



### Editors in Chief

**Ian Akyildiz**

Georgia Institute of Technology

---

### Guest Editors

**Danda B. Rawat** (Lead Editor)  
Eastern Kentucky University  
(db.rawat@ieee.org)

**Geert Heijenk**  
University of Twente  
(geert.heijenk@utwente.nl)

**Michele C. Weigle**  
Old Dominion University  
(mweigle@cs.odu.edu)

**Bhed B. Bista**  
Iwate Prefectural University  
(bbb@iwate-pu.ac.jp)

**Yuh-Shyan Chen**  
National Taipei University  
(yschen@gm.ntpu.edu.tw)

---

### Important dates

Paper submission deadline:  
**November 20, 2011**

Decision notification:  
**January 15, 2012**

Final Manuscript Due:  
**February 15, 2012**

---

# Call for Papers

## A Special Issue of Ad Hoc Networks on “Recent Advances in Vehicular Communications and Networking”

Vehicular communication for intelligent transportation systems (ITS) plays an increasingly important role in people's lives since it provides safety as well as comfort for passengers and enables more efficient travel by providing timely information to operators of vehicles and concerned authorities. As a result, there will be a strong demand for wireless communications and networking to provide information as well as onboard entertainment services to passengers and driver. Vehicular communication is expected to implement a variety of wired and wireless technologies for Vehicle-to-Vehicle (V2V) and Vehicle-to-Roadside (V2R) communications. In Vehicular Ad-hoc Networks (VANETs) for V2V systems, communication may experience serious deterioration due to the lack of accurate channel state information and advanced radio-resource-allocation schemes to assign wireless resources to high-speed vehicles. Moreover, communication among high-speed vehicles through cellular communication networks causes frequent handovers and drop-offs resulting in degradation in overall system performance. This motivates researchers to design innovative resource allocation techniques and robust, as well as, fast handover schemes for dynamically changing topologies of VANETs. In VANETs for V2V communications, trust, security, privacy, and reliable routing are major concerns since the network topology changes constantly. Furthermore, physical layer design issues for wireless communications in high-speed mobile environments are also of vital importance to realize its full potential for ITS. All in all, vehicular communications with dynamically changing topologies is a demanding research topic. The goal of this issue is to bring together the state of the art research contributions that focus on vehicular communications and networking.



## About the Topics of Interest

In particular, the topics of interest include but are not limited to

- **Physical Layer and Propagation Models.**
- **Radio Resource and Interference Management.**
- **Medium Access Control and Routing Protocols.**
- **Information Aggregation and Dissemination.**
- **Positioning and Location Technologies.**
- **Sensor Technologies for VANETs.**
- **Drive-Through Internet and Roadside Infrastructures.**
- **Incident Detection for VANETs.**
- **Trust, Security, and Privacy Issues.**
- **Fast and Reliable Handover and Mobility Management**
- **Vehicle Traffic Models.**
- **Heterogeneous Networking.**
- **Cellular and Satellite Communications for Vehicular Networking.**
- **Cross-Layer Designs and Architectures.**
- **Game Theory Based Protocols and Algorithms.**
- **Green Vehicular Communications and Networking.**
- **Cloud-Based Vehicular Communications and Networking.**
- **Standardization and Development, such as WAVE/DSRC/802.11p**
- **Applications, Case Studies, and Real-World Test Beds.**
- **Business Models and Policies.**

## Submission Format and Guideline

All submitted papers must be written in English and contain only original work, which has not been published by or is not currently under review for any other journal or conference. Papers must not exceed 25 pages (one-column, at least 11pt font) including figures, tables, and references. A detailed submission guideline is available as “Guide to Authors” at [www.elsevier.com/locate/adhoc](http://www.elsevier.com/locate/adhoc).

All manuscripts and any supplementary material should be submitted through Elsevier Editorial System (EES). The authors must select as “SI – *Advances in VCN*” when they reach the “Article Type” step in the submission process. The EES website is located at: <http://ees.elsevier.com/adhoc/>

All papers will be peer-reviewed by three independent reviewers. Requests for additional information should be addressed to the guest editors.

For more information, please contact:  
Danda B. Rawat (db.rawat@ieee.org)