

## Parth H. Pathak

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Computer Science Department  
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## Research Interests

**Wireless and mobile computing:** high-speed wireless and mobile networks, multi-gigabit wireless networking, Internet-of-Things, RF and mmWave sensing, mobile and wearable sensing, ubiquitous computing, cyber-physical systems

## Education

- **Ph.D. in Computer Science** (2012)  
North Carolina State University, Raleigh, NC, USA  
Advisor: Rudra Dutta  
Thesis: Designing for Network and Service Continuity in Wireless Networks
- **M.S. in Computer Science** (2010, En Route to Ph.D.)  
North Carolina State University, Raleigh, NC, USA  
Advisor: Rudra Dutta
- **B.E. in Information Technology** (2005)  
Gujarat University (L.D. College of Engineering), Gujarat, India.

## Professional Experience and Employment

- **Assistant Professor** (Aug '16 - Present)  
Computer Science Department, George Mason University, Fairfax, VA, USA
- **Postdoctoral Research Fellow** (Aug. '12 - July '16)  
Computer Science Department, University of California, Davis, CA, USA  
Mentor: Prasant Mohapatra
- **Research Assistant** (Aug. '08 - July '12)  
Computer Science Department, North Carolina State University, Raleigh, NC, USA
- **Software Intern** (May '08 - Aug. '08)  
Cisco Systems Inc., Wireless Network Business Unit, San Jose, CA, USA
- **Research Intern** (May '06 - Dec. '06)  
Qualcomm Flarion Research Center, Bedminster, NJ, USA

## Publications

**Total citations: 2118, H-index: 17, i-10 index: 25**

\* indicates students currently advising at GMU, † indicates students advised at UC Davis as a postdoc

## Books

1. Parth H. Pathak and Rudra Dutta, "Designing for Network and Service Continuity in Wireless Mesh Networks", *Springer Science and Business Media*, 2012.

