

Special Issue

Advances in Sensing Technologies for Optical Communication

Message from the Guest Editors

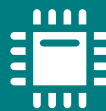
Optical communication is emerging as a key technology for next-generation sensing systems, driven by applications in intelligent transportation, robotics, industrial monitoring, the Internet of Things and marine observation. Compared with conventional radio-frequency systems, it offers abundant spectrum resources and enables integrated communication, sensing, positioning and illumination. However, optical communication-based sensing still faces challenges such as channel fading, optical noise, alignment sensitivity, limited transmission distance and complex propagation environments. Recent advances in optoelectronic and photonic sensors, AI-enabled signal processing, multi-sensor fusion and optical wireless communication provide new opportunities to enhance system reliability and practical deployment. This Special Issue aims to highlight recent advances in sensing technologies for optical communication, including optical sensors, integrated communication and sensing, channel modelling, intelligent signal processing, positioning, detection, networking and prototype validation for indoor, outdoor, industrial, robotic and marine applications.

Guest Editors

Dr. Caiming Sun
Prof. Dr. Wensong Wang
Prof. Dr. Xu Zhu

Deadline for manuscript submissions

20 March 2027



Sensors

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 9.4
Indexed in PubMed

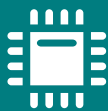


mdpi.com/si/285816

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

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





Sensors

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 9.4
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Department of Electrical and Information Engineering, Politecnico di
Bari, Via Orabona 4, 70126 Bari, Italy

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, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

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