

Ad Hoc and Sensor Networking Symposium (AHSNS)

Symposium Co-Chairs

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The 2014 IEEE International Conference on Communications (ICC) will be held in the beautiful city of Sydney, Australia between 10 and 14 June 2014. The theme of this flagship conference of IEEE Communications Society for 2014 is “*Communications: The Centrepiece of Digital Economy.*” The conference will feature a comprehensive technical program including twelve Symposia and a number of Tutorials and Workshops. IEEE ICC 2014 will also include an attractive expo program including keynote speakers, and Industry Forum & Exhibitions (IF&E). We invite you to submit your original technical papers, industry forum, workshop, and tutorial proposals to this event. Accepted and presented papers will be published in the IEEE ICC 2014 Conference Proceedings and in IEEE Xplore®. Full details of submission procedures are available at <http://www.ieee-icc.org/2014>.

Scope and Motivation:

As wireless networks nodes proliferate and as applications using Internet become familiar to a wider class of customers, those customers will expect to use networking applications even in situations where the Internet itself is not available. The basic solution to meet such requirements is to allow mobile computer users with (compatible) wireless communication devices to set up a (possibly) short-lived network just for the communication needs of the moment- in other words, an ad-hoc network. A mobile ad hoc network (Manet) is a system of wireless mobile nodes dynamically self organizing in arbitrary and temporary network topologies. People and vehicles can thus be internetworked in areas without a pre-existing communication infrastructure, or when the use of such infrastructure requires wireless extension. Therefore, such networks are designed to operate in widely varying environments, from military networks (with hundreds of nodes) to low-power sensor networks and other embedded systems. 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.

The field of ad hoc, sensor and mesh networking is re-emerging amid unprecedented growth in the scale and diversity of computer networking. Wireless mesh networks (WMNs) are considered as a key technology for next-generation wireless networking. Wireless mesh networks often consist of mesh clients, mesh routers and gateways, where mesh routers have minimal mobility and form the backbone of WMNs. Mesh clients can be either stationary or mobile, and can form a client mesh network among themselves and with mesh routers. The gateway and mesh routers are utilized to provide the internetworking of WMNs with other networks such as the Internet, IEEE 802.11, IEEE 802.15, IEEE 802.16, cellular networks, wireless sensor networks, or combinations of several types of networks. Because of the many advantages, WMNs are undergoing rapid development and inspiring numerous deployments. 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, such as temperature, sound, vibration, pressure, motion or pollutants, at different locations. A sensor node is an autonomous device which is capable of computation, communication, and sensing. 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.

This symposium aims at providing a forum for sharing ideas among researchers and practitioners working on state-of-the-art solutions to the challenges above. We are seeking papers that describe original and unpublished contributions addressing various aspects of ad hoc, sensor and mesh networks.

Topic of Interest:

The Ad Hoc, Sensor, and Mesh Networking Symposium of ICC'2012 aims at providing a forum for sharing ideas among researchers and practitioners working on state-of-the-art solutions Related to Ad Hoc, Sensor, and Mesh Networks. We are seeking papers that describe original and unpublished contributions addressing various aspects of the topics listed below (but not limited to):

- Applications and Evolutions of Ad Hoc, Sensor, and Mesh Networks
- Autonomic Networking
- Wireless, Ad Hoc, and Sensor Devices
- Physical Layer Design of Ad Hoc, Sensor and Mesh Networks
- Frequency and Channel Allocation Algorithms
- Topology Control and Management
- Algorithms and Modeling for Localization, Target Tracking, and Mobility Management
- Architectures of Wireless Communication and Mobile Computing in Ad Hoc, Sensor and Mesh Networks
- MAC Protocols for Ad Hoc, Sensor, and Mesh Networks
- QoS Provisioning in Medium Access Control and Routing for Ad Hoc and Mesh Networks
- Analytical, Mobility, and Validation Models for Ad Hoc, Sensor, and Mesh Networks
- Performance Evaluation and Modeling of Mobile, Ad Hoc, Sensor, and Mesh Networks
- Integrated Simulation and Measurement based Evaluation of Ad Hoc and Sensor Systems

