

Special Issue

Advanced Industrial Internet of Things (IIoT): Network Architectures and Distributed Applications

Message from the Guest Editors

Industrial Internet of Things (IIoT) devices are increasingly mobile and geographically distributed across wide operational areas, making the design of effective internetworking strategies a critical challenge. In this context, the integration of 5G, hybrid 5G/6G, or fully 6G infrastructures and technologies offers transformative potential. These advancements promise unprecedented flexibility and scalability, facilitating the creation of an extensive, intelligent, and interconnected industrial ecosystem. At its core, this Special Issue emphasizes network architecture and communication protocol design in smart industrial environments, particularly those supporting distributed and cooperative sensing/processing services aligned with the IoT-as-a-Service model. Central to this evolution is the strategic integration of explainable artificial intelligence (AI) and machine learning (ML) into network frameworks. We cordially invite you to contribute original research addressing these themes.

- industrial Internet of Things
- industrial web of things
- 6G
- cellular IoT architectures and protocols
- distributed machine learning
- security and privacy

Guest Editors

Dr. Francesco Chiti

Dr. Giampaolo Cuzzo

Dr. Deepti Gupta

Deadline for manuscript submissions

31 December 2025



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/238185

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)