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Magnetically Coupled Wireless Power Transfer System

Guest Editor:

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Deadline for manuscript submissions:
closed (10 July 2022)

Message from the Guest Editor

Dear Colleagues,

Currently, wireless power transfer (WPT) has been extensively studied in various utilizations. However, the efficiency and reliability of WPT can be greatly affected by the external environment, which restricts the wide use of the technology. Especially when the system is close to lossy medium, the efficiency of power transmission will be a complex function of dielectric conductivity, dielectric constant and system parameters. With the aim to solve the above problem, many researches focus on analysis of propagation characteristics of electromagnetic wave in lossy medium, designing a novel system topology, studying electromagnetic metamaterials and intelligent control methods.

This Special Issue will attempt to cover the recent advances in analysis and rational design of magnetically coupled wireless power transfer systems, concerning the design and use of new materials, the analysis of electromagnetic wave propagation characteristics in lossy medium, the design of power transmission topology and methods to improve the efficiency and reliability of the system.

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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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