

# Xin Wang

Department Electrical and Computer Engineering  
Stony Brook University  
Stony Brook, New York, 11794  
Email: x.wang@stonybrook.edu  
Phone: (631) 632-8402  
Web: <http://www.ece.stonybrook.edu/~xwang>

## I. Educational Background

### COLUMBIA UNIVERSITY

Ph.D. Electrical and Computer Engineering, May 2001

Advisor: Prof. Henning Schulzrinne, Department of Computer Science

Thesis: *Scalable Network Architectures and Measurements for Multicast and Adaptive QoS*

### BEIJING UNIVERSITY OF POSTS AND TELECOMMUNICATIONS

M.S. Wireless Communications Engineering, April 1993

Advisor: Prof. Jia-mou Zhang

Thesis: *Design of a Low-Bit Rate Video Phone System*

### BEIJING UNIVERSITY OF POSTS AND TELECOMMUNICATIONS

B.S. with the highest distinction, Telecommunications Engineering, July 1990

## II. Employment History

### *Associate Professor*

Electrical and Computer Engineering, State University of New York (SUNY) at Stony Brook, New York, 2011 – present

### *Tenure-track Assistant Professor*

Electrical and Computer Engineering, State University of New York (SUNY) at Stony Brook, New York, 2005 - 2011

### *Tenure-track Assistant Professor*

Computer Science & Engineering, State University of New York (SUNY) at Buffalo, New York, 2003 – 2005

### *Member of Technical Staff*

Bell Lab Research, Lucent Technologies, New Jersey, 2001-2003

1. *Research scientist*, led the design of QoS schemes for Lucent 3G Radio Network Controller (RNC).
2. *QoS subsystem architect*, led the design and development team of QoS subsystem of the Imminent Content Switch (ICS), a next-generation intelligent application platform for content distribution.

3. *Cross-team consultant*, served as an independent research adviser, and also played a cross-functional role between several Bell Labs research teams, the product management team, and product development team of Lucent Gigabit Ethernet MPLS Switch (GEMS)

### III. Research

#### A. Research Interests.

My current research interests are in two major directions: 1) Data science. 2) Wireless networking and mobile computing;

The specific topics my research group is currently working on can be grouped into four areas: *Big Data Analysis and Machine learning*, *Wireless Network and Mobile Computing*, *Sparse Data Processing*, *Robust Networked Sensing and Fusion*. The details of my research plan and results are in research statement.

#### B. Award, Grants and Contracts (Total: \$15.762 Million, PI: \$7.924 Million, My share: \$6.145Million)

**PI/PI CAREER award**, National Science Foundation (NSF), (\$400,000), Sep 2005-Sep 2011, *Coordinated Resource Management in IP-based Cellular Radio Access Systems*.

**PI/PI Chief of Naval Research (CNR) Challenge award**, Office of Naval Research (ONR), (\$100,000), July 2011-June 2012, *Concurrent Exploration of Compressive Sensing and Networked MIMO Radars for High Quality and Robust Detection and Tracking*. One of 10 winners with research topics from 6 research fields. This nation-wide competition awards research that addresses the ONR's key challenges.

**PI of Stony Brook**, National Science Foundation (NSF), (\$1,200,000.00), Jan 2021-Dec 2023. *MAC-on-MAC: A Spectrum Orchestrating Control Plane for Coexisting Wireless Systems With Wenye Wang (North Carolina State University), Soumyajit Mandal (University of Florida) and Janise McNair (University of Florida)*. My share is \$300,000.

**PI of Stony Brook**, National Science Foundation (NIH), (\$885,600.00), May 2021-April 2025. , With Soumyajit Mandal (University of Florida), Madanayake, Habarakada Liyanachchi (Florida International University), Steve, Majerus, Cleveland VA Medical Research & Education Foundation. My share is \$181,802.FSoum

**Co-PI**, National Science Foundation (NSF), (\$5000,000), Oct 1, 2021-Dec 31, 2024, *AI-Enabled Provably Resilient Networked Microgrids, Phase II*, with Peng Zhang, Scott Stoller Scott Smolka My share is one quarter. My share is one quarter.

**Co-PI**, Department of Energy (DoE), (\$1500,000) Oct 1 2021-April 30-2024, *Solar PLUS: Solar Integration through Physics-Aware Learning Based Ultra-Scalable Modeling and Analytics*. The share of Stony Brook is \$390,000. My share is one third.

**PI/PI**, BNL-SBU Seed fund, (\$43,050) July 1, 2023-June 30, 2025 *AI - Enabled Sparse Data Acquisition Compression and Federated Processing*

**PI/PD** Brook Haven National Lab, (\$50,000), July 2022, July 2023. Deep Learning for Synchrotron X-ray Imaging

**PI/PD (Sole PI)**, National Science Foundation (NSF), (\$160,000), Oct 1 2020-Sep 30, 2021.  
*Pushing the Boundary of Sensing and Detection.*

**Co-PI**, National Science Foundation (NSF), (\$1000,000), Sep 15 2020-Aug 31, 2021.  
*AI-Enabled Provably Resilient Networked Microgrids* with Peng Zhang, Scott Stoller Scott Smolka My share is one quarter. My share is one quarter.

**PI/PD** Brook Haven National Lab, (\$50,000), Jan 5 2020-April 5, 2020. *Application of Applied Mathematics and Machine Learning Methods for Improving Reliability of Optical Physics Simulations.*

**PI of Stony Brook**, National Science Foundation (NSF), (\$750,000.00), Aug 15 2017-July 31, 2021.  
*Spatially Oversampled Dense Multi-Beam Millimeter-Wave Communications for Exponentially Increased Energy-Efficiency.* With Madanayake, Habarakada Liyanachchi (University of Akron), Soumyajit Mandal (Case Western Reserve University) and Theodore Rappaport (New York University) . My share is one quarter.

**PI/PD (Sole PI)**, National Science Foundation (NSF), (\$441,229), Oct 1 2015-Sep 30, 2019.  
*Fundamental Techniques for Incentive-aware, Efficient, and Reliable Cloudlet Management and Services.*

**PI/PD (Sole PI)**, Office of Naval Research (ONR), (\$625,000), Jan 1 2013-Sep 2018.  
*Concurrent Exploration of MIMO Radar and Coprime Array Design for Low Cost and High Performance Sensing.*

**PI/PD**, National Science Foundation (NSF), (\$200,000), Aug 1 2014-Jul 31, 2018.  
*Electronically-Scanned Wideband Digital Aperture Antenna Arrays using Multi-Dimensional Space-Time Circuit-Network Resonance: Theory and Hardware.*

**PI/PD**, Air Force Office of Scientific Research (AFOSR), (\$900,000), Sep 30, 2014- Sep. 29, 2017.  
With Co-PI Xianfeng Gu and Jie Gao, Computer Science, Stony Brook University.  
*Riemannian Geometric and Stochastic Methods for Robust and High Performance Network Communications.* My share is one third.

**PI/PD**, National Science Foundation (NSF), (\$507,092), Feb 1 2013-Jan 2016  
*Cognitive and Efficient Spectrum Access in Autonomous Wireless Network.* With Co-PIs Shiwen Mao, Auburn Univ, Harish Viswanathan Bell Labs. My share is (\$253,636).

**PI of Stony Brook**, National Science Foundation (NSF), (\$360,000), Sep 1 2012-Aug 2015  
*Exploiting Control and Communications Techniques to Establish and Maintain Network Connections for Robust and Flexible Multi-Robot Coordination.* With PI Yu Zhou (SUNYIT), and my share is \$180,000.

**Co-PI**, SUNY/RF Research Collaboration Fund. (\$100,000), Jan 2013-Jan 2014  
*Innovative Power Takeoff for Ocean Wave Energy Harvesting,* With PI Lei Zuo (Mechanical Engineering) and Co-PI Babara Warkentine (SUNY-Maritime College), My share: (\$33,000).

**Co-PI, SBU-BNL Seed Fund.** (\$39,692), Ocean Wave Energy Harvesting, Jun 2013-May 2014  
With PI Lei Zuo (Mechanical Engineering), Co-PI ThomasButcher. My share: (\$13,000).

**PI of Stony Brook (Sole PI)**, Office of Naval Research (ONR), (\$142,000), Nov 2010 – Oct 2011 *State Estimation over Long-Haul Networks*, subcontracted from Oak Ridge National Lab (ORNL) from the SensorNet project funded at \$17.5 Million. This project topic is a collaborative effort among ORNL, Stony Brook, Carnegie Mellon University, ONR and Missile Defense Agency. Stony Brook works on improving the detection and fusion quality over wide-area sensor networks. Based on existing results and feedbacks from sponsors, the work is expected to grow to a multi-year new project.

**PI of Stony Brook (Sole PI)**, Space and Naval Warfare Systems Command (SPAWAR), (\$750,000), Dec 2009-Feb 2012 *Planning and Management of QoS Based Mobile Wireless Networks (PMQ)*, subcontracted from Referential Inc. My share is (\$160,000)

**PI/PD (Sole PI)**, Microsoft Research (MSR), Enabling Mobile Applications with Cloud Computing (\$50,000) in equipment and service support for both teaching and research, Spring 2011. MSR supports students from my class ESE 506 to create innovative mobile cloud functions, using newly released Window 7 smart phones and exploiting services provided by Microsoft Azure cloud platform. The class link and selected student programs will be posted on Microsoft website, which will help to increase the visibility of Stony Brook. MSR shares our vision in the infrastructure of future Mobile Cloud, which will support more powerful wireless applications that need higher computational power, storage, bandwidth, and services. This support helps to increase student creativity and integrate research with teaching, and will foster more research collaborations between MSR and my research group.

**PI/PD (Sole PI)**, Department of Justice (DOJ), (\$161,716), Oct 2006-Sep 2008, CDMA/IP-based System for Interoperable Public Safety Radio Communications.

