**Call for Papers**

**Special Issue on Computational Transportation Science**

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In the near future, vehicles, travelers, and the infrastructure will collectively have billions of sensors that can communicate with each other. Transportation systems, due to their distributed/mobile nature, can become the ultimate test-bed for a ubiquitous (i.e., embedded, highly-distributed, and sensor-laden) computing environment of unprecedented scale. This environment will enable numerous novel applications and order of magnitude improvement of the performance of existing applications. Information technology is the foundation for implementing new strategies, particularly if they are to be made available in real-time to wireless devices in vehicles or in the hands of people. Contributing are increasingly more sophisticated geospatial and spatial-temporal information management capabilities. Human factors, technology adoption and use, user feedback and incentives for collaborative behavior are areas of technology policy central to the success of this ubiquitous computing environment.

The emerging discipline of Computational Transportation Science (the science behind Intelligent Transportation Systems) combines computer science and engineering with the modelling, planning, and economic aspects of transportation planning and engineering to leverage developments in the above domains. By taking advantage of ubiquitous computing, Computational Transportation Science applications can help create more efficient, equitable, livable and sustainable transportation systems and communities.

The Special Issue is particularly timely given the prominence of self-driving and connected vehicle technologies in the global auto industry’s near-term growth strategies. It will address computation, knowledge discovery, and technology aspects of transportation systems while welcoming research papers in computer science, transportation science, urban and regional planning, the automotive arena, civil engineering, robotics, geography, geoinformatics, and other related disciplines. Researchers and practitioners are invited to submit original papers addressing topics including but not limited to:

- Collaborative transport, including collaborative multi-modal transport
- Computational and artificial intelligence aspects of assisted driving, collaborative transport or multi-modal transport
- Crowd sourcing and participatory sensing in transport
- Cameras as sensors for trajectory acquisition and event recognition
- Computer Vision-based information extraction from image sequences
- Context aware analysis of movement data
- New processing frameworks for handling masses of transport data (e.g. Hadoop)
- Uncertain information in collaborative transport and assisted travelling
- Mechanism design for collaborative behavior
- Data mining and statistical learning for travel information
- Human-computer interfaces in intelligent transportation applications
- Privacy, security, and trust in transportation information
- Novel applications targeted to health, mobility, livability and sustainability

All papers will undergo the same rigorous GEIN review process. Please refer to the GEIN website for detailed instructions on paper submission. Please choose “Special Issue: Computational Transportation Science” as the Article Type.