

Jie Wu

Chair and Laura H. Carnell Professor
Department of Computer and Information Sciences
Temple University
Philadelphia, PA 19122
Office: (215)204-8450 Fax: (215)204-5082
Email: jiewu@temple.edu
<http://www.cis.temple.edu/~wu>

1 Educational Background

- Ph.D. in Computer Engineering, Florida Atlantic University, Boca Raton, FL, 8/89
- M.S. in Computer Science, Shanghai University of Science and Technology (now Shanghai University), Shanghai, P. R. of China, 7/85
- B.S. in Computer Engineering, Shanghai University of Science and Technology, Shanghai, P. R. of China, 7/82

2 Employment History

- Chairman and Professor, Temple University 7/09 - present
- Program Director, National Science Foundation (NSF) 1/07-1/09
- Distinguished Professor, Florida Atlantic University 9/06-7/09
- Professor, Florida Atlantic University 8/98-8/06
- Associate Professor, Florida Atlantic University 8/94-7/98
- Assistant Professor, Florida Atlantic University 8/89-7/94
- Lecturer, Shanghai University of Science and Technology 7/85-1/87

3 Research Interests

Mobile Computing and Wireless Networks
Routing Protocols
Computer and Network Security
Distributed Computing
Fault-Tolerant Systems
Parallel Processing
Interconnection Networks

3.1 Refereed Journals

(selected from 191 journal publications)

1. H. Lai, Y. Pan, C. Liu, L. Lin, and J. Wu, "Sparse Learning-to-Rank via an Efficient Primal-Dual Algorithm," accepted to appear in *IEEE Transactions on Computers*.
2. J. Y. Shi, M. Taifi, A. Khreishah, J. Wu, "Tuple Switching Network – When Slower May Be Better," accepted to appear in *Journal of Parallel and Distributed Computing*.
3. Y. Zhao, J. Wu, F. Li, and S. Lu, "On Maximizing the Lifetime of Wireless Sensor Networks Using Virtual Backbone Scheduling," accepted to appear in *IEEE Transactions on Parallel and Distributed Systems*.
4. Y. Wang and J. Wu, "A Dynamic Multicast Tree based Routing Scheme without Replication in Delay Tolerant Networks," accepted to appear in *Journal of Parallel and Distributed Computing*.
5. Y. Li, J. Ren, and J. Wu, "Quantitative Measurement and Design of Source-Location Privacy Schemes for Wireless Sensor Networks," accepted to appear in *IEEE Transactions on Parallel and Distributed Systems*.
6. C. Liu and J. Wu, "Fast Deep Packet Inspection with a Dual Finite Automata," accepted to appear in *IEEE Transactions on Computers*.
7. C. Liu and J. Wu, "On Multi-copy Opportunistic Forwarding Protocols in Nondeterministic Delay Tolerant Networks," accepted to appear in *IEEE Transactions on Parallel and Distributed Systems*.
8. Q. Yuan, I. Cardei, and J. Wu, "An Efficient Prediction-based Routing in Disruption-Tolerant Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 23, No. 1, 2012, 19-31.
9. A. Khreishah, I. M. Khalil, P. Ostovari, and J. Wu, "Flow-based XOR Network Coding for Lossy Wireless Networks," accepted to appear in *IEEE Transactions on Wireless Communications*.
10. X. Chen, N. C. Rowe, J. Wu and K. Xiong, "Improving Targets Localization Accuracy by Their Spatial-Temporal Relationships in Wireless Sensor Networks," accepted to appear in *Journal of Parallel and Distributed Computing*.
11. Q. Liu, C. C. Tan, J. Wu, and G. Wang, "Cooperative Private Searching in Clouds," accepted to appear in *Journal of Parallel and Distributed Computing*.
12. Z. Li, J. Wu, J. Xie, T. Zhang, G. Chen, and Y. Dai, "Stability-Optimal Grouping Strategy of Peer-to-Peer Systems," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 22, No. 12, 2011, 2079-2087.
13. C. Liu and J. Wu, "Practical Routing in a Cyclic MobiSpace," *IEEE/ACM Transactions on Networking*, Vol. 19, No 2, 2011, 369-382.

14. Y. Xiao, M. Peng, H. Chen, S. Ozdemir, A.V. Vasilakos, and J. Wu, "Impacts of Sensor Node Distributions on Coverage in Sensor Networks," *Journal of Parallel and Distributed Computing*, Vol. 71, No. 12, 2011, 1578C1591.
15. D. Guo, J. Wu, Y. Liu, H. Jin, H. Chen, and T. Chen, "Quasi-Kautz Digraph for Peer-to-Peer Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 22, No. 6, 2011, 1042-1055.
16. Z. Jiang, Z. Li, J. Wu, and N. Xiao, "Capability Information: A Cost-Effective Information Model for Multi-Hop Routing of Wireless Ad Hoc Networks in the Real Environment," *Journal of Parallel and Distributed Computing*, Vol. 71, No. 8, 2011, 1085-1097.
17. F. Li and J. Wu, "Uncertainty Modeling and Reduction in MANETs," *IEEE Transactions on Mobile Computing*, Vol. 9, No. 7, July 2010, 1035 - 1048.
18. I. Jawhar, J. Wu, and D. P. Agrawal, "Resource Scheduling in Multihop Wireless Networks Using Directional Antennas," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 21, No. 9, Sept 2010, 1240 - 1253.
19. F. Li and J. Wu, "Attack and Flee: Game Theory-based Analysis On Interactions Among Nodes in MANETs," *IEEE Transactions on Systems, Man, and Cybernetics*, Vol. 40, No. 3, June 2010, 612 - 622.
20. S. Yang, and J. Wu, "Efficient Broadcasting Using Network Coding and Directional Antennas in MANETs," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 21, No. 2, February 2010, 148-161.
21. D. Guo, J. Wu, H. Chen, Y. Yuan, and X. Luo, "The Dynamic Bloom Filters," *IEEE Transactions on Knowledge and Data Engineering*, Vol. 22, No. 1, January 2010, 120-133.
22. J. Ren and J. Wu, "Survey on Anonymous Communications in Computer Networks," *Computer Communications*, Vol. 33, No. 4, March 2010, 420-431.
23. S. Peng, W. Jia, G. Wang, J. Wu, and M. Guo, "Trusted Routing Based on Dynamic Trust Mechanism in Mobile Ad-Hoc Networks," *IEICE Transactions on Information and Systems*, Vol 93-D, No. 3, pp. 510-517, March 2010.
24. C. Liu and J. Wu, "Scalable Routing in Cyclic Mobile Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 20, No. 9, September 2009, 1325-1338.
25. M. Lu, F. Li, and J. Wu, "Efficient Opportunistic Routing in Utility-Based Ad Hoc Networks," *IEEE Transactions on Reliability*, Vol. 58, No. 3, September 2009, 485-495.
26. C. Liu and J. Wu, "Virtual-Force-Based Geometric Routing Protocol in MANETs," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 20, No. 4, April 2009, 433-445.

27. S. Yang, J. Wu, and F. Dai, "Efficient Directional Network Backbone Construction in Mobile Ad Hoc Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 19, No. 12, Dec. 2008, 1601-1613.
28. F. Li, A. Srinivasan, and J. Wu, "PVFS: A Probabilistic Voting-based Filtering Scheme in Wireless Sensor Networks," *International Journal of Security and Networks (IJSN)*, Vol. 3, No. 3, August 2008, 173-182.
29. M. Lu, J. Yu and J. Wu, "Free-Riding on BitTorrent-like Peer-to-Peer File Sharing Systems: Modeling Analysis and Improvement," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 19, No. 7, July 2008, 954-966.
30. Z. Jiang, J. Wu, and D. Wang, "A New Fault-Information Model for Adaptive & Minimal Routing in 3-D Meshes," *IEEE Transactions on Reliability*, Vol. 57, No. 1, 2008, 954-966.
31. J. Wu, S. Yang, and F. Dai, "Iterative Local Solutions for Connected Dominating Set in Ad Hoc Wireless Networks," *IEEE Transactions on Computers*, Vol. 57, No. 5, May 2008, 702-715.
32. M. Cardei, S. Yang, and J. Wu, "Algorithms for Fault-Tolerant Topology in Heterogeneous Wireless Sensor Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 19, No. 4, April 2008, 545-558.
33. J. Wu, S. Yang, and F. Dai, "Logarithmic Store-Carry-Forward Routing in Mobile Ad Hoc Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 18, No. 6, June 2007.
34. S. Yang, M. Li, and J. Wu, "Scan-Based Movement-Assisted Sensor Deployment Methods in Wireless Sensor Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 18, No. 7, July 2007.
35. F. Dai and J. Wu, "On Constructing k -Connected k -Dominating Set in Wireless Networks," *Journal of Parallel and Distributed Computing (JPDC)*, 2007.
36. W. Lou and J. Wu, "Towards Broadcast Reliability in Mobile Ad Hoc Networks With Double Coverage," *IEEE Transactions on Mobile Computing*, Vol. 6, No. 2, February 2007, 148-163.
37. A. Srinivasan, J. Wu, and J. Teitelbaum, "Distributed Reputation-Based Secure Localization in Sensor Networks," a special issue of *Journal of Autonomic and Trusted Computing*, 2007.
38. G. Chen, C. Li, M. Ye, and J. Wu, "An Unequal Cluster-Based Routing Protocol in Wireless Sensor Networks," *Wireless Networks*, 2007.
39. J. Wu, W. Lou, and F. Dai, "Extended Multipoint Relays to Determine Connected Dominating Sets in MANETs," *IEEE Transactions on Computers*, Vol. 55, No. 3, March 2006, 334-347.

