

Special Issue

Sensing Technologies and Optical Communication

Message from the Guest Editors

Significant advancements and recognition have been achieved in optical communications, attributed to its rapid transmission rates, minimal loss, extensive bandwidth capacity, immunity to electromagnetic interference, and suitability for long-distance transmission. These features make optical communications well-suited for Internet of Things (IoT) applications. In contrast to traditional electrical and electronic sensors, fiber sensors excel at performing consistent sensing operations even in challenging environments, rendering them promising solutions for emerging IoT applications. However, the adoption of fiber sensing technology in new domains presents unique challenges. Many emerging IoT applications demand attributes such as long-range sensing, high sensitivity, high fidelity, wide frequency response, multi-dimensional capabilities, cost-effectiveness, compactness, real-time sensing, detection, and measurement. Consequently, the integration of machine learning and AI algorithms becomes essential to extracting information from fiber sensing data and facilitating autonomous decision-making in real-time across various IoT applications.

Guest Editors

Dr. Isiaka A. Alimi

Instituto de Telecomunicações, Aveiro, 3810-193, Aveiro, Portugal

Dr. Paulo Pereira Monteiro

Instituto de Telecomunicações, University of Aveiro, 3810-193 Aveiro, Portugal

Deadline for manuscript submissions

31 August 2025



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/201644

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 3.5
CiteScore 8.2
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

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)