Special Issue

Advanced Computer Vision Techniques for Autonomous Driving

Message from the Guest Editors

Autonomous driving (AD) refers to self-driving vehicles or any transport system moves without humans. Automotive systems are equipped with cameras and sensors to cover all the fields of view and range. Further, sensor architecture in AD includes multiple sets of cameras, radars, and LIDARs, as well as GPS-GNSS for absolute localization and inertial measurement units that provide a 3D pose of the vehicle in space. Representation of the environment state or scene understanding is utilized by a decision-making system to produce the final driving policy, which can be achieved by a combination of several perception or computer vision tasks such as semantic segmentation, motion estimation, depth estimation, and soiling detection. Computer vision is as a key technique in AD technologies. Thus, there is a need to explore new and emerging trends in computer vision for autonomous driving. This Special Issue aims to address the most up-to-date impacts of computer vision on progress in autonomous driving research.

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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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