

## Special Issue

# Semantic Communication for the Internet of Things

### Message from the Guest Editor

For this Special Issue of *Sensors*, we welcome high-quality original research and comprehensive surveys that advance theory, algorithms, and implementations of semantic communication for IoT applications. Topics of interest include, but are not limited to, semantic source and channel coding, ontology-driven sensing, cross-layer semantic metrics, intent-based networking, joint perception–communication design, semantic distortion and reliability analysis, distributed representation learning at the edge, task-oriented federated learning, semantic middleware for heterogeneous sensors, security and privacy of semantic exchange, standardization efforts, and real-world testbeds or datasets. Submissions should articulate clear novelty, methodological rigor, and practical relevance, highlighting how semantic principles enhance efficiency, reliability, or interpretability in IoT systems. The Special Issue aims to bring together researchers from communications, signal processing, artificial intelligence, and domain-specific IoT fields to shape the next generation of meaning-centric networks.

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### Guest Editor

Dr. Samer Lahoud

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### Deadline for manuscript submissions

closed (15 April 2026)



## Sensors

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## 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.

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### Editor-in-Chief

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