

2025 4th International Conference on Smart Grid and Green Energy (ICSGGE 2025)

Zoom ID: 879 9458 3647 Password: 250301

Time (Sydney)	Time (Beijing)	Content	Venue
Friday, February 28, 2025			
13:00 - 17:00	10:00 - 14:00	Arrival Registration and Material Collection	Columbo Building Foyer, UNSW Sydney
Saturday, March 1, 2025			
09:00 - 09:10	06:00 - 06:10	Opening Ceremony	K-B16-LG04 – Colombo Theatre B
09:10 - 10:10	06:10 - 07:10	Keynote Speech (Prof. Zhaoyang Dong) Title: Research on Vehicle Battery State-of-Health Estimation Based on Peer-to-Peer Personalized Federated Transfer Learning	K-B16-LG04 – Colombo Theatre B
10:10 - 10:30	07:10 - 07:30	Morning Tea & Group Photo	Columbo Building Foyer, UNSW Sydney
10:30 - 11:30	07:30 - 08:30	Keynote Speech (Prof. Chung-Jen Tseng) Title: Enhancing Catalyst Performance by Laser Processing for PEM Fuel Cell	K-B16-LG04 – Colombo Theatre B
11:30 - 12:30	08:30 - 09:30	Keynote Speech (Prof. Roc Xunpeng Shi) Title: Powering a Just Energy Transition: Electricity, Connectivity, and Sustainable Development	K-B16-LG04 – Colombo Theatre B
12:30 - 13:30	09:30 - 10:30	Lunch & Networking	Columbo Building Foyer, UNSW Sydney
Parallel Sessions			
13:30 - 15:00	10:30 - 12:00	Electricity Markets and Power System Planning	K-B16-LG04 – Colombo Theatre B
		AI-Powered Innovations for Sustainable and Resilient Power Systems	K-B16-LG01 – Colombo LG01
		Advanced Planning and Operation of Distributed Energy Resources in Distribution Networks	K-B16-LG02 – Colombo LG02
		Power Systems with Integrated Electric Vehicles: Planning, Operation and Control	K-B16-LG05 – Colombo Theatre C
15:00 - 15:20	12:00 - 12:20	Afternoon Tea	Columbo Building Foyer, UNSW Sydney
Parallel Sessions			
15:20 - 16:50	12:20 - 13:50	Electricity Markets and Power System Planning	K-B16-LG04 – Colombo Theatre B
		AI-Powered Innovations for Sustainable and Resilient Power Systems	K-B16-LG01 – Colombo LG01
		Advanced Planning and Operation of Distributed Energy Resources in Distribution Networks	K-B16-LG02 – Colombo LG02
		Power Systems with Integrated Electric Vehicles: Planning, Operation and Control	K-B16-LG05 – Colombo Theatre C
16:50 - 17:00	13:50 - 14:00	Break	
17:00 - 18:00	14:00 - 15:00	Advanced Planning and Operation of Distributed Energy Resources in Distribution Networks	K-B16-LG02 – Colombo LG02
18:00 - 18:30	15:00 - 15:30	Closing Ceremony	K-B16-LG04 – Colombo Theatre B
18:30 - 20:30	15:30 - 17:30	Dinner & Networking	

Electricity Markets and Power System Planning

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Saturday, March 1, 2025 Room: K-B16-LG04 – Colombo Theatre B

