

EE Seminar

AI AT THE CORE OF FUTURE ELECTRICITY MARKETS

Abstract

Liberalised electricity markets, though recent in China, have existed since the early 1990s in countries like the UK. Their evolution has been shaped by renewable energy integration, decentralisation, digitisation, and advances in computing such as AI. There is growing consensus that electricity markets must be rethought, with changes likely to be fundamental rather than incremental. This talk argues it is timely to consider AI at the core of market design, replacing traditional optimisation and solvers. It explores global AI-based approaches to optimal power flow, linear programming, and unit commitment, concluding with a roadmap for AI-driven future electricity markets.

About the Speaker

Prof. Pierre P. Pinson is Professor and Deputy Head at the Dyson School, Imperial College London. He also serves as Chief Scientist at Halfspace (now part of Accenture) and holds honorary appointments at DTU and Aarhus University. In addition, he is Editor-in-Chief of the International Journal of Forecasting.

Internationally recognized as a leading scholar, Prof. Pinson's work spans forecasting, stochastic optimization, and game theory for energy systems and markets. His multidisciplinary expertise—covering operations research, management science, statistics, economics, meteorology, and electrical engineering—underpins his influential contributions to the advancement of power and energy systems.



16 December 2025 (Tue)



3:00pm - 4:30pm

LT-4 Mr & Mrs David TF Chow
Lecture Theatre, YEUNG

Conducted in English

**Prof. Pierre P. Pinson***Professor and Deputy Head at the
Dyson School, Imperial College London*

Walk-ins Welcome!