

# IEEE Transactions on Intelligent Transportation Systems

## Call For Papers

### Special Issue on 3D Sensing in Intelligent Transportation

#### MOTIVATION AND SCOPE

High-accuracy and high-efficiency 3D sensing and associated data processing techniques are urgently needing for today's roadway inventory, infrastructure health monitoring, autonomous driving, connected vehicles, urban modeling, and smart cities. 3D geospatial data acquired by digital photogrammetry or laser scanning or LiDAR systems have become one of the most important data sources to support the above-mentioned applications. While progress has been made to applying 3D sensory data to those applications related to intelligent transportation systems (ITS), such as road network extraction, platform localization, obstacle avoidance, high definition map generation, transportation infrastructure inventory, etc., many essential questions remain regarding the processing and understanding such massive 3D data in ITS-related applications. This special issue aims to provide a forum for scientists and engineers working in academia and industry to present their latest research findings and engineering experience in processing and applying 3D sensory data to ITS.

**LIST OF TOPICS:** Topics of interest to this special issue include, but are not limited to:

1. Airborne photogrammetric mapping for ITS
2. Airborne LiDAR point cloud processing for ITS
3. Mobile LiDAR point cloud processing for ITS
4. UAS-based photogrammetric mapping for ITS
5. UAS borne LiDAR point cloud processing for ITS
6. Low-cost multi-sensor systems for ITS
7. High definition map generation for autonomous vehicle technologies
8. Localization of autonomous vehicles
9. Crowdsourced map data to support vehicle navigation
10. Satellite-based traffic flow and infrastructure monitoring
11. 3D data processing for road infrastructure
12. 3D data manipulation for connected vehicles

#### PAPER SUBMISSION GUIDELINES

Paper submission should conform to the information for authors available at <https://mc.manuscriptcentral.com/t-its>.

## **IMPORTANT DATES**

First submission deadline: 01/02/2020

Notification of first decision: 01/05/2020

First revision submission deadline: 01/07/2020

Notification of final decision: 01/11/2020

Final manuscript (camera ready) submission deadline: 01/12/2020

Issue of Publication: 01/02/2021

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## **SUBMISSION AND REVIEW OF PAPERS**

Submitted papers should be original and not be under consideration elsewhere for publication. The authors should follow the journal guidelines, regarding the manuscript content and its format when preparing their manuscripts. All papers will be reviewed by at least three independent reviewers for their suitability in terms of technical novelty, scientific rigor, scope, and relevance to this special issue.