Time (Sydney)	Time (Beijing)	Presenter	Presentation Title
13:30 - 13:45	10:30 - 10:45	Taweepol Suesut, King Mongkut's Institute of Technology Ladkrabang, Thailand (In-Person)	Estimating the Power Losses in Induction Motor Using Temperature Monitoring
13:45 - 14:00	10:45 - 11:00	Jedsada Chaishome, King Mongkut's Institute of Technology Ladkrabang, Thailand (In-Person)	Optimal Design and Installation of Solar Rooftop for Thai Government Building
14:00 - 14:15	11:00 - 11:15	Debby Ramadhani, The University of New South Wales, Australia (In-Person)	Site Selection for Pumped Hydro Energy Storage (PHES) Based on the Largest Hydropower in Indonesia's Five Main Islands
14:15 - 14:30	11:15 - 11:30	Yunqing Zhang, The University of Sydney, Australia (In-Person)	Low-Carbon Photovoltaic and Energy Storage Configuration for Highway Service Areas Based on Multi-Objective Traffic Energy Optimization
14:30 - 14:45	11:30 - 11:45	Yutian Huang, University of Technology Sydney, Australia (In-Person)	Application of Large Language Models in Intelligent Preprocessing and Forecasting of Electricity Price
14:45 - 15:00	11:45 - 12:00	Ziqing Song, Guangdong University of Science and Technology, China (Virtual)	Thermal-Electric Coupling Simulation Analysis of Battery Busbar
15:00 - 15:20	12:00 - 12:20	Afternoon Tea (Columbo Building Foyer, UNSW Sydney)	
15:20 - 15:35	12:20 - 12:35	Weiyu Zhang, Vinnytsia National Technical University, Ukraine (Virtual)	Analysis of Asymmetric Influential Factors through Simulink in Photovoltaic Power on New Energy Grid Connection
15:35 - 15:50	12:35 - 12:50	Liang Chen, Anhui University, China (Virtual)	Power System Risk Assessment Considering Wind-Solar Output Correlation
15:50 - 16:05	12:50 - 13:05	Yanjia Wang, Shanghai Jiao Tong University, China (Virtual)	Optimized Control Strategies for Green Low-carbon Base Station Systems Based on the Energy Router Framework
16:05 - 16:20	13:05 - 13:20	Honghao Yang, Heilongjiang University of Science and Technology, China (Virtual)	Study on the Influencing Factors of Carbon Emission Reduction in China in the Context of Globalization
16:20 - 16:35	13:20 - 13:35	Jinhong Duan, South China University of Technology, China (Virtual)	Facilitating Developments of Solar PV Power and Onshore Wind Power Generations for Decreasing Carbon Emissions in China
16:35 - 16:50	13:35 - 13:50	Guanxian Liu, Shenyang Institute of Engineering, China (Virtual)	Research on the Coordinated Scheduling Method of Distribution Network Considering Flexible Load
18:00 - 18:30	15:00 - 15:30	Closing Ceremony (K-B16-LG04 – Colombo Theatre B)	
18:30 - 20:30	15:30 - 17:30	Dinner & Networking	

