

Romit Roy Choudhury

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Appointments

- Dept. of ECE and CS, University of Illinois at Urbana-Champaign (UIUC)
Professor and [Jerry Sanders III AMD Inc. Scholar](#)
Associate Professor
Aug 2017 – present
Sep 2013 – Aug 2017
- Dept. of ECE and CS, Duke University
Nortel Networks Associate Professor
Assistant Professor
Aug 2011 – Aug 2013
Aug 2006 – Aug 2011
- Visiting Principal Researcher, Samsung AI Labs, Cambridge
Fall 2019
- Visiting Researcher, Intel
Summer 2016
- Visiting Researcher, Microsoft Research, Redmond
Summer 2010

Education

- University of Illinois at Urbana-Champaign, USA
Computer Science, Ph.D., October, 2006.
- University of Illinois at Urbana-Champaign, USA
Electrical and Computer Engineering (ECE), M.S., May 2003.

Honors and Awards

- 2019 IEEE Fellow
- 2019 Dean's List of Excellent Teachers (2019, 2018, 2017, 2015)
- 2018 [Google Faculty Research Award](#)
- 2017 [ACM MobiSys Best Paper Award](#)
- 2017 [Named Jerry Sanders III AMD Scholar](#)
- 2016 [Distinguished Alumni Award from CS@UIUC](#)
- 2015 [ACM Sigmobile Rockstar Award](#)
- 2015 IBM Faculty Research Award
- Best Demo, HotMobile 2015
- 2013 UbiComp Best Paper Honorable Mention
- Best Paper Candidate, ACM MobiSys 2012
- Winner of ACM MobiSys Best Poster, Runner up for ACM MobiSys demo, 2011
- Runners Up of ACM MobiSys Demo Contest, 2011
- 2010 Winner of ACM MobiCom Student Research Competition
- 2009 Hoffmann Krippner Award for Innovations in Engineering
- Appointed Nortel Network Assistant Professor of ECE, 2009
- 2007 NSF CAREER Award
- Vodafone Graduate Fellowship, 2005
- Motorola Center for Communications Fellowship, 2004 and 2003
- Best Paper Award – Personal Wireless Conference (PWC) 2003
- University Silver Medal, B.Tech, 2000

Professional Activities

- **Selected Keynotes and Invited Talks**

Invited speaker, NUS Computer Science Week, Singapore, 2020
Keynote at ACM EarComp Workshop (with UbiComp), London, 2019
Keynote at MobiUK Symposium, Oxford University, 2019
Invited Plenary Speaker, NSF Career Workshop, 2017
Invited talk at UC Berkeley Robotics Communication Workshop, 2014
Keynote at ACM Pervasive Urban Crowd Sensing Workshop (with UbiComp), 2013
Keynote at ACM MobiArch Workshop (in conjunction with MobiCom), 2012
Invited talk at Google, 2012
Keynote at ACM Mobile Cloud Computing Systems Workshop (in conjunction with MobiSys), 2011

- **Journal Area Editor:**

– Editor, Arms Length Column, ACM GetMobile Magazine, 2016-present
– IEEE Transactions on Mobile Computing (TMC), 2011-2014
– ACM SIGCOMM Computer Communications Review (CCR), 2009-2011
– Computer Networks Journal (ComNet), Elsevier, 2010-2012

- **TPC co-chair:**

ACM Hotmobile 2014
ACM MobiSys 2013
IEEE WiMesh 2010

- **TPC member:**

ACM Sigcomm 2021, 2020, 2018, 2012;
Usenix NSDI 2020, 2018, 2017
ACM MobiCom 2020, 2019, 2014, 2012, 2011, 2010
ACM MobiSys 2020, 2019, 2015, 2014, 2012, 2010;
IEEE Infocom 2010, 2009; SenSys 2014, 2013, 2010

Media Coverage

- MUTE: BBC Radio, IEEE Spectrum, NAE Radio, CACM, Yahoo News, The National, ...
- BackDoor: NY Times, IEEE Spectrum, ACM Technews, New Atlas, ...
- InSight: LA Times, CNET, San Francisco Chronicle, Engadget, NewScientist, Verge, ...
- SleepWell: Wall Street Journal, Washington Post, Scientific American, Engadget, Slashdot, ...
- AccelPrint: MIT Technology Review, The Telegraph UK, ...
- PhonePoint Pen: Scientific American, Guardian UK, Slashdot, ABCNews, MSN, IndiaTimes ...
- SurroundSense: Scientific American, NSF, ACM TechNews, Yahoo News ...

