Special Issue

Advanced Optical Detection and Imaging Systems

Message from the Guest Editors

In recent decades, optical detection and imaging systems have revolutionized science, medicine, and engineering, enabling breakthroughs in fundamental research and practical applications. From cutting-edge microscopy techniques enabling nanoscale visualization to advanced sensing technologies driving autonomous systems and environmental monitoring, this field has seen exponential growth in recent years. The development of high-performance optical systems plays a pivotal role in tackling some of the most pressing challenges across disciplines. With the recent integration of artificial intelligence, computational imaging, and novel material technologies, the future holds even greater promise for pushing the boundaries of resolution, sensitivity, and application diversity.

- Development of novel optical imaging techniques:
- Novel optical detection mechanisms and instrumentation:
- Applications of advanced imaging in biological, industrial, and environmental contexts;
- Machine learning and computational methods for imaging enhancement;
- Integration of multi-modal imaging systems;
- New optical materials and devices enabling advanced detection.

Guest Editors

Dr. Yide Zhang

Department of Electrical, Computer & Energy Engineering, University of Colorado Boulder, Boulder, CO 80309, USA

Dr. Zhe He

Shandong Institute of Advanced Technology, Jinan 250103, China

Deadline for manuscript submissions

15 December 2025



Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 5.3



mdpi.com/si/226814

Electronics
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

mdpi.com/journal/ electronics





Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 5.3



About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Control and Systems Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the second half of 2024).