**Co-PI**, National Science Foundation (NSF), (\$150,000), Jul 2008- June 2011 *A Miniaturized Robotic Testbed for Development, Testing, and Evaluation of Protocols for Multi-Hop, Wireless Networks*, project funding total \$150,000, with PI Tzi-cker Chiueh, Co-PIs Samir Das and Jennifer Wong My share is (\$37,500)

**PI of Stony Brook (Sole PI)**, Space and Naval Warfare Systems Command (SPAWAR), (\$100,000), Jul 2008-Mar 2009. *NetPARAMS: Network Planning and Real-time Automated Management System*, subcontracted from Referential Inc. My share is (\$30,000)

**PI/PD (Sole PI)**, Office of the Vice President for Research, Stony Brook University, (\$50,000) matching fund, Sep 2005-Sep 2011, *Coordinated Resource Management in IP-based Cellular Radio Access Systems*.

**PI or Co-PI**: New York Center of Excellence in Wireless & Information Technology, under contract with NASA, (\$48,000), Jan 2006 – Nov 2007

## C. Publications (111 journal papers, 132 conference papers, H-index 52, total citation 9100+)

### Book Chapter

1. Peng Zhang, Yifan Zhou, Scott A. Smolka, Scott D. Stoller, Xin Wang, Rong Zhao, Yucheng Xing, Shouvik Roy, and Amol Damare, "AI-Grid: AI-Enabled, Smart Programmable Microgrids," *Book chapter of Microgrids: Theory and Practice*. Wiley-IEEE Press. To appear 2024.

### Journal Publications

1. Jiatai Wang, Zhiwei Xu, Xin Wang, Tao Li, "Towards Generalized Multi-stage Clustering: Multi-view Self-distillation" to appear in the *IEEE Transactions on Neural Networks and Learning Systems*.
2. Jiazheng Tian, Kun Xie, Xin Wang, Jigang Wen, Gaogang Xie, Jiannong Cao, Wei Liang, Kenli Li, "Reducing Network Distance Measurement Overhead: A Tensor Completion Solution with a New Minimum Sampling Bound" to appear in the *IEEE/ACM Transactions on Networking*.
3. Kun Xie, Can Liu, Xin Wang, Xiaocan Li, Gaogang Xie, Jigang Wen, and Kenli Li, "Neural Network Compression Based on Tensor Ring Decomposition," to appear in *IEEE Transactions on Neural Networks and Learning Systems* 2024
4. Haoxuan Wang, Kun Xie, Xin Wang, Jigang Wen, Ruotian Xie, Zulong Diao, "GDI: A Novel IoT Device Identification Framework Via Graph Neural Network-Based Tensor Completion," to appear in *IEEE Transactions on Services Computing*, 2024
5. Yucheng Xing, Jacqueline Wu, Yingru Liu, Xuewen Yang, Xin Wang, "Evolved Differential Model for Sporadic Graph Time-Series Prediction," to appear in *Intelligent and Converged Networks*, Vol 5 No 3.
6. Xiaocan Li, Kun Xie, Xin Wang, Gaogang Xie, Kenli Li, Jiannong Cao, Dafang Zhang, Jigang Wen, "A Light-Weight and Robust Tensor Convolutional Autoencoder For Anomaly Detection," In *IEEE Transactions on Knowledge and Data Engineering*. Sept. 2024, pp. 4346-4360, vol. 36
7. Ke Xu, Donghong Jiang, Yanbiao Li, Xin Wang, Dafang Zhang, Gaogang Xie, "MaP: Increasing Node Capacity of Programmable Cloud Gateways," *Computer Networks*, Vol. 251, Sep. 2024
8. Jin Liu, Huiyuan Fu, Xin Wang, and Huadong Ma, "Multi-Domain Image-to-Image Translation with Cross-Granularity Contrastive Learning," in *Transactions on Multimedia Computing Communications and Applications*. 2024 Vol. 20, Issue 7, pp 1-21.
9. Zulong Diao, Xin Wang, Dafang Zhang, Gaogang Xie, Jianguo Chen, Changhua Pei, Xuying Meng, Kun Xie, Guangxing Zhang, "DMSTG: Dynamic Multiview Spatio-Temporal Networks for Traffic Forecasting," in *IEEE Transactions on Mobile Computing (TMC)* 2024. pp. 6865-6880, vol. 23.
10. Jin Liu, Huiyuan Fu, Xin Wang, and Huadong Ma, "SwinIT: Hierarchical Image-to-Image Translation Framework without Cycle Consistency," in *IEEE Transactions on Circuits and Systems*, July 2024. pp 5546 - 5559 [Volume: 34 Issue: 7](#)
11. Xuewen Liu, Gang Chuai, Xin Wang, Zhiwei Xu, Weidong Gao, Kaisa Zhang, "QoE driven Antenna Tuning in Cellular Networks With Cooperative Multiagent Reinforcement Learning," to appear in *IEEE Transactions on Mobile Computing (TMC) Feb 2024*. pp1186 – 1199, Vol. 23, Issue 2
12. Jianhua Liu, Xin Wang, Guangtao Yue, Tong Liu, Minglu Li, "An ECA Regret Learning Game for Cross-Tier Computation Offloading Against Swarm Attacks in Sensor Edge Cloud" in *IEEE Internet of Things Journal*. Jan 2024, Vol. 11, Issue: 1, pp. 1201-1216. DOI 10.1109/JIOT.2023.3287996
13. Kun Xie, Yudian Ouyang, Xin Wang, Gaogang Xie, Kenli Li, Wei Liang, Jiannong Cao, Jigang Wen, "Deep Adversarial Tensor Completion for Accurate Network Traffic Measurement," in *IEEE/ACM Transactions on Networking (TON)*, Oct 2023. Vol. 31, [Issue: 5](#), pp. 2101 – 2116

14. Isabella Wu and Xin Wang, "A Novel Approach to Topological Network Analysis for the Identification of Metrics and Signatures in Non-small Cell Lung Cancer," *Nature Scientific Reports*, May 2023, Vol 13, Issue 1, Article number 8223.
15. Zhiwei Xu, Xin Wang, Yujun Zhang, "Towards Persistent Detection of DDoS Attacks in NDN: A Sketch-based Approach" in *IEEE Transactions on Dependable and Secure Computing (TDSC)*, July-Aug. 2023, Vol. 20, [Issue: 4](#), pp.3449 – 3465.
16. Xuewen Liu, Gang Chuai, Xin Wang, Zhiwei Xu, Weidong Gao, "QoE Assessment Model based on Continuous Deep Learning for Video in Wireless Networks," in *IEEE Transactions on Mobile Computing (TMC)*, June 2023, Vol 22, [Issue: 6](#), pp. 3619 – 3633.
17. Zulong Diao, Gaogang Xie, Xin Wang, Rui Ren, Xuying Meng, Guangxing Zhang, Kun Xie, Mingyu Qiao, "EC-GCN: A encrypted traffic classification framework based on multi-scale graph convolution networks," *Comput. Networks* 224: 109614 (2023).
18. Kai Jin, Kun Xie, Xin Wang, Jiazheng Tian, Gaogang Xie, Jigang Wen, Kenli Li, "Low Cost Online Network Traffic Measurement With Subspace-Based Matrix Completion. *IEEE Trans. Network Science Eng.*, Jan.-Feb 2023, Vol. 10, Issues 1, pp. 53-67.
19. Huanpu Yin, Shuhui Yu, Yingshuo Zhang, Anfu Zhou, Xin Wang, Liang Liu, Huadong MA, Jianhua Liu, Ning Yang "Let IoT Knows You Better: User Identification and Emotion Recognition through Millimeter Wave Sensing," in *IEEE Internet of Things Journal*, January 2023, Vol. 10, Issue: 2, pp. 1149 – 1161.
20. Xiaocan Li, Kun Xie, Xin Wang, Gaogang Xie, Kenli Li, Jiannong Cao, Dafang Zhang, Jigang Wen. "Tripartite Graph Aided Tensor Completion For Sparse Network Measurement. *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Jan 2023, Vol. 34, Issue 1, pp. 48-62
21. Xiaocan Li, Kun Xie, Xin Wang, Gaogang Xie, Kenli Li, Jiannong Cao, Dafang Zhang, Hongbo Jiang, Jigang Wen, "Neighbor Graph Based Tensor Recovery For Accurate Internet Anomaly Detection," *IEEE Trans. Parallel Distributed Syst.* 34(2): 655-674 (2023)
22. Chunyang Zhang, Gaogang Xie, Xin Wang, "DynamicTuple: The dynamic adaptive tuple for high-performance packet classification," *Computer Networks*, Jan 2022, Vol 202.
23. Xi Li; Xin Wang; Tiecheng Song; Jing Hu, "Robust Online Prediction of Spectrum Map with Incomplete and Corrupted Observations," in *IEEE/ACM Transactions on Mobile Computing (TMC)*. Dec 2022, vol. 21, pp. 4583-4594, DOI Bookmark: 10.1109/TMC.2021.3081715.
24. Qiufen Xia, Wenhao Ren, Zichuan Xu, Xin Wang, Weifa Liang "When Edge Caching Meets a Budget: Near Optimal Service Delivery in Multi-Tiered Edge Clouds," *IEEE Transactions on Services Computing*, Nov.-Dec. 2022, vol. 15, pp. 3634-3648, DOI Bookmark: 10.1109/TSC.2021.3091462
25. Kun Xie, Jiazheng Tian, Xin Wang, Gaogang Xie, Jiannong Cao, Hongbo Jiang, "Fast Retrieval of Large Entries With Incomplete Measurement Data," in *IEEE/ACM Transactions on Networking (ToN)*, Oct. 2022. Vol. 30, Issue: 5.