## Journals (Peer-reviewed)

1. Hao Fu<sup>†</sup>, Pengfei Hu<sup>†</sup>, Zizhan Zheng, Aveek Das<sup>†</sup>, Parth Pathak, Tianbo Gu, Sencun Zhu, and Prasant Mohapatra, "Towards Automatic Detection of Nonfunctional Sensitive Transmissions in Mobile Applications", *IEEE Transactions on Mobile Computing (TMC)*, 2020. [Impact Factor = 4.4]
2. Pengfei Hu<sup>†</sup>, Parth H. Pathak, Huanle Zhang, Zhicheng Yang<sup>†</sup>, and Prasant Mohapatra, "High Speed LED-to-Camera Communication using Color Shift Keying with Flicker Mitigation", *IEEE Transactions on Mobile Computing (TMC)*, 2019. [Impact Factor = 4.1]
3. Zhicheng Yang<sup>†</sup>, Parth H. Pathak, Yunze Zeng<sup>†</sup>, Xixi Liran and Prasant Mohapatra, "A Vital Sign and Sleep Monitoring Using Millimeter Wave", *ACM Transactions on Sensor Networks (TOSN)*, Volume 13 Issue 2, June 2017. [Impact Factor = 2.6]
4. Aveek K. Das<sup>†</sup>, Parth H. Pathak, Chen-Nee Chuah, Prasant Mohapatra, "Privacy-aware Contextual Localization using Network Traffic Analysis", *Elsevier Computer Networks*, Volume 118, May 2017. [Impact Factor = 2.5]
5. Yunze Zeng<sup>†</sup>, Parth H. Pathak, Prasant Mohapatra, "Throughput, energy efficiency and interference characterisation of 802.11ac", *Transactions on Emerging Telecommunications Technologies (ETT)*, Volume 28, Jan 2017. [Impact Factor = 1.6]
6. Parth H. Pathak, Xiaotao Feng, Pengfei Hu<sup>†</sup> and Prasant Mohapatra, "Visible Light Communication, Networking and Sensing: A Survey, Potential and Challenges", *IEEE Communications Surveys and Tutorials (COMSOC-CST)*, 2015.
7. Arun Raghuramu<sup>†</sup>, Parth H. Pathak, Hui Zang, Jinyoung Han, Chang Liu, Chen-Nee Chuah, "Uncovering the footprints of malicious traffic in wireless/mobile networks", *Elsevier Computer Communications (ComCom)*, Volume 95, Dec. 2016. [Impact Factor: 3.3]
8. Aveek K. Das<sup>†</sup>, Parth H. Pathak, Chen-Nee Chuah, and Prasant Mohapatra, "Characterization of Wireless Multidevice Users", *ACM Transactions on Internet Technology (TOIT)*, Vol. 16, Dec. 2016. [Impact Factor = 2.0]
9. Parth H. Pathak, Xiaotao Feng, Pengfei Hu<sup>†</sup> and Prasant Mohapatra, "Visible Light Communication, Networking and Sensing: A Survey, Potential and Challenges", *IEEE Communications Surveys and Tutorials (COMSOC-CST)*, Vol. 17, Sept. 2015. [Impact Factor = 17.1]
10. Parth H. Pathak, Rudra Dutta and Prasant Mohapatra, "On Availability-Perforability Trade-off in Wireless Mesh Networks", *IEEE Transactions on Mobile Computing (TMC)*, Vol. 14, Jun 2014. [Impact Factor = 3.8]
11. Kefeng Tan, Shraboni Jana, Parth H. Pathak and Prasant Mohapatra, "On Insider Misbehavior Detection in Cognitive Radio Networks", *IEEE Network Magazine, Special Issue on Security in Cognitive Radio Networks (Network)*, Vol. 27, May 2013. [Impact Factor = 7.1]
12. Parth H. Pathak and Rudra Dutta, "Centrality-based Power Control for Hot-spot Mitigation in Multi-hop Wireless Networks", *Elsevier Computer Communications (COMCOM)*, Vol. 35, May 2012. [Impact Factor: 3.3]
13. Parth H. Pathak and Rudra Dutta, "A Survey of Network Design Problems and Joint Design Approaches in Wireless Mesh Networks", *IEEE Communications Surveys and Tutorials (COMSOC-CST)*, Vol. 13, June 2011. [Impact Factor = 17.1]

## Conferences and Workshops (Refereed)

1. Panneer Selvam Santhalingam\*, Al Amin Hosain\*, Ding Zhang\*, Parth Pathak, Huzefa Rangwala and Raja Kushalnagar, "mmASL: Environment-Independent ASL Gesture Recognition using 60