Graduated Students

1. Sheng Shen (2020: Facebook AR/VR)
2. Ashutosh Dhekne (2019: Asst. Prof., Dept. of CS, Georgia Tech, Atlanta)
3. Nirupam Roy (2018: Asst. Prof., Dept. of CS, Univ. of Maryland, College Park)
4. Mahanth Gowda (2017: Tenure track Assistant Professor, Dept. of CSE, Pennsylvania State University)
5. He Wang (2016: Tenure track Assistant Professor, Dept. of CS, Purdue University)
6. Puneet Jain (2015: Researcher at HP Labs, Palo Alto, now at Google)
7. Xuan Bao (2013: Researcher at Samsung Research Labs, Santa Clara, now at Google)

8. Souvik Sen (2012: HP Labs, Palo Alto, now at Google)
9. Justin Manweiler (2012: IBM T. J. Watson Research Center, New York, now at Google)
10. Ionut Constandache (2011: Oracle Hypervisor Group, San Jose, now at LinkedIn)

Publications

1. Ear-AR: Indoor Acoustic Augmented Reality on Earphones
Zhijian Yang, Yu-Lin Wei, Sheng Shen, Romit Roy Choudhury
ACM MobiCom 2020
2. EarSense: Earphones as a Teeth Activity Sensor
Jay Prakash, Zhijian Yang, Yu-Lin Wei, Haitham Hassanieh, Romit Roy Choudhury
ACM MobiCom 2020
3. Voice Localization using Nearby Wall Reflections
Sheng Shen, Dagan Chen, Yu-Lin Wei, Zhijian Yang, Romit Roy Choudhury
ACM MobiCom 2020
4. STEAR: Robust Step Counting from Earables
Jay Prakash, Zhijian Yang, Yu-Lin Wei, Romit Roy Choudhury
Earcomp Workshop (with Ubicomp) 2019
5. Many-to-Many Beam Alignment in Millimeter Wave Networks
Suraj Jog, Jiaming Wang, Junfeng Guan, Thomas Moon, Haitham Hassanieh, Romit Roy Choudhury
NSDI 2019
6. MUTE: Bringing IoT to Noise Cancellation
Sheng Shen, Nirupam Roy, Junfeng Guan, Haitham Hassanieh, Romit Roy Choudhury
ACM SIGCOMM 2018
7. Inaudible Voice Commands: The Real World Attack and Defense
Nirupam Roy, Sheng Shen, Haitham Hassanieh, Romit Roy Choudhury
Usenix NSDI 2018
8. Closing the Gaps in Inertial Motion Tracking
Sheng Shen, Mahanth Gowda, Romit Roy Choudhury
ACM MobiCom 2018
9. Ghostbuster: Detecting the Presence of Hidden Eavesdropper
Anadi Chaman, Jiaming Wang, Jiachen Sun, Haitham Hassanieh, Romit Roy Choudhury
ACM MobiCom 2018
10. LiquID: A Wireless Liquid Identifier
Ashutosh Dhekne, Mahanth Gowda, Yixuan Zhao, Haitham Hassanieh, Romit Roy Choudhury
ACM MobiSys 2018
11. BackDoor: Making Microphones Hear Inaudible Sounds
Nirupam Roy, Haitham Hassanieh, Romit Roy Choudhury
ACM MobiSys 2017, Best Paper Award
12. Bringing IoT to Sports Analytics
Mahanth Gowda, Sheng Shen, Ashutosh Dhekne, Romit Roy Choudhury, et. al.
Usenix NSDI 2017

