based on Equivalent Circuit Model
16:00-16:30	76	Yihan Jiang, Aihua Tang and Xinyu Wu	Lifespan and Health Prediction of Lithium-ion Batteries Based on Multi-task Learning
16:30-17:00	83	Jie Sun and Yukun Hu	Network-integrated evolutionary analysis for electric vehicle charging infrastructure deployment in the UK
17:00-17:30	126	Xuhui Jiang, Enhua Zhang, Shenggang Guo and Shanshan Guo	AC-DC Preheating Strategies for Lithium-ion Batteries at Low SOC states under Low-temperatures



# Oral Presentations (16 Aug)

Conference Room: Bedford Suite			
Session Title: Energy Storage and Intelligent Vehicles II			
Chair: Yonggang Liu			
Time	Paper ID	Author	Paper Title
08:30-9:00	63	Zeng Hang, Chen Qianyou, Wu Yitao and Liu Yonggang	Economical speed planning for electric vehicle on continuous time-varying speed limit sections
09:00-9:30	69	Zhechen Guo and Jun Xu	A Real-time Multilayer Temperature Uniformity Control for Battery Cooling Based on Reduced Order Model
09:30-10:00	28	Zhang Kaixuan, Chen Cheng and Xiong Rui	Enhancing the estimation accuracy at low temperature and frequency: A novel equivalent circuit model
10:00-10:30	TEA/COFFEE BREAK		
Chair: Jun Xu, Menglin Li			
10:30-11:00	45	Kai Jiang, Haomiao Li, Kangli Wang and Qionglin Shi	Physics-Data Hybrid Driven Method for Life Prediction of Liquid Metal Batteries
11:00-11:30	91	Jun Xu, Yihui Jiang, Mengmeng Liu et al.	Mechanical model and State estimation for lithium-ion batteries
11:30-12:00	17	Menglin Li and Xiangqi Wan	Energy Management Strategy for Fuel Cell Buses Considering Life Degradation
12:00-13:30	LUNCH		
Chair: Cheng Chen, Wenna Xu			
13:30-14:00	88	Jiewei Li, Ling Jin and Han Deng, and Lin Yang	Review on decarbonizing the transportation sector in China: overview, analysis, and perspectives
14:00-14:30	31	Cheng Chen, Rui Xiong and Ruixin Yang	A generalized modeling method for lithium ion batteries considering cell inconsistency and aging
14:30-15:00	40	Wenna Xu and Chun Wang	Driving behavior analysis based on Electroencephalography data for electric vehicles
15:00-15:30	TEA/COFFEE BREAK		
Chair: Chun Wang			
15:30-16:00	37	Chun Wang, Shuai Xia and Tao Tang	The effects investigation of deep deterministic policy gradient algorithm on energy management strategy for electric vehicles
16:00-16:30	103	Ertao Lei, Li Jin, Shuowei Li, Jingcai Du et al.	CNN-based reconstruction of capacity degradation trajectory of lithium-ion batteries
16:30-17:00	112	Chunsheng Wang, Bo Yang and Yuan Cao	Improving Traffic Efficiency with VBL Strategy: A Stochastic Queuing Model Analysis
17:00-17:30	106	Yongzhi Zhang and Mingyuan Zhao	Online data-driven battery life prediction and quick classification based on partial charging data within 10 minutes



# Note



# Note





