

## Special Issue

# Real-Time Monitoring and Intelligent Control for a Microgrid

### Message from the Guest Editors

The global transition toward sustainable energy systems and a deregulated electricity market has accelerated the adoption of microgrids as essential components of smart power infrastructure. This Special Issue invites original contributions and review papers on emerging trends and innovations in real-time monitoring and control of microgrids. Topics of interest may include, but are not limited to, the following:

- Device-level voltage and frequency control.
- System-level optimal and rule-based dispatch.
- Seamless transition between grid-connected and islanded modes.
- Operation, planning, and design of microgrid system.
- Distributed energy resource management systems (DERMSs) and virtual power plants (VPPs).
- Artificial intelligence and machine learning for microgrid applications.
- Smart metering, communication, and cybersecurity for microgrids.
- Real-time simulation and hardware-in-the-loop testing for microgrids.
- Case studies and real-world implementations of microgrid controllers.

### Guest Editors

Dr. Chu Sun

Dr. Qiushi Cui

Dr. Yuchong Huo

### Deadline for manuscript submissions

15 December 2025



## Electronics

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## About the Journal

### 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.

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### Editor-in-Chief

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