- New Simulation Languages, Methodologies, and Tools for Wireless Systems in Ad Hoc, Sensor and Mesh Networks
- Analysis of Correctness and Efficiency of Protocols
- Data Management, Data Aggregation, Data Dissemination, and Query Processing
- Distributed Algorithms in Ad Hoc, Sensor and Mesh Networks
- Pricing Modeling and Solutions
- Pervasive and Wearable Computing
- Co-existence Issues of Hybrid Networks
- Energy Saving and Power Control Protocols for Ad Hoc, Sensor, and Mesh Networks
- Resource Management Algorithms in Mobile, wireless Ad Hoc and Mesh Networks
- Synchronization and Scheduling Issues in Mobile and Ad Hoc Networks
- Service Discovery for Wireless Ad Hoc, Mesh, and Sensor Networks
- Cross-layer Design and Interactions in Ad Hoc, Sensor and Mesh Networks
- Mobile Service and QoS Management for Ad Hoc and Sensor Networks
- Survivability and Reliability Evaluation and Modeling for Ad Hoc, Sensor, and Mesh Networks
- Ubiquitous and Mobile Access for Wireless Mesh Networks
- Security and Privacy Issues in Wireless Ad Hoc, Mesh, and Sensor Networks
- Information Infrastructure

Submission Guidelines

Prospective authors are invited to submit original technical papers by the deadline 15 September 2013 for publication in the IEEE ICC 2014 Conference Proceedings and for oral or poster presentation(s). All submissions should be written in English with a maximum paper length of Six (6) printed pages (10- point font) including figures without incurring additional page charges (maximum 1 additional page with over length page charge if accepted).

Standard IEEE Transactions templates for Microsoft Word or LaTeX formats found at

<http://www.ieee.org/portal/pages/pubs/transactions/stylesheets.html>

Alternatively you can follow the sample instructions in template.pdf at

<http://www.comsoc.org/confs/globecom/2008/downloads/template.pdf>

Only PDF files will be accepted for the review process and all submissions must be done through EDAS at

<http://edas.info/>

Sponsoring Technical Committees:

- Ad Hoc and Sensor Networks
- Wireless Communications

Biography:

Jalel Ben Othman



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. Currently he is serving as TPC Co-Chair for IEEE Globecom Ad hoc and Sensor and and Mesh Networking (Globecom 2011), 6th ACM International Symposium on QoS and Security for Wireless and Mobile Networks (Q2SWinet 2010), Wireless Networking Symposium of The 7th International Wireless Communications and Mobile Computing Conference (IWCMC 2011), IEEE International Conference on Communications Ad hoc and Sensor and and Mesh Networking (ICC 2012). He has served for other conferences in 2012 as IWCMC, ICNC, WSCP, Q2SWINET, 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.



Jiming Chen (M'08, SM'11) received B.Sc degree and Ph.D degree both in Control Science and Engineering from Zhejiang University in 2000 and 2005, respectively. He was a visiting researcher at INRIA in 2006, National University of Singapore in 2007, and University of Waterloo from 2008 to 2010. Currently, he is a full professor with Department of control science and engineering, and the coordinator of group of Networked Sensing and Control in the State Key laboratory of Industrial Control Technology, Vice Director of Institute of Industrial Process Control at Zhejiang University, China. He currently serves associate editors for several international Journals including IEEE Transactions on Parallel and Distributed System, IEEE Transactions on Industrial Electronics, IEEE Network, IET Communications, etc. He was a guest editor of IEEE Transactions on Automatic Control, Computer Communication (Elsevier), Wireless Communication and Mobile Computer (Wiley) and Journal of Network and Computer Applications (Elsevier). He also served/serves as Ad hoc and Sensor Network Symposium Co-chair, IEEE Globecom 2011; general symposia Co-Chair of ACM IWCMC 2009 and ACM IWCMC 2010, WiCON 2010 MAC track Co-Chair, IEEE MASS 2011 Publicity Co-Chair, IEEE DCOSS 2011 Publicity Co-Chair, IEEE ICDCS 2012 Publicity Co-Chair, IEEE ICC 2012 Communications QoS and Reliability Symposium Co-Chair, IEEE SmartGridComm The Whole Picture Symposium Co-Chair, IEEE MASS 2013 Local Chair, Wireless Networking and Applications Symposium Co-chair, IEEE ICC 2013 and TPC member for IEEE ICDCS'10,'12,'13, IEEE MASS'10,'11,'13, IEEE SECON'11,'12 IEEE INFOCOM'11,'12,'13, etc.

