



**Workshop title**

Self-awareness Advances in Heterogeneous Autonomous Systems

**Workshop proposer(s)**

Abdulla Al-Kaff\*, Carlo Regazzoni, David Martin Gomez

**Abstract**

The purpose of this workshop is to gather a group of active researchers in the area of intelligent transportation systems, Signal Processing, Artificial Intelligence, and autonomous driving vehicles in the same room and discuss their most recent research results. The research results can touch upon both advances in theory and applications in the domain of Self-Awareness, AI, and the information sharing in the road. The proposed workshop will consist of several invited talks and regular talks.

**Keywords**

- Cooperative Techniques and Systems
- Advanced Vehicle Safety Systems
- Sensing, Vision, and Perception

**Topics of interest**

- Self-Awareness and Situation Prediction
- Signal Processing for Autonomous Systems
- Autonomous Learning Behaviour
- Real-Time Self-Adaptation
- Cooperative driving using V2X technologies
- Trajectory Planning and Cooperative Maneuvering
- Connected and Automated Vehicles
- Connected and cooperative systems
- Heterogeneous Cooperation (UGV-UAV) and Multi-Robot Systems
- Information and data sharing
- Map Fusion and Location coordination