

Special Issue

Computer-Aided Design of Lab-on-Chips, Sensors and Diagnostic Devices

Message from the Guest Editor

Computer-aided design (CAD) of lab-on-chips, sensors, and diagnostic devices has significantly progressed over the past twenty years. To date, many of these CAD tools are equipped with powerful design automation functions, e.g., automatic placement, automatic routing of micro-channels, automatic optimization of component feature sizes, scheduling of valve or electrode actuation, simulation and scheduling of flow/droplet movement, automatic light penetration compensation for 3D-printed hollow devices, and automatic design validation. This Special Issue calls for submissions that fall into any of the following categories: (1) original research on CAD tool development for LOC, sensors, and diagnostic devices; (2) original research on model/algorithm development for LOC, sensors, and diagnostic device design automation; (3) case study and performance analysis of specific CAD tool(s); and (4) review papers of CAD tools or design automation approaches for LOC, sensors, and diagnostic devices.

Guest Editor

Dr. Tsun-Ming Tseng

TUM School of Computation, Information and Technology, Technische Universität München, 80333 Munich, Germany

Deadline for manuscript submissions

closed (30 November 2025)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/238306

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. 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).