

Special Issue

Efficiency, Optimization and Applications of Wireless Power Transfer Systems

Message from the Guest Editors

Wireless Power Transfer (WPT) systems have gained significant attention due to their potential in various applications. WPT has evolved by being integrated with wireless communication systems, giving rise to Simultaneous Wireless Information and Power Transfer (SWIPT) technologies. Further research is exploring the broader framework of Integrated Sensing, Communication, and Power Transfer (ISCPPT) systems, which enable the joint optimization of energy transfer, data communication, and sensing functionalities. This Special Issue aims to present and disseminate the most recent advances related to WPT, SWIPT and ISCPPT systems. Topics of interest for publication include, but are not limited to, the following:

- High-efficiency WPT circuit and system design
- Optimization techniques for WPT, SWIPT, and ISCPPT systems
- Applications of WPT and SWIPT in electric vehicles, drones, and maritime platforms
- Wireless charging and energy harvesting technologies
- AI and machine learning approaches for adaptive WPT/SWIPT/ISCPPT control
- Safety, standardization, and regulatory considerations in wireless power and SWIPT systems
- Modeling, simulation, and experimental validation of WPT, SWIPT, and ISCPPT systems

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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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