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## *Call for Papers for Ad-hoc and Sensor Networks Symposium*

Ad hoc and sensor networks have attracted much attention within academia and industry in the past decade. In recent years however those networks have found a new paradigm due to the exponential increase in number and processing power of smart phones and other portable devices. Furthermore, new applications and emerging technologies have created new research challenges for ad hoc networks. The emerge of new concepts such as Smart Home and Smart City, Body Area Networks and E-Health, Device-to-Device Communications, Machine-to-Machine Communications, Software Defined Networks, the Internet of Things, RFID, and Small Cells are all among those networks that put the traditional ad hoc networking in a new and challenging paradigm. To this end, the focus of the Ad-hoc and Sensor Networks Symposium of Globecom 2017 is on novel applications, protocols and architectures, non-traditional measurement, modeling, analysis and evaluation, prototype systems, and experiments in ad hoc and sensor networks.

The Ad-hoc and Sensor Networks Symposium of Globecom 2017 is soliciting papers that describe original and unpublished contributions. Papers submitted to Globecom 2017 must not be under consideration for publication elsewhere, whether journals or conferences.

Topics of interest include, but are not limited to:

- D2D, and machine type communications
- Body area networks and e-Health
- Cognitive ad-hoc and sensor networks
- Software-defined ad hoc and sensor networks
- Ultra-wideband communications and applications
- RFID applications and protocols
- Smart-home, smart-grid, smart-vehicle, and smart-city
- Internet of things (applications, protocols and architectures)
- 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
- Wireless multimedia and 3-D sensor networks
- Underwater and underground sensor networks
- Multi-hop wireless mesh and community networks
- Wireless PANs



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- Pervasive and wearable computing
  - 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 provisioning and management in ad-hoc and sensor networks
  - Standardization activities for ad-hoc and sensor networks
  - Energy optimization and scavenging for ad-hoc and sensor networks
  - 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

## How to Submit a Paper:

The IEEE Globecom 2017 website provides full instructions on how to submit papers. You will select the desired symposium when submitting. **The paper submission deadline is April 1, 2017.** Submissions will be accepted through EDAS. All submissions must be written in English and be at most seven (7) printed pages in length, including figures, but only six (6) pages are free.

## Symposium Co-Chairs:

- Jiajia Liu, Xidian University, China
- Walaa Hamouda, Concordia University
- Mohamed Younis, University of Maryland, USA
- Tao Shu, Auburn University, USA

## Biographies:



**Jiajia Liu** (S'11-M'12-SM'15) received his B.S. and M.S. degrees both in computer science from Harbin Institute of Technology in 2004 and from Xidian University in 2009, respectively, and received his Ph.D. degree in information sciences from Tohoku University in 2012. He was a JSPS special research fellow in Tohoku University from Apr. 2012 to Oct. 2013, and a data analytics engineer in Aviation Industry Corporation of China from Jul. 2004 to Aug. 2006. He has been a Full Professor at the School of Cyber Engineering, Xidian University, since 2013, and has been the director of the Institute of Network Science and Technology at Xidian University since 2015. He was selected into the prestigious “Huashan Scholars” program by Xidian University in 2015. He has published around 70 peer-reviewed papers in many high quality publications, including prestigious IEEE journals and conferences. He received the Best Paper Awards from many international conferences including IEEE flagship events, such as IEEE WCNC in 2012 and 2014. He was the recipient of the prestigious 2012 Niwa Yasujiro Outstanding Paper Award due to his exceptional contribution to the analytics modeling of two-hop ad hoc mobile networks, which has been regarded by the award committees as the theoretical foundation for analytical evaluation techniques of future ad hoc mobile networks. He was also a recipient of the Tohoku University President Award 2013, Graduate School of Information Sciences Dean Award 2013, Professor Genkuro Fujino Award 2012, Chinese Government Award for Outstanding Ph.D. Students Abroad 2011 and the RIEC Student Award 2012. His research interests cover a wide range of areas including load balancing, wireless and mobile ad hoc networks, Fiber-Wireless networks, Internet of things, cloud computing and storage, network security, LTE-A and 5G, SDN and NFV. He has

been actively joining the society activities, like serving as associate editors for IEEE Transactions on Computers (Oct. 2015-present) and IEEE Transactions on Vehicular Technology (Jan. 2016 - present), editor for IEEE Network (July 2015-present), guest editors of top ranking international journals like IEEE Transactions on Emerging Topics in Computing (TETC), IEEE Network Magazine, IEEE Internet of Things (IoT) Journal, etc. He is a Distinguished Lecturer of the IEEE Communications Society.



