



Advanced Machine Learning Techniques for Sensing and Imaging Applications

Guest Editors:

Dr. Bihan Wen

School of Electrical and Electronic Engineering (EEE), Nanyang Technological University (NTU), Singapore 639798, Singapore

Dr. Zhangyang (Atlas) Wang

Electrical and Computer Engineering, University of Texas at Austin, Austin, TX, USA

Deadline for manuscript submissions:

closed (31 December 2021)

Message from the Guest Editors

Dear Colleagues,

Recent advances in machine learning, from large-scale optimization to building deep neural networks, are increasingly being applied in the emerging field of computational sensing and imaging. A wide range of machine learning techniques, including deep learning, sparse and low-rank modeling, manifold learning, unrolled architectures, and convolutional and tensor models, can be applied to enhance the effectiveness and efficiency of various sensing and imaging systems. By exploiting the underlying image or signal models via a data-driven approach, these advanced machine learning techniques benefit applications from image reconstruction to analysis.

The goal of this Special Issue is to present a collection of high-quality works containing original research on imaging- and sensing-related schemes, including novel imaging pipelines, smart sensing designs, blind compressed sensing, and task-driven imaging and understanding, in which machine learning is the major component. This Special Issue's scope ranges from sensing and learning theory to image and system modeling, algorithms, and applications in various imaging modalities.





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](https://twitter.com/micromach_mdpi)