26. Shuyu Pei, Kun Xie, Xin Wang, Gaogang Xie, Kenli Li, Wei Li, Yanbiao Li, Jigang Wen, “ $B_h$ BF: A Bloom Filter Using  $B_h$  Sequences for Multi-set Membership Query,” *ACM Transactions on Knowledge Discovery from Data (TKDD)*, Oct 2022 Vol. 16, No 5 pp 1–26
27. Zhenjie Yang, Yong Cui, Xin Wang, Minming Li, “Less is More: Service Profit Maximization in Geo-Distributed Clouds,” in *Transactions on Cloud Computing. July-Sept 2022. Vol 10, No 3*, pp 1925 – 1940
28. Jie Zhao, Xin Wang, “On the Efficiency of Multi-Beam Medium Access for Millimeter-Wave Networks,” in *IEEE/ACM Transactions on Networking (TON)*. Aug 2022, Vol. 30, No 4, pp 1469 – 1480
29. Ziyi Wang, Yong Cui, Xiaoyu Hu, Xin Wang, Wei Tsang Ooi, Zhen Cao, and Yi Li, “MultiLive: Adaptive Bitrate Control for Low-delay Multi-party Interactive Live Streaming,” in *IEEE/ACM Transactions on Networking (ToN)*, April 2022. Vol. 30, Issue 2, pp 923-938.
30. Jianhua Liu, Xin Wang, Shigen Shen, Zhaoxi Fang, Shui Yu, Guangxue Yue, Minglu Li, “Intelligent Jamming Defense Using DNN Stackelberg Game in Sensor Edge Cloud,” in *IEEE Internet of Things Journal*. Mar 2022. Vol. 9, No 6, pp 4356 – 4370
31. Jiazheng Tian, Kun Xie, Xin Wang, Gaogang Xie, Kenli Li, Jigang Wen, Dafang Zhang, Jiannong Cao, "Efficiently Inferring Top-k Largest Monitoring Data Entries based on Discrete Tensor Completion" in the *IEEE/ACM Transactions on Networking (TON)*. Dec 2021, Vol 29, Issue 6, pp 2737 – 2750.
32. Xinyi Zhang, Gaogang Xie, Xin Wang, Penghao Zhang, Yanbiao Li, Kave Salamatian, "Fast Online Packet Classification with Convolutional Neural Network" in *IEEE/ACM Transactions on Networking (TON)*. Dec. 2021. Vol 29, No 6, pp 2765 – 2778.
33. Lin Yao, Yujie Zeng, Xin Wangz and Guowei Wu, "Detection and Defense of Cache Pollution Based on Popularity Prediction in Named Data Networking", in *IEEE Transactions on Dependable and Secure Computing (IEEE TDSC)*, Nov.-Dec 2021, Vol 18 No 6, pp 2848 – 2860
34. Lin Yao, Zhenyu Chen, Xin Wang, Dong Liu, Guowei Wu: “Sensitive Label Privacy Preservation with Anatomization for Data Publishing,” *IEEE Trans. Dependable Secur. Comput.* 18(2): 904-917 (2021)
35. Kun Xie, Shuyu pei, Xin Wang, Wen Shi, Gaogang Xie, Kenli Li, Yanbiao Li, Jigang Wen. “A Stateful Bloom Filter for Per-flow State Monitoring,” *IEEE Transactions on Network Science and Engineering*, 2021, 8(3): 1399-1413
36. Xiping Liu, Wanchun Dou, Xin Wang, “User Grouping for Sharing Services with Capacity Limit,” *IEEE Trans. Serv. Comput.* 14(2): 614-627 (2021)
37. Jianhua Liu, Xin Wang, Shigen Shen, Guangxue Yue, Shui Yu, Minglu Li: “A Bayesian Q-Learning Game for Dependable Task Offloading Against DDoS Attacks in Sensor Edge Cloud,” *IEEE Internet Things J.* 8(9): 7546-7561 (2021)
38. Kun Xie, Yuxiang Chen, Xin Wang, Gaogang Xie, Jiannong Cao, Jigang Wen, Guangming Yang, Jiaqi Sun, “Accurate and Fast Recovery of Network Monitoring Data with GPU-Accelerated Tensor Completion,” in *IEEE/ACM Transactions on Networking (TON)*, Aug. 2020. Volume: 28, Issue: 4, pp 1601 - 1614

39. Xiaocan Li, Kun Xie, Xin Wang, Gaogang Xie, Dongliang Xie, Zhenyu Li, Jigang Wen, Zulong Diao, Tian Wang, "Quick and Accurate False Data Detection in Mobile Crowd Sensing in the *IEEE/ACM Transactions on Networking (IEEE TON)*, June 2020. Vol: 28, Issue: 3, pp 1339 - 1352
40. Lin Yao, Yujie Zeng, Xin Wang and Guowei Wu, "Detection and Defense of Cache Pollution Based on Popularity Prediction in Named Data Networking", to appear in *IEEE Transactions on Dependable and Secure Computing (IEEE TDSC)*, 2021.
41. Jie Zhao, Xin Wang, Harish Viswanathan, Arjuna Madanayake and Guangxue Yue, "Compressed Beam Alignment with Out-of-Band Assistance in Millimeter Wave Cellular Networks," in *IEEE Transactions on Mobile Computing (IEEE TMC)*. Jan. 2021, pp. 117-129, vol. 20
42. Lin Yao, Yuqi Wang, Xin Wang and Guowei Wu, "Cooperative Caching in Vehicular Content Centric Network based on Social Attributes and Mobility," *IEEE Transactions on Mobile Computing (TMC)*, Volume 20, Issue 2, Feb. 2021 pp 391–402.
43. Xi Li, Guojun Chen, Yinfei Xu, Xin Wang, and Tiecheng Song, "Recovering Missing Values from Corrupted Historical Observations: Approaching the Limit of Predictability in Spectrum Prediction Tasks," in *IEEE Access*, Sept 2020 pp 180379 – 180393, ( Vol: 8)
44. Kun Xie, Yuxiang, Chen, Xin Wang, Gaogang Xie, Jiannong Cao, "Accurate and Fast Recovery of Network Monitoring Data: A GPU Accelerated Matrix Completion" in *IEEE/ACM Transactions on Networking (IEEE TON)*. June 2020. Volume: 28, Issue: 3, pp. 958 - 971
45. Jie Zhao, Dongliang Xie\*, Xin Wang, and Arjuna Madanayake, M, "Towards Efficient Medium Access for Millimeter-wave Networks," in *IEEE Journal on Selected Areas in Communications (IEEE JSAC)*. Volume: 37 , Issue: 12 , Dec. 2019. Pp. 2786 – 2798
46. Xiaomeng Wang, Xin Wang, "Hole Identification and Filling in k-times Extended Co-prime Arrays for Highly-Efficient DOA Estimation," in *IEEE Transactions on Signal Processing (IEEE TSP)*, Volume: 67 , Issue: 10 May 2019. pp 2693 – 2706
47. Jose Cordova-Garcia, Xin Wang, Dong-Liang Xie, Yue Zhao, and Lei Zuo, "Control of Communications-Dependent Cascading Failures in Power Grids," *IEEE Transactions on Smart Grid (TSG)*, Volume: 10 , Issue: 5 , Sept. 2019, pp. 5021 - 5031
48. Kun Xie, Xiangge Wang, Xin Wang, Yuxiang; Chen, Gaogang Xie, Yudian Ouyang, Jigang Wen, Jiannong Cao, Dafang Zhang, "Accurate Recovery of Missing Network Measurement Data With Localized Tensor Completion" In the *IEEE/ACM Transactions on Networking (IEEE TON)*. Volume: 27 , Issue: 6 , Dec. 2019, pp. 2222 - 2235
49. Zhenjie Yang, Yong Cui, Xin Wang; Yadong Liu, Minming Li, Shihan Xiao, Chuming Li, "Cost-Efficient Scheduling of Bulk Transfers in Inter-Datacenter WANs," in the *IEEE/ACM Transactions on Networking (IEEE TON)*, Volume: 27 , Issue: 5 , Oct. 2019, pp. 1973 – 1986.
50. Kun Xie, Xin Wang, Gaogang Xie, Jiannong Cao, Dongliang Xie, Yuqin Ji, Jigang Wen "Distributed Multi-dimensional Pricing for Efficient Application Offloading in Mobile Cloud Computing," in *IEEE Transactions on Service Computing (IEEE TSC)*, Volume: 12, Issue: 6, Nov.-Dec. 1 2019. pp. 925 – 940
51. Zulong Diao, Dafang Zhang, Xin Wang, Kun Xie, Shaoyao He, Xin Lu, and Yanbiao Li, "A Hybrid Model For Short-Term Traffic Volume Prediction In Massive Transportation Systems," in

