

Special Issue

Industry 5.0 and Beyond: Sensor and Digital Technologies for Sustainable, Circular, and Human-Centric Systems

Message from the Guest Editors

Industry 5.0 advances beyond Industry 4.0, emphasizing sustainability, circularity, and human-centric principles in sectors like healthcare, energy, and manufacturing. Leveraging advanced sensor and digital technologies, such as IoT, Digital Twins, AI, and ML, enables real-time monitoring, data-driven decision-making, and optimisation. Smart sensors, including MEMS/NEMS and non-invasive technologies like CT, allow IoT integration in harsh or confined environments. System-level approaches supported by tools like life cycle analysis, operations research, and optimisation foster economic efficiency, resource conservation, and human well-being. This Special Issue invites original research and reviews on smart sensors and digital technologies for sustainability, circularity, and human-centricity. Topics include smart sensors, wearable devices, IoT, IIoT, industrial wireless networks, AI/ML applications, Industry 4.0, Industry 5.0, robotics, human-computer interaction, and applications in agriculture, industry, and the environment.

Guest Editors

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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.

Editor-in-Chief

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