



Data Processing of Intelligent Sensors

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Message from the Guest Editors

Intelligent or smart sensors make use of dedicated signal processing components, either to improve the characteristics of the sensor device or to enhance the signal. Although this is a well-established technology, present-day sensors pose new challenges and can benefit from the application of Artificial Intelligence (AI) techniques to digital data processing. This Special Issue addresses the application of AI to data processing at a sensor level, with special interest in the following (non-exclusive) list of aspects:

- Handling in real time huge volumes of data;
- Online extraction of features and intelligent signal conditioning at the sensor level;
- Dealing with uncertain, imprecise and incomplete information;
- Resilience to sensor failures through redundancy and information fusion, with special interest in unattended systems, life-supporting and other critical equipment;
- Software sensors for health monitoring and remaining useful life estimation of complex equipment;
- Energy-efficient software for autonomous and battery operated environments;
- Ecoefficiency and life-cycle concerns in sensor systems design.





sensors



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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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