IEEE Transactions on Intelligent Transportation Systems
Call For Papers

Special Issue on *Modeling Dynamic Transportation Networks in the Age of Connectivity, Autonomy and Data*

**Motivation and Scope:**
The recent emergence of new technologies and systems such as connected and automated vehicles (CAVs), novel incentive and routing platforms, and shared mobility services is making a significant impact on traffic flow in road networks. The rapid development of these innovations, powered by new capabilities in data collection, communication, and vehicle automation brings both great opportunities and new challenges for managing and controlling the transportation network efficiently. It is thus imperative to integrate the emerging systems into a dynamic transportation network analysis, and to develop new methodologies, which coherently integrate Dynamic Traffic Assignment (DTA) models with increasingly available data and methods for large-scale computation. Consequently, they call for new theories, models, computational methods, and application scenarios to study multi-modal dynamic transportation networks with the emerging technologies as essential components.

It is this need for extending the scope of DTA (i.e., dynamic transportation network modeling) to emerging mobility trends that this Special Issue of the IEEE Transactions on Intelligent Transportation Systems is focused on.

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

1. *Extending the DTA framework for designing real-time control e.g., routing, incentives, traffic control, etc., with emphasis on algorithm design, computational issues and emerging control modes*
2. *Mathematical formulations of network flow systems with routing/assignment problems (ODEs, PDEs, MDPs, CNN, etc.)*
3. *Novel notions of equilibria and similar concepts/principles motivated by emerging information and incentive platforms, and their implication on solution methodologies of resulting DTA formulations*
4. *Data-driven techniques*, including those which focus on emerging sensing modalities, emphasize analytical guarantees, and which focus on the entire pipeline from data to decision and control
5. *Multimodal transportation systems*, with emphasis on ride hailing services
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: November 01, 2020
Notification of first decision: February 01, 2021
First revision submission deadline: April 01, 2021
Notification of final decision: August 01, 2021
Final manuscript (camera ready) submission deadline: September 01, 2021
Issue of Publication: November 01, 2021

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