



Intelligent Energy Management in Smart Grids and Microgrids

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Message from the Guest Editors

The progress in advanced metering, communication equipment, renewables, storage, and electric vehicles have paved the way for more intelligent power networks that are more efficient, reliable and clean. Smart grids operate in a two-way flow of electricity and data, enabling the monitoring, analysis and control of almost all components of the network (loads, generation, storage) in order to improve the efficiency, reduce the cost, maximize the reliability and minimize the carbon dioxide emissions.

The goal of this Special Issue is to publish original and unpublished research works related (but not limited) to the following topics:

1. Distributed generation and storage;
2. Electric vehicle (EV) integration;
3. Intelligent forecasting methods of renewables and loads;
4. Monitoring of loads using smart meter data;
5. Control and optimization of AC and hybrid AC/DC microgrids;
6. Intelligent coupling of several energy networks (e.g., electricity networks/natural gas or hydrogen networks/district heat networks);
7. Stability and security assessment of smart grids and microgrids;
8. Demand-side management (DSM) and demand response;
9. Hydrogen integration for the long-term storage of renewable





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Message from the Editor-in-Chief

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