Special Issue

Islanding and Interconnected Microgrids: Dynamics, Control and Protection

Message from the Guest Editors

The active controllability of power electronic devices and the flexible interconnection among microgrids provide more flexible choices for system operation and control, profoundly affecting the dynamics and protections of the system. It is a challenge to improve the stability and flexibility for the operation of microgrids. This Special Issue aims to showcase the mechanisms of the dynamic response of systems with mixed power sources, as well as the advanced control methods and protections to enhance the stability and flexibility of systems. Topics of interest include, but are not limited to, the following:

- The transient response mechanism of hybrid microgrids;
- Grid forming/following power converter control;
- Power sharing of multi-microgrids;
- Operation mode switching of microgrids;
- Inertial control and response of power electronic systems;
- AC and DC protections in systems with mixed power sources;
- Protection-compatible converter control methods;
- Fault-tolerant control of microgrid converters;
- Coordinated protection and control of microgrids;
- Self-healing of microgrid networks.

Guest Editors

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Deadline for manuscript submissions

closed (15 December 2024)

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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.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

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