# 张燕咏

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#### 研究方向

智能物联网、智能感知、智能无人系统的感知、智能家居、智慧医疗、5G时代的新智能系统

### 教育背景

- 8/97-8/02 **宾州州立大学,**宾夕法尼亚,美国博士,计算机科学与工程系
- 8/92-5/97 **中国科学技术大学**,安徽,中国 学士,计算机科学技术系

### 工作经历

- 教授, 2018-现在, 中国科学技术大学 (USTC)
- 教授, 2015-2018, 罗特格斯大学 (Rutgers, The State University of New Jersey)
- 副教授, 2008-2015, 罗特格斯大学 (Rutgers, The State University of New Jersey)
- 助理教授, 2002-2008, 罗特格斯大学 (Rutgers, The State University of New Jersey)

## 博士毕业生

总述: 共毕业 14 名博士生, 3 名在学术界, 11 名在工业界

- 1. Jaewon Kang (co-advised with Badri Nath), dissertation title "Congestion Control in Wireless Sensor Networks," graduated in fall 2006, currently employed at Telcordia as a Senior Research Scientist.
- 2. Wenyuan Xu (co-advised with Wade Trappe), dissertation title "Defending Wireless Networks from Radio Interference Attacks," graduated in summer 2007, currently employed at University of South Carolina as an Associate Professor and Zhejiang University as a full professor.
- 3. Pandurang Kamat (co-advised with Wade Trappe), "Providing Privacy in Sensor Networks," graduated in fall 2007, currently employed at Ask.com.
- 4. Yinglung Liang, "Failure Analysis, Modeling, and Prediction for IBM BlueGene/L," graduated in fall 2007, currently employed at Ask.com.
- 5. Lijun Dong, "Content Caching, Retrieval and Dissemination in Networks with Storage", graduated in May 2011, current employed at Interdigital.
- 6. Gautam Bhanage, "Network Virtualization on the Wireless Edge", graduated in May 2011, current employed at Juniper.
- 7. Shengchao Yu, "Robust Sentry-Based Schemes: Towards Long-Lived, Fault-Tolerant Wireless Sensor Networks," graduated in December 2011, currently employed at FlexTrade Systems.
- 8. Bernhard Firner, "Transmit Only for Dense Wireless Networks," graduated in May 2014, currently employed at Nvidia.
- 9. Tingting Sun, "Enhancing Network Functionalities for Emerging Mobile Networks through Learning," graduated in May 2014, currently employed at Bloomberg.

- 10. Chenren Xu, "Learning Human Contexts through Unobtrusive Methods," defended his thesis in May 2014, currently employed at Peking University as an assistant professor.
- 11. Feixiong Zhang, "Mobile Content Delivery in Information-Centric Network," defended his thesis in April 2016, currently employed at Facebook.
- 12. Musaab Ali, "A Load-Cell Based In-Bed Body Motion Detection and Classification System", defended his thesis in May 2017, currently employed at University of Basrah, Iraq.
- 13. Sugang Li, "Future IoT Network Architecture and Applications In Mobile Sensing", defended his thesis in September 2018, currently employed at F5 Networks.
- 14. Zhenhua Jia, "Unobtrusive Vital Sign Detection through Ambient Physical Vibrations", defended his thesis in October 2018, currently employed Nvidia.

## 领导(参与)过的主要项目

总述:共领导(参与)过14个美国自然基金会的项目,包括美国杰出青年基金(CAREER)。项目总数目 多于一千三百万美金。

- "NeTS: Small: Transmit Only: Cloud Enabled Green Communication for Dense Wireless Systems,"
  Y. Zhang and N. Mandayam, *National Science Foundation*, \$498K, 2014-2017, principal investigator.
- 2. "Collaborative Research: A multi-layer approach towards reliable cognitive radio networks," W. Trappe and Y. Zhang, *National Science Foundation*, \$285K, 2014-2017, co-PI. (40% contribution)
- 3. "Building the computing backend for in-depth analysis of wireless and network data," Y. Zhang and W. Trappe, *Army Research Office*, \$128K, 2014-2015, principal investigator.
- "NeTS: JUNO: Virtual Mobile Cloud Network for Realizing Scalable, Real-Time Cyber Physical Systems," D. Raychaudhuri, I. Seskar and Y. Zhang, *National Science Foundation*, \$300K, 2014-2017, co-PI. (30% contribution)
- "FIA-NP: Collaborative Research: The Next-Phase MobilityFirst Project From Architecture and Protocol Design to Advanced Services and Trial Deployments," D. Raychaudhuri, Y. Zhang, W. Trappe, R. Martin and R. Yate, *National Science Foundation*, \$2.2M, 2014-2016, co-PI. (20% contribution)
- "MobilityFirst A Robust and Trustworthy Mobility Centric Architecture for the Future," D. Raychaudhuri, W. Trappe, M. Gruteser, R. Yates, R. Martin, I. Seskar and Y. Zhang, *National Science Foundation*, \$2.7M, 2010-2013, co-PI. (15% contribution).
- "TC:Large: Collaborative Research: AUSTIN-- An Initiative to Assure Software Radios have Trusted Interactions," W. Trappe, Y. Zhang, R. Wright and N. Minsky, *National Science Foundation*, \$410K, 09/09-08/12, co-PI. (25% contribution)
- 8. "CT ISG: ROME: Robust Measurement in Sensor Networks," Y. Zhang, H. Xiong and D. Yao, *National Science Foundation*, \$400K, 09/08-08/11, principal investigator.

