



ISESC 2026

Advance Program

CPSS & IEEE International Symposium on Energy Storage and Conversion

Charles K.Kao Auditorium, 1/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong

CPSS & IEEE International Symposium on Energy Storage and Conversion (ISESC) is an international symposium for presentation and discussion of the state-of-the-art energy storage and power conversion systems. The ISESC 2026 is the second meeting of ISESC, which will be held in Hong Kong SAR, China, during December 7-10, Monday–Thursday, 2026. The worldwide energy storage and conversion industry, research, and academia are cordially invited to participate in an array of presentations, tutorials, and associations for the advancement of science, technology, engineering education, and fellowship.

- Advance Program –

Day 1 – Dec 7, 2026

Venue: Conference Hall 04-07, 2/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong (Map: <https://maps.app.goo.gl/zu3xiswxbAqJ5twX8>)

Time	Activity	Location
0800 - 1700	Registration	Conference Hall 04-07, 2/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong

Tutorial session I

Time	Title	Speaker
9:00 – 12:00*	AI-Enhanced Battery Management and Fast Charging: From Electro-Thermal Modeling to Practical Energy Storage Systems	Yun Yang and Noveen Lee, Nanyang Technological University, Singapore
	Plenty of Room at the Bottom and Top: Future Perspectives on GaN Power Devices and Applications	Yuhao Zhang, University of Hong Kong, HKSAR, China
	Misalignment-Tolerant Inductive Power Transfer Systems: From Fundamentals to Emerging Technologies	Zhicong Huang, South China University of Technology, China
	Intelligent Control and Digitalized Simulation Technologies for Next-Generation Photovoltaic Energy Systems	Yongheng YANG, Zhejiang University, China Shuo Yan, RMIT University, Australia Sisi Zhao, PLEXIM GmbH, Switzerland

*10:15 – 10:45 Coffee break sponsored by *Integrated Engineering Software*

Tutorial session II

Time	Title	Speaker
14:00 – 17:00*	Modular Architectures and Intelligent Control for Resilient Power Electronics Systems	Giampaolo Buticchi, University of Nottingham Ningbo China, China
	Monolithic Bi-Directional Power Semiconductors -Status and Perspectives-	Petar J Grbovic, University of Innsbruck, Austria
	Advanced Wireless Power Transfer: From Fundamentals to Applications in Modern EVs and Autonomous Vehicles Charging Technologies	Chi-Seng Lam, University of Macau, China
	Artificial Intelligence for Power Converter-based Systems: From Design Automation to Intelligent Control and Predictive Maintenance	Yu Zeng, University of Electronic Science and Technology of China, China Ziheng Xiao, Nanyang Technological University, Singapore Yuan Gao, University of Leicester, UK

*15:15 – 15:45 Coffee break

CPSS & PELS Joint Young Professional Forums

Time	Title	Panelists
18:00 – 20:30	High-Impact Publishing and Navigating the Peer-Review Process as an Editor or Reviewer <i>The objective of this forum is to provide graduate students, early-career researchers, and young professionals with practical insights into publishing high-quality research, understanding the peer-review process, and contributing to the scholarly community as reviewers and editors.</i>	Carl Ho, Editor, IEEE JESTPE Xiongfei Wang, EiC, IEEE TPEL Josep Pou, Editor, IEEE JESTPE Yonghui Liu, CPSS Emerging Researcher Sophie Ferguson, Royal Society Publishing
	Shaping the Future Grid: Grid-Forming Innovation and Career Development <i>This forum will bring five outstanding young professionals to discuss the latest advances in grid-forming technology and career-development with practical guidance on academic growth and professional trajectories.</i>	Donghai Zhu, Vice Chair of YP of CPSS Yuhao Zhang, The University of Hong Kong Siqi Bu, HK PolyU, China Yue Zhu, CityUHK, China Xiaoling Xiong, North China Electric Power University, China Heng Wu, Southeast University, China

Day 2 – Dec 8, 2026 [Registration starts at 8am] [Location: 1/F or 2/F, Building 10W (Lakeside 2), HKSTP]

Venue: Charles K.Kao Auditorium, 1/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong (Map: <https://maps.app.goo.gl/zu3xiswxbAqJ5twX8>)

Time	Activity	Location
0800 - 1700	Registration	Charles K.Kao Auditorium, 1/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong

Plenary session

Time	Title	Keynote Speaker
8:30 – 12:30*	Welcome speech	Henry Chung, City University of Hong Kong, HKSAR, China
	Beyond Energy Shifting: Enabling Grid-Forming Operation with Energy Storage	Pedro Rodriguez, Luxembourg Institute of Science and Technology, Luxembourg
	Megawatt Solid-State Transformers for AI Data Centers: Enabling Onsite Generation, Storage, and AI-enabled Intelligent Energy Management	Chris Mi, San Diego State University, USA
	Rethinking Power System Stability in the Era of Power Electronics	Xiongfei Wang, Tsinghua University, China
	Wide-Bandgap Power Semiconductors for Hyperscale AI Data Centers	Kevin Chen, The Hong Kong University of Science and Technology, China
	Reliability of Power Electronic Converters for Energy Storage and Conversion: Recent Advances and Open Challenges	Huai Wang, Aalborg University, Denmark
	Advanced Materials for High-Performance and Sustainable Energy Storage Systems	Tracy Liu, ASTRI, HKSAR, China

