

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

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Special Session 05

Enhancing the Resilience of Urban Integrated Energy Systems: Challenges and Solutions

INTRODUCTION AND TOPICS

The rapid urbanization process and industrial structure adjustment have greatly increased the dependence of urban centers on diverse energy sources, the traditional urban power system has gradually transitioned to the urban integrated energy system and has shown the complex characteristics of multi-mechanism coexistence, multi-power interweaving, and multi-process coupling. This complexity presents significant challenges for system coordination and management, increasing the vulnerability and the recovery difficulty of the system in the face of extreme disasters. Therefore, to ensure the reliability of energy supply and to support sustainable urban development, it is particularly important to build a highly resilient urban integrated energy system. However, it would face many problems, including the risk of cross-system propagation of faults, insufficient coordinated management of multiple energy sources, deficiencies in the resilience planning of energy infrastructure, etc. Given the above issues, this session hopes to explore in depth the challenges and solutions of resilience enhancement for urban integrated energy systems.

This special session aims to facilitate knowledge sharing, collaboration, and innovation to drive the development of resilient urban integrated energy systems. We welcome papers addressing a wide range of topics related to these areas.

- Resilient planning of energy infrastructures
- Rapid load restoration strategies after disasters
- Distributed generation integration for enhancing resilience
- Cybersecurity threats and defense methods in urban integrated energy systems
- Policy frameworks supporting resilient urban integrated energy systems
- Resilience metrics and performance indicators for urban integrated energy systems
- Analysis of fault propagation in urban integrated energy systems
- Benefit distribution among different agents in resilience enhancement

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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