The Fourth International Workshop on Intelligent Public Transports – Toward the Next Generation of Urban Mobility

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I. Overview

With the growing demand and range of urban mobility, public transport systems are playing an increasingly important role in accelerating the transition to sustainable urban development worldwide. Current practice shows that sufficient data from actual operation is of ultimate importance to understanding operational characteristics and improving service design. Thanks to the advances in big data and individual-based sensing, nowadays transit vehicles and users generate large quantities of data with high spatial-temporal resolution through trips on public transport systems.

The wealth of such data provides us with a great opportunity to apply a data-driven approach to improve urban transit systems. Moreover, it also brings novel issues regarding each individual's and/or company's privacy that are worthy to be discussed and analyzed. This workshop will address emerging issues impacting public transport systems toward the next generation of urban mobility. The objective of this workshop is to provide researchers and engineers with a venue to share the state-of-the-art of the findings, development and applications about intelligent public transport systems, and to present their ideas and vision about public transport systems of the future.

In particular, we would like to highlight that the best workshop paper will be considered for publication on the special issue *Knowledge Discovery from Mobility Data for Intelligent Transportation Systems* **of** *IEEE Transactions of ITS*.

II. Scope

The workshop welcomes submissions presenting technical, methodological and applicative contributions addressing –though not limited to– the following topics:

- intelligent systems and technology for real-time PT service monitoring, control, and operational management;
- advanced traveler information systems using homogeneous/heterogeneous data sources;
- crowdsourcing and "human as sensors" in PT design and operation;
- data management and data fusion for PT systems;
- privacy issues in using PT data;
- PT planning and management using big data;
- human mobility analytics and travel behavior modeling using PT data;
- machine learning and big data applications in modeling PT systems;
- multimodal PT systems network planning and service synchronization;
- anomaly detection and efficient response strategies in PT operation;
- resilience-oriented design and real-time disruption response strategies in PT systems;
- PT network resilience analysis and mitigation measures;
- automatic assessment and/or evaluation on the PT reliability;
- ubiquitous/pervasive PT technologies/policies;
- intelligent mobility models/policies for urban environments;
- autonomous vehicles application in PT systems;
- complex systems applications in public transport;
- social network analysis of public transport users.

III. Venue

The workshop will be organized within IEEE ITSC 2018 at Maui, Hawaii, USA. Submissions should follow IEEE conference format (max. 6 page length). All accepted papers will be published in IEEE Explore.

IV. Important Dates

- **Paper Submission Deadline: April 15, 2018**
- Acceptance Decision Letters Sending: July 2, 2018
- Final Papers Submission Deadline: September 9, 2018
- **Workshop Day: November 4, 2018**
- Conference Dates: November 4-7, 2018