

# CURRICULUM VITAE

Xiaopei Wu, Ph.D.

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Postdoctoral Research Fellow

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Wayne State University

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## EDUCATION

- **Ph.D. Computer Science September 2007 – June 2012**  
University of Electronic Science and Technology of China, *Advisor: Yue Wu*  
University of Michigan, *Co-Advisor: Mingyan Liu*
- **M.S. Computer Science September 2005 – June 2007**  
University of Electronic Science and Technology of China
- **B.S. Computer Science September 2001 – June 2005**  
Luoyang Normal University of China

## RESEARCH INTERESTS

- Edge Computing, Mobile and Connected Health, Big Data System
- Indoor Localization, Compressive Sensing, Participant Sensing, Privacy Protection

## HONORS AND AWARDS

- **Best Paper Award**, IEEE/ACM Conference on Information Processing in Sensor Networks (IPSN), 2012
- **Joint Ph. D. Training Scholarship**, China Scholarship Council, 2008-2010
- **Excellent Graduate Scholarship**, University of Electronic Science and Technology of China, 2006-2007
- **Excellent Undergraduate Scholarship**, Luoyang Normal University, 2001-2005

## APPOINTMENTS

- **Postdoctoral Research Fellow July 2016 – Present**  
Wayne State University
- **Research Associate October 2012 – March 2015**  
Tsing Hua University, Beijing, China

- **Visiting Scholar** **October 2008 – August 2011**  
Electronic Engineer and Computer Science, University of Michigan
- **Teaching Assistant** **September 2007 – January 2008**  
School of Computer Science, University of Electronic Science and Technology of China
- **Software Engineer (Internship)** **June 2006 – March 2007**  
Huawei Technologies Co., Ltd., Chengdu, China

## PROFESSIONAL ACTIVITIES

- TPC Member for IEEE International Conference on Internet of Things (iThings2013)
- Reviewer for IEEE Transactions on Mobile Computing (Feb. 2013 - Present)
- Reviewer for IEEE/ACM Transactions on Networking (Jan. 2013 - Present)
- Reviewer for IEEE Transactions on Wireless Communications (Dec. 2012 - Present)
- Reviewer for IEEE/ACM Transactions on Networking (Sep. 2012 - Present)
- Reviewer for ACM Transactions on Sensor Networks (Sep. 2012 - Present)

## PUBLICATIONS

### *Journal Publications*

1. **Xiaopei Wu**, M. Liu, and Y. Wu, "In-Situ Soil Moisture Sensing: Optimal Sensor Placement and Field Estimation", in *ACM Transactions on Sensor Network (TOSN)*, 2012,8(4):1-33.
2. **Xiaopei Wu**, Y. Wu, L. Zheng, "Random Sensor Placement and Sparse Approximation for Monitoring Spatial Phenomenon with Highly Correlation", in *AISS: Advances in Information Sciences and Service Sciences*, 2011,3(11):232-240.
3. **Xiaopei Wu**, Y. Wu, X. Chen, "Node Scheduling Algorithm for Dense Wireless Sensor Networks", in *Journal of University of Electronic Science and Technology of China*, 2010,39(1):119-122.
4. **Xiaopei Wu**, Y. Wu, "Uneven Clustering Protocol based on Ants Algorithms & Level", in *Journal of Electronic Measurement and Instrument*, 2009, 23(2): 105-111.
5. K. Li, **Xiaopei Wu**, P. Ma, H. Jia, Y. Wu, "Dynamic Scheduling Protocol of Routers in ZigBee-based Wireless Sensor Networks", in *Journal of University of Electronic Science*

*and Technology of China*, 2011, 41(5):110-114.