13. Extending Cell Tower Coverage through Drones
Ashutosh Dhekne, Mahanth Gowda, Romit Roy Choudhury
ACM HotMobile 2017
14. SafetyNet: GPS Receivers as a Fallback for IMU Failures in Drones
Mahanth Gowda, Justin Manweiler, Ashutosh Dhekne, Romit Roy Choudhury
ACM MobiCom 2016
15. I am a Smartwatch and I can Track my User's Arm
Sheng Shen, He Wang, Romit Roy Choudhury
ACM MobiSys 2016
16. Listening through a Vibration Motor
Nirupam Roy, Romit Roy Choudhury
ACM MobiSys 2016
17. Ripple II: Faster Communications through Physical Vibrations
Nirupam Roy, Romit Roy Choudhury
Usenix NSDI 2016
18. Low Bandwidth Offload for Mobile AR
Puneet Jain, Justin Manweiler, Romit Roy Choudhury
ACM CoNext 2016
19. Compressing Backoff in Wireless Networks
Mahanth Gowda, Nirupam Roy, Romit Roy Choudhury, Srihari Nalakuditi
IEEE ICNP 2016
20. If WiFi APs Could Move: A Measurement Study
Mahanth Gowda, Ashutosh Dhekne, Romit Roy Choudhury
WWW 2016
21. AutoLabel: Labeling Places from Pictures and Websites
Rufeng Meng, Sheng Shen, Romit Roy Choudhury, Srihari Nalakuditi
ACM UbiComp 2016
22. MoLe: Motion Leaks through Smart Watches
He Wang, Ted Lai, Romit Roy Choudhury
ACM MobiCom 2015
23. Communicating through Physical Vibrations
Nirupam Roy, Mahanth Gowda, Romit Roy Choudhury
ACM NSDI 2015
24. Your Daily Activity is Your Password
Sourav Dandapat, Swadhin Pradhan, Bivas Mitra, Romit Roy Choudhury, Niloy Ganguly
ACM CHI 2015
25. OverLay: Practical Mobile Augmented Reality
Puneet Jain, Justin Manweiler, Romit Roy Choudhury
ACM MobiSys 2015
26. Visual Addressing and Applications
He Wang, Xuan Bao, Romit Roy Choudhury, Srihari Nalakuditi
ACM MobiSys 2015

27. Experiences with eNav: A Low-power Vehicular Navigation System
Shaohan Hu, Lu Su, Shen Li, Shiguang Wang, et. al.
ACM UbiComp 2015.
28. Indoor Localization: Experiences and Lessons Learnt
Dimitrios Lymberopoulos, Jie Liu, Souvik Sen, Xue Yang, Romit Roy Choudhury, Vlado Handziski
ACM/IEEE IPSN 2015
29. I am a Smartphone and I can Tell my User's Walking Direction
Nirupam Roy, He Wang, Romit Roy Choudhury
ACM MobiSys 2014
30. AccelPrint: Imperfections of Accelerometers Make Smartphones Trackable
Sanorita Dey, Nirupam Roy, Wenyan Xu, Romit Roy Choudhury, Srihari Nelakuditi
NDSS 2014
31. Infrastructure Mobility: A What-If Analysis
Mahanth Gowda, Nirupam Roy, Romit Roy Choudhury
ACM Hotnets 2014
32. Injecting Life into Toys
Songchun Fan, Hyojeong Shin, Romit Roy Choudhury
ACM HotMobile 2014
33. Backing Out of Linear Backoff in Wireless Networks
Mahanth Gowda, Nirupam Roy, Romit Roy Choudhury, Srihari Nelakuditi
ACM HotWireless 2014
34. Your Reactions Suggest You Like the Movie: Automatic Content Rating using Reaction Sensing
Xuan Bao, Songchun Fan, Romit Roy Choudhury, Alex Varshavsky, Kevin Li
ACM UbiComp 2013, Best Paper Honorable Mention
35. If You See Something, Swipe towards It: Crowdsourced Event Localization,
Wentao Ouyang, Animesh Srivastava, Romit Roy Choudhury
ACM UbiComp 2013
36. Cooperative Packet Recovery in Enterprise WLANs
Mahanth Gowda, Souvik Sen, Romit Roy Choudhury, Sung-Ju Lee
IEEE Infocom 2013
37. Predicting Length of Stay at WiFi Hotspots
Justin Manweiler, Naveen Santhapuri, Romit Roy Choudhury, Srihari Nelakuditi
IEEE Infocom 2013
38. QuickSense: Fast and Energy Efficient Channel Sensing for Dynamic Spectrum Access
Sungro Yoon, Erran Li, Soung Liew, Romit Roy Choudhury, Injong Rhee, Kun Tan
IEEE Infocom 2013
39. The Case for Psychological Computing
Xuan Bao, Mahanth Gowda, Ratul Mahajan, Romit Roy Choudhury
ACM HotMobile 2013.
40. No Need to War-Drive: Unsupervised Indoor Localization
He Wang, Souvik Sen, Ahmed Elgohary, M. Farid, Moustafa Youssef, Romit Roy Choudhury
ACM MobiSys 2012