- 9. "Collaborative Research: CT-T: TRIESTE: A Trusted Radio Infrastructure for Enforcing Spectrum Etiquettes," W. Trappe, Y. Zhang and C. Rose, *National Science Foundation*, \$50K, 09/07-08/08, co-principal investigator. (30% contribution).
- 10. "A Roll-Call System for Asset Tracking," W. Trappe and Y. Zhang, *National Science Foundation* (*STTR*), \$75K, 2006-2007, co-principal investigator. (50% contribution).
- 11. "Collaborative Research: CSR-SMA+AES: Pro-active Runtime Health Enhancement of Large-scale Parallel Systems Using PROGNOSIS," Y. Zhang, *National Science Foundation*, \$326,433, 09/06 08/09, principal investigator at Rutgers University.
- 12. "CAREER:PROSE: Providing Robustness in Systems of Embedded Sensors," Y. Zhang, *National Science Foundation*, \$484,866.00, 07/06 06/11, principal investigator.
- 13. "Collaborative Research: CSR---SMA+AES: PROGNOSIS to Enhance the Runtime Health of Large Scale Parallel Systems," Y. Zhang. *National Science Foundation*, \$79,999, 08/05 07/06, principal investigator at Rutgers University.
- "NeTS-NOSS: PARIS: A Framework for Privacy Augmented Relaying of Information from Sensors," W. Trappe and Y. Zhang, *National Science Foundation*, \$500K, 09/04 – 09/07, co-principal investigator. (50% contribution).
- "ORBIT: Open-Access Research Testbed for Next-Generation Wireless Networks," D. Raychaudhuri, R.Yates, W. Trappe, M. Parashar, Y. Zhang, H. Kobayashi (Princeton), H. Schulzrinne (Columbia), S. Paul (Bell labs), K. Ramaswamy (Thomson R&D), A. Acharya (IBM Research), *National Science Foundation*, \$5.4M, 09/03 – 09/07, co-principal investigator (10% Rutgers Effort, 8% Total Effort).

# 专业活动

总述: 积极参与专业活动,现(曾)任 IEEE Transactions on Mobile Computing (TMC), IEEE Transactions on Service Computing (TSC),和 Elsevier Journal on Smart Health 的副主编。参与过多次国际一流网络和物联网会议的评审委员会,包括 Infocom, IPSN, ICDCS, IoTDI 等。

Journal Editorial

• Guest Editor for Tshinghua Science and Technology Journal on the special issue on "Cyber-physical Systems", 2015

• Associate Editor for IEEE TMC (2012-2016), IEEE TSC (2012-2016), ACM/IEEE ToN (2016-2018), Elsevier Smart Health (2017-)

• Guest Editor for the Journal of Computer Science on the special issue on "Reliability and Autonomic Management", 2005

Conference/Workshop Organization

- Track co-chair at ALGOSENSORS 2017
- Financial Chair for ACM/IEEE CPSWeek 2015
- Track co-chair at ALGOSENSORS 2014
- Program co-chair for the 6th ACM HotPlanet Workshop

• General co-chair for the First International Workshop on Mobile Sensing, Computing and Communication (co-located with Mobihoc 2014)

• Vice Program Chair and Track Chair at 2013 IEEE International Conference on internet of Things (iThings2013)

Scholarship Chair for the 2013 ACM International Conference on Computing Frontiers

• Vice-Chair for the Networking and Distributed Systems Track at the 24th International Symposium on Computer Architecture and High Performance Computing, 2012

- Organizer of the First Workshop on Internet of Things Applications (IoT App), 2012
- Networks & Future Internet Symposium Chair for WoCC 2011
- Publication Chair of the International Conference on Parallel Processing (ICPP), 2008.

• Organizer of the First Workshop on the Security and Privacy of Emerging Ubiquitous Communication Systems (SPEUCS), 2007

• Chair of the track "Parallel and Distributed Computing" at the 16th International Conference on Computer Communications and Networks (ICCCN), 2007

• Organizer of the Workshops on System Management Techniques, Processes, and Services, 2005, 2006, 2007, 2008, 2009, 2010,2011

• Local Chair of the 2006 GLSVLSI, Philadelphia, PA.

• Organizer of Workshop on Self-Healing, Adaptive and Self-MANaged Systems (SHAMAN), 2002 Technical Program Committees

• Program committee member for 2017 IPSN, IoTDI, ICDCS, ACM Multimedia Systems (MMSys), Chase, Sensys

- Program committee member for 2016 Chase
- Program committee member for 2014 Infocom, IPSN, ICDCN, NOM workshop, ICPP
- Program committee member for 2013 Infocom, ICDCS, ICPP, ANCS, ICCCN, CosDEO
- Program committee member for 2012 ICDCS, PhoneCom
- Program committee member for 2011 ICC, ICDCS, PhoneCom, MSN
- Program committee member for 2010 Computing Frontiers, IEEE MASS, IEEE Cluster, IEEE SRDS

• Program committee member for 2009 IEEE Symposium on Reliable Distributed Systems, Sarnoff, ICDCS, WiSec

#### Progr

- Program committee member for 2008 WiSec, DSN, Infocom,
- Program committee member for 2007 Infocom, HiPC, DSN
- Program committee member for the first MLDM workshop, 2006
- Program committee member for the 2006 International Conference on Parallel and Distributed Systems (ICPADS), 2006
- Program committee member for the Third ACM Workshop on Security of Ad Hoc and Sensor Networks (SASN), 2005
- Program committee member for the International Conference on Parallel Processing (ICPP), 2005
- Program committee member for the First International Workshop on Reliability and Autonomic Management in Parallel and Distributed Systems (RAMPDS), 2005

