Special Issue

Next-Generation Optical Communication Technology for Enabling Versatile Data Sensing

Message from the Guest Editor

With the advancement of the global economy, in recent years there has been growing interest in the development of technologies that consider the sustainability of the global environment; this includes reducing carbon dioxide emissions. On the other hand, data-driven technologies such as Al require a large number of semiconductor devices and systems, resulting in significant power consumption. Optical communication technology is once again attracting attention not only for its ability to transmit and receive large volumes of data, but also due to its application as a low-power solution for handling massive data traffic. This Special Issue aims to compile research related to innovative infrastructure technologies that support a data-driven society, in which diverse data are sensed and utilized to promote sustainable social and economic development. We are particularly interested in the application of technologies that leverage the rapidly advancing field of optical communication.

Guest Editor

Prof. Dr. Naoto Yoshimoto

Department of Opto-Electronics System Engineering, Chitose Institute of Science and Technology, Chitose 066-8655, Japan

Deadline for manuscript submissions

15 January 2026



Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/241962

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

mdpi.com/journal/ sensors





Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



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

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 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)

