

THE 8TH IEEE CONFERENCE ON ENERGY INTERNET AND ENERGY SYSTEM INTEGRATION

NOV. 29 - DEC. 02, 2024 | SHENYANG, CHINA

Special Session 01

Emerging AI-Powered Innovations for Next-Generation Smart Grids

INTRODUCTION AND TOPICS

As power systems undergo continuous upgrades and transformations, traditional power systems have evolved into complex smart grids. This complexity includes the integration of distributed energy resources, bi-directional power flows, real-time data acquisition, and advanced communication networks, among others. The traditional operation methods in power systems are increasingly inadequate to handle these complexities. Advanced artificial intelligence (AI) technologies offer promising solutions to address the multi-faceted challenges posed by modern smart grids. Large language models and other AI technologies have shown significant potential in enhancing the operation of smart grids. However, the application of AI also introduces new threats that need to be investigated and mitigated. The aim of this special issue is to explore the potential of AI technologies in smart grid operations, as well as the new challenges they bring. This includes a wide range of AI applications, such as machine learning, deep learning, reinforcement learning, and data-driven optimization techniques. The objective is to gather state-of-the-art research that demonstrates the effectiveness of AI in solving critical issues within smart grids. This session will bring together researchers and practitioners from academia, industry, and government to discuss the opportunities and challenges in leveraging AI for smart grids.

SPECIAL SESSION CHAIRS



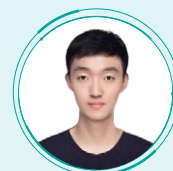
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PUBLICATION & SUBMISSION

Submissions will be reviewed by the conference technical committees, and accepted papers will be published in IEEE EI² 2024 International Conference Proceedings, which will be submitted for inclusion in the **IEEE Xplore Digital Library**, and submitted for indexing by **El compendex** and **Scopus**.



Scan the QR code on the left or open the submission link to submit your paper.

• Submission link: <https://easychair.org/conferences/?conf=ei22024>

Submission Deadline: 15 October, 2024

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