• Program Committee Member for the WICON 2005 Workshop on "Information Fusion and Dissemination in Wireless Sensor Networks", 2005

• Program Committee Member for the IASTED International Conference on Parallel and Distributed Computing and Networks (PDCN), 2004, 2005

• Program Committee Member for the First Workshop on Algorithms and Architecture For Self Managing Systems, 2003

• Program Committee Member for the 10th International Conference on High Performance Computing, 2003 Proposal Reviewing

Panelist/Reviewer, National Science Foundation of the United States

Reviewer of United States-Israel Binational Science Foundation

Journal Reviewing (list incomplete)

- Reviewer for ACM Transactions on Sensor Networks
- Reviewer for IEEE Transactions on Computers
- Reviewer for IEEE Transactions on Parallel and Distributed Systems
- Reviewer for IEEE Transactions on Mobile Computing
- Reviewer for IEEE Pervasive Computing Magazine
- Reviewer for IEEE Systems, Man and Cybernetics

Society Membership

• Member of ACM and IEEE

## 重要奖项

总述:获得过国际一流会议的 Best Demo Award,美国自然基金会杰出青年基金。

- Best Poster Award, "Enabling Mobile Content-Oriented Networking in the MobilityFirst Future Internet Architecture" ACM Mobihoc 2014.
- Best Poster Award, "Improving RF-Based Device-Free Passive Localization In Cluttered Indoor Environments Through Probabilistic Classification Methods" ACM Sensys 2011

- Fourth Annual Alexander Schwarzkopf Prize for Technological Innovation from the Industry/University Cooperative Research Center (I/UCRC) Association, 2008
- Nominee of the 2006-2007 Excellence in Teaching Award for Electrical and Computer Engineering Department
- NSF CAREER Award
- Best Graduate Research Assistant award in the CSE department at Penn State for outstanding research, 2001 (1 awarded per year)
- IBM research fellowship, 2001-2002 (27 recipients nationwide out of more than 250 applicants)

#### 著书

总述: 共参与写书两部

- Y. Liang, Y. Zhang, M. Jette, H. Xiong, A. Sivasubramaniam, R. Sahoo, "Failure Analysis, Modeling, and Prediction for a Large-Scale System," in X. Yao, X. Li, and D. Tao editors, Computational Intelligence and Its Applications, ISBN: 978-7-312-02218-0, University of Science and Technology of China Press.
- Y. Chen, W. Xu, W. Trappe, Y. Zhang, "Securing Emerging Wireless Systems, Lower-Layer Approaches," ISBN 978-0-387-88490-5, Springer.

# 发表论文

#### 杂志期刊

- H. Liu, F. Eldarrat, H. Alqahtani, A. Reznik, X. De Foy, Y. Zhang, "Mobile edge Cloud System: Architectures, Challenges, and Approaches", IEEE Systems Journal, Volume: PP, Issue: 99, pp. 1-14, February 2017.
- J. Chen, S. Li, H. Yu, Y. Zhang, D. Raychaudhuri, R. Ravindran, H. Gao, L. Dong, G. Wang, and H. Liu, "Exploiting ICN for Realizing Service-Oriented Communication in IoT", IEEE Communications Magazine, volume 25, 2016.
- A. Ashok, C. Xu, T. Vu, M. Gruteser, R. Howard, Y. Zhang, N. Mandyam, W. Yuan, K. Dana, "What Am I Looking At? Low-Power Radio-Optical Beacons For In-View Recognition Using Smart-Glasses," IEEE Transactions on Mobile Computing. To appear.
- 4. T. Sun, Y. Zhang, W. Trappe, "Improving Access Point Association Protocols Through Channel Utilization and Adaptive Probing," IEEE Transactions on Mobile Computing. To appear.
- F. Zhang, Y. Zhang, A. Reznik, H. Liu, C. Qian and C. Xu. "Providing explicit congestion control and multi-homing support for content-centric networking transport," Elsevier Journal of Computer Communications, pp. 69-78, September 2015.
- 6. K. Wang, N. An, B. Li, Y. Zhang, and L. Li, "Speech Emotion Recognition Using Fourier Parameters," IEEE Transactions on Affective Computing, 6(1), pp. 69-75, Jan-March 2015.
- 7. C. Xu, S. Li, Y. Zhang, E. Miluzzo, and Y. Chen, "Crowdsensing the Speaker Count in the Wild: Implications and Applications," IEEE Communication Magazine, 52(10), pp.92-99, Oct 2014.
- 8. T. Sun, B. Zan, Y. Zhang, M. Gruteser, "The Boomerang Protocol: Tieing Data to Geographic Locations in Vehicular Ad Hoc Networks," IEEE Transactions on Mobile Computing, July 2012.
- S. Zhou, Y. He, Y. Zhang, and R. Yuan, "Towards High-Performance Dedicated Control Channel in Multi-Radio Multi-Channel Networks," Journal of Convergence Information Technology, 6(2), pp. 7-18, 2011.
- 10. P. Kamat, W. Xu, W. Trappe, Y. Zhang, "Temporal Privacy in Wireless Sensor Networks: Theory and Practice," ACM Transactions on Sensor Networks, 5(4), Nov 2009.
- 11. J. Kang, Y. Zhang, B. Nath, "An Optimal Resource Control Scheme under Fidelity and Energy Constraints in Sensor Networks," Wireless Networks Journal (WINET), 15(4), May 2009.