40. F. Dai and J. Wu, "Efficient Broadcasting in Ad Hoc Networks Using Directional Antennas," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 17, No. 4, April 2006, 335-347.
41. M. Cardei, J. Wu, and S. Yang, "Topology Control in Ad Hoc Wireless Networks using Cooperative Communication," *IEEE Transactions on Mobile Computing*, Vol. 5, No. 6, June 2006, 711-724.
42. J. Wu and F. Dai, "Mobility-Sensitive Topology Control in Mobile Ad Hoc Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 17, No. 6, June 2006, 522-535.
43. J. Wu, M. Cardei, F. Dai, and S. Yang, "Extended Dominating Set and Its Applications in Ad Hoc Networks Using Cooperative Communication," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 17, No. 8, August 2006.
44. J. Wu and F. Dai, "Virtual Backbone Construction in MANETs using Adjustable Transmission Ranges," *IEEE Transactions on Mobile Computing*, Vol. 5, No. 9, September 2006, 1188-1200.
45. B. Roussev, J. Wu, and L. Liu, "Distributed Computing Using Java: A Comparison of Two Server Designs," 52, *Journal of Systems Architecture*, 2006, 432-440.
46. M. Cardei and J. Wu, "Energy-Efficient Coverage Problems in Wireless Ad-Hoc Sensor Networks," *Computer Communications Journal*, Vol. 29, No. 4, 2006, 413 - 420.
47. J. Wu and Z. Jiang, "On Constructing the Minimum Orthogonal Convex Polygon in 2-D Faulty Meshes," *IEEE Transactions on Reliability*, Vol. 54, No. 3, September 2005, 449-458.
48. J. Wu, F. Gao, Z. Li, and Y. Min, "Optimal and Reliable Communication in Hypercubes using Extended Safety Vectors," *IEEE Transactions on Reliability*, Vol. 54, No. 3, September 2005, 402-411.
49. J. Wu and F. Dai, "Efficient Broadcasting with Guaranteed Coverage in Mobile Ad-Hoc Networks," *IEEE Transactions on Mobile Computing*, Vol. 4, No. 3, May/June 2005, 1-12.
50. J. Wu and L. Sheng, "Deadlock-Free Multicasting in Irregular Networks Using Prefix Routing," *The Journal of Supercomputing*, Vol. 31, No. 1, January 2005, 127-133.
51. M. Agarwal, J. H. Cho, L. X. Gao, and J. Wu, "Energy Efficient Broadcast in Wireless Ad Hoc Networks with Hitch-Hiking," *ACM/Kluwer MONET*, a special issue on *Energy Constraints and Lifetime Performance in Wireless Sensor Networks*, Vol. 10, No. 6, December 2005, 897-910.
52. J. Wu and S. Yang, "Energy-Efficient Node Scheduling Models in Sensor Networks with Adjustable Ranges," *International Journal of Foundations of Computer Science*, Vol. 16, No. 1, February 2005, 3-17.

53. Q. Dai and J. Wu, "Computation of Minimal Uniform Transmission Range in Ad-Hoc Wireless Networks," *Cluster Computing*, Vol. 8, 2005, 127-133.
54. F. Dai and J. Wu, "Performance Analysis of Broadcast Protocols in Ad-Hoc Networks Based on Self-Pruning," *IEEE Transactions on Parallel and Distributed Systems*, Vol.15, No.11, Nov. 2004, 1027-1040.
55. J. Wu and F. Dai, "A Generic Distributed Broadcast Scheme in Ad-Hoc Wireless Networks," *IEEE Transactions on Computers*, Vol. 15, No. 10, Oct. 2004, 908-920.
56. F. Dai and J. Wu, "An Extended Localized Algorithm for Connected Dominating Set Formation in Ad-Hoc Wireless Networks," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 53, No. 10, Oct. 2004, 1343-1354.
57. J. Wu and F. Dai, "Mobility Control and Its Applications in Mobile Ad-Hoc Networks," *IEEE Network*, Vol.18, No.4, July/Aug. 2004, 30-35.
58. J. Shen, L. Sheng, and J. Wu, "Searching for Sorted Sequences of Kings in Tournaments," *SIAM Journal of Computing*, 32, 5, 2003, 1201-1209.
59. J. Wu, "Optimal Broadcasting in Injured Hypercubes Using Directed Safety Levels," *Journal of Parallel and Distributed Computing*, 63, 2003, 815-826.
60. J. Wu and L. Sheng, "Deadlock-Free Routing in Irregular Networks Using Prefix Routing," *Parallel Processing Letters*, Vol. 13, No. 4, 2003, 705-720.
61. J. Wu, F. Dai, X. Lin, J. Cao, and W. Jia, "An Extended Fault-Tolerant Link-State Routing Protocol in the Internet," *IEEE Transactions on Computers*. Vol. 52, No. 10, Oct. 2003, 1298-1311.
62. J. Wu, "A Fault-Tolerant and Deadlock-Free Routing Protocol in 2-D Meshes Based on Odd-Even Turn Model," *IEEE Transactions on Computers*, Vol. 52, No. 9, Sept. 2003, 1154-1169.
63. D. Xiang, A. Chen, and J. Wu, "Reliable Broadcasting in Wormhole-Routed Hypercube-Connected Networks Using Local Safety Information," *IEEE Transactions on Reliability*, 52, 2, June 2003, 245-256.
64. J. Wu and S. Olariu, "On Cost-Optimal Merge of Two Intransitive Sorted Sequences," *International Journal of Foundations of Computer Science*, Vol. 14, No. 1, Feb. 2003, 99-106.
65. J. Sum, H. Shen, J. Wu, C. -S. Leung, and G. Young, "Analysis on Extended Ant Routing Algorithms for Network Routing and Management," *The Journal of Supercomputing*, 24, 2003, 327-340.
66. J. Wu, B. Wu, and I. Stojmenovic, "Power-Aware Broadcasting and Activity Scheduling in Ad-Hoc Wireless Networks Using Connected Dominating Sets," *Wireless Communications and Mobile Computing (WCMC)*, a special issue on *Research in Ad-Hoc Networking, Smart Sensing, and Pervasive Computing*, 3, 4, June 2003, 425-438.

67. Z. Jiang and J. Wu, "Fault-Tolerant Broadcasting in 2-D Wormhole-Routed Meshes," *The Journal of Supercomputing*, 25, 3, July 2003, 255-275.
68. J. Wu and F. Dai, "Broadcasting in Ad-Hoc Networks Based on Self-Pruning," *International Journal of Foundations of Computer Science*, Vol. 14, No. 2, April 2003, 201-221.
69. J. Wu and F. Dai, "QoS Routing in Hypercube Multicomputers," *Parallel Processing Letters*, Vol. 13, No. 1, March 2003, 43-52.
70. J. Wu and W. Lou, "Forward Node Set Based Broadcast in Clustered Mobile Ad-Hoc Networks," *Wireless Communications and Mobile Computing (WCNC)*, a special issue on *Algorithmic, Geometric, Graph, Combinatorial, and Vector Aspects of Wireless Networks and Mobile Computing*, Vol. 3, No. 2, March 2003, 141-154.
71. L. Sheng and J. Wu, "Maximum-Shortest-Path (MSP) Is Not Optimal For a General $N \times N$ torus," *IEEE Transactions on Reliability*, 52, 1, March 2003, 22-25.
72. J. Wu, "An Extended Dynamic Source Routing Scheme in Ad-Hoc Wireless Networks," *Telecommunication Systems*, a special issue on *Wireless Networks and Mobile Computing*, 22, 1-4, 2003, 61-75.
73. W. Lou and J. Wu, "On Reducing Broadcast Redundancy in Ad-Hoc Wireless Networks," *IEEE Transactions on Mobile Computing*, Vol. 1, No. 2, April-June 2002, 111-122. in 3-D
74. J. Wu, "Extended Dominating-Set-Based Routing in Ad-Hoc Wireless Networks with Unidirectional Links," *IEEE Transactions on Parallel and Distributed Systems*, 13, 9, Sept. 2002, 866-881.
75. J. Wu, "A Distributed Formulation of Smallest Faulty Orthogonal Convex Polygons in 2-D Meshes," *Journal of Parallel and Distributed Computing*, Vol. 62, 2002, 1168-1185.
76. J. Wu, "A Fault-Tolerant Adaptive and Minimal Routing Scheme in n -D Meshes," *The Computer Journal*, Vol. 45, No. 3, 2002, 349-363.
77. S. Datta, I. Stojmenovic, and J. Wu, "Internal Node and Shortcut-Based Routing with Guaranteed Delivery in Wireless Networks," *Cluster Computing Journal*, a special issue on *Mobile Ad-Hoc Networking*, Vol 5, No. 2, April 2002, 169-178.
78. F. He and J. Wu, "An Efficient Parallel Implementation of the Everglades Landscape Fire Model Using Checkpointing," *Parallel Computing*, Vol. 28, 2002, 65-82.
79. J. Wu and F. Dai, "On Locality of Dominating Set in Ad-Hoc Networks with Switch-On/Off Operations," *Journal of Interconnection Networks*, a special issue on *Algorithms for Networks*, Vol. 3, No. 3 & 4, Sept.& Dec. 2002, 129-147.
80. J. Wu and L. Sheng, "An Efficient Sorting Algorithm for a Sequence of Kings in a Tournament," *Information Processing Letters*, 79, 2001, 297-299.

81. J. Wu and H. Li, "A Dominating Set-Based Routing Scheme in Ad-Hoc Wireless Networks," *Telecommunication Systems*, a special issue on *Wireless Networks*, Vol 18, No. 1-3, 2001, 13-36.
82. J. Wu and Y. Yang, "The Postal Network: A Recursive Network for Parameterized Communication Model," *The Journal of Supercomputing*, 19, 2001, 141-159.
83. J. Wu, "On Finding a Hamiltonian Path in a Tournament Using Semi-Heap," *Parallel Processing Letters*, Vol. 10, No. 4, 2000, 279-294.
84. L. Sheng and J. Wu, "A Note on 'A Tight Lower Bound on the Number of Channels Required for Deadlock-Free Wormhole Routing'," *IEEE Transactions on Computers*, 49, (9), Sept. 2000, 1005.
85. S. Cang and J. Wu, "Time-Step Optimal Broadcasting in 3-D Meshes with Minimum Total Communication Distance," *Journal of Parallel and Distributed Computing*, 60, 2000, 966-997.
86. S. Q. Zheng and J. Wu, "Dual of a Complete Graph as an Interconnection Network," *Journal of Parallel and Distributed Computing*, 60, 2000, 1028-1046.
87. J. Wu, "Fault-Tolerant Adaptive and Minimal Routing in Mesh-Connected Multicomputers Using Extended Safety Levels," *IEEE Transactions on Parallel and Distributed Systems*, 11, (2), Feb. 2000, 149-159.
88. A. C. Wynn and J. Wu, "The Effect of Compression on Performance in a Demand Paging System," *Journal of Systems and Software*, 30, 2000, 151-170.
89. J. Wu, "Maximum-Shortest-Path (MSP): An Optimal Routing Policy for Mesh-Connected Multicomputers," *IEEE Transactions on Reliability*, 48, (3), Sept. 1999, 247-255.
90. J. Wu and G. Guo, "Fault-Tolerant Measures for m -ary n -dimensional Hypercubes Based on Forbidden Faulty Sets," *IEEE Transactions on Computers*, 47, (8), Aug. 1998, 883-887.
91. J. Wu, E. B. Fernandez, and Y. Luo, "Embedding of Binomial Trees in Hypercubes with Link Faults," *Journal of Parallel and Distributed Computing*, Vol. 54, 1998, 59-74.
92. J. Wu, "Fault-Tolerant Communication in Multiple Bus Systems," *Parallel Processing Letters*, a special issue on *Computing on Bus-Based Architectures*. Vol. 8, No. 3, 1998, 307-320,
93. J. Wu, E. B. Fernandez, and D. Dai, "Fault-Secure Scheduling," *The Computer Journal*, 41, (4), 1998, 207-222.
94. J. Wu, "Adaptive Fault-Tolerant Routing in Cube-Based Multicomputers Using Safety Vectors," *IEEE Transactions on Parallel and Distributed Systems*, 9, (4), April 1998, 321-334.
95. J. Wu, "Extended Fibonacci Cubes," *IEEE Transactions on Parallel and Distributed Systems*, 8, (12), Dec. 1997, 1203-1210.