- IEEE Transactions on Intelligent Transportation Systems (IEEE TITS)*,  
10.1109/TITS.2018.2841800,
52. Xie Kun, Lele Wang, Xin Wang, Gaogang Xie, Jigang Wen, "Low Cost and High Accuracy Data Gathering in WSNs with Matrix Completion," in *IEEE Transactions on Mobile Computing (IEEE TMC)*, Volume: 17, Issue: 7, July 1 2018. **Page(s):** 1595 - 1608
  53. Kun Xie, Can Peng, Xin Wang, Gaogang Xie, Jigang Wen, Jiannong Cao, Dafang Zhang, Zheng Qin, "Accurate Recovery of Internet Traffic Data Under Variable Rate Measurements," in *IEEE/ACM Transactions on Networking (IEEE TON)*, Volume: 26, Issue: 3, June 2018. **Page(s):** 1137- 1150
  54. Kun Xie, Xiaocan Li, Xin Wang, Jiannong Cao, ; Gaogang Xie, Jigang Wen, Dafang Zhang, Zheng Qin, "On-line Anomaly Detection with High Accuracy," in *IEEE/ACM Transactions on Networking (IEEE TON)*, Volume: 26, Issue: 3, June 2018., **Page(s):** 1222 – 1235.
  55. Jie Zhao, Qiang Liu, Xin Wang, Shiwen Mao, "Scheduled Sequential Compressed Spectrum Sensing for Wideband Cognitive Radios" in *IEEE Transactions on Mobile Computing (IEEE TMC)*, Volume: 17, Issue: 4, April 1 2018, **Page(s):** 913 - 926.
  56. Kun Xie, Lele Wang Xin Wang, Gaogang Xie, Jigang Wen, Guangxing Zhang , Jiannong Cao, Dafang, Zhang, " Accurate Recovery of Internet Traffic Data: A Sequential Tensor Completion Approach ", in *IEEE/ACM Transactions on Networking (IEEE TON)*. Volume: 26, Issue: 2, April 2018, **Page(s):** 793 – 806
  57. Jianhua Liu, Xin Wang, Guangxue Yue, Shigen Shen , "Data sharing in VANETs based on evolutionary fuzzy game," in *Elsevier, Journal of Future Generation Computer Systems*, Volume 81 Issue C, April 2018, Pages 141-155
  58. Mowei Wang, Yong Cui, Xin Wang, Shihan Xiao, and Junchen Jiang, "Machine Learning for Networking: Workflow, Advances and Opportunities," in *IEEE Network*, Volume: 32, Issue: 2, March-April 2018. **Pages:** 92 – 99
  59. Zhilong Zhang, Danpu Liu, Xin Wang, "Joint Carrier Matching and Power Allocation for Wireless Video with General Distortion Measure " in *IEEE Transactions on Mobile Computing (IEEE TMC)*, Volume: 17, Issue: 3, March 1 2018, **Page(s):** 577 - 589.
  60. Lin Yao, Jie Wang, Xin Wang, Ailun Chen, Yuqi Wang, "V2X Routing in VANET based on Hidden Markov Model," in *Transactions on Intelligent Transportation Systems (IEEE TITS)*, Volume: 19, Issue: 3, March 2018, Pages 889 - 899
  61. Yong Cui, , Shihan Xiao, Xin Wang, Zhenjie Yang, Shenghui Yan; Chao Zhu, Xiang-Yang Li, Ning Ge, "Diamond: Nesting the Data Center Network with Wireless Rings in 3D Space," in *IEEE/ACM Transactions on Networking (IEEE TON)*, Volume: 26, Issue: 1, Feb. 2018, **Page(s):** 145 – 160.
  62. Jie Zhao, Qiang Liu, Xin Wang, Shiwen Mao, "Scheduling of Collaborative Sequential Compressed Sensing over Wide Spectrum Band," in *IEEE/ACM Transactions on Networking (IEEE TON)*, Volume: 26, Issue: 1, Feb. 2018, **Page(s):** 492 - 505
  63. Kun Xie, Xiaocan Li, Xin Wang, Gaogang Xie, Jigang Wen, Jiannong Cao, Dafang, Zhang, " Fast Tensor Factorization for Accurate Internet Anomaly Detection", in *IEEE/ACM Transactions on Networking (IEEE TON)*. Volume: 25, Issue: 6, Dec. 2017, **Page(s):** 3794 - 3807

64. Yong Cui, Zhenjie, Yang, Shihan Xiao, Xin Wang, Shenghui Yan, "Traffic-aware Virtual Machine Migration in Topology-adaptive DCN" in *IEEE/ACM Transactions on Networking (TON)*, Volume: 25, Issue: 6, Dec. 2017 . Page(s): MDM27 - 3440
65. Z. Zhang, D. Liu, X. Ma, and X. Wang, "ECast: An enhanced video transmission design for wireless multicast systems over fading channels," in *IEEE System Journal*, Volume: 11 Issue: 4, 2566 – 2577, Dec 2017. >
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2. Xicong Wang, Huiyuan Fu, Jiakuan Wang, Xin Wang, Heng Zhang, Huadong Ma, "Exploring in Extremely Dark: Low-Light Video Enhancement with Real Events, *ACM Multimedia*, Melbourne Australia, Oct 28-Nov 1, 2024
3. Zhaoyang Yu, Changhua Pei\*, Xin Wang, Minghua Ma, Chetan Bansal, Saravan Rajmohan, Qingwei Lin, Dongmei Zhang, Xidao Wen, Jianhui li, Gaogang Xie, Dan Pei, "Pre-trained KPI Anomaly Detection Model Based on Disentangled Transformer" *KDD 2024*. Barcelona, Spain, Aug. 25 – 29 2024
4. Jiatai Wang, Zhiwei Xu, Xuewen Yang, Xin Wang, "Hierarchical Mutual Information Analysis: Towards Multi-View Clustering in the Wild," *International Joint Conference on Neural Networks (IJCNN)*, Rome, Italy. June 30 – July 4, 2024

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6. Zexin Wang, Changhua Pei, Minghua Ma, Xin Wang, Zhihan Li, Dan Pei, Saravan Rajmohan, Dongmei Zhang, Qingwei Lin, Haiming Zhang, “Revisiting VAE for Unsupervised Time Series Anomaly Detection: A Frequency Perspective,” *The web conference 2024*, Singapore, May 2024
7. Zhaoyang Yu, Qianyu Ouyang, Changhua Pei and Xin Wang, “Causality Enhanced Graph Representation Learning for Alert-Based Root Cause Analysis,” *IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGRID)*, Philadelphia, USA, May 2024.
8. Yucheng Xing, Jacqueline Wu, Yingru Liu, Xuwen Yang, Xin Wang, “AGGDN: A Continuous Stochastic Predictive Model for Monitoring Sporadic Time Series on Graphs,” *International Conference on Neural Information Processing (ICONIP)*, Changsha, China, November 2023.
9. Yucheng Xing and Xin Wang, “HDG-ODE: A Hierarchical Continuous-Time Model for Human Pose Forecasting,” *International Conference on Computer Vision (ICCV)*, Paris, France, October 2023.
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- 68 Y. Cui, Z. Lai, X. Wang, N. Dai, C. Miao. "QuickSync: Improving Synchronization Efficiency for Mobile Cloud Storage Services." In *ACM Annual International Conference on Mobile Computing and Networking (Mobicom)*, Paris, France, Sep 2015. (Acceptance rate: 18%)
- 69 K. Xie, L. Wang, X. Wang, G. Xie, G. Zhang, D. Xie, J Wen , "Sequential and Adaptive Sampling for Matrix Completion in Network Monitoring Systems," in *IEEE International Conference on Computer Communications (INFOCOM)*, Hong Kong, Apr. 2015. (Acceptance rate: 19%)
- 70 J. Zhao, X. Wang and Q. Liu, "Cooperative Sequential Compressed Spectrum Sensing over Wide Spectrum Band," in *IEEE International Conference on Sensing, Communications and Networking (IEEE SECON)*, Seattle, June 2015. (Acceptance rate: 28.3%)
- 71 Y. Li, K. Xie, and X. Wang, "Pushing towards the Limit of Sampling Rate: Adaptive Chasing Sampling," in *IEEE International Conference on Mobile Ad-hoc and Sensor Systems (IEEE MASS)*, Dallas, Oct 2015.
- 72 Z. Yan, X. Wang, D. Yoon and D. Xie, "Connecting Robots with Concurrent Exploration of Control and Communications" in *IEEE International Conference on Mobile Ad-hoc and Sensor Systems (IEEE MASS)*, Dallas, Oct 2015.
- 73 Q. Liu, X. Wang, and N.S.V, Rao, "Artificial Neural Networks for Estimation and Fusion in Long- -Haul Sensor Network," *18<sup>th</sup> International Conference on Information Fusion*, Washington DC, 2015.
- 74 Q. Liu, X. Wang, and N.S.V, Rao, "Accuracy and Consistency in Estimation and Fusion Over Long- -Haul Sensor Networks," *18<sup>th</sup> International Conference on Information Fusion*, Washington DC, 2015.
- 75 Xiaomeng Wang and Xin Wang, ``Co-prime Array Processing with Sum and Difference Co-array," in proceeding of *Asilomar conference on Signals, Systems, and Computers*, Asiloma, California, Nov. 2015.
- 76 K. Xie, L. Wang, X. Wang, J. Wen, and G. Xie, "Learning from the Past: Intelligent On-Line Weather Monitoring based on Matrix Completion," in *IEEE International Conference on Distributed Computing Systems (IEEE ICDCS)*, Madrid, Spain, June 2014. (Acceptance rate: 13%)
- 77 Y. Cui, S. Xiao, X. Wang, M. Li, H. Wang and Z. Lai, "Performance-aware Energy Optimization on Mobile Devices in Cellular Network," in *IEEE International Conference on Computer Communications (INFOCOM)*, Toronto, Canada, Apr. 2014. (Acceptance rate: 18%)
- 78 J. Zhao and X. Wang, "Compressive Wireless Data Transmissions under Channel Perturbation," in *IEEE International Conference on Sensing, Communications and Networking (IEEE SECON)*, Singapore, June 2014. (Acceptance rate: 28.6%)