- 12. W. Xu, W. Trappe, Y. Zhang, "Defending Wireless Sensor Networks from Radio Interference through Channel Adaptation," ACM Transactions on Sensor networks, 4(4), pp. Aug 2008.
- 13. K. Ma, Y. Zhang, W. Trappe, "Managing Mobile Sensor Networks Using Network Dynamics," IEEE Transactions on Parallel and Distributed Systems, 19(1), pp.106-120, January 2008.
- J. kang, Y. Zhang, B. Nath, "TARA: Topology-Aware Resource Adaptation to Alleviate Congestion in Sensor Networks," IEEE Transactions on Parallel and Distributed Systems, vol. 18, pp. 919-931, July 2007.
- 15. W. Xu, K. Ma, W. Trappe, Y. Zhang, "Jamming Sensor Networks: Attack and Defense Strategies," IEEE Networks Special Issue on Sensor Networks, vol. 20, pp. 41-47, May 2006.
- Y. Zhang, A. Sivasubramaniam, "ClusterSchedSim: A Unifying Simulation Framework for Cluster Scheduling," Journal of Simulation: Transactions of the Society for Modeling and Simulation International, Special Issue on Modeling and Simulation Applications in Cluster and Grid Computing, 80(4-5), pp. 191-206. May 2004.
- 17. Y. Zhang, H. Franke, J. Moreira, A. Sivasubramaniam, "An Integrated Approach to Parallel Scheduling Using Gang-Scheduling, Backfilling and Migration," IEEE Transactions on Parallel and Distributed Systems, 14(3), pp. 236-247, March 2003.
- M. Squillante, Y. Zhang, A. Sivasubramaniam, N. Gautam, H. Franke, J. Moreira, "Modeling and Analysis of Dynamic Co-scheduling in Parallel and Distributed Environments," Special Issue of Performance Evaluation Review, 30(1), pp. 43-54. [Also as Proceedings of the ACM SIGMETRICS 2002 Conference on Measurement and Modeling of Computer Systems (Sigmetrics'2002), pp. 43-54, June 2002].
- 19. Y. Zhang, A. Sivasubramaniam, J. Moreira, H. Franke, "Impact of Workload and System Parameters on Next Generation Cluster Scheduling Mechanisms," IEEE Transactions on Parallel and Distributed Systems, 12(9), pp. 967-985, September 2001.

# 会议文章

- 1. Musaab Alaziz, Zhenhua Jia, Jian Liu, Richard Howard, Yingying Chen, and Yanyong Zhang, "MotionScale: A Body Motion Monitoring System Using Bed-Mounted Wireless Load Cells", in Proceeding the 1st IEEE International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE), 2016.
- Z. Jia, M. Alaziz, X. Chi, R. E. Howard, Y. Zhang, P. Zhang, W. Trappe, A. Sivasubramaniam, and N. An, "HB-Phone: a Bed-Mounted Geophone-Based Heartbeat Monitoring System," in Proceedings of the ACM/IEEE International Conference on Information Processing in Sensor Networks (ACM/IEEE IPSN), 2016.
- S. Li, J. Chen, H. Yu, Y. Zhang, D. Raychaudhuri, R. Ravindran, H. Gao, L. Dong, G. Wang, H. Liu, "MF-IoT: A MobilityFirst-Based Internet of Things Architecture with Global Reachability and Communication Diversity," in proceeding the 1st IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI), 2016 (invited).
- 4. S. Li, A. Ashok, C. Xu, Y. Zhang, J. Lindqvist, and M. Gruteser, "Whose Move is it Anyway? Authenticating Smart Wearable Devices Using Unique Head Movement Patterns", in Proceedings of the IEEE Conference on Pervasive Computing and Communications (PerCom), 2016.
- S. Li, Y. Zhang, D. Raychaudhuri, and R. Ravindran, G. Wang, Q. Zheng, and L. Dong. "IoT Middleware Architecture over Information-Centric Network", in Proceedings of the Globecom ICNS (Information Centric Networking Solutions for Real World Applications) workshop, 2015.
- F. Zhang, C. Xu, Y. Zhang, K. K. Ramakrishnan, S. Mukherjee, R. Yates, T. Nguyen. "EdgeBuffer: Caching and Prefetching Content at the Edge in the MobilityFirst Future Internet Architecture," in Proceedings of the IEEE WoWMoM 2015.
- A. Ashok, C. Xu, T. Vu, M. Gruteser, R. Howard, Y. Zhang, N. Mandayam, W. Yuan, K. Dana, "Low–Power Radio-Optical Beacons for In-View Recognition," in Proceedings of the IEEE Vehicular Technology Conference (VTC-Fall), 2015 (invited).
- S. Zhang, Q. Ma, Y. Zhang, K. Liu, T. Zhu and Y. Liu, "QA-share: Towards efficient QoS-aware dispatching approach for urban taxi-sharing," Sensing, Communication, and Networking (SECON), 2015 12th Annual IEEE International Conference on, Seattle, WA, 2015, pp. 533-541.

