Special Issue

Collaborative Integrated Sensing and Localization in Autonomous Systems

Message from the Guest Editors

Autonomous systems, including ground vehicles, drones, marine robots, and industrial machines, significantly rely on precise sensing and localization to operate effectively within intricate and dynamic environments. Recent advancements in sensor fusion, edge intelligence, and wireless communication allow these systems to work together and share situational awareness in real time. This Special Issue highlights the most recent methods and technologies that facilitate collaborative sensing and localization among autonomous platforms. It will unite innovations that enhance the accuracy, scalability, robustness, and efficiency of localization in multi-agent and heterogeneous settings. We invite contributions on topics such as the following:

- Multi-sensor fusion techniques for real-time localization;
- Cooperative SLAM among vehicles and drones;
- V2V, D2D, and hybrid communication frameworks;
- Edge and distributed computing for localization and mapping;
- AI-driven context-aware sensing in dynamic environments;
- Localization in GPS-denied or signal-degraded conditions;
- Experimental validation in urban, aerial, underwater, or indoor environments.

Guest Editors

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Dr. Muhammad Usman Hadi

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About the Journal

Message from the Editor-in-Chief

I encourage you to contribute research and comprehensive review articles for publication in Journal of Sensors and Actuator Networks (JSAN), an international, open access journal which provides an advanced forum for research findings in areas of sensors and actuators. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sensors and actuators and fostering applications of sensor-based measurements and effective actuator incorporation.

Editor-in-Chief

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