micromachines

IMPACT FACTOR 3.0 | Indexed in: PubMed | CITESCORE 5.2

an Open Access Journal by MDPI

Wireless Power Transfer Systems for Biomedical Devices

Guest Editors:

Dr. Sadeque Reza Khan
Institute of Sensors, Signals and Systems, School of Engineering and Physical Sciences, Heriot-Watt University, Edinburgh EH14 4AS, UK

Dr. Mohammad Alibakhshikenari
Department of Electronic Engineering, University of Roma Tor Vergata, 00133 Rome, Italy

Deadline for manuscript submissions:
closed (31 March 2023)

Message from the Guest Editors

Dear Colleagues,

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.

micromachines

IMPACT FACTOR 3.0 | Indexed in: PubMed | CITESCORE 5.2

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Ai-Qun Liu
1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.
Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Mechanical Engineering*)

Contact Us

Micromachines Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/micromachines
micromachines@mdpi.com
𝕏@micromach_mdpi