



Call for Papers

IEEE 2018 Intelligent Vehicles Symposium (IV'18)

Workshop on Cooperative Driving

June 26 - June 30, Changshu, Jiangsu, China

Scope:

A tsunami of change has been witnessed in the field of Intelligent Transportation Systems in the past decade, due to the unprecedented advances in information and communications technology. In particular, Connected and Automated Vehicles (CAVs) have been regarded as a very promising solution to a number of socio-economic issues caused by the contemporary urban transportation systems such as congestion, air pollution, and fatality. A variety of CAV related theory, models, technologies and applications have been developed, demonstrated and deployed all over the world. In addition, it is commonly accepted that compared to autonomous driving, the system efficiency of urban traffic operation can be further improved with the introduction of vehicle connectivity and various protocols for cooperative planning/maneuvers. This workshop aims at: 1) providing the audience with information about state-of-the-art development, demonstration and deployment in cooperative urban traffic operation based on CAV technology; 2) discussing the existing hurdles and challenges in both research and practice; and 3) identifying potential research gaps and collaboration opportunities. We encourage the researchers and engineers to contribute to the building of this pillar.

List of Topics:

- Vehicle-based applications for cooperative traffic operation, e.g., cooperative collision avoidance, cooperative adaptive cruise control, formation control and cooperative lane change
- Cooperative freight operation and logistics
- Cooperative vehicle-infrastructure operation in the urban environment, e.g., integration of vehicle dynamics and traffic signal control
- Modelling and simulation tools for cooperative urban driving
- Holistic performance evaluation for cooperative CAV applications
- Cooperative interaction between vehicles and other transportation modes (e.g., bicyclists, pedestrians)
- Cooperative traffic operation in a partially connected and automated vehicle environment
- Findings and learned lessons from field demonstration or deployment (e.g., Grand Cooperative Driving Challenge)

Important Dates:

Papers submission: January 15th, 2018

Notification of acceptance/rejection: March 31st, 2018

Camera-ready version due: April 8th, 2018

Conference days: June 26 - July 1, 2018

Paper Submission:

Prospective authors are required to submit their manuscripts electrically through the conference Papercept submission system (<https://its.papercept.net>) and with the code “u5yj4” for the workshop. Submitted papers shall not exceed six pages as a pdf file in IEEE two column format. See more detailed information at the conference website (<http://www.2018iv.org/>) to prepare your paper.

Organizers:

Dr. Guoyuan Wu, University of California at Riverside, gywu@cert.ucr.edu

Dr. Yiheng Feng, University of Michigan Transportation Research Institute, yhfeng@umich.edu

Dr. Meng Wang, TU Delft, m.wang@tudelft.nl