Call for Papers for
Ad-hoc and Sensor Networks 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, we have experienced an immense growth of interest on exciting concepts such as the Internet of Things (IoT), the Smart Cities and the Machine-to- Machine Communications (M2M) mainly focused on the 5th Generation (5G) Mobile Systems.

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 Networks Symposium of Globecom 2016 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 Networks Symposium of Globecom 2016 is soliciting papers that describe original and unpublished contributions. Topics of interest include, but are not limited to:

- Wireless sensor and actuator networks
- New and unconventional applications of ad-hoc and sensor networks
- Novel paradigms, architectures and operation models of ad-hoc and sensor networks
- Protocols, architectures and applications for the Internet of Things
- Machine-to-Machine (M2M) communications in ad hoc networks
- Wireless multimedia and 3-D sensor networks
- Underwater and underground sensor networks
- Body Area sensor networks
- Cognitive radio networks in multi-hop environments
- Multi-hop wireless mesh and community networks
- Wireless PANs
- Pervasive and wearable computing
- RFID systems
- Delay-tolerant ad-hoc networks
- Self-organization and autonomic networking
- Vehicular ad hoc 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 for ad-hoc and sensor networks
- Quality of Service provision and management in ad-hoc and sensor networks
- Standardization activities 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 in ad-hoc and sensor networks
- Scheduling and resource management algorithms in ad-hoc and sensor networks
- Deployment and coverage analysis of sensor networks
- Localization in ad-hoc networks
- Routing and multicasting protocols in ad-hoc and sensor networks
- Topology control and management
- Sensor fusion and synergy
- In-network processing and data storage
- Fault-tolerance and traffic reliability issues in ad-hoc and sensor networks

- Cross-layer design and optimization in ad-hoc and sensor networks
- Mobility management and modeling in ad-hoc and sensor networks
- Synchronization and coordination techniques in ad-hoc and sensor networks
- Security for ad-hoc and sensor networks
- Participatory and public sensing systems
- Performance evaluation and modeling in ad-hoc and sensor networks
- Simulation methodologies and tools for wireless ad-hoc and sensor networks
- Integrated simulation and measurement based evaluation for ad-hoc and sensor networks
- Experimental prototypes and testbeds for ad-hoc and sensor networks
- Decentralized combinatorial optimization in ad-hoc and sensor networks

Sponsoring Technical Committees:

- Ad-hoc and Sensor Networks Technical Committee
- Wireless Communications

How to Submit a Paper:

The IEEE Globecom 2016 website provides full instructions on how to submit papers. You will select the desired symposium when submitting. **The paper submission deadline is April 1, 2016.** 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. **Unlike recent ICC's and Globecom's, this is a hard deadline that will not be extended.**

Symposium Co-Chairs:

- Cheng Li, Memorial University of Newfoundland, Canada
- Amr Mohamed, Qatar University
- Cailian Chen, Shanghai Jiaotong University, China
- Mainak Chatterjee, University of Central Florida, USA

Biographies:

Cheng Li received the B. Eng. and M. Eng. degrees from Harbin Institute of Technology, Harbin, P. R. China, in 1992 and 1995, respectively, and the Ph.D. degree in Electrical and Computer Engineering from Memorial University, St. John's, Canada, in 2004.
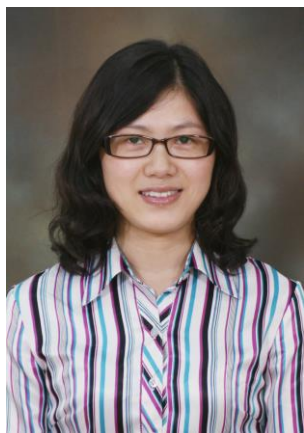
He is currently a Full Professor at the Department of Electrical and Computer Engineering, Faculty of Engineering and Applied Science of Memorial University, St. John's, Canada. His research interests include mobile ad hoc and wireless sensor networks, wireless communications, switching and routing, and broadband communication networks. Dr. Li has published over 180 research papers in wireless communications and networking in reputed international journals and conferences, including a paper received the _Best Paper Award_ at the 2010 IEEE _International Communications Conference_ (ICC'10) in Cape Town, South Africa. He is an editorial board member of Wiley Wireless Communications and Mobile Computing, Journal of Networks, and KSII Transactions on Internet and Information Systems, and an associate editor of Wiley Security and Communication Networks. He has served as a technical program committee (TPC) co-chair for the ACM MSWiM'14, MSWiM'13, IEEE WiMob'11 and QBSC'10. He has served as a co-chair for various technical symposia of many international conferences, including the IEEE GLOBECOM, ICC, and WCNC. He has served on the organization committee of many other international conferences and as the TPC member for many international conferences, including the IEEE ICC, GLOBECOM, WCNC, and PIMRC. Dr. Li is a registered Professional Engineer (P.Eng.) in Canada, current Vice Chair of the IEEE Communications Society Ad-hoc and Sensor Networks Technical Committee, Chair of the IEEE Canada Newfoundland and Labrador Section (2012-13), and a senior member of the IEEE and its Communications Society, Computer Society, Ocean Engineering Society, and Vehicular Technology Society.

