

Cloud-edge Collaborative Energy Management and Operation Control for Virtual Power Plants

Introduction and Topics

With the rapid development and digital transformation in the energy field, virtual power plants, as an innovative energy management model, are playing an increasingly important role in optimizing the allocation of energy resources and improving the efficiency and reliability of the energy system. The introduction of cloud-edge collaboration technology brings new opportunities and challenges to the energy management and operation control of virtual power plants.

The scope of contributions includes but is not limited to the following aspects:

- Architecture and modeling of virtual power plants
- Cloud-edge collaborative algorithms and strategies for energy management
- Optimization of operation control based on cloud-edge collaboration
- Data analytics and decision-making support in virtual power plants
- Integration of renewable energy sources in the cloud-edge collaborative framework
- Security and privacy issues in cloud-edge collaborative energy management
- Case studies and practical applications of virtual power plants with cloud-edge collaboration
- Performance evaluation and benchmarking of cloud-edge collaborative systems

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IMPORTANT DATES

Submission Deadline
September 10, 2024

Notification Deadline
October 10, 2024

Camera-Ready Deadline
November 30, 2024

Publication

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

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