96. J. Wu and K. Huang, "The Balanced Hypercube: A Cube-Based System for Fault-Tolerant Applications," *IEEE Transactions on Computers*, 46, (4), April 1997, 484-491.
97. J. Wu, "Reliable Unicasting in Faulty Hypercubes Using Safety Levels," *IEEE Transactions on Computers*, 46, (2), Feb. 1997, 241-247.
98. J. Wu, "Dimension-Exchange-Based Global Load Balancing in Faulty Hypercubes," *Concurrency: Practice and Experience*, 9, (1), Jan. 1997, 41-61.
99. H. Qian and J. Wu, "Enhanced Fibonacci Cubes," *The Computer Journal*, 39, (4), 1996, 331-345.
100. J. Wu, E. B. Fernandez, and M. Zhang, "Modelling of Hybrid Fault-Tolerant Software with Cost Constraints," *Journal of Systems and Software*, 33, (2), Nov. 1996, 141-149.
101. J. Wu and K. Yao, "Fault-Tolerant Multicasting in Hypercubes Using Limited Global Information," *IEEE Transactions on Computers*, 44, (9), Sept. 1995, 1162-1166.
102. J. Wu, "Tight Bounds on the Number of L -nodes in a Faulty Hypercube," *Parallel Processing Letters*, 5, (2), 1995, 321-328.
103. L. Brown and J. Wu, "Snooping in Fault-Tolerant Distributed Shared Memories," *Journal of Systems and Software*, May 1995, 149-166.
104. J. Wu, "Safety Level-An Efficient Mechanism for Achieving Reliable Broadcasting in Hypercubes," *IEEE Transactions on Computers*, 44, (5), May 1995, 702-705.
105. J. Wu and E. B. Fernandez, "Using Petri Nets for Determining Conversation Boundaries in Fault-Tolerant Software," *IEEE Transactions on Parallel and Distributed Systems*, 5, (10), Oct. 1994, 1106-1112.
106. J. Wu, "An Optimal Fault-Tolerant Nonredundant Broadcasting Scheme in Injured Hypercubes," *Journal of Parallel and Distributed Computing*, 22, (2), August 1994, 295-313.
107. J. Wu, E. B. Fernandez, and R. Zhang, "Some Extensions to the Lattice Model in Multilevel Computer Security," *Computers and Security*, 11, (4), 1992, 357-369.
108. J. Wu and E. B. Fernandez, "A Simplification of A Conversation Design Scheme Using Petri Nets," *IEEE Transactions on Software Engineering*, 15, (5), May 1989, 658-660.

3.2 Conference Proceedings

(selected from 376 conference articles)

1. W. Peng, F. Li, X. Zou, and J. Wu, "Seed and Grow: An Attack Against Anonymized Social Networks," accepted to appear in *Proc. of the IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, June 2012.

2. W. Peng, F. Li, X. Zou, and J. Wu, "A Privacy-Preserving Social-Aware Incentive System for Word-of-Mouth Advertisement Dissemination on Smart Mobile Devices," accepted to appear in *Proc. of the IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, June 2012.
3. A. Khreishah, I. M. Khalil, and J. Wu, "Universal Opportunistic Routing Scheme using Network Coding," accepted to appear in *Proc. of the IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, June 2012.
4. A. Khreishah, I. M. Khalil, and J. Wu, "Distributed Network Coding Based Opportunistic Routing for Multicast," accepted to appear in *Proc. of 13th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, June 2012.
5. N. Xiong, A. V. Vasilakos, J. Wu, Y. R. Yang, A. Rindos, and Y. Pan. "A Class of Practical Self-tuning Failure Detection Schemes for Cloud Computing Networks," accepted to appear in *Proc. of the 26th IEEE International Parallel & Distributed Processing Symposium (IEEE IPDPS 2012)*, May 2012.
6. W. Chang, J. Wu, and C. C. Tan, "Encounter-based Noise Cancellation For Cooperative Trajectory Mapping," accepted to appear in *Proc. of the 10th IEEE Pervasive Computing and Communication Conference (PerCom 2012)*, March 2012.
7. J. Wu and Y. Wang, "Social Feature-based Multi-Path Routing in Delay Tolerant Networks," accepted to appear in *Proc. of the 31st IEEE International Conference on Computer Communications (IEEE INFOCOM 2012)*, March 2012.
8. S. Zhang, Z. Qian, J. Wu, and S. Lu, "An Opportunistic Resource Sharing and Topology-Aware Mapping Framework for Virtual Networks," accepted to appear in *Proc. of the 31st IEEE International Conference on Computer Communications (IEEE INFOCOM 2012)*, March 2012.
9. Y. Li, J. Li, J. Ren, and J. Wu, "Providing Hop-by-Hop Authentication and Source Privacy in Wireless Sensor Networks," accepted to appear in *Proc. of the 31st IEEE International Conference on Computer Communications (IEEE INFOCOM 2012 Mini-Conference)*, March 2012.
10. Q. Liu, C. C. Tan, J. Wu, and G. Wang, "Efficient Information Retrieval for Ranked Queries in Cost-Effective Cloud Environments," accepted to appear in *Proc. of the 31st IEEE International Conference on Computer Communications (IEEE INFOCOM 2012 Mini-Conference)*, March 2012.
11. Y. Zhao and J. Wu, "Towards Approximate Event Processing in A Large-Scale Content-Based Network," *Proc. of the 31st Int'l Conference on Distributed Computing Systems (ICDCS)*, June 2011.
12. Y. Zhao and J. Wu, "On the Construction of the Minimum CostContent-Based Publish/Subscribe Overlays," *Proc. of the 8th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad-Hoc Communications and Networks (SECON)*, June 2011.

13. C. C. Tan, Q. Liu , and J. Wu, "Secure Locking for Untrusted Clouds," *Proc. of the 4th International Conference on Cloud Computing (IEEE Cloud)*, July 2011.
14. Y. Zhao and J. Wu, "ZigZag: A Content-based Publish/Subscribe Architecture for Human Networks," *Proc. of the 20th IEEE International Conference on Computer Communications and Networks (ICCCN)*, July 2011.
15. J. Wu, Y. Dai, and Y. -C. Zhao, "Local Spectrum Assignments in Cognitive Radio Networks," *Proc. of the 20th IEEE International Conference on Computer Communications and Networks (ICCCN)*, July 2011.
16. Y. Wang, Y. Guo and J. Wu, "Making Many People Happy: Greedy Solutions for Content Distribution," *Proc. of 2011 International Conference on Parallel Processing (ICPP)*, September 2011.
17. C. Liu, A. Chen, D. Wu, J. Zhang, and J. Wu, "A DFA with Extended Character-set for Fast Deep Packet Inspection," *Proc. of 2011 International Conference on Parallel Processing (ICPP)*, September 2011.
18. Y. C. Zhao, J. Wu, and S. L. Lu, "Efficient SINR Estimating with Accuracy Control in Large Scale Cognitive Radio Networks," *Proc. of the 17th IEEE International Conference on Parallel and Distributed Systems (ICPADS)*, December 2011.
19. Y. Dai and J. Wu, "Efficient Channel Assignment Under Dynamic Source Routing in Cognitive Radio Networks," *Proc. of the 8th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, October 2011.
20. A. Khreishah, I. M. Khalil, and J. Wu, "Polynomial Time and Provably Efficient Network Coding Scheme for Lossy Wireless Networks," *Proc. of the 8th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, October 2011.
21. W. Peng, F. Li, X. Zou and J. Wu, "Behavioral Detection and Containment of Proximity Malware in Delay Tolerant Networks," *Proc. of the 8th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, October 2011.
22. M. Peng, Y. Xiao, H. Chen, Q. Hao, A. Vasilakos, and J. Wu, "Sensor Distribution on Coverage in Sensor Networks" *Proc. of QShine 2010 Conference*.
23. X. Zhang, H. Gong, M. Liu, S. Lu, and J. Wu, "Quantitative Analysis of the Effect of Transmitting Power on the Capacity of Wireless Ad Hoc Networks," *Proc. of the 11th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, 2010.
24. Y. Wang, K. Li, and J. Wu, "Distance Estimation by Constructing the Virtual Ruler in Anisotropic Sensor Networks," *Proc. of the 28th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2010.
25. F. Li, Y. Yang, J. Wu, "CPMC: An Efficient Proximity Malware Coping Scheme in Smartphone-based Mobile Networks," *Proc. of the 28th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2010.

26. F. Xu, C. Tan, Q. Li, G. Yan, and J. Wu, "Designing a Better Access Point Association Protocol," *Proc. of the 28th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2010.
27. Y. Zhao, F. Li, J. Wu, and S. Lu, "VBS: Maximum Lifetime Sleep Scheduling for Wireless Sensor Networks Using Virtual Backbones," *Proc. of the 28th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)(Mini-conference)*, 2010.
28. Y. Zhao and J. Wu, "B-Sub: A Practical Bloom-Filter-Based Publish-Subscribe System for Human Networks," *Proc. of the 30th Int'l Conf. on Distributed Computing Systems (ICDCS)*, 2010.
29. Z. Xiao, Y. Xiao, and J. Wu, "A Quantitative Study of Accountability in Wireless Multi-hop Networks," *Proc. of the 39th International Conference on Parallel Processing (ICPP)*, 2010.
30. Z. Jiang, J. Wu, and R. Ito, "A Metric for Routing in Delay-Sensitive Wireless Sensor Networks," *IEEE of the 7th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, 2010. (**Received the Best Paper Award.**)
31. X. Li and J. Wu, "Channel On Demand: Optimal Capacity for Cooperative Multi-channel Multi-interface Wireless Mesh Networks," *IEEE of the 7th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, 2010.
32. J. Wu and Y. Wang, "A Non-Replication Multicasting Scheme in Delay Tolerant Networks," *IEEE of the 7th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, 2010.
33. L. Xie, Q. Li, W. Mao, J. Wu, and D. Chen, "Achieving Efficiency and Fairness for Association Control in Vehicular Networks," *Proc. of the 17th IEEE International Conference on Network Protocols (ICNP)*, 2009.
34. C. Liu and J. Wu, "An Optimal Probabilistically Forwarding Protocol in Delay Tolerant Networks," *Proc. of the 10th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, 2009.
35. Q. Yuan, I. Cardei, and J. Wu, "Predict and Relay: An Efficient Routing in Disruption-Tolerant Networks," *Proc. of 10th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, 2009, 95-104.
36. F. Li and J. Wu, "MOPS: Providing Content-based Service in Disruption-tolerant Networks," *Proc. of the 29th International Conference on Distributed Computing Systems (ICDCS)*, 2009.
37. M. Lu and J. Wu, "Erasure-Coding Based Utility Routing in Multi-hop Wireless Networks," *Proc. of the 6th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, 2009.