Soumaya Cherkaoui, Univ. de Sherbrooke, Canada



Dr. Soumaya Cherkaoui is a Full Professor at the Department of [Electrical and Computer Engineering](#) of Université de Sherbrooke. Since 2000, she has been the Director of [INTERLAB](#), a research Laboratory which conducts research funded both by government and industry. Prior to her appointment at Université de Sherbrooke, Canada, Pr. Cherkaoui worked for industry as a project leader on projects targeted at the Aerospace Industry. In 1999, she contributed as a technical lead to projects for Reusable Space Systems (RSS) of the Boeing Company, CA, which designs, develops and builds space vehicles for the American National Aeronautics and Space Administration (NASA). In 2006, she was a Visiting Professor at the [Centre of Distributed Systems and Software](#) at [Monash University](#), Australia, a Visiting Professor at [Bell Laboratories](#), Toronto, and in 2012-2013 a Visiting Scholar at the University of California at Berkeley. In 2010, she was elected to the Board Directors of the Canadian National Network of Centers of Excellence Auto21.

Pr. Cherkaoui has participated as a General Chair, Editor, Member of Technical Committee, Session Chair, or reviewer of more than 80 conferences or referenced journals. She is an editorial board member of Wiley International Journal of Communication Systems and the International Journal of Ad Hoc and Ubiquitous Computing (IJAHUC). She served a Workshops Chair for IEEE LCN 2013, a Symposium co-Chair for ACS/IEEE AICCSA 2013, a TPC co-Chair for 26th Biennial Symposium on Communications QBSC 2012, a Symposium co-Chair for IEEE PIMRC 2011, a Symposium co-Chair for IEEE AINA 2010, a symposium co-Chair for IWCMC 2010. She is also a founding member of the IEEE ON-MOVE workshop. She was a tutorial speaker for IEEE VTC Fall, an Invited Panelist for ITST 2009 and ISWCS 2006. She served a TPC member of numerous conferences including IEEE ICC 2011, IEEE Globecom 11, IEEE WCNC 11 IEEE WiVEC 11, IEEE ICC 10, IEEE Globecom 10, IEEE ICC 09, IEEE Globecom 09, IEEE AINA 09, IEEE ICC 08, IEEE Globecom 08, IEEE Aina 08, ICCCN 08, IWCMC 08, IEEE WiVeC 08, IEEE Icscp 2007, IEEE Wimob 07, IEEE ICC 06, IEEE Globecom 2006, Acm/IEEE Mswim 07, Acm/IEEE Mswim 2006, IEEE Wimob 06, IEEE CCCN 06, IEEE Globecom 05, IEEE ICC 05. She is an active member of IEEE AHSN TC.

Her research and teaching interests are in wireless ad-hoc and sensor networks. Particularly, she works on MAC layer issues, vehicular networks, and quality of service provisioning.

Zubair Md. Fadlullah, Tohoku Univ., Japan

Zubair Md. Fadlullah is an Assistant Professor at Graduate School of Information Sciences (GSIS), Tohoku University, Japan. He holds a PhD in Applied Information Science, obtained in March 2011, from Tohoku University. He received his master's

degree in Applied Information Science from GSIS, Tohoku University, in 2008, and bachelor degree in Computer Science and Information Technology from Islamic University of Technology (IUT), Bangladesh, in 2003. He is currently an editor of Ad Hoc and Sensor Wireless Networks (AHSWN). He also served as an associate editor of the International Journal on Internet and Distributed Computing Systems (IJIDCS), and a co-editor of the Special Issue (SI) on Wireless Networks Intrusion in Journal of Computer and System Sciences. He was a co-chair of the invited session on Smart Grid in WCSP'11. Also, he has been serving as technical committee member for several conferences including IEEE GC, ICC, PIMRC, WCNC, and WCSP for a number of years. Dr. Fadlullah was a recipient of the prestigious Dean's and President's awards from Tohoku University in March 2011 for his outstanding research contributions.

