

Special Issue

Flexible Integrated Sensor Systems for Biomedical and Industrial Applications

Message from the Guest Editor

Recent advances in microfabrication, additive manufacturing, microelectronics, and sensors are enabling new biomedical and industrial sensing devices. Application-specific integrated circuits (ASICs) and systems on a chip (SoCs) support on-node signal processing, analog computation, data fusion, and in-memory computing, allowing ultra-low power, miniaturized solutions ideal for IoT, wearable, and implantable systems. Flexible and stretchable sensors offer seamless integration into daily life, improving data quality. Transient sensors are particularly suited for temporary implants. Sensing systems span from DC to medium-frequency electrical sensors (e.g., electrochemical, electrophysiological, bioimpedance, gas, physical) to high-frequency radar and optical methods like photoplethysmography. This Special Issue focuses on challenges in sensitivity, selectivity, biocompatibility, packaging, ASIC integration, sensor modeling, mechanical perturbations, and the co-integration of multi-modal sensors for comprehensive multi-parametric sensing.

Guest Editor

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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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