Call for Papers

Special Issue on Enabling Context Aware Vehicular Networks

The implementation and adoption of Intelligent Transportation Systems (ITSs) are a key factor in enhancing transportation cost, increasing safety levels, increasing energy efficiency levels, and providing satisfactory user experience and Quality of Service metrics. ITS refers to integrated application of sensing, communication, control, and information processing technologies to the transportation infrastructure, vehicles, and users. ITSs sense, aggregate, collect, integrate, process, manage, disseminate, and notify information concerning the transportation of people and/or goods.

This information, which is obtained in real-time from sensors onboard vehicles and sensors on IT infrastructures, also integrates weather conditions, the maintenance status of the infrastructures, geographical information systems (GIS), traffic information, aerial image, and many others. The goal is to minimize the travel time while maximizing safety and minimizing the potential impact of ITS on users, vehicles, and infrastructures.

The advent of ITS requires highly dynamic and adaptive systems in order to effectively respond to multiple environmental, traffic, and user requirements. In order to provide highly responsive systems, context awareness and interaction are compulsory requirements. In this sense, elements such as wireless sensor networks (WSNs), Heterogeneous Networks (HetNet), Vehicular Ad Hoc Networks (VANET), Collaborative/Cooperative Communication, and Intelligent decision-making enable truly vehicular context aware scenarios.

We invite investigators to contribute original research articles as well as review articles that seek to address solutions in order to design and implement Context Aware Vehicular Networks. The aim is to provide a holistic view of this issue and therefore multiple aspects can be addressed, from physical layer characterization to final application performance, description of case studies of different Vehicular/Transportation Networks, system integration, and interoperability.

Potential topics include, but are not limited to:

- Design of energy-efficient WSNs, hardware, software, and systems for Intelligent Transportation Systems
- Collaborative routing and link protocols in Transportation Systems based on WSN
- Mobility models and patterns on vehicular sensor networks
- Internet of Things (IoT) for vehicular sensor networks
- Aggregation schemes on WSN
- Vehicular wireless sensor networks
- VANET design and implementation
- Sensor and system integration and interoperability at I2V and V2V level

Lead Guest Editor
Jose J. Astrain, Universidad Pública de Navarra, Pamplona, Spain
josej.astrain@unavarra.es

Guest Editors
Leyre Azpilicueta, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Mexico
leyre.azpilicueta@itesm.mx
Asier Perallos, Deustotech Mobility, Bilbao, Spain
perallos@deusto.es
Raimir H. Filho, University of Fortaleza (UNIFOR), Fortaleza, Brazil
raimir@unifor.br

Manuscript Due
Friday, 23 September 2016

First Round of Reviews
December 2016

First Papers Published
February 2017
Call for Papers

Special Issue on Enabling Context Aware Vehicular Networks

Potential topics include, but are not limited to:

- Distributed and centralized sensor network approaches in ITS
- Information-centric wireless sensor networks
- Management and operation of Multimodal Transportation Systems
- User and infrastructure cooperation through sensor networks
- Intelligent and autonomous vehicles
- Case studies and implementation of ITS in passenger and freight transportation

The submitted manuscripts for this special issue will be peer-reviewed before publication.

Please submit your article here: http://bit.ly/IJDSN-Submit

Lead Guest Editor
Jose J. Astrain, Universidad Pública de Navarra, Pamplona, Spain
josej.astrain@unavarra.es

Guest Editors
Leyre Azpilicueta, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Mexico
leyre.azpilicueta@itesm.mx

Asier Perallos, Deustotech Mobility, Bilbao, Spain
perallos@deusto.es

Raimir H. Filho, University of Fortaleza (UNIFOR), Fortaleza, Brazil
raimir@unifor.br

Manuscript Due
Friday, 23 September 2016

First Round of Reviews
December 2016

First Papers Published
February 2017

Impact Factor: 0.665*
Ranking: 106/139 in Computer Science, Information Systems
58/77 in Telecommunications

*Source: 2014 Journal Citation Reports® (Thomson Reuters, 2015)