- 79 Y. Li, X. Wang “BRVST: An Efficient and Content-Expressive Information Matching Overlay for Wireless Networks”, in *International Conference on Mobile Ad-hoc and Sensor Systems (IEEE MASS)*, Philadelphia, Oct 2014. (Acceptance rate: 26.5%)
- 80 J. Cordova, X. Wang, D. Xie, L. Zuo, “Self-Motivated Relay Selection for a Generalized Power Line Monitoring Network,” in *International Conference on Mobile Ad-hoc and Sensor Systems (IEEE MASS)*, Philadelphia, Oct 2014. (Acceptance rate: 26.5%)
- 81 Q. Liu, X. Wang, “Scheduling of Sequential Periodic Sensing for Cognitive Radios,” under submission, in *IEEE International Conference on Computer Communications (INFOCOM)*, Turin, Italy, Apr. 2013. (Acceptance rate: 17%)
- 82 Q. Liu, X. Wang, N. Rao, “Staggered Scheduling of Estimation and Fusion in Long-Haul Sensor Networks,” in 16<sup>th</sup> *International Conference on Information Fusion*, Istanbul, Turkey, July 2013.
- 83 S. Chu, X. Wang, M. Li, “Enforcing high-performance operation of multi-hop wireless networks with MIMO relays,” in *IEEE International Conference on Distributed Computing Systems (IEEE ICDCS)*, Macau, June 2012. (Acceptance rate: 13%)
- 84 Y. Cui, X. Wang, H. Wang, G. Pan and Y. Wang, “TCP: A Fountain Code-based Multipath Transmission Control Protocol,” in *IEEE International Conference on Distributed Computing Systems (IEEE ICDCS)*, Macau, June 2012. (Acceptance rate: 13%)
- 85 Jie Zhao, Xin Wang, “Channel Sensing Order in Multi-user Cognitive Radio Networks,” IEEE Dynamic Spectrum Access Network (DySPAN), Bellevue, Washington, Oct 2012.
- 86 J. Li, H. Wu, B. Liu, J. Lu, Yi Wang, X. Wang, Y. Zhang, L. Dong, “Popularity-driven Coordinated Caching in Named Data Networking,” in proceeding of *ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ACM/IEEE ANCS)* , Austin, TX, Oct 2012
- 87 Z. Shan, X. Wang and T. Chiueh, “Facilitating Inter-Application Interactions for OS-level Virtualization,” in Proceeding of *ACM Annual International Conference on Virtual Execution Environments (ACM VEE)*, London, UK, Mar. 2012.
- 88 Z. Weng and X. Wang “Low-Rank Matrix Complexion for Array Signal Processing,” in Proceeding of *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, Kyoto, Japan, Mar. 2012.
- 89 Q. Liu, X. Wang and N. Rao, “Fusion of State Estimates over Long-haul Sensor Networks Under Random Delay and Loss,” *IEEE International Conference on Computer Communications (INFOCOM)*, minisymposium, Orlando, Mar 2012.
- 90 Q. Liu, X. Wang, N.S.V. Rao, K. Brigham and B. V. K. Vijaya Kumar “Performance of State Estimate Fusion in Long-Haul Sensor Networks with Message Retransmission,” 15<sup>th</sup> *International Conference on Information Fusion*, Singapore, 2012.
- 91 Q. Liu, X. Wang, N.S.V. Rao, K. Brigham and B. V. K. Vijaya Kumar “Fusion Performance in Long-Haul Sensor Networks with Message Retransmission and Retrodiction”, in *IEEE*

- International Conference on Mobile Ad-hoc and Sensor Systems (IEEE MASS)*, Las Vegas, Oct 2012.
- 92 N.S.V, Rao, K. Brigham and B. V. K. Vijaya Kumar, Q. Liu and X. Wang, "Effects of Computing and Communications on State Fusion Over Long-Haul Sensor Networks," 15<sup>th</sup> International Conference on Information Fusion, Singapore, 2012
  - 93 Z. Weng and X. Wang "Support Recovery in Compressive Sensing for Estimation of Direction-Of-Arrival," in Proceeding of *Asilomar conference on Signals, Systems, and Computers*, Asiloma, California, Nov. 2011.
  - 94 D. Li, H. Cui, Y. Hu, Y. Xia and X. Wang, "Scalable Data Center Multicast using Multi-class Bloom Filter," in *IEEE International Conference on Network Protocols (IEEE ICNP)*, Vancouver, BC Canada, Oct 2011. (Acceptance rate: 16%)
  - 95 Q. Xin, X. Wang, J. Cao and W. Feng, "Joint Admission Control, Channel Assignment and QoS Routing for Coverage Optimization in Multi-hop Cognitive Radio Cellular Networks," in *IEEE International Conference on Mobile Ad-hoc and Sensor Systems (IEEE MASS)*, Valencia, Spain, Oct 2011. (Acceptance rate: 19.1%)
  - 96 X. Wu, K. Yu, and X. Wang, "On the Growth of Internet Application Flows: A Complex Network Perspective," in *IEEE International Conference on Computer Communications (INFOCOM)*, Shanghai, China, Apr. 2011. (Acceptance rate: 15.9%)
  - 97 Z. Shan, X. Wang, and T. Chiueh, "Secom: Save Benign Working Results from Disposable Virtual Machines", in *IEEE/ACM International Conference on Autonomic Computing and Communications (ICAC)*, Karlsruhe, Germany, June 2011. (Acceptance rate: 20%)
  - 98 Z. Shan, X. Wang, and T. Chiueh, "Tracer: Enforcing Mandatory Access Control in Commodity OS with the Support of Light-Weight Intrusion Detection and Tracing," in *ACM Symposium on Information, Computer and Communications Security (ASIACCS)*, Hong Kong, Mar 2011. (Acceptance rate: 16.1%)
  - 99 Z. Shan, T. Chiueh, and X. Wang, "Virtualizing System and Ordinary Services in Windows-based OS-Level Virtual Machines," in *ACM Symposium on Applied Computing (SAC)*, TaiChung, Taiwan Mar 2011. (Acceptance rate: 22%)
  - 100 P. Wei, S. Chu, X. Wang and Y. Zhou, "Deployment of a Reinforcement Backbone Network with Constraints of Connection and Resources" in *IEEE International Conference on Distributed Computing Systems (IEEE ICDCS)*, Genoa, Italy, June 2010. (Acceptance rate: 14.3%)
  - 101 S. Chu and X. Wang, "MIMO-Aware Routing in Wireless Mesh Networks", in *Proceeding of IEEE INFOCOM'10*, San Diego, CA, March 2010. (Acceptance rate: 17.5%)
  - 102 S. Chu, X. Wang, "Adaptive Exploitation of Cooperative Relay for High Performance Communications in MIMO Ad Hoc Networks," in *IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS)*, San Francisco, CA, Nov. 2010. (Acceptance rate: 27%)
  - 103 Z. Zhang, Qiang Ma, Xin Wang, "Constructing Robust and Efficient Wireless Backbone Network with Algebraic Connectivity", in *Proceedings of IEEE IWQoS'10*, Beijing, China, June 2010.. (Acceptance rate: 24.8%)

- 104 S. Chu, X. Wang, "Adaptive and Distributed Scheduling in Heterogeneous MIMO-based Ad hoc Networks," in *IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS)*, MACAU, Oct., 2009. (Acceptance rate: 25%)
- 105 S. Chu, X. Wang, "Opportunistic and Cooperative Spatial Multiplexing in MIMO Ad hoc Networks," in *ACM International Symposium on Mobile Ad Hoc Networking and Computing (ACM MobiHoc'2008)*, Hong Kong, May, 2008. (Acceptance rate: 14.6%)
- 106 X. Xiang, Z. Zhou, X. Wang, "A Scalable Geographic Service Provision Framework for Mobile Ad Hoc Networks," in *IEEE International Conference on Pervasive Computing and Communications (IEEE PerCom'2007)*, White Plain, New York, Mar 2007. (Acceptance rate: 13.5%)
- 107 X. Xiang, Z. Zhou, X. Wang, "Self-Adaptive On Demand Geographic Routing Protocols for Mobile Ad Hoc Networks," in *IEEE International Conference on Computer Communications (INFOCOM)*, mini-symposium, Alaska, May 2007. (Acceptance rate: 25%)
- 108 X. Xiang, Z. Zhou, X. Wang, "Robust and Scalable Geographic Multicast Protocol for Mobile Ad Hoc Networks," in *IEEE International Conference on Computer Communications (INFOCOM)*, mini-symposium, Alaska, May 2007. (Acceptance rate: 25%)
- 109 Z. Zhou, X. Xiang, X. Wang, J. Pan, "An Energy-Efficient Data Dissemination Protocol in Wireless Sensor Networks," *IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM'2006)*, Niagara-Falls, Buffalo, NY, June, 2006. (Acceptance rate 10.4 %, as extended paper)
- 110 X. Yu, C. Qiao, X. Wang, D. Xu, "Performance Analysis and Enhancement of the Next Generation Cellular Networks," *IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM'2006)*, Niagara-Falls, Buffalo, NY, June, 2006. (Acceptance rate 10.4 %, as extended paper)
- 111 X. Xiang, X. Wang, Z. Zhou, "An Efficient Geographic Multicast Protocol for Mobile Ad Hoc Networks," *IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM'2006)*, Niagara-Falls, Buffalo, June, 2006. (Acceptance rate: ~30%)
- 112 P. Lin, H. Ngo, C. Qiao, X. Wang, T. Wang, D. Qian, "Minimum Cost Wireless Broadband Overlay Network Planning," *IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM'2006)*, Niagara-Falls, Buffalo, NY, June, 2006. (Acceptance rate: around 30%)
- 113 A. Balasubramanian, J. Ghosh, X. Wang, "A Reputation Based Scheme for Stimulating Cooperation in MANETs," in *19th International Teletraffic Congress (ITC-19)*, Beijing, China, Aug. 2005. (Acceptance rate unknown)
- 114 J. Zhu, X. Wang, "PEER: A Progressive Energy Efficient Routing Protocol for Wireless Ad Hoc Networks," in *IEEE International Conference on Computer Communications (INFOCOM)*, Miami, March 2005. (Acceptance rate: 17.2%)
- 115 X. Wang, R. Ramjee, H. Viswanathan, "Adaptive and Predictive Downlink Resource Management Scheme in Next Generation CDMA Networks," in *IEEE International Conference on Computer Communications (INFOCOM)*, Hong Kong, March 2004. (Acceptance rate: 18.4%)

