

## Special Issue

# Recent Studies and Progresses in Bio-Microelectromechanical Systems (BioMEMS)

### Message from the Guest Editor

Bio-microelectromechanical systems (Bio-MEMS), a subcategory of microelectromechanical systems (MEMS), involve nano and/or microscale devices that integrate biological or biochemical elements fabricated using nano or microfabrication technologies. This Special Issue is intended to showcase the recent studies and progress made in the field of Bio-MEMS. The recent literature in Bio-MEMS has shown great potential for improving human health, biotechnology, and environmental systems. Continued advancements in materials, nano and microfabrication, electronics, and edge technologies are expected to drive the development of novel and field-deployable Bio-MEMS devices that have enhanced performance and precision. This Special Issue welcomes original research, reviews, and perspective articles on recent studies and progress in the field of bio-microelectromechanical systems. Potential topics for this Special Issue include but are not limited to:

- Implantable devices;
- Lab-on-a-chip (LOC) devices;
- Microfluidics;
- Biosensors and diagnostics;
- MEMS/NEMS for biomedical applications;
- Bioelectronics;
- Materials and packaging for Bio-MEMS;
- 3D printing for Bio-MEMS.

---

### Guest Editor

Dr. Shyam Aravamudhan

Joint School of Nanoscience and Nanoengineering, North Carolina A&T State University, Greensboro, NC 27411, USA

---

### Deadline for manuscript submissions

closed (20 October 2023)



## Micromachines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.0  
Indexed in PubMed



[mdpi.com/si/166119](https://mdpi.com/si/166119)

*Micromachines*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[micromachines@mdpi.com](mailto: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. Nam-Trung Nguyen

Queensland Quantum and Advanced Technologies Research Institute,  
Griffith University, West Creek Road, Nathan, QLD 4111, Australia

---

### 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 16.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2025).