TELEMATICS COMMUNICATIONS AND VEHICULAR NETWORKING

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Wireless communication for intelligent transportation systems (ITSs) is a promising technology to improve driving safety, reduce traffic congestion and support information services in vehicles.

A new era of vehicular technology that includes vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications is approaching. During recent ITS development, transportation telematics techniques have exhibited much progress, e.g., interaction between automobiles and the infrastructure for delivering services such as road-side assistance, automatic crash notification, concierge assistance and vehicle condition reports.

This special issue aims to cover a widening range of research topics, which are related to vehicular networking applications, services, and systems. Beyond systems that are integrated into vehicles, this special issue includes, e.g., vehicle- or traffic-related smartphone applications. Areas of interest include, but are not limited to:

Channel modeling, modulation and coding

JCN SPECIAL ISSUE ON

- ✓ Congestion control and scalability issues
- \checkmark VANET medium access, routing control protocols
- \checkmark VANET protocol design, architecture, and network management
- ✓ Vehicular safety and non-safety applications
- ✓ Vehicle-to-vehicle/roadside/Internet communication
- ✓ VANET simulation frameworks
- ✓ Field operational testing
- \checkmark Security issues and countermeasures, and privacy issues
- ✓ Telematics applications
- ✓ Electric vehicle applications
- \checkmark Networking to reduce energy consumption and traffic accidents
- ✓ Wireless in-car networks
- ✓ "Reduced functionalities" DSRC systems for pedestrians, road workers, etc.
- ✓ Vehicle or traffic-related smartphone apps
- \checkmark Vehicular data-collection, organization and dissemination methods
- ✓ Traffic and flow modeling and analysis
- ✓ Remote service provisioning and over-the-air upgrading technology
- ✓ Design with multiple wireless data links (802.11p, WiMAX, WiFi, cell phone, GPS)
- ✓ Mobility or handover technology
- New ITS/Telematics applications
- \checkmark Safety and driver-assistance applications
- \checkmark Road traffic congestion control by cooperative data analysis and warning propagation
- \checkmark Reduction of fuel consumption and greenhouse gas emission
- ✓ Deployment strategies and predictions
- ✓ Standardization and development of VANETs: efforts and problems on 802.11p WAVE, 802.11s MESH, DSRC

Continuing JCN's tradition of fast turnaround together with full peer reviews, a tentative schedule is set as follows:

August 30, 2012	Electronic manuscript (.ps or .pdf) submission to JCN website [An earlier note to editors with intent to submit will be appreciated.]
November 30, 2012	Reviews returned to authors. Papers will be either accepted, rejected or returned to the authors with requests for changes
January 30, 2013 April 15, 2013	Final revised manuscript due Special issue published

Pietro Manzoni, Polytechnic University of Valencia, Spain, pmanzoni@disca.upv.es

- C. K. Toh, National Tsing Hua University, Taiwan, ck_away@hotmail.com Tao Zhang, Ericsson, USA, tzhang@telcordia.com
- Sadao Obana, University of Electro-Communications, Japan, obana@cs.uec.ac.jp

Richard D. Gitlin, University of South Florida, USA, richgitlin@usf.edu

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