

Special Issue

Self-Powered Devices and Systems

Message from the Guest Editor

Sensor networks are essential for the development of the Internet of things and smart city. A general sensor, especially the mobile sensor, has to be driven by a power unit. Considering the high mobility, wide distribution, and wireless operation of the sensors, their sustainable operation remains a critical challenge owing to the limited lifetime of an energy storage unit. The concept of self-powered sensors and systems means to harvest the ambient energy for continuously driving a sensor without the use of an external power source, which aims to ensure the sensors can continuously work for a long time and without maintenance. So, self-powered sensors and systems are the inevitable trends for the future development of sensing technology. Accordingly, this Special Issue seeks to showcase research papers, and review articles that focus on novel developments in energy harvesting technology, active sensing technology, battery technology, and so on to promote self-powered sensors and systems into actual applications.

Guest Editor

Dr. Zhiyi Wu

Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences, Beijing 101400, China

Deadline for manuscript submissions

closed (15 March 2023)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/117374

Micromachines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
micromachines@mdpi.com

[mdpi.com/journal/
micromachines](https://mdpi.com/journal/micromachines)





Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



[mdpi.com/journal/
micromachines](https://mdpi.com/journal/micromachines)



About the Journal

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.

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).