- GHz Millimeter-wave Signals”, *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT/ UbiComp)*, Cancun, Mexico (moved to virtual), 2020. [Acceptance rate = 19%]
2. Panneer Selvam Santhalingam\*, Yuanqi Du\*, Riley Wilkerson\*, Al Amin Hosain\*, Ding Zhang\*, Parth Pathak, Huzefa Rangwala, and Raja Kushalnagar, “Expressive ASL Recognition using Millimeter-wave Wireless Signals”, *IEEE International Conference on Sensing, Communication and Networking, (SECON)*, Italy (moved to virtual), 2020. [acceptance rate = 27%]
  3. Al Amin Hosain\*, Panneer Selvam Santhalingam\*, Parth Pathak, Jana Košecká, and Huzefa Rangwala, “Sign Language Recognition Analysis using Multimodal Data”, *IEEE International Conference on Data Science and Advanced Analytics (DSAA)*, Washington DC, USA, October 2019, [Acceptance Rate = 29%, Best Research Paper Award]
  4. Ding Zhang\*, Panneer Selvam Santhalingam\*, Parth Pathak and Zizhan Zheng, “Characterizing Interference Mitigation Techniques in Dense 60 GHz mmWave WLANs”, *International Conference on Computer Communications and Networks (ICCCN)*, Valencia, Spain, July, 2019. [Acceptance Rate = 29%]
  5. Zhicheng Yang<sup>†</sup>, Parth Pathak, Mo Sha, Tingting Zhu, Junai Gan, Pengfei Hu<sup>†</sup>, Prasant Mohapatra, “On Feasibility of Estimating Soluble Sugar Content using Millimeter-wave”, *ACM/IEEE Conference on Internet of Things Design and Implementation (IoTDI)*, Montreal, Canada, April 2019. [Acceptance Rate = 35%]
  6. Ding Zhang\*, Mihir Garude\* and Parth H. Pathak, “mmChoir: Exploiting Joint Transmissions for Reliable 60GHz mmWave WLANs”, *ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, Los Angeles, USA, June 2018. [Acceptance Rate = 17%]
  7. Zhicheng Yang<sup>†</sup>, Parth H. Pathak, Jianli Pan, Mo Sha and Prasant Mohapatra, “Sense and Deploy: Blockage-aware Deployment of Reliable 60 GHz mmWave WLANs”, *IEEE International Conference on Mobile, Ad-hoc and Sensor Systems (MASS)*, Chengdu, China, Oct. 2018. [Acceptance Rate = unavailable, last 10 years average = 26%]
  8. Aveek K. Das<sup>†</sup>, Parth H. Pathak, Josiah Jee<sup>†</sup>, Chen-Nee Chuah and Prasant Mohapatra, “WiFi-Assisted Non-Intrusive Multi-Modal Estimation of Building Occupancy”, *ACM Conference on Embedded Networked Sensor Systems (SenSys)*, Delft, The Netherlands, Nov. 2017. [Acceptance Rate = 17%]
  9. Pengfei Hu<sup>†</sup>, Parth H. Pathak, Yilin Shen, Hongxia Jin and Prasant Mohapatra, “PCASA: Proximity based Continuous and Secure Authentication of Personal Wearable Devices”, *IEEE International Conference on Sensing, Communication and Networking (SECON)*, June 2017. [Acceptance Rate = 26%]
  10. Josiah Jee<sup>†</sup>, Aveek Das<sup>†</sup>, Parth H. Pathak, and Prasant Mohapatra, “MotionSync: Personal Energy Analytics through Motion Tags and Wearable Sensing”, *ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys)*, Stanford, CA, 2016. [Acceptance Rate = 24%, Best Paper Award Finalist]
  11. Zhicheng Yang<sup>†</sup>, Parth H. Pathak, Yunze Zeng<sup>†</sup>, Xixi Liran and Prasant Mohapatra, “Monitoring Vital Signs Using Millimeter Wave”, *ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, Paderborn, Germany, July 2016. [Acceptance Rate = 18%]
  12. Pengfei Hu<sup>†</sup>, Parth H. Pathak, Aveek Das<sup>†</sup>, Zhicheng Yang<sup>†</sup> and Prasant Mohapatra, “PLiFi: Hybrid WiFi-VLC Networking using Power Lines”, *ACM Workshop on Visible Light Communication Systems (VLCS)*, co-located with MobiCom 2016.
  13. Hao Fu, Zizhan Zheng, Aveek K. Das<sup>†</sup>, Parth H. Pathak, Pengfei Hu<sup>†</sup>, Prasant Mohapatra, “Flow-

