

Special Issue

Advanced Control Systems for Power Electronics, Smart Grids, and Renewable Energy Integration

Message from the Guest Editors

The is inviting submissions to a Special Issue of *Energies* on “Advanced Control Systems for Power Electronics, Smart Grids, and Renewable Energy Integration”. Power electronics plays a significant role in modern industrial automation and high-efficiency energy systems. Optimization and control techniques are important for the efficient use of renewable-based power systems. This Special Issue will study novel optimization and control techniques for power electronics, smart grids, and renewable energy integration. Topics of interest for publication include, but are not limited to, the following:

- Analysis, design, and control of power system;
- Advanced control of grid-following and grid-forming inverters;
- Artificial intelligence and digital twin technology in power systems;
- Energy storage system;
- Energy management system;
- Grid integration and stability enhancement;
- Control method of power electronics;
- Advanced sensing and intelligent battery management system;
- Microgrid energy conversion and control;
- Cost-effective AC-DC and DC-DC converters;

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Deadline for manuscript submissions

closed (20 May 2026)



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About the Journal

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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