Special Issue

AI-Empowered Wireless Power Transfer Technology and Electromagnetic Metamaterials

Message from the Guest Editors

This Special Issue aims to explore innovative applications of AI in WPT systems, including electromagnetic compatibility in metamaterial-based WPT systems, the use of AI in optimizing the performance of metamaterial-based wireless power transfer systems, theoretical studies on metamaterial-based WPT systems, magnetic-inductive and resonant wave phenomena in WPT systems via metamaterials, programmable metamaterials and metasurfaces for WPT systems, and smart wireless power transfer (SWIPT) technologies based on information metamaterials and metasurfaces. By fostering interdisciplinary collaboration and knowledge sharing, this initiative seeks to drive the development and implementation of groundbreaking AI-driven WPT technologies. **Keywords**:

- Wireless power transfer
- Energy efficiency
- Metasurfaces and metamaterials
- Artificial intelligence
- Internet of things
- EM wave manipulation
- Electromagnetic compatibility
- Flexible wireless energy harvesting

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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