Special Issue

Voltage/Frequency/Power Quality Monitoring and Control in Smart Grids

Message from the Guest Editors

With the rapid penetration of grid-connected renewable power sources, electric vehicles, energy storage devices, the power quality of distribution networks and standalone micro-grid systems is emerging as an increasingly critical issue. With the development of information and communication technology, advanced monitoring infrastructures, and integration of a more power-electronics-dominated distributed system, power quality can be better monitored and improved with advanced data processing methods and modern control strategies.

This Special Issue will focus on novel power electronic and power system technologies, including control strategies for devices in power-electronics-enabled power systems and so on. Particular topics of interest include, but are not limited to, the following:

- Frequency/voltage control strategies for EVs, energy storage devices, and smart loads;
- Optimal operation and planning models for energy storage devices in power systems;
- Advanced monitoring and control method for distributed renewable energy;
- Novel techniques of monitoring and analysis of power quality problem.

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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