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Call for Papers for the Special Session on

ROUTING, SCHEDULING, AND OPTIMIZATION OF LARGE-SCALE EV CHARGING NETWORKS

Organized and co-chaired by

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Technical Outline of the Session and Topics

The rapid growth of electric vehicles (EVs) introduces complex operational challenges requiring advanced routing, scheduling, and optimization frameworks for efficient charging network management. This special session focuses on system-level optimization of large-scale EV charging networks, integrating spatial-temporal demand dynamics, grid constraints, and mobility patterns.

The session emphasizes routing- and scheduling-integrated optimization problems, including mobile charging systems, fleet-level coordination, and congestion-aware charging under uncertainty. Key methodologies include stochastic optimization, reinforcement learning, and data-driven approaches, validated through real-world datasets and large-scale simulations. The session aims to attract contributions from academia and industry worldwide, focusing on scalable and deployable solutions for next-generation EV charging ecosystems.

Topics of the session include, but are not limited to:

- Routing and scheduling of EVs and mobile charging stations
- Optimization of large-scale EV charging networks
- Spatio-temporal modeling of EV charging demand
- Stochastic and robust optimization under uncertainty
- Reinforcement learning and AI for EV charging decisions
- Congestion-aware and grid-constrained charging strategies
- Fleet-level coordination and smart charging systems
- Integration with renewable energy and virtual power plants
- Real-world case studies and pilot-scale implementations

Timeline for Authors

All the instructions for paper submission are available on the conference website. Please visit www.iecon2026.org or scan the QR code for the timeline.