- C. Xu, V. Srinivasan, J. Yang, Y. Hirase, E. M. Tapia, Y. Zhang, "Context-aware Global Power Management for Mobile Devices Balancing Battery Outage and User Experience," in Proceedings of the 11th IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), October 2014.
- 10. S. Li, Y. Zhang, D. Raychaudhuri, R. Ravindran, "A Comparative Study of MobilityFirst and NDN based ICN-IoT Architectures," in Proceedings of the QSHINE workshop, August 2014.
- 11. F. Zhang, Y. Zhang, A. Reznik, H. Liu, C. Qian, C. Xu, "A Transport Protocol for Content-Centric Networking with Explicit Congestion Control," in Proceedings of the 23rd IEEE International Conference on Computer Communications and Networks (ICCCN), August 2014.
- 12. F. Zhang, A. Reznik, H. Liu, C. Xu, Y. Zhang, I. Seskar, "Using ORBIT for evaluating wireless content-centric network transport," in Proceedings of the 8th ACM international workshop on Wireless network testbeds, experimental evaluation & characterization, 2013.
- 13. C. Xu, S. Li, G. Liu, Y. Zhang, E. Miluzzo, Y. Chen, J. Li, and B. Firner. "Crowd++: unsupervised speaker count with smartphones," in Proceedings of the 2013 ACM international joint conference on Pervasive and ubiquitous computing, pp. 43-52, September 2013.
- R. Moore, B. Firner, C. Xu, R. Howard, Y. Zhang, and R. Martin, "Building a Practical Sensing System," in Proceedings of 2013 IEEE and Internet of Things (iThings), pp. 693-698, August 2013.
- 15. J. Li, Y. Zhang, Y. Chen, K. Nagaraja, S. Li, and D. Raychaudhuri, "A Mobile Phone Based WSN Infrastructure for IoT over Future Internet Architecture," in Proceedings of 2013 IEEE and Internet of Things (iThings), pp. 426-433, August 2013.
- X. Liu, W. Trappe and Y. Zhang, "Secure Name Resolution for Identifier-to-Locator Mappings in the Global Internet," in Proceedings of the International Conference on Computer Communications and Networks (ICCCN), 2013.
- R. Moore, B. Firner, C. Xu, R. Howard, R. P. Martin, and Y. Zhang. "It's Tea Time: Do You Know Where Your Mug Is?," in Proceedings of the 5<sup>th</sup> ACM Workshop on HotPlanet, August 2013.
- C. Xu, B. Firner, R. S. Moore, Y. Zhang, W. Trappe, R. Howard and N. An, "SCPL: Indoor Device-Free Multi-Subject Counting and Localization Using Radio Signal Strength," in Proceedings of the 12th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN), April 2013. (Acceptance Ratio: 20.9%)
- 19. J. Li, H. Wu, B. Liu, J. Lu, Y. Wang, X. Wang, Y. Zhang, and L. Dong, "Popularity-driven Coordinated Caching in Named Data Networking," in Proceedings of the 2012 ACM/IEEE Symposium on Architectures for Networking and Communications Systems, Oct 2012.
- 20. T. Vu, A. Baid, Y. Zhang, T. Nguyen, J. Fukuyama, R. Martin and D. Raychaudhuri, "DMap: A Shared Hosting Scheme for Dynamic Identifier to Locator Mappings in the Global Internet," in Proceedings of the 32<sup>nd</sup> International Conference on Distributed Computing Systems, June 2012. (Acceptance Rate: 13% -- 71 out of 515)
- 21. C. Xu, B. Firner, Y. Zhang, R. Howard, J. Li, X. Lin, "Improving RF-Based Device-Free Passive Localization In Cluttered Indoor Environments Through Probabilistic Classification Methods," in Proceedings of the 11<sup>th</sup> ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN), April 2012. (Acceptance Rate: 14.9%)
- 22. C. Xu, B. Firner, Y. Zhang, R. Howard and J. Li, "Trajectory-Based Indoor Device-Free Passive Tracking," in Proceedings of the 2nd International Workshop on Mobile Sensing, in conjunction with IPSN, April 2012.
- 23. T. Sun, Y. Zhang, and W. Trappe, "Improving Access Point Association Protocols Through Channel Utilization and Adaptive Probing," in the proceedings of IEEE MASS, poster, 2011.
- 24. B. Zan, T. Sun, M. Gruteser, F. Hu, and Y. Zhang, "A Privacy Preserving System for Friend Locator Applications," in Proceedings of the 9<sup>th</sup> ACM International Symposium on Mobility Management and Wireless Access, Oct 2011.
- 25. G. Bhanage, Y. Zhang, and D. Raychaudhuri, "Virtual Wireless Network Mapping: An Approach to Housing MVNOs on Wireless Meshes," in Proceedings of IEEE International Conference on Personal, Indoor and Mobile Radio Communications (PIMRC), Sep 2011.

