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Special Session on

“Perception and Control of Automated Vehicles”

Organized by
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Call for Papers
Automated vehicles (AVs) are a high-level achievement of mechatronics, and its application will greatly improve traffic efficiency and driving safety. To make future AVs trustworthy in real traffic road, it is necessary to have the complete perception of the environment and realize accurate vehicle control. However, challenges exist due to complex driving situation, the limits of sensing range and multiple driving tasks, etc. To address these challenges, advanced sensors like radars, laser-scanners or vision systems are being integrated into vehicles. Besides, the modelling, control and simulation technologies are well developed. We aim to study the perception and control of automated vehicles, including sensors fusion, objects detection and tracking, vehicles dynamics analysis and control, etc. These studies are beneficial to the rapid and safe applications of automated vehicles.

Topics of interest include, but are not limited to:

Advanced Driver Assistance Systems
Automated Driving Systems
Advanced Sensing technologies
Vehicles/obstacles detection and tracking
Vehicle dynamics and control
Modelling, control and simulation
Driver-Vehicle Systems
Platoon of Vehicles
Energy Management for Automated Electric Vehicle
Other related topics in vehicle control