41. Spot Localization using PHY Layer Information
Souvik Sen, Bozidar Radunovic, Romit Roy Choudhury
ACM MobiSys 2012
42. Satellites in Our Pockets: An Object Positioning System using Smartphones
Justin Manweiler, Romit Roy Choudhury
ACM MobiSys 2012
43. TapSense: Your Finger Taps have Fingerprints
Emiliano Miluzzo, Alex Varshavsky, Suhrid Balakrishnan, Romit Roy Choudhury
ACM MobiSys 2012
44. Helping Mobile Apps Bootstrap with Fewer Users
Xuan Bao, Aman Kansal, David Chu, Romit Roy Choudhury, Victor Bahl, Alec Wolman
ACM UbiComp 2012
45. RxIP: Monitoring the Health of Home Wireless Networks
Justin Manweiler, Peter Franklin, Romit Roy Choudhury
IEEE Infocom 2012
46. SpinLoc: Spin Once to Know Your Location
Souvik Sen, Romit Roy Choudhury, Srihari Nelakuditi
ACM HotMobile 2012
47. No Time to Countdown: Backing Off in the Frequency Domain
Souvik Sen, Romit Roy Choudhury, Srihari Nelakuditi
ACM MobiCom 2011
48. Avoiding the Rush Hours: WiFi Energy Management for Mobile Devices
Justin Manweiler, Romit Roy Choudhury
ACM MobiSys 2011, Nominated for Best Paper Award
49. TagSense: A Smartphone based Approach to Automatic Image Tagging
Chuan Qin, Xuan Bao, Romit Roy Choudhury, Srihari Nelakuditi
ACM MobiSys 2011
50. Using Mobile Phones to Write in Air
Sandip Agrawal, Ionut Constandache, Sharavan Gaonkar, Romit Roy Choudhury
ACM MobiSys 2011
51. SwitchBoard: A Matchmaking System for Multiplayer Mobile Games
Justin Manweiler, Sharad Agrawal, Ming Zhang, Romit Roy Choudhury, Victor Bahl
ACM MobiSys 2011
52. PeerCast: Improving Link Layer Multicast through Cooperative Relaying
Jie Xiong, Romit Roy Choudhury
IEEE Infocom 2011
53. Precise Indoor Localization using PHY Layer Information
Souvik Sen, Bozidar Radunovic, Romit Roy Choudhury, Tom Minka
ACM Hotnets 2011
54. The Case for Context-Aware Compression
Xuan Bao, T. Narayan, A. Sani, W. Richter, R. Roy Choudhury, L. Zhong, M. Satyanarayanan
ACM Hotmobile 2011

55. AccuRate: Constellation Based Rate Estimation in Wireless Networks
Souvik Sen, Naveen Santhapuri, Romit Roy Choudhury, Srihari Nelakuditi
Usenix NSDI 2010
56. "Did You See Bob?": Human Localization using Mobile Phones
Ionut Constandache, Xuan Bao, Martin Azizyan, Romit Roy Choudhury
ACM MobiCom 2010
57. CSMA/CN: Carrier Sense Multiple Access with Collision Notification
Souvik Sen, Romit Roy Choudhury, Srihari Nelakuditi
ACM MobiCom 2010
58. MoVi: Mobile Phone based Video Highlights via Collaborative Sensing
Xuan Bao, Romit Roy Choudhury
ACM MobiSys 2010
59. Towards Mobile Phone Localization without War-Driving
Ionut Constandache, Romit Roy Choudhury, Injong Rhee
IEEE Infocom 2010
60. Listen (on the Frequency Domain) Before You Talk
Souvik Sen, Romit Roy Choudhury, Srihari Nelakuditi
ACM Hotnets 2010
61. Successive Interference Cancellation: A Back-of-the-Envelope Perspective
Souvik Sen, Naveen Santhapuri, Romit Roy Choudhury, Srihari Nelakuditi
ACM Hotnets 2010
62. Order Matters: Transmission Reordering in Wireless Networks
J. Manweiler, N. Santhapuri, S. Sen, R. Roy Choudhury, S. Nelakuditi
ACM MobiCom 2009
63. Hiding Stars with Fireworks: Location Privacy through Camouflage
J. Meyerowitz, R. Roy Choudhury
ACM MobiCom 2009
64. SurroundSense: Mobile Phone Localization via Ambience Fingerprinting
M. Azizyan, I. Constandache, R. Roy Choudhury
ACM MobiCom 2009
65. EnLoc: Energy Efficient Localization for Mobile Phones
Ionut Constandache, Shravan Gaonkar, Matt Sayler, Romit Roy Choudhury, Landon Cox
IEEE Infocom 2009
66. Breaking Away from Collision Avoidance: Towards Collision Detection in Wireless Networks
Souvik Sen, Naveen Santhapuri, Romit Roy Choudhury, Srihari Nelakuditi
ACM Hotnets 2009
67. Realtime Location Privacy Via Mobility Prediction: Creating Confusion at Crossroads
Joseph Meyerowitz, Romit Roy Choudhury
ACM Hotmobile 2009
68. VUPoints: Collaborative Sensing and Video Recording through Mobile Phones
Xuan Bao, Romit Roy Choudhury
ACM MobiHeld 2009 (with ACM Sigcomm)