6. K. Li, **Xiaopei Wu**, Y. Wu, H. Jia, “Dynamic sampling control policy for soil moisture measurements using wireless sensor networks”, in *Journal of Electronic Measurement and Instrument*, 2011,25(4):338-342.
7. **Xiaopei Wu**, M.Liu, “In-situ Soil Moisture Sensing: Measurement Scheduling and Field Estimation using Sparse Sampling Theory”, in *ACM Transactions on Sensor Network (TOSN)*. (**Under Revision**)
8. C. Xiang, P. Yang, C. Tian, **Xiaopei Wu**, Y. Liu, “ PassFit: Participatory Sensing and Filtering for Identifying Truthful Urban Pollution Sources”, in *IEEE on Sensors Journal*.

### **Book Chapters**

1. Z. Chang, **Xiaopei Wu**, X. Chen, "The Manual of Linux Command Line", Chapter 2,3 4, Posts and Telecom Press of China, 2008.

### **Conference Publications**

1. **Xiaopei Wu**, R. Dunne, Z. Yu and W. Shi, “STREMS: A Smart Real-time Solution Toward Enhancing EMS Prehospital Quality”, in *Proceedings of 2nd IEEE/ACM International Conference on Connected Health (CHASE)*, Philadelphia, July 17-19, 2017.
2. Daibo Liu, Xiaopei Wu, Z. Cao, M. Liu, Y. Li, M. Hou, “Cd-mac: A contention detectable mac for low duty-cycled wireless sensor networks”, in *12th IEEE International Conference on Sensing, Communication, and Networking (SECON)*, Seattle, June 22-25, 2015.
3. X. Chen, **Xiaopei Wu**, Xiangyang Li, Y. Liu, “Privacy-preserving High-quality Map Generation with Participatory sensing”, in *The 33rd Annual IEEE International Conference on Computer Communications (INFOCOM’14)*, Toronto, Canada, 2014.
4. Y. Zhang, Y. He, **Xiaopei Wu**, Y. Liu, W. He, “NetMaster: Taming Energy Devourers on Smartphones”, in *The 43rd International Conference on Parallel Processing (ICPP)*, Minneapolis MN, 2014.
4. X. Ji, Y. He, W. Dong, **Xaipei Wu**, Y. Liu, “Walking down the STAIRS: Efficient Collision Resolution for Wireless Sensor Networks”, in *The 33rd Annual IEEE International Conference on Computer Communications (INFOCOM’14)*, Toronto, Canada, 2014.

5. **Xiaopei Wu**, Y. Wu and L. Zheng, “In-situ Soil Moisture Sensing: Measurement Scheduling and Estimate using Compressive Sensing”, in *IEEE/ACM Conference on Information Processing in Sensor Networks (IPSN)*, April 2012, Beijing, China. (**Best Paper Award**)
6. **Xiaopei Wu**, Y. Wu, “Near-optimal working slots selection for a sensor via sub-modularity”, in *Proceedings of International Conference on Wireless communications, networking and mobile computation (Wicom’09)*, September 2009, Beijing, China
7. M. Moghaddam, M. Burgin, A. Castillo, D. Entekhabi, Y. Goykhman, A. Kakhbod , K. Li , M. Liu, A. Nayyar, A. Silva, D. Teneketzis, Q. Wang, **Xiaopei Wu.**, “Ground Network Design and Dynamic Operation for Validation of Space borne Soil Moisture Measurements: Initial Developments and Results ”, in *Earth Science Technology Forum (ESTF2011)*, June 2011, Pasadena, CA, USA
8. M. Moghaddam, **Xiaopei Wu**, M. Burgin, A. Castillo, D. Entekhabi, Y. Goykhman, A. Kakhbod , K. Li , M. Liu, A. Nayyar, A. Silva, Q. Wang, D. Teneketzis, “Soil Moisture Sensing Controller And optimal Estimator (SoilSCAPE): First Deployment of the Wireless Sensor Network and Latest Progress on Soil Moisture Satellite Retrieval Validation Strategies”, in *Earth Science Technology Forum (ESTF2010)*, June 2010, Arlington, VA, USA.