Special Issue

Optimal Planning, Integration and Control of Renewable-Based Microgrid Systems

Message from the Guest Editor

The high penetration level of renewable energy sources in the grid causes a low inertia problem, variation and uncertainty problems, a weak grid problem, and new types of stability problems. We cannot radically change the conventional power system to solve those types of problems but we can divide and conquer those problems on a down-scaled system, a microgrid. This Special Issue aims to present and disseminate the most recent advances related to the theory, design, modelling, application, control, monitoring, and planning of all types of renewable-based microgrids. Topics of interest for publication include, but are not limited to:

- The modelling of a microgrid and its components;
- The energy management and/or control of a microgrid;
- The dynamic/static state estimation of a microgrid;
- A framework and/or standards for a renewable-based microgrid operation;
- Stability analysis and improvement techniques for a microgrid control;
- Communication-free microgrid operation schemes;
- The control and management of an unbalanced microgrid system;
- The economic assessment of renewable-based microgrids.

Guest Editor

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Message from the Editor-in-Chief

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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