Special Issue

Power-Electronic-Based Smart Grid and Its Control Technology

Message from the Guest Editors

The smart grid comprises an energy-generation, transmission, and distribution network and control units enhanced by digital control, monitoring, and telecommunications capabilities. Progress in power electronics technologies and modern control methods has enabled the smart grid towards new kinds of power-electronic-based grid operation, which can achieve almost all the needs of the smart grid for better power quality, reliability, and resilience. On the other hand, the high penetrations of power electronics converters and renewable energy in smart grids complicate the control process. Topics of interest for this Special Issue include, but are not limited to:

- Renewable energy and storage system integration;
- Hybrid power supply systems;
- Power-electronic-based smart grids;
- Energy harvesting systems;
- Advances in power converters and control technologies;
- System stability analysis and optimization;
- Frequency fluctuations and control strategies;
- Dynamics power distribution technology;
- Reactive power compensation.

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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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