69. PhonePoint Pen: Using Mobile Phones to Write in Air
Sandip Agrawal, Ionut Constandache, Shravan Gaonkar, Romit Roy Choudhury
ACM MobiHeld 2009 (with ACM Sigcomm)

70. Micro-Blog: Sharing and Querying Content through Mobile Phones and Social Participation
Shravan Gaonkar, Jack Li, Romit Roy Choudhury, Landon Cox, Al Schmidt
ACM MobiSys 2008

71. Link Layer Multicast using Smart Antennas: No Client Left Behind
Souvik Sen, Xiong Jie, Rahul Ghosh, Romit Roy Choudhury
IEEE ICNP 2008

72. Message in Message (MIM): A Case for Reordering Transmissions in Wireless Networks
N. Santhapuri, J. manweiler, S. Sen, R. Roy Choudhury, S. Nelakuditi, and K. Munagala
ACM Hotnets 2008

73. MAC-Layer Capture: A Problem in Wireless Networks Using Beamforming Antennas,
Romit Roy Choudhury, Nitin Vaidya,
IEEE SECON 2007

74. Designing a Rate-Based Transport Protocol for Wired-Wireless Networks,
Shravan Gaonkar, Romit Roy Choudhury, L. Magalhaes, Robin Kravets,
IEEE Broadnets 2007

75. Privacy-Preserving Detection of Sybil Attacks in Vehicular Ad Hoc Networks,
Tong Zhou, Romit Roy Choudhury, Peng Ning, Krish Chakrabarty,
Mobiquitous 2007

76. Deafness: A MAC Problem in Ad Hoc Networks when using Directional Antennas
Romit Roy Choudhury, Nitin Vaidya
IEEE ICNP 2004

77. MAC-Layer Anycasting in Wireless Ad Hoc Networks
Romit Roy Choudhury, Nitin Vaidya
ACM Hotnets 2003

78. Impact of Directional Antennas on Ad Hoc Routing
Romit Roy Choudhury, Nitin Vaidya
IFIP PWC 2003, Best Paper Award

79. Using Directional Antennas for Medium Access Control in Ad Hoc Networks
Romit Roy Choudhury, X. Yang, Ram Ramanathan and Nitin Vaidya
ACM MobiCom 2002

Journal Papers

1. If WiFi APs could Move: A Measurement Study
Mahanth Gowda, Ashutosh Dhekne, Romit Roy Choudhury, Srihari Nelakuditi
IEEE Transactions on Mobile Computing, 2018.

2. SemanticSLAM: Using Environment Landmarks for Unsupervised Indoor Localization
H. Abdelnasir, R. Samir, A. Elgohary, M. Alzantot, H. Wang, S. Sen, R. Roy Choudhury, M. Youssef
IEEE Transactions on Mobile Computing, 2015.

3. TagSense: Automatically Captioning Pictures using Smartphones
Chuan Qin, Xuan Bao, Romit Roy Choudhury, Srihari Nelakuditi
IEEE Transactions on Mobile Computing, Feb 2013
4. Avoiding the Rush Hours: WiFi Energy Management via Traffic Isolation
J. Manweiler, R. Roy Choudhury
IEEE Transactions on Mobile Computing, 2012.
5. Successive Interference Cancellation: Carving out MAC Layer Opportunities
Souvik Sen, Romit Roy Choudhury, Srihari Nelakuditi
IEEE/ACM Transactions on Mobile Computing, 2012
6. Carrier Sense Multiple Access with Collision Notification
Souvik Sen, Romit Roy Choudhury, Srihari Nelakuditi
IEEE/ACM Transactions on Networking, 2012
7. Order Matters: Transmission Reordering in Wireless Networks
Justin Manweiler, Naveen Santhapuri, Souvik Sen, Romit Roy Choudhury, Srihari Nelakuditi
IEEE/ACM Transactions on Networking, 2011
8. Modeling Broadcasting using Directional Antennas in DTNs as an Epidemic Dynamics
F. Peruani, A. Maiti, S. Sadhu, H. Chate, R. Roy Choudhury, N. Ganguly
IEEE JSAC (Journal on Selected Areas of Communication), 2010
9. P2DAP: Detecting Sybil Attacks in Vehicular Ad Hoc Networks
Tong Zhou, Romit Roy Choudhury, Krish Chakrabarty, Peng Ning
IEEE JSAC (Journal on Selected Areas of Communication), 2010
10. On Designing MAC Protocols for Wireless Networks using Beamforming Antennas
Romit Roy Choudhury, Nitin Vaidya
IEEE Transactions of Mobile Computing (TMC), May, 2006.

