

Special Session title

Navigation and Localization for Intelligent Transportation Systems

Special Session proposer(s)

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Abstract

As contemporary applications such as driverless cars or autonomous shipping are called to revolutionize Intelligent Transportation Systems (ITS), there is a growing need on the provision of precise, continuous and reliable navigation information. The Special Session on "Navigation and Localization for ITS" addresses the latest research on positioning solutions, Global Navigation Satellite Systems (GNSS), multi-sensor data fusion and localization methods, to enable both seamless navigation information, and next-generation localization systems for ITS.

Keywords

- Accurate Global Positioning
- Automated Vehicle Operation, Motion Planning, Navigation
- Sensing, Vision, and Perception

Topics of interest

- Use of new GNSS constellations and frequencies.
- Robust GNSS receivers.
- Positioning based on signals of opportunity.
- Cooperative localization and navigation methods.
- Countermeasures to radio threats (from detection to mitigation): jamming and spoofing.
- Indoor positioning and GNSS-denied environments.
- Multi-sensor data fusion strategies.
- Single/Multiple target localization.
- Algorithms for fault detection and exclusion.
- Positioning for autonomous systems (UAVs, land vehicles, robots, etc.)