

## Special Issue

# New Solutions in Pattern Recognition and Intelligent Sensors for Mobile Robots

### Message from the Guest Editors

Advances in technology have led to the application of various sensors in mobile robots. Intelligent sensor systems in mobile robotics can be used in various areas, such as localization, the detection and classification of objects, control, etc. Developing real-time algorithms for mobile robots is a challenging task, especially today, as the focus has shifted toward distributed systems where algorithms run on robots' embedded hardware. The aim of this Special Issue is to invite high-quality research papers and up-to-date reviews that address challenging topics on intelligent sensor systems for mobile robots. Topics of interest include, but are not limited to, the following:

- Robot sensors and sensor networks;
- Pattern-recognition-based solutions;
- Sensor fusion and perception;
- Sensor calibration and pre-processing of signals;
- Signal and image analysis, feature extraction, and feature selection methods;
- Machine learning and decision-making and classification methods;
- Sensory-based robot control and learning;
- Navigation, localization, and SLAM;
- Human-robot interactions;
- Robotic vision, recognition, and reconstruction;
- Implementation of algorithms on embedded systems.

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### Guest Editors

Dr. Peter Sarcevic

Dr. Akos Odry

Dr. Seyed Jalaeddin Mousavirad

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### Deadline for manuscript submissions

30 June 2026



## Sensors

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## About the Journal

### 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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