- L. Dong, D. Zhang, Y. Zhang and D. Raychaudhuri, "Optimal Caching with Content Broadcast in Cache-and-Forward Networks", in Proceedings of the IEEE International Conference on Communications (ICC), June 2011.
- L. Dong, Y. Zhang and D. Raychaudhuri, "Performance Evaluation of Content Based Routing with In-Network Caching", in Proceedings of the IEEE Wireless & Optical Communications Conference (WOCC), 2011.
- L. Dong, Y. Zhang and D. Raychaudhuri, "Enhance Content Broadcast Efficiency in Routers with Integrated Caching", in Proceedings of the IEEE Symposium on Computers and Communications (ISCC), 2011.
- B. Firner, C. Xu, R. Howard, Y. Zhang, "Multiple Receiver Strategies for Minimizing Packet Loss in Dense Sensor Networks", in Proceedings of the 11<sup>th</sup> ACM Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc), pp 211-220, September 20-24, 2010.
- 30. K. Konstantinos, B. Firner, R. Howard, Y. Zhang, R. Martin, "Detecting Intra-Room Mobility with Signal Strength Descriptors", in Proceedings of the 11<sup>th</sup> ACM Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc), September 20-24, 2010.
- B. Zan, T. Sun, M. Gruteser, Y. Zhang, "The Boomerang Protocol: Tieing Data to Geographic Locations in Mobile Disconnected Networks," in Proceedings of the Eleventh International Conference on Mobile Data Management, May 2010.
- 32. Gautam Bhanage, Ivan Seskar, Yanyong Zhang, Dipankar Raychaudhuri, and Shweta Jain, "Experimental Evaluation Of OpenVZ From A Testbed Deployment Perspective," in proceedings of the 6th international conference of Testbeds and Research Infrastructure (ICST Tridentcom), Berlin, May, 2010.
- B. Zan, T. Sun, M. Gruteser, Y. Zhang, "ROME: Road Monitoring and Alert System through Geocache," in Proceedings of the Fourth International Workshop on System Management Techniques, Processes, and Services (SMTPS), April 2010.
- 34. G. Bhanage, R. Mahindra, I. Seskar, D. Raychaudhuri, and Y. Zhang, "Testbed Design For Facilitating SimultaneousWiMAX Experiments", extended abstract in the ACM wireless security symposium (WiSEC), Hoboken, NJ, March, 2010.
- 35. L. Dong, Y. Zhang, Y. Zhang, and D. Raychaudhuri, "Optimized content caching and request capture in cnf networks," in Proceedings of the fifth international wireless Internet conference (WICON), 2010.
- 36. L. Dong, Y. Zhang, and D. Raychaudhuri, "Gateway controlled content caching and retrieval for cache-and-forward networks," in the Proceedings of Globecom Workshop EFSOI, 2009.
- L. Dong, H. Liu, Y. Zhang, S. Paul and D. Raychaudhuri, "On the Cache-and-Forward Network Architecture," in Proceedings of the IEEE International Conference on Communications (ICC), 2009.
- B. Firner, P. Jadhav, Y. Zhang, R. Howard, W. Trappe, E. Fenson, "Towards Continuous Asset Tracking: Low-Power Communication and Fail-Safe Presence Assurance," in Proceedings of the 6<sup>th</sup> Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), 2009.
- B. Firner, P. Jadhav, Y. Zhang, R. Howard, W. Trappe, "Towards Continuous Tracking: Lowpower Communication and Fail-Safe Presence Assurance," in Proceedings of the International Conference on Information Processing in Sensor Networks (IPSN), pp.417-418, 2009.
- 40. G. Bhanage, Y. Zhang, "Software Architecture for Scalable Multi-Hop Mobility Emulation with Indoor Wireless Grids," in the proceedings of the Third IEEE International Workshop on Wireless Mesh and Ad Hoc Networks (WIMAN), collocated with IEEE ICDCS, Montreal, Canada, June 2009.
- H. Liu, D. Raychaudhuri and Y. Zhang, "Performance Evaluation of the Cache-and-Forward (CNF) Network for Mobile Content Delivery Services," in Proceedings of the IEEE workshop on Future-Networks, 2009.
- 42. Jiawei Sun, Bernhard Firner, Danfeng Yao, and Yanyong Zhang. "Efficient and Fault-Tolerant Detection of Attacks in RFID Asset Tracking Systems," in Proceedings of Wireless and Optical Communications Conference (WOCC). Newark, NJ. May 2009.