- 116J. Zhu, C. Qiao, X. Wang, "A Comprehensive Minimum Energy Scheme for Wireless Networks," in *IEEE International Conference on Computer Communications (INFOCOM)*, Hong Kong, March 2004. (Acceptance rate: 18.4%)
- 117P. Lin and C. Qiao and X. Wang, "Medium Access Control With Dynamic Duty Cycle For Sensor Networks," *IEEE Wireless Communications and Networking Conference (WCNC)*, Atlanta, Georgia, March, 2004.
- 118G. Gopalakrishnan, S. Kaser, C. Loader, X. Wang, "Robust Router Overload Control Using Acceptance and Departure Rate Measures," in *18th International Teletraffic Congress (ITC-18)*, Berlin, Germany, Aug. 2003. (Acceptance rate unknown)
- 119S. Kaser, R. Ramjee, S. Thuel, X. Wang, "Congestion Control Policies for IP-based CDMA Radio Access Network," in *IEEE International Conference on Computer Communications (INFOCOM)*, San Francisco, March 2003. (Acceptance rate: 20.8%)
- 120X. Wang, H. Schulzrinne, "Auction or Tatonnement - Finding Congestion Prices for Adaptive Applications," short paper in *10th International Conference on Network Protocols (ICNP'2002)*, Paris, France, Nov. 2002. (Acceptance rate: 14.7%)
- 121X. Wang, H. Schulzrinne, "Pricing Network Resources for Adaptive Applications in a Differentiated Services Network," in *IEEE International Conference on Computer Communications (INFOCOM)*, Anchorage, Alaska, April 2001. (Acceptance rate: 23%)
- 122X. Wang, H. Schulzrinne, D. Kandlur, D. Verma, "Measurement and Analysis of LDAP Performance," *ACM International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS'2000)*, Santa Clara, California, June 2000. (Acceptance rate: 17%)
- 123X. Wang, H. Schulzrinne, C. Yu, P. Stirpe, W. Wu, "IP Multicast Fault Recovery in PIM over OSPF," in *ACM International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS'2000)*, Santa Clara, California, June 2000. As short paper.
- 124M. Chan, Y. J. Lin, X. Wang, "On Reducing QoS Data Exchange in Monitoring Flows with Service Level Agreements," in *8th IEEE International Conference on Network Protocols (IEEE ICNP'2000)*, Osaka, Japan, November 2000. (Acceptance rate: 27%)
- 125X. Wang, H. Schulzrinne, C. Yu, P. Stirpe, W. Wu, "IP Multicast Fault Recovery in PIM over OSPF," in *8th IEEE International Conference on Network Protocols (IEEE ICNP'2000)*, Osaka, Japan, November 2000. (Acceptance rate: 27%)
- 126X. Wang, H. Schulzrinne, "Performance Study of Congestion Price based Adaptive Service," in *Proc. International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV'2000)*, Chapel Hill, North Carolina, June 2000.
- 127X. Wang, H. Schulzrinne, "Adaptive Reservation: A New Framework for Multimedia Adaptation," *IEEE International Conference on Multimedia and Expo. (ICME'2000)*, New York, July 2000.
- 128X. Wang, H. Schulzrinne, "RNAP: A Resource Negotiation and Pricing Protocol," In *Proc. International Workshop On Network and Operating System Support for Digital Audio and Video (NOSSDAV'99)*, New Jersey, June 1999.

- 129 X. Wang, I. Stavrakakis, “An Efficient VBR Traffic Scheduling Policy using Dynamic Bandwidth Allocation,” *4th IFIP Workshop on Performance Modeling and Evaluation of ATM Networks*, July 8-10, 1996, W. Yorkshire, U.K.
- 130 X. Wang, J. Zhang, W. Zhu, “64 Kb/s Motion Videophone Hardware System Design,” *The 6th National conference on Speech and Image Communications*, Beijing, China, 1993.
- 131 X. Wang, J. Li, W. Zhu, J. Zhang, “Using TMS 320C25 to Realize 64Kb/s Motion Videophone Decoder,” *The 6th National United Conference on Multimedia Communications*, Beijing, China, 1993.

### Workshop Publications and Presentations

1. M. Polese, F. Restuccia, A. Gosain, J. M. Jornet, S. Bhardwaj, V. Ariyaratna, S. Mandal, K. Zheng, A. Dhananjay, M. Mezzavilla, J. F. Buckwalter, M. Rodwell, X. Wang, M. Zorzi, A. Madanayake, and T. Melodia, “Millimera: Toward A Large-scale Open-source mmWave and Terahertz Experimental Testbed,” in *Proceedings of the 3rd ACM Workshop on Millimeter-wave Networks and Sensing Systems*, October 25, 2019, Los Cabos, Mexico (L. Simic and P. H. Pathak, eds.), pp. 27–32.
2. Virendra M., Upadhyaya S., Wang X., "GSWLAN: A Generic and Secure Wireless LAN Architecture", *Fifth IEEE Information Assurance Workshop (West Point Workshop)*, West Point, NY, pp. 434-435, June 2004
3. X. Wang, H. Schulzrinne, “Resource Negotiation and Pricing in Diffserv for Adaptive Multimedia Applications,” *First NY Metro Area Networking Workshop*, IBM T. J Watson Research Center, Hawthorne, New York, Mar 2001.
4. X. Wang, H. Schulzrinne, “RNAP: A Framework for Congestion-Based Pricing and Charging for Adaptive Multimedia Applications,” *First International Workshop Quality of future Internet Services (QofIS'2000)*, Berlin, Germany, Sep. 2000.
5. X. Wang, H. Schulzrinne, “Resource Negotiation and Pricing Protocol,” *Internet2 Network Research Workshop*, Chicago, June 2000.

### Conference Presentations:

1. J. Zhao and X. Wang, “Towards Efficient Medium Access for Millimeter Wave Networks,” in *NSF Millimeter-Wave RCN*, Tucson, AZ , Jan 18-19, 2018.
2. J. Zhao, X. Wang and Q. Liu, “Cooperative Sequential Compressed Spectrum Sensing over Wide Spectrum Band,” in *IEEE International Conference on Sensing, Communications and Networking (IEEE SECON)*, Seattle, June 2015.
3. Q. Liu, X. Wang, “Adaptive Scheduling of Sequential Periodic Sensing for Cognitive Radios,” under submission, in *Proceedings of IEEE INFOCOM'2013*, Turin, Italy, Apr. 2013.
4. Q. Liu, X. Wang, N.S.V. Rao, K. Brigham and B. V. K. Vijaya Kumar “Performance of State Estimate Fusion in Long-Haul Sensor Networks with Message Retransmission,” 15<sup>th</sup> International Conference on Information Fusion, Singapore, July 2012.

5. S. Chu, X. Wang, M. Li, "Placement of MIMO Nodes for Provisioning and Performance Enhancement in Wireless Networks," in *Proceeding of IEEE ICDCS*, Macau, June 2012.
6. Q. Liu, X. Wang and N. Rao, "Fusion of State Estimates over Long-haul Sensor Networks Under Random Delay and Loss," in *Proceeding of IEEE INFOCOM minisymposium*, Orlando, Mar 2012.
7. Z. Weng and X. Wang "Support Recovery in Compressive Sensing for Estimation of Direction-Of-Arrival," in *Proceeding of Asilomar conference on Signals, Systems, and Computers*, Asiloma, California, Nov. 2011.
8. X. Wu, K. Yu, and X. Wang, "On the Growth of Internet Application Flows: A Complex Network Perspective," in *Proceedings of IEEE INFOCOM'2011*, Shanghai, China, Apr. 2011.
9. P. Wei, S. Chu, X. Wang and Y. Zhou, "Deployment of a Reinforcement Backbone Network with Constraints of Connection and Resources," in *IEEE International Conference on Distributed Computing Systems (IEEE ICDCS)*, Genoa, Italy, June 2010.
10. S. Chu, X. Wang, "Adaptive Exploitation of Cooperative Relay for High Performance Communications in MIMO Ad Hoc Networks," in *IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS)*, San Francisco, CA, Nov. 2010.
11. Z. Zhang, Qiang Ma, Xin Wang, "Constructing Robust and Efficient Wireless Backbone Network with Algebraic Connectivity", in *Proceedings of IEEE IWQoS'10*, Beijing, China, June 2010..
12. S. Chu, X. Wang, "Adaptive and Distributed Scheduling in Heterogeneous MIMO-based Ad hoc Networks," in *IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS)*, MACAU, Oct., 2009.
13. S. Chu, X. Wang, "Opportunistic and Cooperative Spatial Multiplexing in MIMO Ad hoc Networks," in *ACM International Symposium on Mobile Ad Hoc Networking and Computing (ACM MobiHoc'2008)*, Hong Kong, May, 2008.
14. X. Xiang, Z. Zhou, X. Wang, "A Scalable Geographic Service Provision Framework for Mobile Ad Hoc Networks," in *IEEE International Conference on Pervasive Computing and Communications (IEEE PerCom'2007)*, White Plain, New York, Mar 2007.
15. A. Balasubramanian, J. Ghosh, X. Wang, "A Reputation Based Scheme for Stimulating Cooperation in MANETs," in *19th International Teletraffic Congress (ITC-19)*, Beijing, China, Aug. 2005.
16. X. Wang, R. Ramjee, H. Viswanathan, "Adaptive and Predictive Downlink Resource Management Scheme in Next Generation CDMA Networks," in *Proceedings of IEEE INFOCOM'2004*, Hong Kong, March 2004.
17. X. Wang, H. Schulzrinne, "Auction or Tatonnement - Finding Congestion Prices for Adaptive Applications," short paper in *10th International Conference on Network Protocols (ICNP'2002)*, Paris, France, Nov. 2002.
18. X. Wang, H. Schulzrinne, "Pricing Network Resources for Adaptive Applications in a Differentiated Services Network," in *Proceeding of IEEE INFOCOM'2001*, Anchorage, Alaska, April 2001.