*9:45 – 10:30 Coffee break sponsored by **Integrated Engineering Software**

Tutorial session III

Time	Title	Speaker
14:00 – 17:00*	Managing Battery Heterogeneity in Large-Scale Energy Storage Systems - Autonomous Energy Routing and Online Diagnostics	WEI Zhengqi and Henry Chung, CityUHK, HKSAR, China
	LVDC Circuit Breaking: Technologies, Challenges, and Applications	Carl Ho, University of Manitoba, Canada River Li, ASTRI, HKSAR, China
	Advanced Control Technology of Wireless Power Transfer System and Its Application in Medical Treatment	Xiaosheng Wang, City University of Hong Kong, China
	Data-Efficient and Trustworthy AI for Reliable Power Electronic Energy	Yi Zhang, PolyU, HKSAR, China Chengmin Li and Huai Wang, Aalborg University

*15:15 – 15:45 Coffee break sponsored by **Power Bell Tech**

Welcome Reception

Time	Title	Venue
18:00 – 20:30	Welcome Reception	Atrium Link, Charles K Kao Auditorium

Day 3 – Dec 9, 2026

Venue: Charles K.Kao Auditorium, 1/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong (Map: <https://maps.app.goo.gl/zu3xiswxbAqJ5twX8>)

Time	Activity	Location
0800 – 0945	Registration	Charles K.Kao Auditorium, 1/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong
0945 – 1700		Conference Hall 04-07, 2/F, Building 10W, 10W Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong

Energy Storage Summit

Time	Title	Moderator
0830 – 0945*	Energy Storage Summit	Josep Pou, CityUHK, HKSAR, China

*Coffee break sponsored by **Integrated Engineering Software**

Technical Visit

Time	Title	Meet-up point
0945 – 1215	Technical Visit: EMSD E&M InnoZone (Pre-registration is required)	Symposium Venue Main Lobby

Technical sessions

Time	Title
1030 - 1200	TS01 - Advanced Battery and PV System Control
	TS02 - Control and Optimization of Distributed Generation and Energy Storage Systems
1200 – 1330	Lunch
1330 – 1500	TS03 - Emerging Power and Energy Systems – From Laboratory Simulations to Field Applications
	TS04 - Advanced Diagnostics, Parameterization, and Safety Modeling in Next-Generation Batteries
	TS05 - Power Electronics Design and Adaptive State of Charge Estimation in Energy Systems
1500 – 1530	Coffee break <i>sponsored by Imperix Power Electronics</i>
1530 – 1700	TS06 - Digital Assistants, Domain-Specific AI, and State Estimation for Battery Management
	TS07 - Lifecycle Optimization and Grid-Edge Solutions for Next-Generation Energy Storage
	TS08 - Advanced Battery Degradation Tracking

Banquet

Time	Activity	Venue
1800 – 2030	Banquet	To be confirmed

Day 4 – Dec 10, 2026

Technical sessions

Time	Title
0830 - 1000	TS09 - Modeling, Assessment, and System Integration of Diverse Energy Storage Technologies
	TS10 - Advanced Control & Grid Interconnection
1000 – 1030	Coffee break <i>sponsored by Integrated Engineering Software</i>
1030 – 1200	TS11 - Advanced Modeling, Optimization, and Nonlinear Control in Power Conversion
	TS12 - Advanced Modeling, Estimation, and Suppression Techniques in Power Systems
	TS13 - Advanced Motor Drives: Modulation, Protection, and Thermal Management
1200 – 1330	Lunch
1330 – 1500	TS14 - Next-Generation Power Conversion: Control, Modulation, and Hardware Optimization
	TS15 - Technologies in Grid-Interactive Energy Storage, Conversion, and Control Systems
1500 – 1530	Coffee break
1530 – 1725	TS16 - Energy and Lifecycle Management of Grid-Integrated Battery Energy Storage Systems
	TS17 - Grid-Supporting Technologies for Flexibility Enhancement in Power Systems Dominated by Inverter-Based Resources

Registration fee

Category	Early Bird Registration (Before Oct 24, 2026)	Late & Onsite Registration (After Oct 24, 2026)
Full Registration		
CPSS & IEEE PELS Member	HK\$ 4000	HK\$ 4800
IEEE Member	HK\$ 4400	HK\$ 5200
Non-Member	HK\$ 5200	HK\$ 6320
Student Registration		
CPSS & IEEE Student Member	HK\$ 1040	HK\$ 1520
Student	HK\$ 1440	HK\$ 1920
Additional Purchase		
Accompanying Person	HK\$ 1600	

Register now and plan your itinerary at the [Official ISESC 2026 Website](http://www.isesc-conf.com) (<http://www.isesc-conf.com>)

Co-organizers:



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For inquiries regarding submissions and scheduling, reach out to the organizing committee at eeisesc2026@cityu.edu.hk.