

Special Issue

Power Electronics in Power Networks

Message from the Guest Editors

Potential topics of SI “Power Electronics in Power Networks” include, but are not limited to:

- Topologies of power electronic converters for power grid applications: integration of renewable generation and storage systems, microgrid interfaces, mixed AC/DC distribution systems, solid-state and hybrid transformers.
- Power electronics interfaces of distributed generators and distributed energy storage as devices providing ancillary services: voltage regulation, reactive power support, harmonics compensation, reduction of the peak power, local energy balancing etc.
- Integration of charging stations for electric vehicles and vehicle-to-grid service.
- Power electronics for power quality compensators.
- Flexible AC transmission system (FACTS) and Custom Power Devices (CPD).
- Electromagnetic compatibility (EMC) in power distribution networks with high penetration of power electronics.
- Advanced estimation or measurement techniques of the grid parameters (grid impedance, voltage, frequency etc.) aimed at improved power quality or control of the power converters.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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