Special Issue

New Trends in Power Electronics for Microgrids

Message from the Guest Editor

Microgrids are becoming more critical as electrical power systems due to the decentralization of energy production, the rapid growth of direct-current (DC) coupled sources and loads, and electric vehicles. The main issues related to microgrids are the low inertia, lower stability, and the bidirectional power flow, which entails variation in the voltage amplitude and frequency for AC or DC lines. This Special Issue focuses on topics related to new trends in power electronics for microgrids. Topics of interest for this Special Issue include, but are not limited to, the following topics in the field of new trends in power electronics for microgrids:

- Power electronic systems—converters and emerging technologies;
- New power electronics topologies;
- Design for reliability, resilience, and robustness;
- DC-powered PHEV/EV charging;
- Real-time monitoring and control;
- Distributed energy generation and integration;
- Artificial intelligence techniques in power electronics systems;
- Control and power-sharing between converters.

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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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