- Intent: Detecting Privacy Leakage from User Intention to Network Traffic Mapping”, *IEEE International Conference on Sensing, Communication and Networking (SECON)*, London, UK, June 2016. [Acceptance Rate = 26%]
14. Yunze Zeng<sup>†</sup>, Parth H. Pathak and Prasant Mohapatra, “WiWho: WiFi-based Person Identification in Smart Spaces”, *ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, Vienna, Austria, February 2016. [Acceptance Rate = 20%]
  15. Aweek Das<sup>†</sup>, Parth H. Pathak, Chen-Nee Chuah and Prasant Mohapatra, “Uncovering Privacy Leakage in BLE Network Traffic of Wearable Fitness Trackers”, *ACM International Workshop on Mobile Computing Systems and Applications (HotMobile)*, St. Augustine, FL, USA, Feb. 2016. [Acceptance Rate = 33%]
  16. Pengfei Hu<sup>†</sup>, Parth H. Pathak, Xiaotao Feng, Hao Fu and Prasant Mohapatra, “ColorBars: Increasing Data Rate of LED-to-Camera Communication using Color Shift Keying”, *ACM International Conference on emerging Networking EXperiments and Technologies (CoNEXT)*, Heidelberg, Germany, December 2015. [Acceptance Rate = 17%]
  17. Zhicheng Yang<sup>†</sup>, Parth H. Pathak, Yunze Zeng<sup>†</sup> and Prasant Mohapatra, “Sensor-assisted Codebook-based Beamforming for Mobility Management in 60 GHz WLANs”, *IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS)*, Dallas, TX, USA, October 2015. [Acceptance Rate = 26%]
  18. Muchen Wu<sup>†</sup>, Parth H. Pathak and Prasant Mohapatra, “Monitoring Building Door Events using Barometer Sensor in Smartphones”, *ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)*, Osaka, Japan, September 2015. [Acceptance Rate = 22%]
  19. Muchen Wu<sup>†</sup>, Parth H. Pathak and Prasant Mohapatra, “Enabling Privacy-Preserving First-Person Cameras using Low-Power Sensors”, *IEEE International Conference on Sensing, Communication, and Networking (SECON)*, Seattle, WA, USA, June 2015. [Acceptance Rate = 28%]
  20. Aweek Das<sup>†</sup>, Parth H. Pathak, Chen-Nee Chuah and Prasant Mohapatra, “Characterization of Wireless Multi-Device Users”, *IEEE International Conference on Sensing, Communication, and Networking (SECON)*, Seattle, WA, USA, June 2015. [Acceptance Rate = 28%]
  21. Li Zhang<sup>†</sup>, Parth H. Pathak, Muchen Wu<sup>†</sup>, Yixin Zhao and Prasant Mohapatra, “AccelWord: Energy Efficient Hotword Detection through Accelerometer”, *ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, Florence, Italy, May 2015. [Acceptance Rate = 13%]
  22. Li Zhang<sup>†</sup>, Chao Xu<sup>†</sup>, Parth H. Pathak and Prasant Mohapatra, “Characterizing Instant Messaging Apps on Smartphones”, *Passive and Active Measurements Conference (PAM)*, Springer Pub., New York, NY, USA, March 2015. [Acceptance Rate = 28%]
  23. Chao Xu<sup>†</sup>, Parth H. Pathak and Prasant Mohapatra, “Finger-writing with Smartwatch: A Case for Finger and Hand Gesture Recognition using Smartwatch”, *ACM Workshop on Hot Topics in Mobile Computing Systems and Applications (HotMobile)*, Santa Fe, NM, USA, February 2015. [Acceptance Rate = 27%]
  24. Yunze Zeng<sup>†</sup>, Parth H. Pathak, Chao Xu<sup>†</sup> and Prasant Mohapatra, “Your AP Knows How You Move: Fine-grained Device Motion Recognition through WiFi”, *ACM Workshop on Hot Topics in Wireless (HotWireless)*, Maui, HI, USA (co-located with Mobicom 2014), September 2014.
  25. Yunze Zeng<sup>†</sup>, Parth H. Pathak and Prasant Mohapatra, “A First Look at 802.11ac in Action: Energy Efficiency and Interference Characterization”, *IFIP International Conference on Networking (Networking)*, Trondheim, Norway, June 2014. [Acceptance Rate = 25%, Best Paper Award]
  26. Aweek K. Das<sup>†</sup>, Parth H. Pathak, Chen-Nee Chuah and Prasant Mohapatra, “Contextual Localiza-

