Special Issue

Innovations in Intelligent Microgrid Operation and Control

Message from the Guest Editor

Microgrids have emerged as a cornerstone of modern energy systems, enabling the efficient utilization of RESs while ensuring grid resilience and reliability. Intelligent microgrids, empowered by advanced control methods, power and energy management strategies, and machine learning algorithms, promise optimized operation, enhanced fault detection, and high-quality restoration capabilities. This research area is pivotal in the transition toward decentralized, low-carbon energy systems. We aspire to compile state-of-the-art research that advances the frontiers of microgrid technology within the broader context of sustainable grid management. By concentrating on novel control strategies, optimization techniques, and the practical implementation of these advancements, we aim to highlight solutions that improve microgrid efficiency, reliability, and flexibility.

- **Advanced Control Systems for RESs and Load Integration**
- **Energy Storage Optimization**
- **Distributed Control and System-Wide Coordination**
- **Resilience and Cybersecurity**
- **Microgrid Resilience and Sustainability Analyses**
- **Economic Frameworks and Policy Implications**

Guest Editor

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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