International Conference on ITS Telecommunications
Call for Paper

Wireless communication for intelligent transportation systems (ITS) is a promising technology to improve safety and security for all transport modes, to reduce traffic congestion, to optimize the use of existing infrastructures (road, rail maritime, fluvial) and support information services in vehicles with the general purpose of reducing the impact of transport on the environment. The development of sustainable mobility is a key challenge for the development of urban areas. A new era of vehicular technology that includes vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication is already there in the public transport domain and this should be generalized. This era will be driven by both (pre-competitive) public-sector and private-sector funding. Safety-related applications are not only taken into consideration, but non-safety multimedia content providers are also becoming a new topic of research. Key players in the industry, such as automotive companies, public transport operators, railway industries and government agencies, are investing heavily in the advanced research and development of many ITS technologies and applications. This research effort primarily focuses on the system development and standardization of telematics. During recent ITS developments, transportation telematics techniques have exhibited much progress, e.g., interaction between vehicles and the infrastructure for delivering services such as road-side assistance, automatic crash notification, concierge assistance and vehicle condition reports. These progresses are also really important in the public transport domain (buses, metro, trains, tramways) for which V2V and V2I for safety and non safety applications are a key component for the exploitation but also for reducing energy consumption. A number of IEEE 802.11p-like equipment prototypes have been built, and several technical reports based on field trials have demonstrated the lack of cutting-edge techniques to improve system performance. Furthermore, all these applications require accurate and reliable positioning using GNSS solutions alone or enhanced with map-matching and sensors fusion. Technology and applications for ITS and telematics design are rapidly emerging, and there is a critical need to bring together professional researchers, intelligent engineers, academia, industry, standard committees, the private sector and the public sector to exchange new ideas. This conference aims to spur research progress by serving as a forum in which both academia and industry can share experiences and report original work regarding all aspects of vehicular communication, e.g., Vehicular Ad hoc Networks (VANETs), cooperative systems, information dissemination, road and rail safety, information and emergency services, etc. Our primary goal is to promote meaningful research in the cross-layered design of architectures, algorithms and applications for vehicular communication environments in all transport modes.

Track1: Smart Vehicle
- Video/Audio signal processing for driver-assistance systems
- In-vehicle communications/telematics
- Analog/Digital circuit design for in-car smart systems
- SoC architecture/platform for smart vehicle systems
- Green design techniques for ITS
- Security and privacy in vehicular networks
- Field operational tests and testbeds for smart vehicular
- Vehicle collision avoidance
- Sensors and actuators

Track2: Intelligent Transportation Systems (ITS)
- Data-collection, organization and dissemination methods
- New ITS/Telematics applications
- Ongoing ITS/Telematics activities

Track3: Telecommunications and Positioning
- V2V, V2I and V2X communications
- Network protocols including MAC, routing, addressing, multicast, TCP protocols and end-to-end quality of service, resource management, security and privacy
- Design with multiple wireless data links (802.11p, 802.11x, WiMAX, WiFi, cell phone, LTE-A, GPS)
- Mobility or handover technology
- System-level, board-level and chip-level electronics
- PHY issues: channel measurements, channel modeling, channel estimation, antenna arrangement, pilot arrangement, etc.
- Physical layer and antenna technologies for vehicular networks
- RF propagation models for vehicular networks
- Radio resource management for vehicular networks
- GPS, GALILEO and terrestrial solutions for accurate and reliable positioning of vehicles

Track4: Green Life Toward Blue Planet
- Field operational tests and testbeds for vehicular networks
- Assessment of impact of vehicular networks on transportation efficiency and safety
- Emission modeling and environmental impact assessment
- Regional requirements and their consequences
- Interference-Management and Spectrally-Efficient Technologies
- Resource-Efficient Networking Technology and Application Design
- Cross-Layer Design/Optimization and Green Transceiver Design
- Novel technologies to reduce human electromagnetic exposure and electromagnetic pollution

Important Notes
PDF format via http://edas.info/newPaper.php?c=11573
Author's guidelines are announced on conference web site
http://www.itst2012.org

Important Dates
- Manuscript Submission Due: May 31, 2012
- Final Acceptance notification: July 31, 2012
- Final Manuscript Due: August 31, 2012
- Early Registration: August 31, 2012

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