**Walaa Hamouda** received the M.A.Sc. and Ph.D. degrees in electrical and computer engineering from Queen's University, Kingston, ON, Canada, in 1998 and 2002, respectively. Since 2002, he has been with the Department of Electrical and Computer Engineering, Concordia University, Montreal, QC, Canada, where he is currently a Professor. Since 2006, he has been the Concordia University Research Chair in Communications and Networking. His current research interests include ad-hoc and sensor networks, cognitive radio networks, machine-to-machine and IOT communications, smart grid, multiple-input–multiple-output communications, space-time processing, cooperative communications, wireless networks, multiuser communications, and cross-layer design. He was a recipient of numerous awards, including the Best Paper Awards at WCNC'16, ICC 2009, and the IEEE Canada Certificate of Appreciation in 2007 and 2008. He has served as the Technical Co-Chair of the Fifth International Conference on Selected Topics in Mobile & Wireless Networking, the Track Co-Chair of the Multiple Antenna and Cooperative Communications, the IEEE Vehicular Technology Conference (VTC), the Co-Chair of ACM Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, the Wireless Networks Symposium, the 2012 Global Communications Conference; the Ad-hoc, Sensor, and Mesh Networking Symposium of the 2010 ICC, and the 25th Queen's Biennial Symposium on Communications. He also served as the Track Co-Chair of Radio Access Techniques of the Fall 2006 IEEE VTC and the Transmission Techniques of the Fall 2012 IEEE VTC. From 2005 to 2008, he was the Chair of the IEEE Montreal Chapter in Communications and Information Theory. He served as an Associate Editor for the IEEE COMMUNICATIONS LETTERS and currently serves as an Associate Editor for the IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, the IEEE TRANSACTIONS ON SIGNAL PROCESSING, and the IEEE COMMUNICATIONS SURVEYS AND TUTORIALS.



**Mohamed Younis** is currently an associate professor in the department of computer science and electrical engineering at the university of Maryland Baltimore County (UMBC). He received his Ph.D. degree in computer science from New Jersey Institute of Technology, USA. Before joining UMBC, he was with the Advanced Systems Technology Group, an Aerospace Electronic Systems R&D organization of Honeywell International Inc. While at Honeywell he led multiple projects for building integrated fault tolerant avionics and dependable computing infrastructure. He also participated in the development of the Redundancy Management System, which is a key component of the Vehicle and Mission Computer for NASA's X-33 space launch vehicle. Dr. Younis' technical interest includes network architectures and protocols, wireless sensor networks, embedded systems, fault tolerant computing, secure communication and distributed real-time systems. He has published over 230 technical papers in refereed conferences and journals. Dr. Younis has seven granted and three pending patents. In addition, he serves/served on the editorial board of multiple journals and the organizing and technical program committees of numerous conferences. Dr. Younis is a senior member of the IEEE and the IEEE communications society.



**Tao Shu** is currently an assistant professor in the Department of Computer Science and Software Engineering at Auburn University. He received his Ph.D. in Electrical and Computer Engineering from The University of Arizona in Dec. 2010. He received the B.S. and M.S. degrees in Electronic Engineering from the South China University of Technology, Guangzhou, China in 1996 and 1999, respectively, and the Ph.D. degree in Communication and Information Systems from Tsinghua University, Beijing, China in 2003. Before joining Auburn, he has worked as an assistant professor from 2011 to 2016 in the Computer Science and Engineering Department of Oakland University in Rochester, Michigan. Prior to Oakland, he was a senior engineer in Qualcomm Atheros Inc. from Dec. 2010 to Aug. 2011. Dr. Shu's research aims at addressing the security, privacy, and performance issues in wireless networking systems, with strong emphasis on system architecture, protocol design, and performance optimization. His research interests span a broad range of problems, including applied cryptography, information assurance, network security and privacy, truthful mechanism design, dynamic spectrum access, radio resource management, routing/ MAC protocol design, and cloud computing. He has published over 60 refereed papers in above areas in top journals and conferences, including IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE Transactions on Wireless Communication, IEEE Journal on Selected Areas in Communications, ACM MobiCom, ACM MobiHoc, and IEEE INFOCOM.