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**Special Session on**

**“Uncertainty Quantification and Mitigation for Sensing, Planning and Control of Automated Driving”**

# Organized by

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# Call for Papers

Driving environment of autonomous vehicle is very complex, and hence uncertainties consist. In particular, unknown moving behaviours of traffic participants, perception uncertainties from time-varying weather condition and sensor instruments, stochastic traffic flow have un-ignorable effects on planning, decision-making and control strategy, these uncertainty challenges consequently need to overcome before widespread application of autonomous technologies. Straightforwardly, multi-source uncertainties for autonomous vehicle are urgently solved in current. The purpose of this special session is to provide researchers with an opportunity to introduce brightest ideas of different facets in the field of quantification, propagation and mitigation of uncertainties for autonomous vehicle.

Topics of interest include, but are not limited to:

1, Uncertainty quantification method for perception

2, Trajectory prediction under uncertainty perception

3, Dynamic trajectory planning under stochastic traffic flow

4, Robust control of uncertainty dynamic system

5, Prescribed performance design method for uncertainty dynamic system

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# IES Technical Committee Sponsoring the Special Session (if any):

N/A