SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
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Area: Power and Energy Systems (PES)

Host: Prof Dipti Srinivasan

Jointly organized by Green Energy Management and Smart Grid (GEMS) Research Center, ECE and IEEE PES Singapore Chapter

TOPIC	:	**Lightweight Learning and Optimization for the Coordination of Distributed Energy Resources**
SPEAKER	:	**Asst Prof Yi Wang** **Department of Electrical and Computer Engineering, The University of Hong Kong**
DATE	:	**Monday, 30 November 2026**
TIME	:	**10:30AM to 11:30AM**
VENUE	:	**E7-03-08 - Seminar Room 3**

ABSTRACT

The growing integration of distributed energy resources calls for new approaches to coordinating flexibility across power systems. While advances in sensing and computation create opportunities for intelligent energy management, practical deployment remains constrained by data privacy and the limited capabilities of edge devices. This talk explores how lightweight learning and optimization can bring intelligence closer to energy consumers, supporting distributed forecasting and decision-making. Drawing on applications in smart metering and electric vehicle charging, this talk will discuss how these approaches can unlock demand-side flexibility and improve renewable energy integration within existing infrastructure. The talk also outlines broader applications and future research directions for scalable and privacy-preserving coordination of distributed energy resources.

BIOGRAPHY



Yi Wang is an Assistant Professor in the Department of Electrical and Computer Engineering at The University of Hong Kong. He received his PhD from Tsinghua University and was a postdoctoral researcher at ETH Zurich. His research lies at the intersection of artificial intelligence and power systems, focusing on smart meter data analytics, trustworthy electricity load forecasting, and the flexible operation of distributed energy resources. His work has been supported by Hong Kong's Research Grants Council, the National Natural Science Foundation of China, China's Ministry of Science and Technology, and other funding agencies.

He has authored more than 100 journal and conference papers as first or corresponding author, with publications in IEEE PES Transactions journals, Nature Communications, Nature Reviews Electrical Engineering, and Proceedings of the IEEE. His work has received more than 16,000 citations, and his h-index exceeds 60. His honors include the 2025 IEEE PES Outstanding Young Engineer Award, the 2021 IEEE Transactions on Smart Grid Best Paper Award, recognition among the journal's Top 5 Papers in 2023, the 2023 Ralph Lee Prize Paper Award, and the 2022 IIF–SAS Award.

He currently serves as Vice-Chair of the IEEE PES Customer Systems Innovation Subcommittee, Chair of the IEEE PES Working Group on Energy Forecasting and Analytics, and Convener of the CIGRE Working Group on Power-Heat Sector Integration. He has organized two international energy forecasting competitions and serves as an Associate Editor of IEEE Transactions on Smart Grid.