Special Issue

Sensors in Intelligent Vehicle Dynamics and Control

Message from the Guest Editors

Intelligent vehicle dynamics and control rely heavily on advanced sensor technologies to enhance safety, efficiency, and autonomous driving capabilities. Sensors play a crucial role in monitoring vehicle states, environmental conditions, and driver inputs, enabling real-time decision-making for stability control, traction management, and collision avoidance. Key sensors such as inertial measurement units (IMUs), wheel speed sensors, LiDAR, radar, and vision-based systems provide critical data on vehicle motion, road conditions, and surrounding obstacles. By integrating these sensors with advanced control algorithms, modern vehicles can adapt to dynamic driving scenarios, optimize performance, and ensure passenger comfort. Furthermore, the fusion of multi-sensor data improves system reliability and robustness, supporting the development of autonomous driving systems. This field continues to evolve with advancements in sensor accuracy, miniaturization, and AI-driven processing, paving the way for next-generation intelligent transportation systems.

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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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