38. C. Liu, J. Wu, and I. Cardei, "Message Forwarding in Cyclic MobiSpace:the Multi-copy Case," *Proc. of the 6th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, 2009.
39. Md. Z. A. Bhuiyan, G. Wang, and J. Wu, "Target Tracking with Monitor and Backup Sensors in Wireless Sensor Networks," *Proc. of the 18th IEEE International Conference on Computer Communications and Networks (ICCCN)*, 2009.
40. F. Li, A. Srinivasan, and J. Wu, "Thwarting Blackhole Attacks in Disruption-Tolerant Networks using Encounter Tickets," *Prof. of the 27th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2009.
41. M. Li and J. Wu, "Opportunistic Routing Algebra and Its Applications," *Prof. of the 27th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2009.
42. C. Liu and J. Wu, "Efficient Geometric Routing in Three Dimensional Ad Hoc Networks," *Proc. of the 27th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM) (Mini-conference)*, 2009.
43. C. Liu and J. Wu, "Routing in a Cyclic MobiSpace," *Proc. of the 9th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, 2008.
44. Z. Jiang and J. Wu, "A Hierarchical Structure based Coverage Repair in Wireless Sensor Networks," *Proc. of IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'08)*, 2008.
45. J. Wu, M. Lu, and F. Li, "Utility-Based Opportunistic Routing in Multi-hop Wireless Networks," *Proc. of the 28th International Conference on Distributed Computing Systems (ICDCS)*, 2008.
46. Y. Wang and J. Wu, "A Nonblocking Approach for Reaching an Agreement on Request Total Orders," *Proc. of the 28th International Conference on Distributed Computing Systems (ICDCS)*, 2008.
47. J. Wu, S. Yang, and M. Cardei, "On Maintaining Sensor-Actor Connectivity in Wireless Sensor and Actor Networks," *Proc. of the 26th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2008.
48. Z. Jiang, J. Ma, and W. Lou, and J. Wu, "An Information Model for Geographic Greedy Forwarding in Wireless Ad Hoc Sensor Networks," *Proc. of the 26th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2008.
49. J. Wu, S. Yang, and M. Cardei, "Efficient Broadcast in MANETs Using Network Coding and Directional Antennas," *Proc. of the 26th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2008.
50. Q. Yuan and J. Wu, "DRIP: A Dynamic VoRonoI RegIons-Based Publish/Subscribe Protocol in Mobile Computing," *Proc. of the 26th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2008.

51. Y. Yang, M. Cardei, and J. Wu, "Non-Uniform Sensor Deployment in Mobile Wireless Sensor Networks," *Proc. of IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks*, (WoWMoM), June 2008.
52. C. Liu and J. Wu, "Scalable Routing in Delay Tolerant Networks," *Proc. of ACM International Symposium on Mobile Ad Hoc Networking and Computing* (MobiHoc), 2007.
53. J. Wu and S. Yang, "Polylogarithmic Store-Carry-Forward Routing using Mobile Nodes," *Proc. of IEEE Mobile Ad-Hoc and Sensor Systems* (MASS), 2007.
54. M. Cardei, S. Yang, and J. Wu, "Fault-Tolerant Topology Control Algorithms for Heterogeneous Wireless Sensor Networks," *Proc. of IEEE Mobile Ad-Hoc and Sensor Systems* (MASS), 2007.
55. C. Liu and J. Wu, "Destination-Region-Based Local Minimum Aware Geometric Routing," *Proc. of IEEE Mobile Ad-Hoc and Sensor Systems* (MASS), 2007.
56. M. Lu and J. Wu, "Utility-based Routing in Communication Networks with Unstable Links," *Proc. of IEEE International Conference on Computer Communications and Networks* (ICCCN), 2007. (Nominated for the best paper award.)
57. W. Tang, H. Xiong, S. Zhong, and J. Wu, "Enhancing Semi-Supervised Clustering: A Feature Projection Perspective," *Proc. of ACM International Conference on Knowledge Discovery and Data Mining* (SIGKDD), 2007.
58. D. Xiang, Y. Zhang, Y. Pan and J. Wu, "Deadlock-Free Adaptive Routing in Meshes Based on Cost-Effective Deadlock Avoidance Schemes," *Proc. of International Conference on Parallel Processing* (ICPP), 2007.
59. J. Zhao, H. Yu, K. Zhang, W. Zheng, J. Wu, and J. Hu, "Achieving Reliability Through Replication in a Wide-Area Network DHT Storage System," *Proc. of International Conference on Parallel Processing* (ICPP), 2007.
60. J. Wang, J. Cao, J. Li and J. Wu, "MHH: A Novel Protocol for Mobility Management in Publish/Subscribe System," *Proc. of International Conference on Parallel Processing* (ICPP), 2007.
61. S. Yang, J. Wu, and F. Dai "Efficient Backbone Construction Methods in MANETs Using Directional Antennas," *Proc. of IEEE International Conference on Distributed Computing Systems* (ICDCS), June 2007.
62. F. Li and J. Wu, "Mobility Reduces Uncertainty in MANETs," *Proc. of 26th Annual Joint Conf. of IEEE Communication and Computer Society* (INFOCOM), May 2007.
63. D. Guo, J. Wu, H. Chen, and X. Luo, "MOORE: An Extendable Peer-to-Peer Network Based Incomplete Kautz Digraph With Constant Degree," *Proc. of the 26th Annual Joint Conf. of IEEE Communication and Computer Society* (INFOCOM), May 2007.
64. M. Lu and J. Wu, "Social Welfare Based Routing in Ad-Hoc Networks," *Proc. of International Conference on Parallel Processing* (ICPP), 2006, 211-218.

65. J. -L. Wang, J. Cao and J. Wu, "Achieving Bounded Delay on Message Delivery in Publish/Subscribe Systems," *Proc. of International Conference on Parallel Processing (ICPP)*, 2006, 407-416.
66. D. Guo, H. Chen, X. Luo, and J. Wu, "Theory and Network Applications of Dynamic Bloom Filters," *Proc. of the 25th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, April 2006.
67. B. Wu and J. Wu, " k -Anycast Routing Schemes for Mobile Ad Hoc Networks," *Proc. of the 20th International Parallel and Distributed Processing Symposium (IPDPS)*, April 2006.
68. I. Jawhar and J. Wu, "Resource Allocation in Wireless Networks Using Directional Antennas," *Proc. of the 4th IEEE International Conference on Pervasive Computing and Communications (PerCom)*, March 2006.
69. J. Wu and S. Yang, "SMART: A Scan-Based Movement-Assisted Sensor Deployment Method in Wireless Sensor Networks," *Proc. of the 24th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2005.
70. D. Li, X. Lu, and J. Wu, "FussionE: A Scalable Constant Degree and Low Congestion DHT Scheme Based on Kautz Graph," *Proc. of the 24th Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2005.
71. F. Dai and J. Wu, "Constructing k -Connected k -Dominating Set in Wireless Networks," *Proc. of the 19th International Parallel and Distributed Processing Symposium (IPDPS 2005)*.
72. W. Jia, W. Tu, and J. Wu, "Hierarchical Multicast Tree Algorithms for Application Layer Mesh Networks," *Proc of 2005 International Conference on Computer Networks and Mobile Computing (ICCNMC'05)*, 2005. (Received the Best Paper Award.)
73. J. Wu, F. Dai, and S. Yang, "Iterative Local Solutions for Connected Dominating Set in Ad-Hoc Wireless Networks," *Proc. of the 2nd IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS)*, Nov. 2005.
74. S. Yang, F. Dai, M. Cardei, and J. Wu, "On Multiple Point Coverage in Wireless Sensor Networks," *Proc. of the 2nd IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS)*, Nov. 2005. (Received the Best Paper Award.)
75. C. Li, M. Ye, G. Chen, and J. Wu, "An Energy-Efficient Unequal Clustering Mechanism for Wireless Sensor Networks," *Proc. of the 2nd IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS)*, Nov. 2005.
76. S. Yang, J. Wu, and J. Cao, "Connected k -Hop Clustering in Ad-Hoc Networks," *Proc. of International Conference on Parallel Processing (ICPP)*, June 2005.
77. D. Xiang, J. Sun, J. Wu and K. Thulasiraman, "Fault-Tolerant Routing in Meshes/Tori Using Planarly Constructed Fault Blocks," *Proc. of International Conference on Parallel Processing (ICPP)*, June 2005.

78. X. Li and J. Wu, "Hybrid Searching Scheme in Unstructured P2P Networks," *Proc. of International Conference on Parallel Processing (ICPP)*, June 2005.
79. Z. Jiang, J. Wu, and D. Wang, "A New Fault Information Model for Fault-Tolerant Adaptive and Minimal Routing in 3-D Meshes," *Proc. of International Conference on Parallel Processing (ICPP)*, June 2005.
80. J. Wu and W. Lou, "Extended Multipoint Relays to Determine Connected Dominating Sets in MANETS," *Proc. of the First Annual IEEE Communications Society Conference on Sensor and Ad-Hoc Communications and Networks (SECON)*, 2004.(CD-ROM)
81. M. Cardei, J. Wu, and S. Yang, "Topology Control in Ad-Hoc Wireless Networks with Hitch-Hiking," *Proc. of the First Annual IEEE Communications Society Conference on Sensor and Ad-Hoc Communications and Networks (SECON)*, 2004. (CD-ROM)
82. C. Huang, F. Dai, and J. Wu, "On-Demand Location-Aided QoS Routing in Ad-Hoc Networks," *International Conference on Parallel Processing (ICPP)*, Aug. 2004, 502-509.
83. J. Wu and F. Dai, "Mobility Management and Its Applications in Efficient Broadcasting in Mobile Ad-Hoc Networks," *Proc. of the 23rd Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2004.(CD-ROM)
84. W. Lou and J. Wu, "Double-Covered Broadcast (DCS): A Simple Reliable Broadcast Algorithm in MANETs," *Proc. of the 23rd Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2004.(CD-ROM)
85. M. Agarwal, J. H. Cho, L. X. Gao, and J. Wu, "Energy Efficient Broadcast in Wireless Ad-Hoc Networks with Hitch-Hiking," *Proc. of the 23rd Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2004. (CD-ROM)
86. J. Wu and F. Dai, "A Distributed Formation of a Virtual Backbone in Ad-Hoc Networks using Adjustable Transmission Ranges," *Proc. of the 24th IEEE International Conf. on Distributed Computing Systems (ICDCS)*, 2004, 372-379. (Nominated for the Best Paper Award.)
87. J. Wu and Z. Jiang, "On Constructing the Minimum Orthogonal Convex Polygon in 2-D Faulty Meshes," *Proc. of IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, 2004. (CD-ROM)
88. J. Wu and F. Dai, "Mobility-Sensitive Topology Control in Mobile Ad-Hoc Networks," *Proc. of IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, 2004.(CD-ROM)
89. J. Cao, J. Zhou, D. Chen, and J. Wu, "An Efficient Distributed Mutual Exclusion Algorithm Based on Relative Consensus Voting," *Proc. of IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, 2004. (CD-ROM)

