



INVITED SESSION on “TOWARDS THE AUTOMATED HIGHWAY SYSTEMS”

Organizers:

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Nowadays, the increased traffic flow on existing highways has many disadvantages, e.g., increased risk of accidents, higher fuel consumption, increased pollution and wear of vehicle mechanical parts, driving stress and passenger discomfort. The **Automated Highway System (AHS)** - a vehicle and road based system that can drive a vehicle automatically - could be the solution to these stringent problems. These systems use sensors that serve as the vehicle's eyes, determining lane position and the speed and location of other vehicles. Actuators on the throttle, brake, and steering wheel give the vehicle the commands that a driver normally would. **AHS** vehicles often have equipment to communicate with other **AHS** vehicles. The aim of this invited session is to add to the development of **AHSs** in the field of control engineering, in terms of identification methods, modeling and controller design. Authors of this invited session are welcomed to submit original research describing scientific and engineering aspects and techniques related to **AHSs** (identification, modeling, simulation, control, etc.).

The topics of this special session on **Automated Highway Systems** include (but are not limited to):

- vehicle platooning
- autonomous vehicles
- robot navigation and mobility
- cooperative driving
- intelligent transportation systems
- modeling, control & optimization of transportation systems

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