Connected Vehicles and Low-altitude Intelligent Transportation Systems

CALL FOR PAPERS

Low-altitude intelligent transportation system (LAITS) has emerged as a promising research area. Connected and automated vehicles (CAVs), on roads, waterways and in the air at low altitudes, have the ability of gathering and sharing vehicle states and environment information with neighboring vehicles of various types, the infrastructures and the operation control center. With the advent and increasing maturity of V2X, CAVs are believed to be an important technology to deliver greater safety and mobility benefits to the next generation intelligent transportation systems (ITSs). On the other hand, artificial intelligence (AI) and big data (BD) technologies provide us with powerful tools and more possibilities to develop novel smarter ITSs technologies. This session mainly focuses on the current development, new progress, the results (theory, experiment), and challenges of related AI and BD technologies in the fields of CAVs and LAITSs from both theoretical and practical perspectives.

Topics of interest of this session include, but not limited to the following fields:

❉ Low-altitude multimode transportation

❉ Collaborative planning and control of road/surface/air vehicles

❉ Vehicular cyber-physical systems

❉ Autonomous driving under limit working conditions

❉ Driving assistance system design

❉ Trajectory tracking control for electric vehicles

❉ Deep reinforcement learning for autonomous vehicles

❉ Autonomous decision-making for autonomous vehicles

❉ Path tracking and motion control for autonomous vehicles

❉ New transportation, mobility, and logistics systems

❉ AI technologies for intelligent transportation systems

❉ Traffic modeling, prediction and optimal control

❉ Human-machine interaction including human behaviors in intelligent vehicles

❉ Multi-modal transportation and logistics

❉ Dynamic signaling in urban environments

❉ Congestion-aware traffic management

❉ Mobiliy demand analysis and forecast

❉ Urban public transportation optimization and management

❉ Fleet planning and management

❉ Machine learning applications in autonomous driving

❉ Vehicular communication system architectures and design

❉ Control and optimization of connected autonomous vehicles

❉ Big data analytics and applications in ITS

❉ V2X communication systems

❉ Energy consumption, efficiency, and environmental issues

For more information on the special session, please contact Professor Ge Guo through email: **geguo@yeah.net**.