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Advanced Energy Conversion and Management Approaches

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Deadline for manuscript
submissions:

closed (25 April 2024)

Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to report the latest progress in power conversion techniques, including energy harvesting and wireless charging. Topics of interest include, but are not limited to:

- Analytical and FEM optimization procedures of energy harvesting converters, wireless charging coils, capacitive plates, and radio-frequency antennas;
- Energy conversion and energy management circuits: AC/DC converters, DC/DC converters and DC/AC inverters;
- Control approaches for energy harvesting and inductive and capacitive power transfer techniques enhancing power generation, system efficiency and working bandwidth;
- Hybrid energy sources and energy transfer solutions;
- Simultaneous wireless information and energy transfer;
- AI-based solutions for energy conversion and energy transfer system design;
- Resonance-based methods for energy harvesting and wireless transfer: Synchronized Switch Harvesting on Inductor (SSHI), resonance topologies;
- New applications of wireless power and energy harvesting technologies: electric vehicles, electric bikes, robots, drones, medical devices, wireless sensors, etc.



mdpi.com/si/163360

Special Issue



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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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Journal Rank: CiteScore - Q1 (*Engineering (miscellaneous)*)

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