IEEE Transactions on Intelligent Transportation Systems
Special Issue Call for Papers

Emergent Cooperative Technologies in Intelligent Transportation Systems

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Abstract: Transport accounts for 30% of total energy consumption in western countries. Whereas some governments are currently negotiating with the automotive industry on how to reach an average CO2 emission of 120g/km for the new cars fleet by 2012, ITS (Intelligent Transportation Systems) technologies offer a complementary way of reducing CO2 emissions, increasing safety and improving the efficiency and reliability of the whole transportation system, for example by means of dynamic traffic management and control. Emergent cooperative systems, in which intelligent vehicles communicate with each other and with intelligent infrastructures, offer a new and integrated platform for such ITS, with a huge anticipated potential for dynamic traffic management and control. However, for these anticipated benefits to manifest there are a number of key success factors. These emerging systems should be scalable over time and space and scalable with increasing numbers of equipped vehicles. Moreover, the systems should be robust and fault tolerant and lead to sustainable solutions for the control and management of transport systems. The objective of this special session is to disseminate the best research results from cross-disciplinary researchers working on such sustainable and scalable Emergent Technologies in Intelligent Transportation Systems. Relevant topics of interest include, but are not limited to:

- New Mobility Concepts based on such emergent systems
- Energy-Efficient Intelligent Infrastructure and Eco-driving
- Intelligent methodologies and devices for Efficient/Sustainable Navigation
- Design and methodological frameworks for large Scale Management Systems
- Distributed Dynamic Traffic Control methods
- New and advanced provision and use of Floating Car Data
- Parallel control and management for ITS

This CFP is a follow-up of the Emergent Cooperative Technologies in Intelligent Transportation Systems Workshop that was held at IEEE ITSC2010 in Madeira, September 2010. High-quality papers are solicited and will undergo the normal rigorous peer-review procedure of the journal for inclusion in the Special Issue. Manuscripts should be submitted before the deadline at http://mc.manuscriptcentral.com/t-its/ by selecting the manuscript type “Special Issue on ECTITS”.

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