- tion Through Network Traffic Analysis”, *IEEE International Conference on Computer Communication (INFOCOM)*, Toronto, Canada, May 2014. [Acceptance Rate = 19%]
27. Gaurish Deuskar, Parth H. Pathak and Rudra Dutta, “Packet Aggregation based Back-pressure Scheduling in Multi-hop Wireless Networks”, *IEEE Wireless Communications and Networking Conference (WCNC)*, Paris, France, April 2012. [Acceptance Rate = 32%]
  28. Parth H. Pathak and Rudra Dutta, “Impact of Power Control on Capacity of TDM-scheduled Wireless Mesh Networks”, *IEEE International Conference on Communications (ICC)*, Kyoto, Japan, June 2011. [Acceptance Rate = 38%]
  29. Parth H. Pathak and Rudra Dutta, “Using Centrality-based Power Control for Hot-spot Mitigation in Multi-hop Wireless Networks”, *IEEE Global Communications Conference (GlobeCom)*, Miami, FL, USA, December 2010. [Acceptance Rate = 36%]
  30. Parth H. Pathak and Rudra Dutta, “Impact of Power Control on Relay Load Balancing in Wireless Sensor Networks”, *IEEE Wireless Communications and Networking Conference (WCNC)*, Sydney, Australia, April 2010. [Acceptance Rate = 37%]
  31. Junbum Lim, Parth H. Pathak, M. Pandian, U. Patel, G. Deuskar, A. Danivasa, M.L. Sichitiu, and R. Dutta, “CentMesh: A Modular and Extensible Wireless Mesh Network Testbed”, *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)*, Berlin, Germany, May 2010.
  32. Parth H. Pathak and Rudra Dutta, “Impact of Power Control on Capacity of Large Scale Wireless Mesh Networks”, *IEEE International Symposium on Advanced Networks and Telecommunication Systems (ANTS)*, New Delhi, India, December 2009.
  33. Dheeraj Kandula, Parth H. Pathak and Rudra Dutta, “MF-TCP : Design and Evaluation of TCP for Message Ferry Delay Tolerant Networks”, *Australasian Telecommunication Networks and Applications Conference (ATNAC)*, Canberra, Australia, November 2009.
  34. Parth H. Pathak, Divya Gupta and Rudra Dutta, “Loner Links Aware Routing and Scheduling in Wireless Mesh Networks”, *IEEE International Symposium on Advanced Networks and Telecommunication Systems (ANTS)*, Mumbai, India, December 2008.

#### Invited Papers

1. Ningning Cheng, Shaxun Chen, Parth H. Pathak, Prasant Mohapatra, “Long-term Privacy Profiling through Smartphone Sensors”, *International Workshop on Social Sensing (SocialSens)*, Dallas, TX, USA (co-located with MASS 2015), October 2015.
2. Christopher Buckley<sup>†</sup>, Parth H. Pathak, Aveek Das<sup>†</sup>, Chen-Nee Chuah and Prasant Mohapatra, “AnonAD: Privacy-aware Micro-targeted Mobile Advertisements without Proxies”, *IEEE International Conference on Computer Communications and Networks (ICCCN)*, Las Vegas, NV, USA, August 2015.
3. Yunze Zeng<sup>†</sup>, Parth H. Pathak and Prasant Mohapatra, “Analyzing Shopper’s Behavior through WiFi Signals”, *ACM Workshop on Physical Analytics (WPA)*, Florence, Italy (co-located with MobiSys 2015), May 2015.

#### Posters and Demos

1. Yixin Zhao<sup>†</sup>, Parth H. Pathak, Chao Xu and Prasant Mohapatra, “Demo: Finger and Hand Gesture Recognition using Smartwatch”, *ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, Florence, Italy, May 2015.
2. Parth H. Pathak, Sankalp Nimbhorkar and Rudra Dutta, “Poster: Channel Width Assignment us-

ing Relative Backlog: Extending Back-pressure to Physical Layer”, *ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, Hilton Head Island, SC, USA, June 2012.

