Special Issue

Wireless Power Transfer Systems for Biomedical Devices

Message from the Guest Editors

Wireless power transfer (WPT) technology has recently emerged as an alternative source of batteries and wired power supply for biomedical devices such as pacemakers, retinal implants and neurostimulators. However, the power requirement of some of these devices is a major challenge. This Special Issue aims to present novel findings on design analysis and implementation of WPT for biomedical devices. This Special Issue is focused on, but not limited to, the following topics: Theoretical analysis of WPT techniques for biomedical devices;
Necessary electromagnetic theory;
Design and implementation of WPT coils and antennas;
Measurement and safety analysis of WPT for biomedical application;
Power management electronics for WPT;
Simulation of WPT for biomedical devices;
WPT efficiency analysis;
Power electronics and batteries;
Near field, mid field and far field;
Wireless data transfer;
Tissue safety analysis;
Energy harvesting;
Antenna and wave propagation;
RFID.

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Deadline for manuscript submissions

closed (31 March 2023)

Micromachines

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Impact Factor 3.0
CiteScore 6.0
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mdpi.com/si/134667

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