Special Issue

Multi-Sensor Fusion for Autonomous Vehicles and Driver Assistance Systems

Message from the Guest Editor

- Multi-sensor fusion is a crucial technique for safe and efficient autonomous vehicles and advanced driver assistance systems. It integrates data from various sensors, such as LiDAR, radar, cameras, GPS, and ultrasonic sensors, to create a more accurate understanding of the vehicle's environment, location, and movement.
- In autonomous vehicles, sensor fusion supports real-time situational awareness and precise localisation, essential for navigation and collision avoidance. In ADAS applications, it powers features like adaptive cruise control, lane-keeping assistance, and emergency braking. Advanced algorithms, often based on probabilistic algorithms such as Kalman filters or deep neural networks, are used to process and fuse sensor data efficiently.
- This Special Issue explores novel techniques in multi-sensor fusion and AI for high-precision localisation, enhanced environmental understanding, and robust behavioural decision-making. Through the harnessing of these technologies, intelligent transportation systems can be developed, pushing the boundaries of safety, reliability, and autonomy on the road.

Guest Editor

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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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