90. J. Wu and F. Dai, "Broadcasting in Ad-Hoc Networks Based on Self-Pruning," *Proc. of the 22nd Annual Joint Conf. of IEEE Communication and Computer Society (INFOCOM)*, 2003, (CD-ROM).
91. J. Wu and F. Dai, "A Generic Distributed Broadcast Scheme in Ad-Hoc Wireless Networks," *Proc. of the 23rd IEEE International Conf. on Distributed Computing Systems (ICDCS)*, May 2003, 460-467. (Nominated for the Best Paper Award.)
92. J. Wu and F. Dai, "An Extended Link Reversal Protocol in Dynamic Networks," *Proc. of IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, 2003, (CD-ROM).
93. J. Wu and F. Dai, "A Generic Broadcast Protocol in Ad Hoc Networks Based on Self-Pruning," *Proc. of IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, 2003, (CD-ROM).
94. W. Lou and J. Wu, "Efficient Broadcast With Forward Node Set in Clustered Mobile Ad-Hoc Networks," *Proc. of the 11th International Conference on Computer Communications and Networks (ICCCN 2002)*, Oct. 2002.
95. J. Cao, X. Wang, and J. Wu, "A Mobile Agent Enabled Fully Distributed Mutual Exclusion Algorithm," *Proc. of the 6th IEEE International Conference on Mobile Agents (MA02)*, Oct. 2002.
96. J. Wu and D. J. Wang, "Fault-Tolerant and Deadlock-Free Routing in 2-D Meshes Using Rectilinear-Monotone Polygonal Fault Blocks," *Proc. of the 2002 International Conference on Parallel Processing (ICPP)*, 2002, 247-256.
97. J. Wu and F. Dai, "On Locality of Dominating Set in Ad Hoc Networks with Switch On/Off Operations," *Proc. of the 6th International Conference on Parallel Architectures, Algorithms, and Networks (I-SPAN02)*, 2002, 85-90.
98. J. Wu, M. Gao, and I. Stojmenovic, "On Calculating Power-Aware Connected Dominating Sets for Efficient Routing in Ad-Hoc Wireless Networks," *Proc. of the 2001 International Conference on Parallel Processing (ICPP)*, 2001, 346-356.
99. B. Roussev and J. Wu, "Client-Server Design Alternatives: Back to Pipes but with Threads," *Proc. of the 1st International Conference on Networking (ICN'01)*, Pascal Lorenz (Ed.), Lecture Notes in Computer Science 2094, July 2001, 854-866.
100. J. Wu, "A Distributed Formation of Orthogonal Convex Polygons in Mesh-Connected Multicomputers," *Proc. of International Parallel and Distributed Processing Symposium (IPDPS)*, 2001, (CD-ROM).
101. J. Wu and H. Li, "Domination and Its Applications in Ad-Hoc Wireless Networks with Unidirectional Links," *Proc. of the 2000 International Conference on Parallel Processing (ICPP)*, Aug. 2000, 189-200.
102. J. Wu, "A Fault-Tolerant Adaptive and Minimal Routing Approach in n -D Meshes," *Proc. of the 2000 International Conference on Parallel Processing (ICPP)*, Aug. 2000, 431-438.

103. J. Wu, "On Sorting an Intransitive Total Ordered Set Using Semi-Heap," *Proc. of IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, May 2000, 257-262.
104. J. Wu and H. Li, "On Calculating Connected Dominating Set for Efficient Routing in Ad-Hoc Wireless Networks," *Proc. of the 3rd International Workshop on Discrete Algorithms and Methods for Mobile Computing and Communications (Dial M)* (in conjunction with MobiCom 1999), Aug. 1999, 7-14.
105. J. Wu and Y. Yang, "Postal Network: A Versatile Interconnection Topology," *Proc. of the 1998 International Conference on Parallel Processing (ICPP)*, Aug. 1998, 612-619.
106. J. Wu, "Fault-Tolerant Adaptive and Minimal Routing in Mesh-Connected Multicomputers Using Extended Safety Levels," *Proc. of the 18th IEEE International Conf. on Distributed Computing Systems (ICDCS)*, May 1998, 428-435.
107. S. Cang and J. Wu, "Minimizing Total Communication Distance of a Broadcast on Mesh and Torus Networks," *Proc. of the 1st IEEE IPPS/SPDP*, April 1998, 11-17.
108. J. Wu, E. B. Fernandez, and Y. Luo, "Embedding of Binomial Trees in Hypercube Multiprocessors with Link Faults", *Proc. of the 1997 International Conference on Parallel Processing (ICPP)*, August 1997, 96-99.
109. S. Q. Zheng and J. Wu, "Dual of a Complete Graph as an Interconnection Network," *Proc. of the 7th IEEE International Symposium on Parallel and Distributed Processing (SPDP)*, 1996, 433-442.
110. J. Wu, "An Optimal Routing Policy for Mesh-Connected Topologies," *Proc. of the 25th International Conference on Parallel Processing (ICPP)*, August 1996, I-267-I-271.
111. J. Wu, "A Fault-Tolerant Distributed Unicasting Scheme for Cube-Based Multicomputers," *Proc. of the 16th IEEE International Conference on Distributed Computing Systems (ICDCS)*, May 1996, 166-174.
112. J. Wu, "Extended Fibonacci Cubes," *Proc. of the 7th IEEE Symposium on Parallel and Distributed Processing (SPDP)*, Oct. 1995, 248-251.
113. J. Wu, "Unicasting in Faulty Hypercubes Using Safety Levels," *Proc. of the 1995 International Conference on Parallel Processing (ICPP)*, 1995, III-132-III-136.
114. E. B. Fernandez, J. Wu, and M. H. Fernandez, "User Group Structures in Object-Oriented Database Authorization," *Proc. of the 8th Annual IFIP Working Group 11.3 Working Conference on Database Security*, August 1994, 57-76.
115. J. Wu, "Dimension-Exchange-Based Load Balancing on Injured Hypercubes," *Proc. of the 1994 International Conference on Parallel Processing (ICPP)*, August 1994, III-88-III-91.
116. L. Brown and J. Wu, "Dynamic Snooping in a Fault-Tolerant Distributed Shared Memory," *Proc. of the 14th International Conference on Distributed Computing Systems (ICDCS)*, June 1994, 218-226. (Nominated for the Best Paper Award.)

117. J. Wu and K. Yao, "Multicasting in Injured Hypercubes Using Limited Global Information," *Proc. of the 5th IEEE Symposium on Parallel and Distributed Processing (SPDP)*, Dec. 1993, 548-555.
118. J. Wu and E. B. Fernandez, "Broadcasting in Faulty Hypercubes," *Proc. of the 11th Symposium on Reliable Distributed Systems*, IEEE, Oct. 1992, 122-129.
119. J. Wu and E. B. Fernandez, "Broadcasting in Faulty Cube-Connected Cycles with Minimum Recovery Time," *Proc. of Parallel Processing: CONPAR92*, Lecture Notes in Comp. Science 634, Springer Verlag, 1992, 833-834.
120. K. Huang and J. Wu, "Balanced Hypercubes," *Proc. of the 1992 International Conference on Parallel Processing (ICPP)*, August 1992, I-80-I-84.
121. J. Wu, "Efficient Fault-Tolerant Nonredundant Broadcasting in Hypercube Multicomputers," *Proc. of the 1992 International Conference on Parallel Processing (ICPP)*, August 1992, III-23-III-36.
122. Z. Li and J. Wu, "A Fully Fault-Tolerant Multidestination Routing Scheme in Hypercube Multiprocessors," *Proc. of the 1991 International Conference on Parallel Processing (ICPP)*, August 1991, III-290-III-291.

3.3 Books and Book Chapters

(selected from 2 books and 31 book chapters)

1. J. Wu, *Distributed Systems Design*, CRC Press, 1999. (Chinese Edition, China Machine Press, 2001).
2. J. Wu, *Handbook of Theoretical and Algorithmic Aspects of Sensor, Ad Hoc Wireless and Peer-to-Peer Networks*, Auerbach Publications, 2006. (Flyer)(Preface) (Part I: Ad Hoc Wireless Networks) (Part II: Sensor Networks) (Part III: Peer-to-Peer Networks).
3. B. Hurd, C. C. Tan, and J. Wu, "The Future in Mobile Multicore Computing," accepted to appear in *Scalable Computing: Theory and Practice*, S. U. Khan, L. Wang, and A. Y. Zomaya (eds), John Wiley & Sons.
4. C. C. Tan and J. Wu, "Security in RFID Networks and Communications," accepted to appear in *Wireless Network Security: Theories and Applications*, L. Chen and J. Ji (eds), Springer.
5. H. Quan, J. Wu, and J. Shi, "Online Social Networks and Social Network Services: A Technical Survey," accepted to appear in *Handbook of Pervasive Communication*, M. Ilyas and H. Mouftah (eds), CRC Press.
6. Y. Shao, C. Liu, and J. Wu, *Delay Tolerant Networks in VANETs*, accepted to appear in *Handbook on Vehicular Networks*, M. Weigle and S. Olariu (eds.), Taylor & Francis.
7. J. Chen and J. Wu, "A Survey on Cryptograph Applied to Secure Mobile Ad Hoc Networks and Wireless Sensor Networks," accepted to appear in *Handbook of Research on Developments and Trends in Wireless Sensor Networks: From Principle to Practice*, H. Jin and W. Jiang (eds), IGI Global.

