

# Tutorial: Inter-Vehicular Communication: Standards, Protocol Design, and Integrated Security Metrics

**Webcast Type:**

Tutorial

[2012 IEEE Consumer Communications & Networking Conference](#)

**Webcast URL:**

javascript:openWin('https://dl.comsoc.org/comsocdl/DRM-authentication.action?path=LoginUser&tutorialid=918793','500','700','Shopping Cart')

**Status:**

Free for Members

**Duration:**

180minutes

**Presentation Date:**

Sun, 01/15/2012

**Free to Members Date:**

Tue, 01/15/2013

**Abstract:**

Much progress can be observed in the domain of Inter-Vehicular Communication, looking back at the last decade. In this growing community, many ongoing activities focus on the design on communication protocols to support safety application, intelligent navigation, multi-player gaming and other. Very large projects have been initiated to validate the theoretic work in field tests and protocols are being standardized. With the increasing interest from industry, security and privacy become key aspects in the stage of protocol design in order to support a smooth and carefully planned roll-out. Researchers from academia and industry recently met at an international Dagstuhl seminar to discuss open research challenges as well as open issues related to market-oriented design.

**Biography:**

Falko Dressler is a Full Professor of Computer Science heading the Computer and Communication Systems Group at the Institute of Computer Science, University of Innsbruck. He teaches on self-organizing sensor and actor networks, network security, and communication systems. Dr. Dressler received his M.Sc. and Ph.D. degree from the Dept. of Computer Science, University of Erlangen in 1998 and 2003, respectively. Dr. Dressler is an Editor for journals such

as Elsevier Ad Hoc Networks, ACM/Springer Wireless Networks (WINET), and Elsevier Nano Communication Networks. He was guest editor of special issues on self-organization, autonomic networking, and bio-inspired computing and communication for IEEE Journal on Selected Areas in Communications (JSAC), Elsevier Ad Hoc Networks, and others. Besides acting as TPC chair for a number of high-profile conferences and workshops, he regularly acts in the TPC of leading networking conferences such as IEEE INFOCOM, IEEE ICC, IEEE Globecom, and IEEE WCNC. Among other, Dr. Dressler wrote the textbooks Self-Organization in Sensor and Actor Networks, published by Wiley in 2007. Dr. Dressler is an IEEE Distinguished Lecturer in the fields of inter-vehicular communication, self-organization, and bio-inspired networking. Dr. Dressler is a Senior Member of the IEEE (COMSOC, CS, VTS) as well as a Senior Member of ACM (SIGMOBILE), and member of GI (KuVS). He is actively participating in the IETF standardization. His research activities are focused on adaptive wireless networking and self-organization methods addressing issues in wireless ad hoc and sensor networks, inter-vehicular communication systems, bio-inspired networking, and adaptive network security techniques.

Claudio Casetti got his M.Sc. degree in Electrical Engineering from Politecnico di Torino, Italy. He got his PhD in Telecommunication Engineering from the same institution and he is currently an Assistant Professor at Dipartimento di Elettronica, Politecnico di Torino. He has published more than 130 papers in peer-refereed international journals and conferences on the following topics: Transport and network protocols in wired networks, IEEE 802.11 WLANs, Vehicular networks, Ad hoc and sensor networks. He holds one patent from the U.S. Patent Office and two from the E.U. Patent Office. He serves in the Technical Program Committees of the main international conferences in the networking field (such as IEEE INFOCOM, IEEE GLOBECOM or IEEE ICC). He was co-chair of the Autonomic Networks Symposium at IEEE Globecom 2005. He was the Workshop Co-Chair of IEEE INFOCOM 2009, the Technical Program Co-Chair of IEEE WONS 2009 and the General Co-Chair of IEEE WONS 2010. He was Principal Investigator in the Alcatel France - Politecnico di Torino research contract on "End-to-end QoS Solutions in wireless networks" (2003-2004). He was principal investigator in the VICSUM project on vehicular networks funded by Regione Piemonte (2007-2009). He has acted as Team Leader for Politecnico di Torino in the FP6 Network of Excellence - NoE "Euro-NGI" (2003-2006), the FP6 NoE "Euro-FGI" (2006-2008) and the FP7 NoE "Euro-NF" (2008-2011). He is a member of IEEE. He has been a visiting scholar at Umass Amherst, UCLA and UCSD.

**Authors:**

Dressler, Falko  
Casetti, Claudio

---

**Source URL:** <http://www.comsoc.org/webcasts/view/tutorial-inter-vehicular-communication-standards-protocol-design-and-integrated-securi>