Call for papers
Wireless Ad Hoc and Sensor Networks Symposium, ICNC 2014

Honolulu, Hawaii, USA, February 3-6, 2014
http://www.conf-icnc.org/2014/

Symposium Co-chairs

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Scope

The Wireless Ad Hoc and Sensor Networks Symposium focuses on all topics related to ad hoc networks and sensor networks. A wireless sensor network is a wireless network consisting of populations of spatially distributed nodes with limited resources that can cooperatively monitor physical or environmental conditions at different locations. Each node is capable of computation, sensing, and communication. Challenges may be exacerbated by the presence of mobile nodes in the network. Such networks may consist, for example, of independent and isolated fixed devices that gather environmental data, they may be embedded in urban environments in order to facilitate actuation over managed resources, or may be fixed to and move with the object of interest. Ad hoc networks may exist in environments where there is no pre-existing communications infrastructure, and thereby organize to create their own. 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. As we move towards a world that connects all things, these issues become ever more relevant. 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.

This symposium aims to provide a forum for sharing ideas among researchers and practitioners working on state-of-the-art solutions to the challenges of wireless ad hoc and sensor networks. We seek papers that describe original and unpublished contributions addressing various aspects of ad hoc and sensor networks. Topics include but are not limited to,

- Applications and Evolutions of Ad Hoc and Sensor Networks
- Autonomic Networking
- Implementation Challenges
- Novel Measurement Techniques
- Physical Layer Design of Ad Hoc and Sensor Networks
- Frequency and Channel Allocation Algorithms
- Topology Control and Management
- Opportunistic or delay-tolerant communications
- Algorithms and Modeling for Localization, Target Tracking, and Mobility Management
- Time Synchronization in Ad Hoc and Sensor Networks
- Architectures of Ad Hoc and Sensor Networks
- MAC Protocols for Ad Hoc and Sensor Networks
- QoS Provisioning in MAC and Routing for Ad Hoc and Sensor Networks
- Analytical, Mobility, and Validation Models for Ad Hoc and Sensor Networks
- Performance Evaluation and Modeling
- Integrated Simulation and Measurement based Evaluation of Ad Hoc and Sensor Systems

- New Simulation Languages, Methodologies, and Tools for Wireless Systems
- Analysis of Correctness and Efficiency of Protocols
- Data Management, Data Aggregation, Data Dissemination, and Query Processing
- Distributed Algorithms in Ad Hoc and Sensor Networks
- Pricing Modeling and Solutions
- Pervasive and Wearable Computing
- Co-existence Issues of Hybrid Networks
- Energy Saving and Power Control Protocols for Ad Hoc and Sensor Networks
- Resource Management Algorithms in Wireless Ad Hoc and Sensor Networks
- Real-world Measurements or Testbeds
- Cross-layer Design and Infrastructure
- Energy Efficiency Considerations on the Design or Implementation of Ad Hoc and Sensor Networks
- Underwater Acoustic Sensor Networks
- Cognition in Wireless Ad Hoc and Sensor Networks

Submission Guidelines

Please follow the author instructions at http://www.conf-icnc.org/2014/author.htm. Direct paper submission website of this symposium can be found at http://www.conf-icnc.org/2014/cfp.htm.

Short biography of co-chairs

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 an Associate Professor at the 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 and mobile computing, switching and routing, and broadband communication networks. He is an editorial board member of *Wiley Wireless Communications and MobileComputing*, an associate editor of *Wiley Security and Communication Networks*, and an editorial board member of *Journal of Networks, International Journal of E-Health and Medical Communications* and *KSII Transactions on Internet and Information Systems.* He has served a technical program committee (TPC) co-chair for the *ACM 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* and *ICC*. He has served as the TPC member for many international conferences, including the IEEE *ICC*, *GLOBECOM*, and *WCNC*. Dr. Li is a registered Professional Engineer (P.Eng.) in Canada and is a Senior Member of the *IEEE* and a member of the *IEEE* Communication Society, Computer Society, Vehicular Technology Society, and Ocean Engineering Society.

Lingjia Liu, received the Ph.D. degree at Texas A&M University in Electrical and Computer Engineering, the B.S. degree with highest honor at Shanghai Jiao Tong University in Electronic Engineering. He is currently working as an Assistant Professor in the Electrical Engineering and Computer Science Department at the University of Kansas (KU). Prior to joining the EECS at KU, he spent more than three years in Samsung Research America – Dallas (SRA-D) leading Samsung's work on downlink multi-user MIMO, Coordinated multipoint (CoMP) transmission, and Heterogeneous Networks for 3GPP LTE/LTE-Advanced standards where he has more than 10 essential intellectual property rights (IPRs). His general research interests lie in the areas of wireless communication systems including delay-sensitive communications, energy-efficient communications, multi-user MIMO systems, coordinated

multipoint transmissions, and heterogeneous networks. Lingjia Liu is a recipient of the Texas Telecommunications Engineering Consortium (TxTEC) Fellowship from the Department of Electrical and Computer Engineering at Texas A&M University in 2003 - 2004. He received the Global Samsung Best Paper Award in 2008 and 2010 respectively. He is the best paper final runner-up for the ICC 2012 Wireless Communication Symposium. He has also been selected by the National Engineers Week Foundation Diversity Council as New Faces of Engineering 2011 and was recognized during the *2011 National Asian American Engineers of the Year Awards* Banquet in Seattle. Lingjia Liu served as the Vice President of the Dallas Fort-Worth Chapter of the Chinese Institute Engineers – USA (CIE/USA - DFW) from 2009 to 2011. He is currently serving as Technical Program Committee (TPC) co-Chairs and Members of various international conferences. He is also serving as an Editor for *IEEE Transactions on Wireless Communications*, and as Associate Editors for *EURASIP Journal on Wireless Communications and Networking* as well as *Wiley's International Journal on Communication Systems*. He is co-editor of special issues of several journals.

Honggang Wang is an assistant professor at UMass Dartmouth and is an affiliated faculty member of Advanced Telecommunications Engineering Laboratory at University of Nebraska-Lincoln. His research interests include *wireless healthcare, Body Area Networks (BAN), cyber security, multimedia communications, wireless communications and networks, cognitive radio networks, multimedia sensor networks, smart grid communications and Cyber-physical system*. He has published more than 90 papers in his research areas, including more than 20 publications in prestigious journals such as *IEEE Transactions on Wireless Communications, IEEE Transactions on Multimedia, IEEE Journal on Selected Areas in Communications, and IEEE Transactions on Information Technology Biomedicine*. He also published papers in prestigious conferences such as *INFOCOM, ICDCS, ICC, Globecom and ICME*. He is the winner of the Best Paper Award of the 2008 *IEEE Wireless Communications and Networking Conference* (*WCNC*). He serves as a lead guest editor of *IEEE Journal of Biomedical and Health Informatics* (*J-BHI*), a guest editor of *IEEE sensors journal*, an Associate Editor of *Wiley's Security and Communication Networks* (*SCN*) *Journal* and *KSII Transactions on Internet and Information Systems*. He also serves as a TPC chair or Co-Chair of more than 10 conferences and workshops. He is a TPC Chair of 8th *International Conference on Body Area Networks* (*BODYNETS 2013*), which will be held in Boston. He is the TPC member for *IEEE INFOCOM* 2013-2014, *IEEE ICC* 2011-2013, *IEEE Globecom* 2010-2013, *IEEE WiMob* 2008, 2009. He currently serves as a Board Co-Director of *IEEE MMTC* (Technical Committee on Multimedia Communications) Services and Publicity.