8. M. O. Pervaiz, M. Cardei, and J. Wu, *Routing Security in Ad Hoc Wireless Networks*, accepted to appear in *Network Security*, S. Huang, D. MacCallum, and D. -Z. Du (eds.), Springer.
9. B. Wu, J. Chen, J. Wu, and M. Cardei, *A Survey on Attacks and Countermeasures in Mobile Ad Hoc Networks*, accepted to appear in *Wireless/Mobile Network Security*, Y. Xiao, X. Shen, and D. -Z. Du (eds.), Springer.
10. T. Anantvalee and J. Wu, *A Survey on Intrusion Detection in Mobile Ad Hoc Networks*, accepted to appear in *Wireless/Mobile Network Security*, Y. Xiao, X. Shen, and D. -Z. Du (eds.), Springer.
11. A. Srinivasan, J. Teitelbaum, H. Liang, J. Wu, and M. Cardei, *Reputation and Trust-Based Systems for Ad Hoc and Sensor Networks*, accepted to appear in *Algorithms and Protocols for Wireless Ad Hoc and Sensor Networks*, A. Boukerche (ed.), Wiley & Sons.
12. B. Wu, M. Cardei, and J. Wu, *A Survey of Key Management in Mobile Ad Hoc Networks*, accepted to appear in *Handbook of Research on Wireless Security*, J. Zheng, Y. Zhang, and M. Ma (eds.), Idea Group Inc.
13. A. Srinivasan and J. Wu, *A Survey on Secure Localization in Wireless Sensor Networks*, accepted to appear in *Encyclopedia of Wireless and Mobile Communications*, B. Furht (ed.), CRC Press, Taylor and Francis Group.
14. F. Li, A. Srinivasan, and J. Wu, *Security Issues in Sensor Surveillance*, in the *Handbook on Mobile Ad Hoc and Pervasive Communications*, M. Denko, American Scientific Publishers, 2007.
15. I. Cardei, C. Liu, and J. Wu, *Routing in Wireless Networks with Intermittent Connectivity*, in the *Encyclopedia of Wireless and Mobile Communications*, B. Furht (ed.), CRC Press, Taylor and Francis Group, 2007.
16. X. Li and J. Wu, *Searching Techniques in Peer-to-Peer Networks*, in *Handbook of Theoretical and Algorithmic Aspects of Ad Hoc, Sensor, and Peer-to-Peer Networks*, J. Wu (ed.), Auerbach Publications, 2006, 613-642.
17. J. Wu and F. Dai, *Mobility Control and Its Applications in Mobile Ad Hoc Networks*, in *Handbook of Algorithms for Mobile and Wireless Networking and Computing*, A. Boukerche and I. Chlamtac (eds.), CRC Press, 2005.
18. D. Simplot-Ryl, I. Stojmenovic, and J. Wu, *Energy Efficient Broadcasting, Activity Scheduling and Area Coverage in Sensor Networks*, in *Handbook of Sensor Networks: Algorithms and Architectures*, I. Stojmenovic (ed.), Wiley, 2005, 343-379.
19. S. Yang and J. Wu, *New Technologies of Multicasting in MANETs*, in *Design and Analysis of Wireless Networks*, Y. Pan and Y. Xiao (eds), Nova Science Publishers, 2005.

20. W. Lou and J. Wu, *Localized Broadcasting in Mobile Ad Hoc Networks Using Neighbor Designation*, *Handbook of Mobile Computing*, I. Maghoub and M. Ilyas (eds.), CRC Press, 2005, 663-686.
21. M. Cardei and J. Wu, *Energy-Efficient Coverage Problems in Wireless Ad Hoc Sensor Networks*, in *Handbook of Sensor Networks*, M. Ilyas (ed.), CRC Press, 2004, 19.1-19.20.
22. I. Stojmenovic and J. Wu, *Broadcasting and Activity-Scheduling in Ad Hoc Networks*, in *Ad Hoc Networking*, S. Basagni, M. Conti, S. Giordano, and I. Stojmenovic (eds.), IEEE Press, June 2004, 205-229.
23. I. Jawhar and J. Wu, *QoS Routing in Ad Hoc Networks*, in *Resource Management in Wireless Networking*, M. Cardei, I. Cardei, and D. -Z. Du (eds.), Springer, 2004, 365-400.
24. X. Chen and J. Wu, *Multicasting Techniques in Mobile Ad Hoc Networks*, in *Handbook of Ad Hoc Wireless Networks*, M. Ilyas and B. Furht (eds.), CRC Press, 2002.
25. J. Wu, *Dominating-Set-Based Routing in Ad Hoc Wireless Networks*, in *Wireless Networks and Mobile Computing*, I. Stojmenovic (ed.), John Wiley & Sons, 2002, 425-450.
26. E. B. Fernandez, J. Wu, and D. R. Hancock, *A Design Method for Real-Time Object-Oriented Systems Using Communicating Real-Time State Machines*, in *Successful Software Reengineering*, S. Valenti (ed.), IRM Press, 2002, 171-185.
27. Y. Pan, C. Qiao, Y. Yang, and J. Wu, *Recent Developments in Optical Multistage Networks*, in *Optical Networks- Recent Advances*, L. Ruan and D. -Z. Du (eds.), Kluwer Academic Publisher, 2001, 151-185.

3.3.1 Magazine Articles (3)

1. J. Wu, "Some Reflections on C&I Education," *CCF China National Computer Conference, Invited Keynote*, Vol. 8, No. 1, 2012, 40-43.
2. J. Wu and I. Stojmenovic, "Ad Hoc Networks," *Guest Editors' Introduction, IEEE computer*, February 2004, 29-31.
3. J. Wu and F. Dai, "Mobility Control and Its Applications in Mobile Ad Hoc Networks," *IEEE Network*, July-August 2004, 30-35.

3.4 Department Technical Reports (80)

3.5 Keynote Speeches (17)

- Keynote Speaker: Some Challenges in Routing in Dynamic Networks. *2011 IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, Oct. 2011.
- Keynote Speaker: Trust Mechanisms and Their Applications in Dynamic and Mobile Computer Systems. *2009 IEEE/IFIP International Symposium on Trusted Computing and Communications*, Aug. 2009.

- Keynote Speaker: A Utility-based Routing Scheme and Its Applications. *2009 IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA)*, Aug. 2009.
- Keynote Speaker: On Self-Organization in MANETs. *The 2nd ACM International Workshop on Foundations of Wireless Ad Hoc and Sensor Networking and Computing (FAWANC)*, May 2009.
- Keynote Speaker: A Utility-based Routing Scheme in Ad Hoc Networks. *2008 International Conference on Wireless Algorithms, Systems and Applications (WASA)*, Oct. 2008.
- Keynote Speaker: Mobility in Ad Hoc Wireless Networks: Friend or Foe. *The 8th IEEE International Symposium on Network Computing and Applications (NCA)*, July 2008.
- Keynote Speaker: Mobility in Ad Hoc Wireless Networks: Friend or Foe. *2008 International Conference on Networking, Architecture, and Storage (NAS)*, July 2008.
- Keynote Speaker: A Utility-based Routing Scheme in MANETs, *The 4th IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS)*, Oct. 2007.
- Keynote Speaker: Mobility in Wireless Networks: Blessing or Curse. *The 4th Annual International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (MOBIQUITOUS 2007)*, Aug. 2007.
- Keynote Speaker: Controlled Store-Carry-Forward Routing in Mobile Ad Hoc Networks. *The First International Workshop on Specialized Ad Hoc Networks and Systems (SAHNS 2007)*, in conjunction with IEEE ICDCS'07, June 2007.
- Keynote Speaker: The 2nd International Conference on Mobile Ad-Hoc and Sensor Networks (MSN), 2006.
- Keynote Speaker: The 6th International Workshop on Parallel and Distributed Scientific and Engineering Computing (PDSEC), 2005.
- Keynote Speaker: The 3rd International Workshop on Mobile Distributed Computing (MDC), 2005.
- Keynote Speaker: The 6th International Workshop on Advances in Parallel and Distributed Computational Models, 2004.
- Keynote Speaker: International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT), 2004.
- Keynote Speaker: International Symposium on Parallel Processing and Applications, 2003.
- Keynote Speaker: International Conference on Parallel and Distributed Computing and Networks, 1998.

3.6 Presentations (Invited Seminars)(127)

Rutgers University, Ohio State University (Distinguished Speaker), The Polytechnic University of Hong Kong, University of Electronic Science and Technology of China, Tsinghua University, UAE University (Distinguished Lecture), University of Electronic Science and Technology of China, Pennsylvania State University, University of Pennsylvania, Indian Institute of Technology (Mumbai), Indian Institute of Technology (Delhi), College of William and Mary (Distinguished Lecture), Shanghai Jiaotong University (China), Central South University (China), The Polytechnic University of Hong Kong, Zhongshang University (China), University of Ricardo Palma (Peru), Lehigh University, Drexel University, University of Memphis, Stevens Institute of Technology, University of Illinois at Urbana-Champaign, Indiana University-Purdue University Indianapolis, Institute of Software at Chinese Academic of Sciences, Tsinghua University, Shanghai Jiaotong University, Wayne State University, Georgia Institute of Technology, Ohio State University (Distinguished Lecture), Inner Mongolia University (China), Central South University (China), Montclair State University, University of Buenos Aires (Argentina), Hong Kong Baptist University (Hong Kong), Wuhan University (China), American University in Beirut, Zhongshang University (China), George Washington University, West Chester University, National University of Defense Technology (China), Xiamen University (China), Michigan State University, McGill University (Canada), University of Tsukuba (Japan), University of Massachusetts at Amherst, University of Nebraska at Lincoln, Northeastern University (China), Polytechnic University of Milan (Italy), University of Connecticut, University of Alabama, Academy of Sciences (Taiwan), Tamkang University (Taiwan), National Qiaotong University (Taiwan), Zhejiang University (China), Kent State University, Hong Kong Polytechnic University (Hong Kong), University of Minnesota (sponsored by Cray Inc.), University of Cincinnati (IEEE Distinguished Lecture), IEEE Ottawa Chapter (Canada) (IEEE Distinguished Lecture), City University of Hong Kong, Shanghai Jiaotong University, Shanghai University, IEEE Central Texas Chapter (IEEE Distinguished Lecture), Motorola (Plantation, FL), Southwest Texas State University, University of Toledo, IEEE Philadelphia Chapter (IEEE Distinguished Lecture), Univ. of New South Wale (Australia), Old Dominion University, National Central University (Taiwan), National Taiwan University (Taiwan), National Tsinghua University (Taiwan), National Cheng-Kung University (Taiwan), Tokyo Denki University (Japan), The University of Vermont, Nanjing University (China), Xi'an Qiaotong University (China), Chinese Academy of Science (China), Tsinghua University (China), American University of Bulgaria (Bulgaria), University of Newcastle Upon Tyne (England), Motorola (Boynton Beach, FL), Shanghai Railway University (China), Louisiana State University, Polish Academy of Sciences (Poland), Shanghai University of Science and Technology (China) Polytechnic University of Madrid (Spain), University of Hong Kong (Hong Kong), Georgia Institute of Technology, University of Rhode Island, IEEE Palm Beach Chapter, Utah State University, and Xavier University.