## Patents

1. Prasant Mohapatra, Parth H. Pathak and Yunze Zeng, “WiFi-based person-identification technique for use in smart spaces”, US Patent No. US10045717B2, patent issued on 08/14/2018.
2. Prasant Mohapatra, Li Zhang, Parth H. Pathak and Muchen Wu, “Energy-efficient, accelerometer-based hotword detection to launch a voice-control system”, US Patent App. 15/498,835, US Patent No. US10347249B2, patent issued on 07/09/2019.

## Research Grants

### Awarded

#### **4 grants, total Mason value \$1.2M**

1. **NSF: CNS-1815945** “NeTS: Small: Collaborative Research: Reliable 60 GHz WLANs through Coordination: Measurement, Modeling and Optimization”,  
Lead PI: Parth Pathak, Collaborative grant with Zizhan Zheng (Tulane University),  
Grant amount: \$499,028 (GMU Share: \$263,116), Duration: 10/2018 - 9/2021.
2. **NSF: CNS-1730083** “II-New: 60 GHz Millimeter-Wave Testbed for Multi-Gigabit Wireless Networking”,  
Lead PI: Parth Pathak, Co-PIs: Robert Simon, Brian Mark, Zhi Tian,  
Grant amount: \$843,718, Duration: 10/2017 - 9/2019.
3. **GMU: Summer Impact Undergraduate Research** “Multi-modal Sign Language Recognition”,  
Lead PI: Parth Pathak, Co-PIs: Huzefa Rangwala, Jana Kosecka, Linda Mason,  
Grant amount: \$48,000, Duration: 05/2019 - 08/2019.
4. **Google Faculty Research Award** “Multimodal American Sign Language Recognition”,  
Lead PI: Jana Kosecka, Co-PIs: Parth Pathak, Huzefa Rangwala,  
Grant Amount: \$50,894, Duration: 05/2019 - 05/2020.

## Teaching

### At George Mason University

1. **CS 555: Computer Communications and Networks (Spring '19)**  
Enrollment: 25, Instructor rating: 4.63, Course rating: 4.42
2. **CS 471: Operating Systems (Fall '18)**  
Enrollment: 6, Instructor rating: 5.00, Course rating: 4.50
3. **CS 695: Wireless and Mobile Computing (Fall '17)**  
Enrollment: 21, Instructor rating: 4.82, Course rating: 4.76
4. **CS 471: Operating Systems (Spring '17)**  
Enrollment: 47, Instructor rating: 4.03, Course rating: 3.79
5. **CS 695: Wireless and Mobile Computing (Fall '16)**  
Enrollment: 11, Instructor rating: 4.80, Course rating: 4.80

## Student Advising

At George Mason University

- **PhD Dissertation Advisor**
  1. Ding Zhang (PhD, CS, Expected 2021)
  2. Panneer Selvam Santhalingam (PhD, CS)
  3. Yoon Chae (PhD, CS)
  4. Shuai Wang (PhD, CS)
  5. Ahmad Kamari (PhD, CS)
- **PhD Dissertation Committee Member**
  1. Reem Albarrack (PhD IT)
  2. Hanke Cheng (PhD ECE)
  3. Abhishek Roy (PhD CS)
  4. Arda Gumusalan (PhD CS, 2019)
  5. Haoliang Wang (PhD CS, 2019)
- **Master Research Project**
  1. Mihir Garude (MS, ECE, Spring 17 - Summer 18)
- **Undergraduate Research**
  1. Yuanqi Du (NSF REU Fellowship)
  2. Jesse McCandlish (Senior of the Year, 2020)
  3. Ariana Havens
  4. Allison Dockum
  5. Dong Young Huh
  6. Frederick Olson
  7. Nguyen Dang
  8. Riley Wilkerson
  9. Sai Gurrapu

At University of California, Davis (as a post-doctoral scholar)