- 43. G. Bhanage, Y. Zhang, I. Seskar, "On the topology creation for an indoor wireless grid," in the proceedings of ACM Mobicom workshop on wireless network testbed evaluation and characterization, San Francisco, September 2008.
- 44. Gautam Bhanage, Yanyong Zhang, Ivan Seskar, "On topology creation for an indoor wireless grid," in Proceedings of WINTECH, pp. 81-88, 2008.
- 45. B. Firner, S. Medhekar, Y. Zhang, R. Howard, W. Trappe, P. Wolniansky and E. Fenson, "PIP Tags: Hardware Design and Power Optimization," in Proceedings of HotEmNets, 2008.
- 46. W. Xu, W. Trappe, Y. Zhang, "Anti-Jamming Timing Channels for Wireless Networks," in Proceedings of the 1st ACM Conference on Wireless Security (WiSec), 2008. (Acceptance Rate: 16.7%)
- 47. R. Mahindra, G. D. Bhanage, G. Hadjichristofi, I. Seskar, D. Raychaudhuri, Y. Zhang, "Space Versus Time Separation ForWireless Virtualization On An Indoor Grid," in Proceedings of the 2008 Next Generation Internet Networks (NGI), April 2008.
- 48. S. Medhekar, R. Howard, W. Trappe, Y. Zhang and P. Wolniansky, "Mining Joules and Bits: Towards a Long-Life Pervasive System," in Proceedings of the Fourth International Workshop on System Management Techniques, Processes, and Services (SMTPS), 2008.
- Y. Liang, Y. Zhang, H. Xiong, R. Sahoo, "Failure Prediction in IBM BlueGene/L Event Logs," in Proceedings of the 2007 IEEE Conference on Data Mining (ICDM), 2007. (101 papers accepted out of 526 submissions)
- 50. D. Rastogi, S. Ganu, Y. Zhang, W. Trappe, C. Graff, "A Comparative Study of AODV and OLSR on the ORBIT Testbed," in Proceedings of Milcom 2007, 2007.
- G. Bhanage, Y. Zhang, Y. Zhang, T. Wade, R. Howard, "RollCall : The Design For A Low Cost And Power Efficient Active RFID Asset Tracking System," in Proceedings of Eurocon 2007, 2007.
- S. Yu, Y. Zhang, "R-Sentry: Providing Continuous Sensor Services against Random Node Failures," in proceedings of IEEE International Conference on Dependable System and Network (DSN), 2007. (48 papers accepted out of 212 submissions)
- P. Kamat, W. Xu, W. Trappe, Y. Zhang, "Temporal Privacy in Wireless Sensor Networks," in Proceedings of the 27th IEEE Int. Conference on Distributed Computing Systems (ICDCS07), 2007. (71 papers accepted out of 528 submissions)
- 54. Y. Zhang, G. Bhanage, W. Trappe, Y. Zhang, R. Howard, "Facilitating an Active Transmit-only RFID System through Receiver-based Processing," in Proceedings of the Fourth Annual IEEE Communications Society Conference on Sensor, Mesh, and Ad Hoc Communications and Networks, 2007. (Acceptance Rate: 20%)
- 55. W. Xu, W. Trappe, Y. Zhang, "Channel Surfing: Defending Wireless Sensor Networks from Jamming and Interference," in Proceedings of the IEEE/ACM International Conference on Information Processing in Sensor Networks (IPSN), 2007. (55 papers accepted out of 216 submissions)
- 56. Y. Liang, Y. Zhang, H. Xiong, and R. Sahoo, "An Adaptive Semantic Filter for BlueGene/L Failure Log Analysis," in Proceedings of the Third International Workshop on System Management Techniques, Processes, and Services (SMTPS), 2007.
- 57. W. Xu, W. Trappe and Y. Zhang, "Poster Abstract: Channel Surfing: Defending Wireless Sensor Networks from Jamming and Interference," in Proceedings of the 4th ACM Conference on Embedded Networked Sensor Systems (SenSys 2006).
- 58. G. Bhanage, Y. Zhang, "Relay MAC: A Collision Free and Power Efficient Reading Protocol for Active RFID Tags," in Proceedings of the 15<sup>th</sup> International Conference on Computer Communications and Networks (ICCCN), 2006.
- 59. Y. Liang, Y. Zhang, A. Sivasubramaniam, M. Jette, R. Sahoo, "BlueGene/L Failure Analysis and Prediction Models," In proceedings of IEEE International Conference on Dependable System and Network (DSN '06), pp. 425-434, 2006. (34 papers accepted out of 187)
- J. Kang, Y. Zhang, B. Nath, "Analysis of Resource Increase and Decrease Algorithm in Wireless Sensor Networks," in Proceedings of the IEEE Symposium on Computers and Communications (ISCC), 2006.

- 61. K. Ma, Y. Zhang, W. Trappe, "Mobile Network Management and Robust Spatial Retreats via Network Dynamics," In Proceedings of the 1st International Workshop on Resource Provisioning and Management in Sensor Networks (RPMSN05), November 2005.
- 62. W. Trappe, Y. Zhang, B. Nath, "MIAMI: Methods and Infrastructure for the Assurance of Measurement Information," In Proceedings of the 2nd International VLDB Workshop on Data Management for Sensor Networks, August 2005.
- 63. S. Yu, A. Yang, and Y. Zhang, "DADA: A 2-Dimensional Adaptive Node Schedule to Provide Smooth Sensor Network Services against Random Failures," In Proceedings of the Workshop on Information Fusion and Dissemination in Wireless Sensor Networks, 2005.
- 64. W. Xu, W. Trappe, Y. Zhang, T. Wood, "The Feasibility of Launching and Detecting Jamming Attacks in Wireless Networks," In Proceedings of the ACM International Symposium on Mobile Ad Hoc Networking and Computing (Mobihoc), pp. 46-57, 2005. (40 papers accepted out of 281 submissions.)
- 65. Y. Liang, Y. Zhang, A. Sivasubramaniam, R. Sahoo, J. Moreira, M. Gupta, "Filtering Failure Logs for a BlueGene/L Prototype," In Proceedings of the International Conference on Dependable Systems and Networks (DSN), pp. 476- 485, 2005. (55 papers accepted out of 261 submissions.)
- 66. Z. Li, W. Trappe, Y. Zhang, B. Nath, "Robust Statistical Methods for Securing Wireless Localization in Sensor Networks," In Proceedings of the IEEE/ACM International Conference on Information Processing in Sensor Networks (IPSN), pp. 91-98, 2005. (55 papers accepted out of 213 submissions.)
- 67. P. Kamat, Y. Zhang, W. Trappe and C. Ozturk, "Enhancing Source-Location Privacy in Sensor Network Routing," In Proceedings of the 25th International Conference on Distributed Computing Systems (ICDCS), pp. 599 – 608, Columbus, OH, June 2005. (75 papers accepted out of 543 submissions.)
- 68. J. Kang, Y. Zhang, B. Nath. "Accurate and Energy-efficient Congestion Level Measurement in Ad Hoc Networks," In Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), New Orleans, LA, USA, March 13-17, 2005.
- 69. Z. Li, Y. Zhang, W. Trappe, B. Nath, "Securing Wireless Localization: Living with Bad Guys," In Proceedings of the 2004 DIMACS Workshop on Mobile and Wireless Security, 2004.
- 70. J. Kang, Y. Zhang, B. Nath, "End-to-End Channel Capacity Measurement for Congestion Control in Sensor Networks," In Proceedings of the Second International Workshop on Sensor and Actor Network Protocols and Applications (SANPA, formerly IEEE SNPA) in conjunction with MobiQuitous held in cooperation with IEEE Computer Society and ACM SIGMOBILE, Boston, MA, USA, August 2004.
- 71. W. Xu, T. Wood, W. Trappe, Y. Zhang, "Channel Surfing and Spatial Retreats Defenses against Wireless Denial of Service," In Proceedings of the Second ACM Workshop on Wireless Security (Wise 2004) in conjunction with Mobicom, pp. 80-89, Philadelphia, PA, October 2004. (11 papers accepted out of 48 submissions).
- 72. C. Ozturk, Y. Zhang, W. Trappe, "Source-Location Privacy in Energy-Constrained Sensor Network Routing". In Proceedings of the 2004 ACM Workshop on Security of Ad Hoc and Sensor Networks (SASN) in conjunction with ACM Conference on Computer and Communications Security, pp. 88-93, Washington, D.C., October 2004. (13 papers accepted out of 36 submissions).
- 73. J. Kang, Y. Zhang, B. Nath, S. Yu, "Adaptive Resource Control Scheme to Alleviate Congestion in Sensor Networks," In Proceedings of the First Workshop on Broadband Advanced Sensor Networks (BASENETS) co-sponsored by IEEE Communications Society, San Jose, CA., October 2004.
- 74. R. Sahoo, A. Sivasubramaniam, M. Squillante, Y. Zhang, "Failure Data Analysis of a Large-Scale Heterogeneous Server Environment," In Proceedings of the International Conference on Dependable Systems and Networks (DSN), pp. 772-781, Florence, Italy, June 2004. (25 papers accepted out of 101 submissions in the PDS track). [Author order is alphabetical].
- 75. Y. Zhang, M. Squillante, A. Sivasubramaniam, R. Sahoo, "Performance Implications of Failures in Large-Scale Cluster Scheduling," In Proceedings of 10th Workshop on Job Scheduling Strategies for Parallel Processing, New York, NY, June 2004.

