

Special Issue

Advances in Microgrid Power Management: Cutting-Edge Approaches and Emerging Technologies

Message from the Guest Editor

The global energy infrastructure is undergoing a transformation, driven by the need for sustainable and resilient power systems. As traditional centralized power generation models face challenges of efficiency, reliability, and environmental impact, the demand for decentralized energy solutions is attracting worldwide attention from researchers. Microgrids have emerged as a promising concept that offers a new paradigm for efficient and flexible power distribution and management. A microgrid, defined as a localized and self-contained power system, provides a reliable and resilient electricity supply. Due to the advantages of easy resource integration, flexible installation location, and reliable operation, distributed generation-based microgrids have become a future trend in constructing electric power systems. Topics of interest for publication include, but are not limited to, the following:

- Microgrid power management;
- Distributed generation systems;
- Renewable energy;
- AC/DC microgrids;
- Power electronic interfaces;
- Power converter control design.

Guest Editor

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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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