Call for Papers for
Ad-hoc and Sensor Networking Symposium

Scope and Motivation:

An ad hoc network is a system of wireless nodes dynamically self-organizing in arbitrary and temporary network topologies. Nodes in an ad hoc network can communicate without a pre-existing communication infrastructure. In recent years, ad-hoc networks have been attracting increased attention from the research and engineering communities, motivated by applications like digital battlefield, asset tracking, air-borne safety, situational awareness, and border protection. Such networks are designed to operate in widely varying environments. Therefore, dynamic topologies, bandwidth constraints, energy-constrained operations, wireless vulnerabilities, and limited physical security are among the characteristics that differentiate mobile ad hoc networks from fixed multi-hop networks.

A wireless sensor network (WSN) is a wireless network consisting of large populations of spatially distributed sensor nodes to cooperatively monitor physical or environmental conditions. Wireless sensor networks have many useful applications such as hostile environment surveillance, industrial process monitoring, environment and habitat monitoring, healthcare applications, home automation, and traffic control. Recently, advances in micro-electro-mechanical devices and large-scale integration have enabled the realization of miniaturized sensor nodes that can probe their surroundings and transmit their measurements using on-board wireless transceivers. Large-scale networks of miniaturized sensor nodes may also enable new applications such as target tracking, security surveillance, elder care, and forest monitoring.

Both ad hoc and sensor networks are characterized by their dynamic nature, which requires them to be adaptive to changes in the application environment, task objectives, and topological changes, among others. There is a growing number of real applications using wireless ad hoc and sensor networks, and these applications are being taken seriously by the industries. As a result, the last few years have witnessed the development of many innovative solutions for ad-hoc and sensor networks that are maturing to the level of commercialization and standardization. However, numerous challenges remain for the implementation of practical solutions that operate robustly, securely, and efficiently. The Ad Hoc and Sensor Networking Symposium of GLOBECOM'2014 aims at providing a forum for sharing ideas among researchers and practitioners working on state-of-the-art solutions related to ad-hoc and sensor networks.

Main Topics of Interest:

The Ad Hoc and Sensor Networking Symposium is soliciting papers that describe original and unpublished contributions. Topics of interest include, but are not limited to:

- New and unconventional applications of ad hoc and sensor networks
- Novel architectures and operation models
- Wireless sensor and actor networks
- Wireless multimedia and 3-D sensor networks
- Underwater and underground sensor networks
- Body Area Sensor Networks
- Cognitive radio networks in multi-hop environments
- Wireless mesh and community networks
- Wireless PANs and LANs
- Pervasive and wearable computing
- RFID systems
- Delay-tolerant ad hoc networks
- Self-organization and autonomic networking
- Vehicular networks
- Co-existence issues of hybrid networks
- Wireless, ad hoc, and sensor devices
- Ultra wide band technology for ad hoc and sensor networks
- MAC protocols for ad hoc and sensor networks
- Frequency and channel allocation algorithms
- New standards for ad hoc and sensor networks
- Energy saving and power control protocols for ad-hoc and sensor networks
- Energy scavenging technologies
- Service discovery in ad-hoc and sensor networks
- Location and context aware services
- Scheduling and resource management algorithms
- Deployment and coverage analysis of sensor networks
- Localization in ad hoc networks
- Localization algorithms and ranging technologies
- Routing and multicasting protocols
- Topology control and management
- In-network processing and data storage
- Fault-tolerance and traffic reliability issues
- Cross-layer design and optimization
- Mobility management and modeling
- Synchronization and coordination techniques in ad hoc and sensor networks
- Security for ad hoc and sensor networks
- Integrated simulation and measurement based evaluation
- Experimental prototypes and testbeds
- Decentralized combinatorial optimization
- Overhead issues in ad hoc networks

- New simulation languages, programming abstractions, and tools for ad hoc and sensor networks

Sponsoring Technical Committees:

- Ad Hoc and Sensor Networks
- Wireless Communications

How to Submit a Paper:

Prospective authors are invited to submit original technical papers by the deadline of April 1st 2014 for publication in the IEEE Globecom 2014 Conference Proceedings and for presentation at the conference. **Unlike recent ICC's and Globecom's, this is a hard deadline that will not be extended**. Submissions will be accepted through EDAS. All submissions must be written in English and be at most six (6) printed pages in length, including figures. For full details, please visit the following website:

http://www.ieee-globecom.org/2014/submguide.html

Symposium Co-Chairs:

- Yingying Chen, Stevens Institute of Technology, USA, yingying.chen@stevens.edu
- Jalel Ben Othman, University of Paris, France, jalel.ben-othman@univ-paris13.fr
- Rahul Vaze, Tata Institute of Fundamental Research, India, vaze@tcs.tifr.res.in

Biographies:

Dr. Yingying (Jennifer) Chen is an Associate Professor in the Department of Electrical and Computer Engineering at Stevens Institute of Technology. Her research interests include cyber security and privacy, mobile computing, mobile healthcare, and wireless networks. She has published extensively in these areas in both journal articles and referred conference papers. She received her Ph.D. degree in Computer Science from Rutgers University. Prior to joining Stevens, she was with Alcatel-Lucent at Holmdel & Murray Hill, New Jersey. She has co-authored the book Securing Emerging Wireless Systems Springer 2009. She is the director of Data Analysis and Information Security (DAISY) Lab at Stevens. She is on the journal editorial boards of IEEE Transactions on Mobile Computing (IEEE TMC), IEEE Transactions on Wireless Communications (IEEE TWireless), IEEE Network Magazine,

EURASIP Journal on Information Security, and International Journal of Parallel, Emergent and Distributes Systems (IJPEDS).