- 76. C. Ozturk, Y. Zhang, W. Trappe, M. Ott, "Source-Location Privacy for Networks of Energy-Constrained Sensors," In Proceedings of the 2nd IEEE Workshop on Software Technologies for Embedded and Ubiquitous Computing Systems, pp. 68-72, Vienna, Austria, 2004.
- 77. J. Zhang, A. Sivasubramaniam, H. Franke, N. Gautam, Y. Zhang, S. Nagar, "Synthesizing Representative I/O Workloads for TPC-H," In Proceedings of the International Symposium on High Performance Computer Architecture (HPCA), pp. 142-151, Madrid, Spain, February 2004. (27 papers accepted out of 153 submissions.)
- 78. Y. Zhang, A. Yang, A. Sivasubramaniam, J. Moreira, "Gang Scheduling Extensions for I/O Intensive Workloads," In Proceedings of the 9th Workshop on Job Scheduling Strategies for Parallel Processing, Seattle, WA, June 2003. Also appeared in Lecture Notes in Computer Science 2862, pp. 183-207.
- 79. Y. Zhang, J. Zhang, A. Sivasubramaniam, C. Liu, H. Franke, "Decision-Support Workload Characteristics on a Clustered Database Server from the OS Perspective," In Proceedings of the 23rd International Conference on Distributed Computing Systems (ICDCS), pp. 386-393, May 2003. (72 papers accepted out of 406 submissions).
- Y. Zhang, S. Nagar, J. Zhang, H. Franke, A. Sivasubramaniam, "Characterizing the Scalability of Decision-Support Workloads on Clusters and SMP Systems," In Proceedings of 8th International Euro-Par Conference, Lecture Notes in Computer Science 2400, pp. 355-364, Paderborn, Germany, August 2002.
- Y. Zhang, J. Zhang, A. Sivasubramaniam, C. Liu, H. Franke, "Characterizing TPC-H on a Clustered Database Engine from the OS Perspective," HPCA Workshop on Computer Architecture Evaluation using Commercial Workloads (CAECW-02), Boston, MA, February 2002.
- 82. Y. Zhang, A. Sivasubramaniam, "Scheduling Best-Effort and Real-Time Pipelined Applications on Time-Shared Clusters," In Proceedings of the 13th Annual ACM symposium on Parallel Algorithms and Architectures (SPAA'2001), pp. 209-218, Crete Island, Greece, July 2001. (34 papers accepted out of 93 submissions).
- Y. Zhang, H. Franke, J. Moreira, A. Sivasubramaniam, "An Integrated Approach to Parallel Scheduling Using Gang-Scheduling, Backfilling and Migration," In Proceedings of 7th Workshop on Job Scheduling Strategies for Parallel Processing, Lecture Notes in Computer Science, Vol. 2221, pp. 133-158, June 2001.
- Y. Zhang, H. Franke, J. Moreira, A. Sivasubramaniam, "The Impact of Migration on Parallel Job Scheduling for Distributed Systems," In Proceedings of 6th International Euro-Par Conference, Lecture Notes in Computer Science 1900, pp. 242-251, Munich, Germany, August/September 2000.
- 85. Y. Zhang, A. Sivasubramaniam, H. Franke, J. Moreira, "A Simulation-based Study of Scheduling Mechanisms for a Dynamic Cluster Environment," In Proceedings of 14th ACM International Conference on Supercomputing (ICS'2000), pp. 100-109, Santa Fe, NM, May 2000. (33 papers accepted out of 122 submissions).
- 86. Y. Zhang, H. Franke, J. Moreira, A. Sivasubramaniam, "Improving Parallel Job Scheduling by Combining Gang Scheduling and Backfilling Techniques," In Proceedings of International Parallel and Distributed Processing Symposium (IPDPS'2000) pp. 133-142, Cancun, Mexico, May 2000.