4 Sponsored Research

- Urban Apps and Maps Ecosystem Studio (Co-PI) 10/11 - 09/15
Supported by Economic Development Administration, Department of Commerce. (\$500,000)
- Eager: A Meso-Scale GENI WiMax Project (PI) (CNS 1138963) 09/11 - 08/12
Supported by National Science Foundation (NSF), Arlington, VI. (\$199,716)
- Formula Grant: Body Sensor Networks and Their Applications in Maternal Fetal Monitoring (PI) 09/11 - 08/13
Supported by State of Pennsylvania. (\$300,000)
- NeTS: Medium: Collaborative Research: Mobile Content Sharing Networks: Theory to Implementation. (PI) (CNS 1065444) 07/11 - 06/15
Supported by National Science Foundation (NSF), Arlington, VI. (\$457,000)
- CCSS: An Architecture for Joint Integration of Inter and Intrasession Network Coding in Lossy Wireless Multihop Networks. (Co-PI) (ECCS 1128209) 08/11 - 07/14
Supported by National Science Foundation (NSF), Arlington, VI. (\$329,163)
- EAGER: Mobile Multicore Computing. (PI) (CCF 1028167) 09/10 - 08/12
Supported by National Science Foundation (NSF), Arlington, VI. (\$144,409)
- MRI-R2: Acquisition: A Hybrid High-Performance GPU/CPU System. (PI) (CNS 0958854) 05/10 - 04/13
Supported by National Science Foundation (NSF), Arlington, VI. (\$839,221)
- EAGER: A New Algorithmic and Graph Model for Networking in Challenged Environments (PI) (CNS 0948184) 09/09 - 09/11
Supported by National Science Foundation (NSF), Arlington, VI. (\$199,391)
- Energy-Efficient Design in Wireless Networks Using Cooperative Communication (PI) (CCF 0830289, renewal of CCR 039741) 09/08 - 09/11
Supported by National Science Foundation (NSF), Arlington, VI. (\$277,370)
- Mobility-Assisted Routing in Mobile Networks (PI) (CNS 0626240) 09/06-09/09
Supported by National Science Foundation (NSF), Arlington, VI. (\$284,943)
- Outstanding Overseas Young Researcher Award (PI) 08/06 - present
Supported by National Nature Science Foundation of China (400,000 Chinese Yuan = \$50,000)
- IEEE MASS 2006 Travel Grant (PI) 09/06-09/07
National Science Foundation (NSF), Arlington, VI. (\$15,000)
- Acquisition of a NUMA-based Supercluster for High Performance Computing (PI) 9/05 - 9/08.
Supported by National Science Foundation, Arlington, VA (CNS 0521410) (\$447,191)
- IEEE MASS 2006 Travel Grants (PI) 07/06-08/07
Supported by a grant from Army Research Office (ARO), NC. (\$8,000)

- Efficient and Localized Broadcasting in Ad-Hoc Wireless Networks (PI) 9/04 - 9/07.
Supported by National Science Foundation, Arlington, VA (CNS 0422762) (\$225,000)
- Wireless and Sensor Network Laboratory (CNS 0434533) (Co-PI) 8/04 - 8/07.
Supported by National Science Foundation, Arlington, VA (CNS 0422762) (\$57,263)
- Secure Telecommunication Networks (Co-PI) 9/04 - 9/06.
Supported by Defense Information Systems Agency (DISA) (\$ 300,000 out of \$3,000,000)
- Energy Efficient Communication in Sensor Networks (PI) 9/03 - 9/06.
Supported by National Science Foundation, Arlington, VA (CCR 039741) (\$375,000)
- International Workshop on Theoretical and Algorithmic Aspects of Sensor, Ad-Hoc Wireless, and Peer-to-Peer Networks (PI) 10/03 - 10/04.
Supported by National Science Foundation, Arlington, VA (CCR 0335238) (\$22,200)
- Research Experiences for Undergraduates (REU) (PI) 5/03 - 5/04 Supported by National Science Foundation, Arlington, VA (\$11,650)
- A Theory of Fault-Tolerant Adaptive and Minimal Routing in Mesh-Connected Multicomputers (PI) 4/99 - 4/03.
Supported by National Science Foundation, Arlington, VA (CCR 9900646) (\$134,109)
- A Dominating-Set-Based Routing Scheme in Ad-Hoc Wireless Networks (PI) 6/00 - 6/03.
Supported by National Science Foundation, Arlington, VA (ANI 0073736) (\$181,957)
- A Low Cost Parallel and Distributed Systems Laboratory (PI) 9/01 - 9/04.
Supported by National Science Foundation, Arlington, VA (EIA 0130806) (\$79,039)
- Research Experiences for Undergraduates (REU) (PI) 5/02 - 5/03 Supported by National Science Foundation, Arlington, VA (\$5,500)
- Implementation of Radio Service Software (PI) 1/97 - present.
Supported by a grant from Motorola, Inc. Plantation, FL (\$1,898,255)
- Self-Organization Cluster-Tree Design in ns-2 platform (PI) 8/03 - 7/04.
Supported by a grant Florida Communication Research Lab, Motorola, Inc. Plantation, FL (\$60,000)
- Software Path Coverage (PI) 1/03 - 12/03.
Supported by a grant from Motorola, Inc. Plantation, FL (\$55,487)
- Computer System Evaluation (PI) 1/90-5/95.
Supported by IBM, Boca Raton, FL (\$1,030,000)
- PI in 6 other sponsored research grants (a total of over \$400,000) funded by:
 - Motorola, Boynton Beach, FL (1997-1998)
 - South Florida Water Management District (1996-1998)

- Florida High Tech. and Industry Council (1990-1991)
- Alpine Engineered, FL (1999-2000)
- Malema Corp., FL (2000-2001)
- SIVA Corp., FL (2000-2001 and 2005-2006)
- EDSS Corp., FL (2003-2003)

5 Instructional Experience

5.1 Graduate Level Courses (12, including 9 new courses)

Ad-Hoc Networks, Internet Routing Protocols, Design and Analysis of Parallel Algorithms, Distributed Algorithms, Distributed System Design, Formal Specification Methods, Introduction to Parallel Computers, Real-Time Software, Fault-Tolerant System Design, Concurrent Processing, Analysis of Algorithms, and Distributed Computing.

5.2 Undergraduate Level Courses (12, including one new course)

Design and Analysis of Algorithms, Data Structure and Algorithm Design Using C, Introduction to Computers, Data Structure and Algorithm Design Using C++, Introduction to Logic Design, Structured Computer Architecture, Switching Systems, Senior Project, Senior Seminar, Engineering Design II, Programming Methodologies (at Shanghai University), and Programming Language Pascal (at Shanghai University)

5.3 Theses and Dissertations

(Ph.D. Dissertations: 16 completed and 4 in progress)

- L. Cong, “Design and Implementation of Efficient Routing Protocols in Delay Tolerant Networks,” (Summer 2009)

(Research Assistant Professor, Chinese Academic of Sciences)
- F. Li, “Uncertainty-aware Reputation System in Mobile Networks: Analysis and Applications,” (Summer 2009)

Assistant Professor at Indiana University-Purdue University Indianapolis
- A. Srinivasan, “Secured Broadcasting in Mobile Ad-Hoc Networks,” (Summer 2008).

(Assistant Professor at Bloomburg University of Pennsylvania, Pennsylvania)
- M. Lu, “Incentive Mechanisms in Mobile Ad-Hoc Networks,” (Summer 2008)

(Assistant Professor at Central South China University, P. R. China)
- S. Yang, “Connected Dominating Set (CDS) in Wireless Ad Hoc Networks: Variations with Applications,” (Fall 2007).

(Assistant Professor at Purdue University at Calumet)

- B. Wu, “Key Management in Secured Ad-Hoc Networks,” (Fall 2006).

(Assistant Professor at Fayetteville State University, North Carolina)

- X. Li, “Efficient Searching in Unstructured Peer-to-Peer Networks,” (Fall 2006).

(Assistant Professor at The University of North Carolina at Pembroke, North Carolina)

- I. Jawhar, “Quality of Service Support in TDMA-Based Mobile Ad-Hoc Networks,” (Summer 2005).

(Assistant Professor at United Arab Emirates University, UAE)

- F. Dai, “Localized Broadcasting in Ad-Hoc Wireless Networks,” (Summer 2005).

(Assistant Professor at North Dakota State University, North Dakota)

- W. Lou, “Broadcasting in Ad-Hoc Wireless Networks,” (Summer 2004).

(Assistant Professor at Hong Kong Polytechnic University, Hong Kong)

- Z. Jiang, “Fault-Tolerant Routing in Mesh-Connected Networks with Dynamic Faults,” (Summer 2002).

(Tenured Associate Professor at West Chester University, Pennsylvania)

- X. Chen, “Fault-Tolerant Routing in 2-D and 3-D Meshes,” (Summer 1999).

(Tenured Associate Professor at Texas State University, Texas)

- P. Goyal, “Cube-Connected-Cubes Multicomputers,” (Fall 1998).

- K. Huang, “The Balanced Hypercube and Its Applications,” (Summer 1997).

- Y. Wang, “A Uniform Hardware and Software Fault-Tolerant Model,” (Fall 1995).

- L. Brown, “Fault-Tolerant Distributed Shared Memories,” (Fall 1993).

(MS Theses: **31 completed**)

6 Professional Service

6.1 Membership Professional Societies

- Institute of Electrical and Electronics Engineering (IEEE): Computer Society (Fellow).
- Association for Computing Machinery (ACM) (Senior Member)
- Society for Computers and Their Applications (ISCA)
- Upsilon Pi Epsilon (UPE): Computing Science Honor Society

6.2 Editorial Board

- IEEE Transactions on Computers (2009-present)
- Journal of Parallel and Distributed Computing (2009 - present)
- Computer Networks (2009-present)
- IEEE Transactions on Mobile Computing (2008-2010)
- IEEE Transactions on Parallel and Distributed Systems, (2001-2005)
- IEEE Computer (Guest Editor, 02/2004)
(special issue on “Ad-Hoc Networking”)
- Journal of Parallel and Distributed Computing (Guest Editor, 12/2004)
(special issue on “Theoretical and Algorithmic Aspects of Sensor, Ad-Hoc Networks, and Peer-to-Peer Networks”)
- IEEE Transactions on Parallel and Distributed Systems (Guest Editor, 11/1999)
(special issue on “Challenges in Designing Fault-Tolerant Routing in Networks”)
- Journal of Parallel and Distributed Computing (Guest Editor, 9/2001)
(special issue on “Routing in Computer and Communication Networks”)
- IASTED International Journal of Computers and Applications (Co-Editor-in-Chief, 9/2003-12/2006)
- Elsevier Computer Communications (1/2008 - 12/2009)
- International Journal of Security and Networks (IJSN) (1/2008-present)
- Journal of Interconnection Networks (1/2007-present)
- International Journal of High Performance Computing and Networking (IJHPCN) (9/2003-present)
- Journal of Computer Science and Technology (A publication of the Chinese Computer Federation, 9/2002-present)
- Ad-Hoc & Sensor Wireless Networks: An International Journal (AHSWN)(10/2004 - present)
- International Journal of Parallel, Emergent, and Distributed Systems (IJPEDS) (10/2004 - present)
- Journal of Pervasive Computing and Communications (JPCC) (9/2004- present)
- ISCA International Journal of Computers and Their Applications (Associate Editor in Networks and Protocols, 9/1999-12/2002)
- International Advisory Board, High Education Publishing Inc., China.