19. X. Wang, H. Schulzrinne, D. Kandlur, D. Verma, "Measurement and Analysis of LDAP Performance," *ACM International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS'2000)*, Santa Clara, California, June 2000.
20. X. Wang, H. Schulzrinne, C. Yu, P. Stirpe, W. Wu, "IP Multicast Fault Recovery in PIM over OSPF," in *ACM International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS'2000)*, Santa Clara, California, June 2000.
21. X. Wang, H. Schulzrinne, C. Yu, P. Stirpe, W. Wu, "IP Multicast Fault Recovery in PIM over OSPF," in *8<sup>th</sup> IEEE International Conference on Network Protocols (IEEE ICNP'2000)*, Osaka, Japan, November 2000.
22. X. Wang, H. Schulzrinne, "Performance Study of Congestion Price based Adaptive Service," in *Proc. International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV'2000)*, Chapel Hill, North Carolina, June 2000.
23. X. Wang, H. Schulzrinne, "Adaptive Reservation: A New Framework for Multimedia Adaptation," *IEEE International Conference on Multimedia and Expo. (ICME'2000)*, New York, July 2000.
24. X. Wang, H. Schulzrinne, "RNAP: A Resource Negotiation and Pricing Protocol," In *Proc. International Workshop On Network and Operating System Support for Digital Audio and Video (NOSSDAV'99)*, New Jersey, June 1999.

#### **D. Research Collaborations**

- Prof. Henning Schulzrinne, Columbia University, in the area of multimedia networking research
- Peng Zhang, Stony Brook University, in the area of AI Grid, with two research projects funded.
- Yue Zhao, Stony Brook University, in the area of AI Grid, with one research projects funded.
- Prof. Yuanyuan Yang, Stony Brook University, in the area of wireless networking research, with four journal papers published.
- Profs. Alex Doboli and Wendy Tang, Stony Brook University, on the design of multi-semantic, decision networks, with joint proposal submissions.
- Prof. Sangjin Hong, Stony Brook University, on the design of system architecture for supporting wireless actuator/sensor interface, with one joint proposal in the past.
- Prof. Jacob Sharony, Stony Brook University, on wireless networking research.
- Prof. David (Xiangfeng) Gu, Jie Gao, Stony Brook, exploiting differential geometric theory to design models and methodologies for robust wireless networking. With one joint grant funded by AFOSR.
- Profs. Tzi-cker Chiueh, Samir Das, and Jennifer Wong, on the development of miniaturized robotic testbed, with a joint grant from NSF.
- Prof. Samir Das on the development of network management system for voice and video, with a past proposal submission.

- Profs. Scott Stoller and Scott Smolka, on the development of AI Grid, with joint 1M and 5M projects from NSF.
- Prof. Yu Zhou, SUNY IT on the robotic system deployment and communications, with one joint paper published and one joint NSF grant.
- Prof. Lei Zuo, Univ of Michigan, on the design of energy harvesting and sustainable networks, with two grants awarded, one under submission.
- Prof. Wenye Wang, North Carolina State University, on the intelligent spectrum management, with one large project funded from NSF.
- Prof. Janise McNair, University of Florida, on the intelligent spectrum management, with one large project funded from NSF.
- Prof. Yong-Kyu Yoon, University of Florida, on the intelligent spectrum management, with one large project funded from NSF.
- Prof. Shiwen Mao, Auburn University, on the design of algorithms and protocols for small cell networks for spectrum efficiency and high wireless network capacity. With one cooperative NSF grant.
- Prof. Madanayake, Habarakada Liyanachchi, University of Arkron, on the design advanced antenna techniques, with two NSF grants.
- Dr. Soumyajit Mandal, Brookhaven National Lab, with three federal grants funded
- Prof. Ted Rappaport, New York University, on the design of millimeter Wave network, with one NSF grant.
- Prof. David. Yau, Purdue University, on networked sensing and services, with joint proposals submitted.
- Prof. Chunming Qiao and Hung Ngo, University at Buffalo, on wireless networking and algorithms, with joint papers.
- Prof. Shambhu Upadhyaya and Ramalingam Sridhar, University at Buffalo, on wireless security.
- Prof. Jianping Pan, University of Victoria, on energy efficient sensor network design, with one joint paper.
- Dr. Dahai Xu (AT&T Research) and Xiang Yu (Yahoo) on network performance studies.
- Dr. Sandy Thuel and Harish Viswanathan, Bell Labs Research, Alcatel-Lucent, on Improving Performance of CDMA networks.
- Dr. Dilip Kandlur and Dinesh Verma, IBM Research, on LDAP performance studies
- Dr. Ramachandran Ramjee, Microsoft Research India (past Bell Labs Research, New Jersey) , on resource management in CDMA networks
- Prof. Sneha Kasera, University of Utah, on network congestion control

- Mun-choon Chan (National University of Singapore) and Dr. Yow-jian Lin (Telcodia Research), on IP network monitoring
- Dr. Paul Stirpe, Wei Wu (Reuters), Chien-ming Yu (Microsoft), on IP multicast studies
- Prof. Ioannis Stavrakakis, University of Athens, on network scheduling

## IV. Services

### A. Invited Professional Talks

1. “Accurate Monitoring of Networked Microgrid under Uncertainty,” International Workshop on Intelligent and Converged Networks (WICN), Toronto Canada, Oct 2023.
2. “Latent Part-of-Speech Sequences for Neural Machine Translation,” Beijing University of Posts & Telecommunications, Beijing, China, Dec 2019.
3. “Latent Part-of-Speech Sequences for Neural Machine Translation,” Jiaying University, Jiaying, China, Dec 2019.
4. “Active Sparse Mobile Crowd Sensing Based on Matrix Completion,” Jilin University, June 2019
5. “Active Sparse Mobile Crowd Sensing Based on Matrix Completion,” Beihang University, June 2019
6. “Active Sparse Mobile Crowd Sensing Based on Matrix Completion,” Dalian University of Technology, Dalian, China, June 2019.
7. “Crossing-Domain Generative Adversarial Networks for Unsupervised Multi-Domain Image-to-Image Translation,” Beijing University of Posts & Telecommunications, Beijing, China, Dec 2018.
8. “Crossing-Domain Generative Adversarial Networks for Unsupervised Multi-Domain Image-to-Image Translation,” Jiaying University, Jiaying, China, Dec 2018.
9. “Graph based Tensor Recovery for Accurate Internet Anomaly Detection,” Beijing University of Posts & Telecommunications, Beijing, China, June 2018.
10. “Graph based Tensor Recovery for Accurate Internet Anomaly Detection,” Dalian University of Technology, Dalian, China, June 2018.
11. “Efficient and Cooperative Failure Control in Smart Grid,” Jiaying University, Jiaying, China, June 2018.
12. “Exploiting Compressive Sensing for Low Cost Signal Detection and Mapping,” Beijing University of Posts & Telecommunications, Beijing, China, Dec 2017.
13. “Exploiting Compressive Sensing for Low Cost Signal Detection and Mapping,” Jiaying University, Jiaying, China, Dec 2017.
14. “Robust Data Driven Power Line Outage Detection with Unreliable Phasor Measurements.” Beijing University of Posts & Telecommunications, Beijing, China, June 2017.

15. "Robust Data Driven Power Line Outage Detection with Unreliable Phasor Measurements." Jiaying University, Jiaying, China,, June 2017.
16. "Decentralized Context Sharing in Vehicular Delay Tolerant Networks with Compressive Sensing," Beijing University of Posts & Telecommunications, Beijing, China, Dec 2016.
17. "Decentralized Context Sharing in Vehicular Delay Tolerant Networks with Compressive Sensing," Jiaying University, Jiaying, China, December 2016.
18. "Decentralized Context Sharing in Vehicular Delay Tolerant Networks with Compressive Sensing," Shanghai Jiaotong University, Shanghai, China, June 2016.
19. "Sparse On-Line Data Collections in Wireless Sensor Networks based on Matrix Completion", Zhejiang University, Hangzhou, China, June 2016.
20. "Sparse On-Line Data Collections in Wireless Sensor Networks based on Matrix Completion", Shanghai Jiaotong University, Shanghai China, June 2014.
21. "Sparse On-Line Data Collections in Wireless Sensor Networks based on Matrix Completion", Tsinghua University, Beijing China, June 2014.
22. "SMCLOUD: Social Mobile Cloud," National Taiwan University, June 2013
23. "SMCLOUD: Social Mobile Cloud," Institute of Computing Technology, Chinese Academy of Sciences, June 2013
24. "SMCLOUD: Social Mobile Cloud," Beihang University, Beijing, China, June 2013
25. "General, Adaptive and Scalable Framework for Efficient and Robust Operation of Networked CPS," Hong Kong Polytechnic University, August 2012.
26. "Adaptive Scheduling in MIMO-based Ad hoc Networks", National University of Defense Technology, China, Aug 2012.
27. "Adaptive Scheduling in MIMO-based Ad hoc Networks", Nanyang Technological University, Singapore, July 2012.
28. "Adaptive Scheduling in MIMO-based Ad hoc Networks," University of Electronic Science and Technology of China, June 2012.
29. "General, Adaptive and Scalable Framework for Efficient and Robust Operation of Networked CPS", Hunan University, June 2012.
30. "Deployment of a Connected Reinforced Backbone Network with a Limited Number of Backbone Nodes", Zhejiang University, China, Dec 2010.
31. "Efficient and Robust Localization of Multiple Radiation Sources in Complex Environments", 13<sup>th</sup> *ONR/GTRI* Workshop on Target Tracking and Sensor Fusion, May 2010.
32. "Adaptive Scheduling in MIMO-based Ad hoc Networks", Temple University, April 2010.
33. "An Efficient Monitoring System for Reliable Sensing and Optimal Coverage under Uncertainties and Resource Limitations", 12<sup>th</sup> *ONR/GTRI* Workshop on Target Tracking and Sensor Fusion, July 2009.

