Special Issue

Emerging Trends and Novel Materials for Low-Cost Environmental Sensors

Message from the Guest Editors

The Special Issue aims to be a solid reference for the technological community to present the most recent results of scientific and technological research on sensors, with particular emphasis on applications and new trends (nanotechnology, biotechnology, and Al). Review papers are also welcome. Most, but not all, of the focus of this Special Issue is on new technologies for the design, construction, efficiency, safety, comfort, and safe operation of the following: built environment sensors, signal processing, data analytics, artificial intelligence applied for low-cost sensors, sensor networks, optical wireless communication, thermographic cameras, thermal camera communication, and biosensors for real-time air and water quality monitoring. The use of Al and machine learning for data analysis and interpretation provided by low-cost, portable sensors and networks for developing countries, as well as intercomparison studies that include such sensors, are especially welcome for this Special Issue.

Guest Editors

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Dr. Gabriel Abarca

Prof. Dr. Rodica-Mariana Ion

Deadline for manuscript submissions

closed (25 October 2025)



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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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