Special Issue

Advances in Micro/Nano Sensors and Actuators for the IoT and Future Mobile Communication

Message from the Guest Editor

As we enter the era of the Internet of Things (IoT) and 5G/6G networks, the need for miniature, cost-effective, and high-performance sensors and actuators is growing. Micro-electro-mechanical system (MEMS) sensors, leveraging microfabrication technology, offer benefits such as small size, low cost, and power consumption. While most MEMS devices operate in the electrical domain, optical MEMS devices, enabled by advancements in nanophotonics and artificial intelligence (AI), are emerging as complementary solutions for enhanced device compactness and integration. This Special Issue invites research articles, short communications, and reviews on topics including:

- MEMS and photonic-based physical, chemical, and biological sensors
- RF/microwave MEMS resonators and filters for 5G communication
- Terahertz devices for 6G communication
- Flexible/wearable sensors and actuators
- AI-driven sensor and actuator design and functionality
- Intelligent sensors and actuators enabled by AI
- MEMS/photonics-based computing hardware

Guest Editor

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Deadline for manuscript submissions

closed (30 June 2025)

Sensors

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Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/223555

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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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