

Special Issue

Sensor-Based Control and Navigation for Autonomous Vehicles

Message from the Guest Editor

Tremendous progress has been made in autonomous driving in recent years, with significant research results and public road deployments including the implementation of series-production vehicles and ride-hailing services offering affordable autonomous rides.

More research is thus needed on enhanced situational awareness using perception sensors and control and navigation algorithms for safe maneuvering in the presence of unexpected vehicles and vulnerable road users, in addition to establishing safe methods of evaluating and developing such perception-based situational awareness and navigation algorithms. This Special Issue aims to gather research on the use of sensors like camera, lidar, and radar for perception and their use for detecting rare and extreme interactions between autonomous vehicles and other road users; control and navigation methods to safely maneuver the autonomous vehicle (AV) during such rare and extreme interactions; realistic and efficient methods of evaluation; and the development of such algorithms in safe environments before public road deployment. We welcome your contributions to this Special Issue on topics.

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.

Editor-in-Chief

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