34. “An Efficient Monitoring System for Reliable Sensing and Optimal Coverage under Uncertainties and Resource Limitations”, Georgia Tech Research Institute, July 2009.
35. “Opportunistic and Cooperative Spatial Multiplexing in MIMO Ad hoc Networks,” Department of Computing, Hong Kong Polytechnic University, Hong Kong, May, 2008.
36. “A Scalable Geographic Service Provision Framework for Mobile Ad Hoc Networks ”, Invited, *NSF Workshop on Mobility in Wireless Networks*, July, 2007
37. “Efficient Geographic Routing for Mobile Ad-hoc Networks,” Department of Computer Science, Tsinghua University, Beijing, China, Aug, 2005.
38. “Resource Negotiation, Pricing, and Quality of Service for Adaptive Multimedia Applications,” Sprint Advanced Technology Labs, Burlingame, California, Feb. 2001
39. “Integrated Resource Negotiation, Pricing, and Quality of Service for Adaptive Multimedia Applications,” PacketVideo, Rochelle Park, New Jersey, Mar. 2001
40. “RNAP: A Framework for Congestion-Based Pricing and Charging for Adaptive Multimedia Applications,” *First International Workshop Quality of future Internet Services (QofIS'2000)*, Berlin, Germany, Sep. 2000
41. “Resource Negotiation and Pricing Protocol,” *Internet2 Network Research Workshop*, Chicago, June 2000.
42. “An Integrated Resource Negotiation, Pricing, and Quality of Service Framework for Adaptive Multimedia Applications,” Sun Microsystems, San Jose, CA., Aug. 2000.
43. “Measurement and Analysis of LDAP Performance,” Sun Microsystems, San Jose, CA, Aug. 2000.

## **B. Services to the department and university**

- Serve in Strategic Planning Committee, College of Engineering and Applied Science, responsible for developing the strategic directions, Work with the department chairs, 2019-present.
- Serve in Faculty Awards Committee, College of Engineering and Applied Science, responsible for nominating faculty for university-wide and national awards, Work with the department chairs to identify qualifying faculty for nominations, 2016-present.
- Serve in Graduate Council Fellowships and Awards Committee, Review and evaluate/score nominations submitted to GCF, and select winners for various graduate student awards. 2016-present
- Serve in Strategic Committee. Department of Electrical and Computer Engineering, Identify the strategic direction of the department, 2020 – present
- Serve in Diversity Committee, Department of Electrical and Computer Engineering, establish various strategies to increase the enrollment of female and minority students, and ensure the fair treatments of students with various backgrounds, 2020 – present.
- Serve in the Ranking Promotion Committee, Department of Electrical and Computer Engineering

Analyze the performance of the department, and propose procedures to increase the ranking of the department. 2016 - present

- Serve in Faculty Awards Committee, Department of Electrical and Computer Engineering, Work with the department chair to identify qualifying faculty to nominate for university-wide and national awards, provide nomination documents, and help candidates to prepare for application package. 2016- present
- Serve in Graduate Committee, Department of Electrical and Computer Engineering, Participate in establishing the policy for graduate studies, graduate student recruiting. 2016-present
- Serve in Research Expenditure Committee. Participate in establishing policy and rules to improve the department expenditure. 2016 – present
- Served as the department representative participating in the search of Dean of the School of Engineering and Applied Science, 2015.
- Participated in establishing new PhD degree requirements, Electrical and Computer Engineering Department, 2015.
- Participated in faculty hiring, SUNY at Stony Brook, 2008-2015. I have actively participated in faculty candidate interviews and hiring-related activities for both ECE department and CS department.
- Invited several speakers and potential investors from industry and academia to colloquium of ECE department and CEWIT, including the director of research of Huawei, one of the biggest telecommunication companies in the world, Research Fellow from Honeywell, world-known scholar from Columbia University, researchers from AT&T Lab, Nanyang University, Singapore, Beijing Univ. of Posts and Telecom, China, 2005-2014.
- Served as a member in Ph.D. defense and Ph.D. preliminary exam committees. I have served in the committees for 22 PhD students, 2005-present
- Advisor for undergraduate student research and senior design 2008-present. Three students obtained URECA award for their excellent research work.
- Advisor for Honor Undergraduate Students.
- Served as outside member of the faculty hiring committee, Computer Science Department, 2012.
- Participated in drafting the faculty hiring document for the Mobile Computing and Internet Technologies (MCIT) cluster, 2012.
- Participated in the university convocation ceremony, 2009, 2010, 2011, 2013, 2015, 2016, 2017, 2018, representing ECE faculty in the ceremony.
- Served in ABET course estimation committee, 2008-2015.
- Participated in the ABET mock review process and participate in discussion with outside consultant for improving departmental ABET results, 2010.

- Participated in preparing ECE department self-study materials, 2008. I have helped prepare materials in networking research area, and helped check typos and inconsistencies in the whole document.
- Presented at the IAB meeting of ECE department/Sensor CAT in 2007, 2010. I introduced our research work to industrial board members in the IAB meetings.
- Participated in ABET document preparation in EE area, SUNY at Stony Brook, 2006. My responsibility was to proof-read the documents in electrical engineering area, and correct errors and typos.
- Served as a monitor of the department website for potential problems since 2006-2015. I have provided suggestions for improving department website and pointed out various typos.
- Member of Center of Excellence in Wireless and Information Technology (CEWIT) (2005 - present). I have actively participated in various CEWIT activities, including the review and selection of papers for CEWIT Workshop of 2006, and making presentations to outside visitors between 2005-present.
- Graduate Committee, SUNY at Buffalo, 2004, 2005. I had participated in periodic committee meetings, revising the program requirements, and annual graduate student recruiting.
- Facility Committee, SUNY at Buffalo, 2004, 2005. I had participated in periodic committee meetings, and planning of department IT infrastructure.
- Colloquium Committee, SUNY at Buffalo, 2004, 2005. My responsibilities included inviting outstanding speakers, organizing the colloquium, and hosting visitors.

### **C. Professional services**

Member of ACM and IEEE.

Associate Editor: IEEE Transactions on Mobile Computing, 2013-2018

NSF panels 2004, 2005, 2007, 2010, 2012, 2017, 2018, 2019, 2023.

DOE Panels 2009, 2010.

Reviewer for Canada Foundation for Innovation, 2009.

Steering Committee, IEEE/ACM International Symposium on Quality of Service (IWQoS), 2015-present

Track Chair, Wireless LAN, Ad Hoc, and Mesh Networks (WAM), The 27th International Conference on Computer Communications and Networks (ICCCN) 2018.

TPC Chair IEEE/ACM International Symposium on Quality of Service (IWQoS), 2014.

TPC Chair: ACM Workshop on Mobility in the Evolving Internet Architecture (MobArch), 2016

TPC Chair ACM MobiSys Workshop on Mobile Cloud Computing and Services (MCS), 2013.

TPC Vice-Chair International Conference on Mobile Ad-hoc and Sensor Networks (MSN), 2010.

Registration Co-Chair MobiCom/MobiHoc 2010.

Technical Program Committee (TPC) member, Annual AAAI Conference on Artificial Intelligence, 2024, 2025

Technical Program Committee (TPC) member, IEEE Annual Conference on Computer Communications Wireless Communications and Networking (INFOCOM), 2005-2025.

Technical Program Committee (TPC) member, IEEE International Symposium on Dynamic Spectrum Access Networks (DySpan), 2024, 2025

Technical Program Committee (TPC) member, ACM Annual International Conference on Mobile Computing and Networking (MobiCom), 2004, 2005, 2009

Technical Program Committee (TPC) member, Technical Program Committee (TPC) member, International Conference on Distributed Computing Systems (IEEE ICDCS), 2010, 2014-2016.

Technical Program Committee (TPC) member, IEEE Annual International Conference on Pervasive Computing and Communications (PerCom), 2007, 2008.

Technical Program Committee (TPC) member, IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS), 2010, 2011, 2013.

Technical Program Committee (TPC) member, IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), 2008, 2011, 2013, 2014, 2016, 2017.

Technical Program Committee (TPC) member, IEEE International Symposium on Quality of Service (IWQoS), 2010, 2014-2018.

Technical Program Committee (TPC) member, IEEE International Conference on Mobile Adhoc and Sensor Networks( MSN) 2010-2019.

Technical Program Committee (TPC) member, IEEE Vehicular Technology Conference (VTC), 2007, 2008.

Technical Program Committee (TPC) member, IEEE Wireless Communications and Networking Conference (WCNC), 2006

Technical Program Committee (TPC) member, IEEE International Workshop on Next Generation Wireless Networks (WoNGeN), 2006

Technical Program Committee (TPC) member, International Workshop on Convergence of Heterogeneous Wireless Networks (ConWiN), 2005

Technical Program Committee (TPC) member, Third International Workshop on Measurement, Modeling, and Performance Analysis of Wireless Sensor Networks (SenMetrics), 2005

Referee for

IEEE/ACM Transactions on Networking (TON)

IEEE Transactions on Wireless Communications (TWC)

IEEE Transactions on Mobile Computing (TMC)  
IEEE Journal on Selected areas in Communications (JSAC)  
IEEE Transactions on Parallel and Distributed System (TPDS)  
IEEE Transactions on Multimedia  
IEEE Communications Magazine  
IEEE Communications Letter  
IEEE Networks  
IEEE INFOCOM, ICC, VTC, Global Internet, Packet Video  
Journal for Communications and Networks (JCN)  
Computer Networks Journal, Elsevier  
ACM Journal of Wireless Networks, Springer  
ACM Multimedia, ACM SIGCOMM, ACM MobiCom