Special Issue

Enhancing Power System Resilience: Advanced Algorithm, Control Strategies, and Topologies for a Sustainable Energy Future

Message from the Guest Editors

Modern power systems face unprecedented challenges due to the integration of renewable energy sources, distributed generation, and cyber–physical interdependencies. Ensuring reliability and safety amid evolving grid dynamics demands innovative solutions. This Special Issue invites cutting-edge research on measures to fortify power system resilience and security. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Advanced control algorithms (e.g., adaptive, predictive, or AI-driven controllers) for fault mitigation and stability enhancement.
- Novel topologies to optimize redundancy, fault tolerance, and self-healing capabilities.
- Resilience analysis frameworks integrating cybersecurity, physical safeguards, and risk assessment.
- Data-driven approaches for real-time anomaly detection and adaptive protection schemes.
- Case studies on grid-hardening strategies for extreme weather or supply-demand imbalances

We welcome theoretical advancements, computational models, and simulation or experimental validations that bridge academic research and industry applications.

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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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