AI-Powered Innovations for Sustainable and Resilient Power Systems

Saturday, March 1, 2025 Room: K-B16-LG01 – Colombo LG01

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Time (Sydney)	Time (Beijing)	Presenter	Presentation Title
13:30 - 13:45	10:30 - 10:45	Yunwan Liu, The University of Sydney, Australia (In-Person)	Enhancing Distribution System State Estimation Using SRGAN-Based Data Interpolation for Load and DER Measurements
13:45 - 14:00	10:45 - 11:00	Xuejun Hu, Zhejiang University, China (In-Person)	Probabilistic Forecasting-Based Operational Security Region for Power Systems With Renewable Energy Sources
14:00 - 14:15	11:00 - 11:15	Jiwei Liu, Shenyang Jianzhu University, China (Virtual)	An Improved Transformer with DBB and KAN for Smart Building Energy Consumption Prediction
14:15 - 14:30	11:15 - 11:30	Hao Yin, The Hong Kong Polytechnic University, China (Virtual)	A Deep Reinforcement Learning-Based Strategy for Optimizing V2G Energy Scheduling on Supply and Demand Sides
14:30 - 14:45	11:30 - 11:45	Ziyue Wang, Zhejiang University, China (Virtual)	ShapeDiff: An Universal Source-Load Time Series Abnormal Detection and Imputation Model
14:45 - 15:00	11:45 - 12:00	Yuxuan Hong, Shanghai Normal University, China (Virtual)	Research on Intelligent Recognition and Precision Irrigation System for Corn Pests Based on YOLOv9
15:00 - 15:20	12:00 - 12:20	Afternoon Tea (Columbo Building Foyer, UNSW Sydney)	
15:20 - 15:35	12:20 - 12:35	Zhe Long, Power China Huadong Engineering Co., LTD, China (Virtual)	Transient Flow Analysis of a Turbine Cover Drainage System Based on TransAM
15:35 - 15:50	12:35 - 12:50	Emad Alrwishdi, Islamic University of Madinah, Kingdom of Saudi Arabia (Virtual)	Performance Analysis of a Direct Current Air Conditioning System Powered by Photovoltaics in Hot Climates: Experimental Investigation in Madinah
15:50 - 16:05	12:50 - 13:05	Yuan Xu, North China Electric Power University, China (Virtual)	Transmission Tower Icing Prediction Model Based on Random Forest
16:05 - 16:20	13:05 - 13:20	Hao Ni, North China Electric Power University, China (Virtual)	Optimisation of Transmission Tower Sensor Arrangement Based on Fisher Information Matrix-Effective Independence Approach
16:20 - 16:35	13:20 - 13:35	Hongda Liu, Harbin Engineering University, China/China Electric Power Research Institute, China (Virtual)	Data Anomaly Detection in Modern Transmission Grids Based on GRU-Attention-VAE
18:00 - 18:30	15:00 - 15:30	Closing Ceremony (K-B16-LG04 – Colombo Theatre B)	
18:30 - 20:30	15:30 - 17:30	Dinner & Networking	

Advanced Planning and Operation of Distributed Energy Resources in Distribution Networks

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Saturday, March 1, 2025 Room: K-B16-LG02 – Colombo LG02

Time (Sydney)	Time (Beijing)	Presenter	Presentation Title
13:30 - 13:45	10:30 - 10:45	Jianheng Lan, The University of Sydney, Australia (In-Person)	Scalable Peer-to-Peer Energy Trading System With Microgrid Coalitions
13:45 - 14:00	10:45 - 11:00	Yuxia Hua, The University of Sydney, Australia (In-Person)	Solution Research on Distributed Photovoltaic Energy Storage Output Strategy
14:00 - 14:15	11:00 - 11:15	Fan Huang, The University of Sydney, Australia (In-Person)	Capacity Optimization and Economic Analysis of Off-grid Wind-solar Hydrogen Storage System
14:15 - 14:30	11:15 - 11:30	Bohan Zhang, The University of Sydney, Australia (In-Person)	Self-Adaptive Loss Weighting for Improving Multi-Appliance Non-Intrusive Load Monitoring
14:30 - 14:45	11:30 - 11:45	Renyou Xie, The University of New South Wales, Australia (In-Person)	An Integrated Knowledge Distillation Framework for Battery SOH Estimation
14:45 - 15:00	11:45 - 12:00	Renyou Xie, The University of New South Wales, Australia (In-Person)	Multi-Stage Energy Storage Configuration Method Considering the Evolution Path of New Energy Penetration
15:00 - 15:20	12:00 - 12:20	Afternoon Tea (Columbo Building Foyer, UNSW Sydney)	
15:20 - 15:35	12:20 - 12:35	Jinbo Zou, Guangxi University, China (Virtual)	Controller Design of Bidirectional Buck-Boost Converter for Low Frequency Pulse Power Supply
15:35 - 15:50	12:35 - 12:50	Pengfei Zhao, Shanghai University of Electric Power, China (Virtual)	Research on Configuration Optimization of Distributed Energy Systems under Demand Uncertainty
15:50 - 16:05	12:50 - 13:05	Yi Li, Chongqing Jiaotong University, China (Virtual)	Recent Progress of Three-dimensional Current Collector for Lithium Metal Battery
16:05 - 16:20	13:05 - 13:20	Hong Cheng, Three Gorges Navigation Authority, China (Virtual)	Application of Fiberoptic Differential Protection in Ship Lock Power Supply System
16:20 - 16:35	13:20 - 13:35	Jingen Guo, Guangdong Power Grid Co. Ltd., China (Virtual)	Vibration Reduction Optimization of Transmission Tower-line System Based on Different Control Schemes
16:35 - 16:50	13:35 - 13:50	Kaixin Wei, Tianjin University of Technology and Education, China (Virtual)	Research on the Development of Key Technologies in the Hydrogen Energy Industry
16:50 - 17:00	13:50 - 14:00	Break	
17:00 - 17:15	14:00-14:15	Yiming Meng, Heilongjiang University of Science and Technology, China (Virtual)	A Method of Power Transmission Line Planning for Undeveloped Islands
17:15 - 17:30	14:15-14:30	Hisham Alghamdi, Najran University, Kingdom of Saudi Arabia (Virtual)	Demand Response and Renewable Generation with Optimization Approach for Energy Management in Smart Grids
17:30 - 17:45	14:30-14:45	Junmin Ke, Beijing University of Technology, China (Virtual)	Metastability-Induced Atom Coordination and Electron Relocalization Towards Dendrite Free All-Solid-State Lithium Batteries
17:45 - 18:00	14:45-15:00	Jingbing Bai, China Mechanical and Electrical Equipment Bidding Center, China (Virtual)	The Application of Intelligent BIM Technology in the Management of Low-Voltage Distribution Network Projects
18:00 - 18:30	15:00 - 15:30	Closing Ceremony (K-B16-LG04 – Colombo Theatre B)	
18:30 - 20:30	15:30 - 17:30	Dinner & Networking	