Patents and Technology Transfer

- Licensed “Unsupervised Indoor Localization (UnLoc)” to Samsung
- Systems and methods for establishing communications between mobile device users, #9294428, co-authored with Kinectus, LLC
- Unsupervised Indoor Localization and Heading Direction Estimation, #20150281910, co-authored with Duke University students
- Systems and methods for defining a geographic position of an object of event ... #20140365111, co-authored with Duke Medical School faculty
- Virtual sensor development #8775337, co-authored with researchers from Microsoft Research, Redmond
- Method and apparatus for content rating using reaction sensing #20130339433, co-authored with researchers from ATT Labs

Research Grants

- PI: NSF 2020, Title: “IoTscope: Sensing Materials via Wireless Signals”
- PI: NSF 2019, Title: “Networked Noise Cancellation”
- PI: NSF 2019, Title: “Motion Tracking Library for Sports Analytics”
- Co-PI: NIH 2019, Title: “Smart Shirt Platform for Tracking Early Developments in Children”

- Co-PI: NSF 2019, Title: *“Predictive Online Safety Analysis from Multi-hop State Estimation”*
- Co-PI: NSF 2017, Title: *“SPLICE: Information Centric Wireless Networking”*
- PI: NSF 2016, Title: *“Communicating through Physical Vibrations”*
- PI: NSF 2014, Title: *“The Case for Robotic Wireless Networks”*
- Co-PI: NIH 2012, Title: *“SmokeSense: Detecting Smoking and its Antecedents”*
- Co-PI: NSF FIA 2010, Title: *“MobilityFirst: A Robust Architecture for the Future Internet”*
- PI: NSF NeTS 2010, Title: *“PHY-IN: Physical Layer Informed Networking”*
- PI: NSF NeTS 2010, Title: *“Logical Localization for Mobile Devices via Ambience Sensing”*
- PI: NSF NetSE 2009, Title: *“From Position to Place in Next Generation Networks”*
- PI: NSF NeTS 2009, Title: *“Transmission Reordering in Wireless Networks”*
- PI: NSF CAREER 2008, Title: *“Exploiting Antenna Capabilities in Wireless Networks”*
- Co-PI: NSF CSR 2007, Title: *“VCM: Managing Concurrent Opportunistic Sensor Networks”*

Industry Funding

- PI: Google 2017, Title: *“Inaudible Acoustics”*
- PI: Samsung 2017, Title: *“Acoustics for Smart Home Devices”*
- PI: IBM 2015, Title: *“Gesture Recognition on Wearable Devices”*
- PI: HP Labs 2015, Title: *“Performance of Indoor Localization System”*
- PI: Samsung 2014, Title: *“Beyond Accuracy: Other Building Blocks for Indoor Localization”*
- PI: Qualcomm 2014, Title: *“Activity Recognition for Human Centric Applications”*
- Co-PI: Huawei 2014, Title: *“High density WiFi”*
- PI: Google 2013, Title: *“Recognizing Humans without Face Recognition”*
- PI: ThyssenKrup 2013, Title: *“Location-Enabled Elevators of the Future”*
- PI: Intel 2012, Title: *“Context Awareness with mobile sensors”*
- PI: Intel 2012, Title: *“Context Aware Human-Centric Applications”*
- PI: HP Labs 2012, Title: *“Aggressive Packet Combining and Error Recovery”*
- PI: Microsoft Research 2010, SoRa equipment. Title: *“PHY-Informed Wireless Networking”*
- PI: Microsoft Research, 2009, Title: *“Research on Micro-Blog and Mobile Sensing”*
- PI: Cisco Research 2007, Title: *“Exploiting Smart Antennas for Wireless Networks”*
- PI: Nokia Research 2007, Title: *“Mobile Phones for Location Sensing”*
- PI: Verizon 2007, Title: *“Micro-Blog: Information Browsing and Searching ”*

Contact

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