- **PhD Dissertation Mentor**
  1. Zhicheng Yang (PhD, Expected 2019)
  2. Aveek Das (PhD, 2018)
  3. Yunze Zeng (PhD, 2018)
  4. Pengfei Hu (PhD, 2018)
  5. Arun Raghuramu (PhD, 2018)
  6. Muchen Wu (PhD, Expected 2019)
  7. Li Zhang (PhD, 2015)
- **Masters and Undergraduate Research**
  1. Chao Xu (MS, 2015)
  2. Amanda Lins (BS, 2013)
  3. Andrew Yi (BS, 2014)
  4. Yumo Rong (BS, 2014)

5. Lidan Mu (BS, 2015)
6. Jeymisson Oliveira (BS, 2015)

## Honors and Awards

- **Best Paper Award** at IEEE International Conference on Data Science and Advanced Analytics (DSAA) 2019 for work titled “Sign Language Recognition Analysis using Multimodal Data”.
- **Excellence in Postdoctoral Research at UC Davis** - Campus-wide award for outstanding post-doctoral research; One of the two recipients of the award for year 2015 selected from 800+ postdocs at UC Davis.
- **Best Paper Award** at IFIP International Networking Conference 2014 for work titled “A First Look at 802.11ac in Action: Energy Efficiency and Interference Characterization”.
- **Best Paper Finalist** at ACM BuildSys 2016 Conference for work titled “MotionSync: Personal Energy Analytics through Motion Tags and Wearable Sensing”.
- **Distinguished member** of technical program committee for IEEE Infocom 2020, 2019, 2018 and 2017.
- Best Poster Award at NC State Graduate Student Seminar 2007 for poster titled “Software-defined Cognitive Radio Networks”.
- Research In Motion (RIM) Graduate Research Fellowship 2011, North Carolina State University.
- Research fellowship for 2008-2010 from Army Research Office (ARO), managed by Secure Open Systems Initiative (SOSI) at NC State University.

## Service

### University, College and Department Service

At George Mason University

- Computer Science Ph.D. Admissions Committee 2017, 2019, 2020
- Computer Science MS Admissions Committee 2018, 2019, 2020

### Professional Service

- **Conference/Workshop Organization**
  - Program chair, 3rd ACM Workshop on Millimeter-Wave Networks and Sensing Systems (mmNets) 2019, co-located with ACM MobiCom 2019
  - Publicity chair, IEEE International Symposium on a World of Wireless, Mobile and Multi-media Networks (WoWMoM) 2014
- **Conference/Workshop Technical Program Committee**
  - IEEE International Conference on Computer Communications (INFOCOM) 2017-2020
  - ACM International Workshop on Wireless Network Testbeds, Experimental evaluation and Characterization (WinTech) 2017, 2019-2020
  - IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS) 2018-2020
  - IEEE Wireless Communications and Networking Conference (WCNC) 2012-2014, 2016-2019
  - IEEE International Conference on Computer Communications (INFOCOM) 2018
  - ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)



- 2018, 2019
- ACM Workshop on Millimeter Wave Networks and Sensing Systems (mmNets) 2018-2020
- International Conference on Computer Communications and Networks (ICCCN) 2018-2019
- IEEE Global Communication Conference (GlobeCom) 2013, 2018, 2019
- IEEE International Symposium on Personal, Indoor and Mobile Radio Communication (PIMRC) 2011-2012
- **Journal Reviewing**
  - IEEE Transactions on Mobile Computing (TMC), 2015-2020
  - ACM Transactions on Internet of Things (TloT) 2020.
  - Elsevier Pervasive and Mobile Computing (PMC) 2020.
  - IEEE JSAC Special Issue on Millimeter-wave Networking 2019
  - ACM Journal on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2017-2019
  - IEEE/ACM Transactions on Networking (ToN), 2016-2019
  - IEEE Transactions on Wireless Communications (TWC), 2017, 2019, 2020
  - ACM SIGMOBILE Mobile Computing and Communications Review (MC2R), 2015
  - IEEE Transactions on Vehicular Technology (TVT), 2016
  - Elsevier Computer Networks, 2014-2016
  - Elsevier Ad-Hoc networks, 2015-2016
- **Grant Proposal Review**
  - National Science Foundation (NSF) review panelist 2017-2020.