Power Systems with Integrated Electric Vehicles: Planning, Operation and Control

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Saturday, March 1, 2025 Room: K-B16-LG05 – Colombo Theatre C

Time (Sydney)	Time (Beijing)	Presenter	Presentation Title
13:30 - 13:45	10:30 - 10:45	Abdul Baseer Mohammed, American International University, United States (In-Person)	Performance Analysis of Regular and Smart Grids with Photovoltaic, PV Integration for Academic Campus Electrification and Electric Vehicle, EV Charging
13:45 - 14:00	10:45 - 11:00	Chenxin Yue, Zhejiang University, China (In-Person)	Two-Stage Ensemble For Day-Ahead Probabilistic Forecasting of Electric Vehicle Charging Load
14:00 - 14:15	11:00 - 11:15	Fushuan Wen, Zhejiang University, China (In-Person)	Combined Use of Hybrid Optimization and Quantum-Enhanced Neural Evolution for Predicting Cost and Charge Dynamics of Electric Vehicles
14:15 - 14:30	11:15 - 11:30	Fushuan Wen, Zhejiang University, China (In-Person)	A Bio-Inspired Hybrid Optimization Model for Enhancing Operating Performance and Efficiency of Electric Vehicles
14:30 - 14:45	11:30 - 11:45	Yunjian Xu, Chinese University of Hong Kong, China (In-Person)	Joint EV Routing and Charging Scheduling in a Coupled Power Transportation Network: A Hypergraph-based Multiagent Deep Reinforcement Learning Approach
14:45 - 15:00	11:45 - 12:00	Zhijian Cai, Zhejiang University of Finance and Economics, China (Virtual)	Exploring Heterogeneous Behaviors in Vehicle-to-Grid (V2G) Participation: Perspectives on Influencing Factors and Discharge Pricing
15:00 - 15:20	12:00 - 12:20	Afternoon Tea (Colombo Building Foyer, UNSW Sydney)	
15:20 - 15:35	12:20 - 12:35	Anis ur Rehman, Griffith University, Australia (Virtual)	Potential of PV and Wind Energy-Based EV Charging Stations to Minimize Peak Load Demand
15:35 - 15:50	12:35 - 12:50	Ruixue Shi, Shanghai Institute of Technology, China (Virtual)	Social Life Cycle Assessment of Lithium-Ion Batteries for Electric Vehicles
18:00 - 18:30	15:00 - 15:30	Closing Ceremony (K-B16-LG04 – Colombo Theatre B)	
18:30 - 20:30	15:30 - 17:30	Dinner & Networking	