Amr Mohamed (S' 00, M' 06, SM' 14) received his M.S. and Ph.D. in electrical and computer engineering from the University of British Columbia, Vancouver, Canada, in 2001, and 2006 respectively. He has worked as an advisory IT specialist in IBM Innovation Centre in Vancouver from 1998 to 2007, taking a leadership role in systems development for vertical industries.

He is currently an associate professor in the college of engineering at Qatar University and the director of the Cisco Regional Academy. He has over 20 years of experience in wireless networking research and industrial systems development. He holds 3 awards from IBM Canada for his achievements and leadership, and 3 best paper awards, latest from _IEEE/IFIP International conference on New_

Technologies, Mobility, and Security (NTMS) 2015 in Paris. His research interests include networking and MAC layer techniques mainly in wireless networks. Dr. Amr Mohamed has authored or co-authored over 120 refereed journal and conference papers, textbook, and book chapters in reputed international journals, and conferences. He has served as a technical program committee (TPC) co-chair for workshops for the IEEE WCNC'16. He has served as a co-chair for technical symposia of international conferences, including Crowncom'15, AICCSA'14, and IEEE WLN'11, and IEEE ICT'10. He has served on the organization committee of many other international conferences as a TPC member, including the IEEE ICC, GLOBECOM, WCNC, LCN and PIMRC, and a technical reviewer for many international IEEE, ACM, Elsevier, Springer, and Wiley journals.

Cailian Chen received the B.Eng. and M.Eng. degrees in Automatic Control from Yanshan University, P. R. China in 2000 and 2002, respectively, and the Ph.D. degree in Control and Systems from City University of Hong Kong, Hong Kong SAR in 2006. She joined Department of Automation, Shanghai Jiao Tong University in 2008 as an Associate Professor. She is now a Full Professor.

Prof. Chen's research interests include Wireless Sensor and Actuator Network and application in industrial automation, Vehicular Networks and application in Intelligent Transportation Systems, and Estimation and Control for Multi-agent Systems. She has authored and/or coauthored 2 research monographs and over 100 referred international journal and conference papers. She is the inventor of 20 patents. Dr. Chen received the "IEEE Transactions on Fuzzy Systems Outstanding Paper Award" in 2008. She was one of the First Prize Winners of Natural Science Award from The Ministry of Education of China in 2007. She was honored as "New Century Excellent Talents in University of China" and "Shanghai Rising Star" in 2013, "Shanghai Pujiang Scholar", "Chenguang Scholar" and "SMC Outstanding Young Staff of Shanghai Jiao Tong University" in 2009.

She serves as an Editor of four journals including IEEE Transactions on Vehicular Technology, and Peer-to-peer Networking and Applications (Springer), and also serves as Symposium TPC Co-chair of VTC2016-fall, and TPC member of several flagship conferences including IEEE Globecom, IEEE ICC and IEEE WCCI.

Mainak Chatterjee is an Associate Professor in the department of Electrical Engineering and Computer Science, University of Central Florida, Orlando. He received the BSc degree in physics (Hons.) from the University of Calcutta, the ME degree in electrical communication engineering from the Indian Institute of Science, Bangalore, and the PhD degree from the Department of Computer Science and Engineering from the University of Texas at Arlington. His research interests include wireless networks, economic issues in networks, applied game theory, dynamic spectrum access networks, network science and mobile video delivery. He has published over 170 conferences and journal papers. He

got the Best Paper Awards in IEEE Globecom 2008 and IEEE PIMRC2011. He is the recipient of the Air Force Office of Scientific Research sponsored Young Investigator Program (YIP) award. He co-founded the ACM Workshop on Mobile Video (MoVid). He serves on the editorial board of Elsevier's Computer Communications and Pervasive and Mobile Computing Journals. He has served as the TPC Co-Chair of a dozen conferences including GameNets 2016, ICIT 2015, ICDCN 2014, ICPADS 2013, WoWMoM 2011 and Globecom 2009ug. He also serves on the executive and technical program committee of several international conferences.