She is the recipient of the NSF CAREER Award 2010 and Google Research Award 2010. She received Stevens Board of Trustees Award for Scholarly Excellence 2010. She also received NJ Inventors Hall of Fame Innovator Award 2012. She is the recipient of the Best Paper Awards from ACM International conference on Mobile Computing and Networking (MobiCom) 2011, International Conference on Wireless On-demand Network Systems and Services (WONS) 2009, as well as the Best Technological Innovation Award from the International TinyOS Technology Exchange 2006. She also received the IEEE outstanding Contribution Award from IEEE New Jersey Coast Section each year 2005-2009. Her research has been reported in numerous media outlets including the Wall Street Journal, MIT Technology Review, Inside Science, NPR, and CNET.

Dr. Ben-Othman received his B.Sc. and M.Sc. degrees both in Computer Science from the University of Pierre et Marie Curie, (Paris 6) France in 1992, and 1994 respectively. He received his PhD degree from the University of Versailles, France, in 1998. He was an Assistant Professor at the University of Orsay (Paris 11) and University of Pierre et Marie Curie (Paris 6), in 1998 and 1999 respectively. He was an Associate Professor at the University of Versailles from 2000 to 2011. He is currently full professor at the University of Paris 13 since 2011. Dr. Ben-Othman's research interests are in the area of wireless ad hoc and sensor networks, Broadband Wireless Networks, multi-services bandwidth management in WLAN (IEEE 802.11), WMAN (IEEE 802.16), WWAN (LTE), security in wireless networks in general and wireless sensor and ad hoc networks in particular. His work appears in highly respected international journals and conferences, including, IEEE ICC, Globecom, LCN, VTC, PIMRC etc. He has supervised and co-supervised several graduate students in these areas. He is widely known for his work on wireless ad hoc and sensor Networks, in particular, security. He is an editorial board member of Wiley Wireless Communications and Mobile Computing, Inderscience Int. J. of Satellite Communications Policy and Management, IEEE comsoc Journal of Communications and Networks (JCN) and International Journal On Advances in Networks and Services IJANS. He is also an Associate Editor of Wiley International Journal of Communication Systems. He has served as a member of Technical Committees of more than 40 international IEEE/ACM conferences and workshops including ICC, Globecom, MSWIM, LCN. He is a member of IEEE and ACM. He served as Local Arrangement Chair for the 13th IEEE International Symposium on Computer Communication (ISCC 09). He served as a TPC Co-Chair of IEEE Globecom Wireless Communications Symposium (Globecom 2010) and 9th international Workshop on Wireless local Networks (WLN09) and 10th international Workshop on Wireless local Networks (WLN10). He served as a publicity chair of several conferences such as the 12th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM 09), IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WOWMOM 2010), 25th Biennial Symposium on Communications. He has served as TPC Co-Chair for IEEE Globecom Ad hoc and Sensor and Mesh Networking (Globecom 2011), 6th ACM International Symposium on QoS and Security for Wireless and Mobile Networks (Q2SWinet 2010, 2011, 2012), Wireless Networking Symposium of The 7th International Wireless Communications and Mobile Computing Conference (IWCMC 2011, 2012, 2013, 2014), IEEE International Conference on Communications Ad hoc and Sensor and and Mesh Networking (ICC 2012, ICC 2014). He has served for other conferences in ICNC, WSCP, CNIT. He is the secretary of the IEEE Ad Hoc and sensor networks technical committee since January 2012. He is an active member of IEEE CIS-TC, and WTC.

Dr. Rahul Vaze (IEEE M'07) received the B.E. in Electronics Engineering from Madhav Institute of Technology and Science, Gwalior, India in 2002, and his M.E. in Telecommunications from Indian Institute of Science, Bangalore, India in 2004, and his Ph.D. from The University of Texas at Austin in 2009. Since Oct. 2009 he is a Reader at the School of Technology and Computer Science, Tata Institute of Fundamental Research, Mumbai, India. From 2004-2006, he was with Beceem Communications Pvt. Ltd. Bangalore, where he was involved in design of baseband modem for IEEE 802.16e. He is a co-recipient of the Eurasip best paper award for year 2010 for the Journal of Wireless Communication and Networking, and recipient of the Indian National Science Academy's young scientist award for year 2013. His research interests include communication theory, multi-antenna communication, and energy harvesting networks, combinatorial optimization for communication system.