

Call for Papers
IEEE Transactions on Vehicular Technology
Special Section: Graph Theory and Its Application in Vehicular Networking

The last two decades have witnessed unprecedented growth in telecommunications, particularly in the area of wireless communications. This development in telecommunications opens doors to many sophisticated complex systems, e.g. social networks, smart grids, vehicular networks and sensor networks, that previously were not feasible. Graph theory is among the most widely used tools for modeling and analyzing the many types of interactions, relations and dynamics in these systems. Many problems of practical interest can be represented by graphs.

The use of graph theory in vehicular networks, or more broadly highly dynamic networks, is of particular interest. The complex interactions among vehicles, between vehicles and road-side infrastructure, combined with the high mobility of vehicles and fast changing topology, present some unique challenges in network modeling and performance analysis, network design, resource management and communication protocol design.

This special section aims to provide recent advances in graph theory that are applicable to highly dynamic networks, particularly vehicular networks, identify challenges in the area and present possible solutions, and furthermore to unveil the significant potential of graph theory in the domain of vehicular networks. Topics of interest for this special section include, but are not limited to:

- Vehicular network modeling and performance analysis;
- Network architecture design;
- Vehicular technologies for vehicle-to-vehicle and vehicle-to-infrastructure networking & services;
- End-to-end service delivery architectures, algorithms, protocols and scalability;
- Cooperative communications;
- Quality of service;
- Resource management;
- Robust network and communication protocol design;
- Interference characterization and management;
- Localization techniques;
- Road traffic management.

Authors should follow the IEEE TVT manuscript format and submission procedure which can be found at the IEEE TVT home page <http://transactions.vtsociety.org> under Information for Authors.

Timeline:

- Manuscript submission deadline: **June 15, 2012**
- Editorial decision notification: September 15, 2012
- Revision deadline: October 15, 2012
- Notification of acceptance: December 15, 2012
- Final manuscript due: January 15, 2013
- Publication date: first quarter of 2013

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