6.3 Conference Organization

1. Chair: 2011 IEEE INFOCOM Achievement Award Committee.
2. Program Co-Chair: The 30th IEEE Conference on Computer Communications (INFOCOM), 2011.
3. Program Co-Chair: International Conference on Distributed Computing and Networking (ICDCN) 2010.
4. General Co-Chair: The 6th IEEE/IFIP International Symposium on Trusted Computing and Communications (TrustCom), 2010.
5. Panel Co-Chair: The 29th IEEE Conference on Computer Communications (INFOCOM), 2010.
6. Award Chair: The 5th International Conference on Networking Architecture and Storages (NAS), 2010.
7. General Co-Chair: International Conference on Distributed Computing in Sensor Systems (DCOSS), 2009.
8. Panel Co-Chair: ACM Annual International Conference on Mobile Computing and Networking (MobiCom), 2009.
9. Area TPC Chair: The 27th, 28th, 31th, and 32th IEEE Conference on Computer Communications (INFOCOM), 2008, 2009, 2012, and 2013.
10. Area TPC Chair: The 8th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), 2011.
11. General Chair: The 1st ACM International Workshop on Medical-grade Wireless Networks (WiMD) (in conjunction with MobiHoc), 2009.
12. General Chair: IEEE International Parallel & Distributed Processing Symposium (IPDPS), 2008.
13. Executive Vice Program Chair: The 28th IEEE International Conference on Distributed Computing Systems (ICDCS), 2008
14. General Co-Chair: The 3rd International Workshop on Sensor Networks (SN 2010), in conjunction with IEEE ICDCS, 2010.
15. General Co-Chair: The International Conference on Wireless Algorithms, Systems and Applications (WASA), 2007.
16. General Co-Chair: The 5th International Symposium on Parallel and Distributed Processing and Applications (ISPA'07), 2007.
17. General Vice Chair: IEEE International Parallel & Distributed Processing Symposium (IPDPS), 2007.
18. Program Co-Chair: Symposium on Advances in Internet, ChinaCom, 2007.

19. General Chair: The 3rd IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS), 2006.
20. Program Co-Chair: International Workshop on Networking, Architecture, and Storage, 2006.
21. General Vice Chair: The 2nd IEEE International Conference on Distributed Computing Sensor Systems (DCOSS), 2006.
22. General Chair: International Workshop on Wireless and Sensor Networks Security (WSNS'05) (in conjunction with MASS), 2005.
23. Program Co-Chair: The 1st International Workshop on Security and Mobility in Peer-to-Peer Systems (MPPS) (in conjunction with ICDCS), 2005.
24. Program Co-Chair: The 1st International Workshop on Ad-Hoc, Sensor and P2P Networks (AHSP) (in conjunction with ISADS), 2005.
25. Program Co-Chair: International Conference on Mobile Ad-Hoc and Sensor Networks (MSN), 2005.
26. Program Vice Chair: International Conference on Computer Networks and Mobile Computing (ICCNMC), 2005.
27. Program Chair: The 1st IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS), 2004.
28. General Co-Chair: The 2nd International Workshop on Mobile Distributed Computing (MDS), 2004.
29. Workshops Chair: The IEEE International Conference on Distributed Computing Systems (ICDCS), 2003.
30. General Co-Chair: The 7th International Conference on Computer Science and Informatics (ICS), 2003.
31. Program Co-Chair: The 4th and 5th Workshops on Advances in Parallel and Distributed Computational Models (in conjunction with IPDPS), 2002 and 2003.
32. Program Vice Chair: The 21th IEEE International Conference on Distributed Computing Systems (ICDCS), 2001.
33. Program Co-Chair: Workshop on Wireless Networks and Mobile Computing 2001 (in conjunction with ICPP 2001), 2001.
34. Program Vice Chair: The 29th International Conference on Parallel Processing (ICPP), 2000.
35. Program Co-Chair: The 12th ISCA International Conference on Parallel and Distributed Computing Systems (PDCS), 1999.
36. Local Arrangements Chair: The 5th IEEE International Symposium on High Performance Computer Architecture (HPCA), 1999.

37. Steering Committee Chair: The IEEE International Workshop on Wireless Security and Privacy (WiSP).
38. Steering Committee Chair: The IEEE International Workshop on Wireless and Sensor Networks Security (WSNS).
39. Steering Committee: The 1st Workshop on Mission-Oriented Wireless Sensor Networking (MiSeNet).
40. Steering Committee: The First International Workshop on Cyber-Physical Networking Systems (CPNS) 2011.
41. Technical Program Committee: The 31st IEEE International Symposium on Reliable Distributed Systems (SRDS) 2012.
42. Technical Program Committee: The 8th IEEE IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), 2012.
43. Technical Program Committee: The 2011 Military Communications Conference (MILCOM) 2011.
44. Advisory Committee: The 13th and 14th ISCA International Conference on Parallel and Distributed Computing Systems (PDCS), 2000 and 2001.
45. Advisory Committee: The 18th and 21st International Conference on Advanced Information Networking and Applications (AINA), 2004 and 2007.
46. Steering Committee: IEEE International Parallel & Distributed Processing Symposium (IPDPS)
47. Steering Committee: The 6th Workshop on Advances in Parallel and Distributed Computational Models (in conjunction with IPDPS), 2004.
48. Steering Committee: Workshop on Advances in Parallel and Distributed Computational Models (APDCM).
49. Steering Committee: International Symposium on Parallel and Distributed Processing and Application (ISPA).
50. Steering Committee: IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS).
51. Steering Committee: IEEE Symposium on Reliable Distributed Systems (SRDS).
52. Steering Committee: IEEE International Parallel & Distributed Processing Symposium (IPDPS).
53. Program Committee: IEEE International Conference on Network Protocols (ICNP), 2007, 2008, 2009, 2010, 2011, and 2012.
54. Program Committee: ACM International Symposium on Mobile Ad-Hoc Networking and Computing (MobiHoc), 2006 and 2007.

55. Program Committee: The 27th IEEE Symposium on Reliable Distributed System (SRDS-27), 2008.
56. Program Committee: The 5th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), 2008 and 2009.
57. Program Committee: The 9th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 2008.
58. Program Committee: The International Conference on Parallel Processing (ICPP), 1999, 2000, 2001, 2002, 2004, 2006, and 2007.
59. Program Committee: The 16th, 18th, 20th, 21st, 24th, 30th, and 32nd International Conference on Distributed Computing Systems (ICDCS), 1996, 1998, 2000, 2001, 2004, 2010, and 2012.
60. Program Committee: The 23rd and 24th Annual Joint Conference of the IEEE Computer and Communications (INFOCOM), 2004 and 2005.
61. Program Committee: The 5th Annual IEEE International Conference on Pervasive Computing and Communications (PerCom), 2007
62. Program Committee: The IEEE Global Telecommunications Conference (GLOBECOM), 2004.
63. Program Committee: IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), 2005.
64. Program Committee: IEEE International Parallel and Distributed Processing Symposium (IPDPS), 2005.
65. Program Committee: The 10th Annual International Symposium on High Performance Computing (HPCA), 2003.
66. Organization Committee of over 100 other international conferences and workshops.

6.4 Panels (4)

1. Panel Organizer: Network Science: Hype or Reality? *ACM MobiCom*, 2009.
2. Panelist: Mobile Computing and Systems: Where is the Tofu?, *ACM MobiCom/MobiHoc*, 2007.
3. Panel Organizer: Network Systems in Challenging Environments: Hype or Reality, *IEEE INFOCOM*, 2008.
4. Panelist: Pervasive and Mobile Computing: Continued Challenges and Issues, *IEEE ICCCN*, 2008.

6.5 NSF-related Activities

1. NSF Wireless Networks PI meeting, Chicago, July 2007.
2. NSF Workshops
 - Wireless Security, April 2008.
 - Mobility in Wireless Networks: Challenges and Opportunities, July 2007.
 - Bridging the Gap: Wireless Networking Technologies and Advances at the Physical Layer, August 2007.
3. Outreach/Site Visit (01/2007 - 12/2008)
 - Univ. of California at Los Angeles, Northeastern Univ., MIT, Harvard, George Washington Univ., Rutgers Univ., Univ. of California at Riverside, Univ. of Southern California, Indiana Univ. - Purdue Univ. Indianapolis, George Mason Univ., Univ. of Delaware, Univ. of Texas at Arlington, Stanford, and Univ. of California at Berkeley.

6.6 Professional Referee Service

Proposals: National Science Foundation (NSF)

Journal papers: IEEE Computer, IEEE Software, IEEE Parallel and Distributed Technology, IEEE Transactions on Software Engineering, IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Mobile Computing, ACM Transactions on Knowledge and Data Engineering, ACM Transactions on Computer Systems, ACM Computing Reviews, The Computer Journal, Distributed Computing, Discrete Applied Mathematics, Computer Networks and ISDN Systems, Journal of Parallel and Distributed Computing, Concurrency – Practice and Experience, Software – Practice and Experience, and many other journals.

Conferences papers: International Conference of the IEEE Computer and Communications (INFOCOM), ACM International Symposium on Mobile Ad-Hoc Networking and Computing (MobiHoc), IEEE International Conference on Pervasive Computing and Communications (PerCom), IEEE Global Telecommunications Conference (GLOBECOM), IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS), IEEE International Conference on Communications (ICC), IEEE Semi-annual Vehicular Technology Conference (VTC), IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), International Symposium on Fault-Tolerant Computing (FTCS), International Conference on Parallel Processing (ICPP), IEEE International Symposium on High-Performance Computer Architecture (HPCA), IEEE International Conference on Distributed Computing Systems (ICDCS), IEEE International Parallel and Processing Symposium (IPPS), IEEE International Symposium on Parallel and Distributed Processing (SPDP), IEEE International Parallel and Distributed Processing Symposium (IPDPS), IEEE Symposium on Reliable Distributed System (SRDS), IEEE International Computer Software and Applications Conference (COMPSAC), and many other conferences.

Published Reviews of Books and Articles: Five review articles for *ACM Computing Reviews*. One review article for *IEEE Computer*

6.7 IEEE Computer Society

Chairman: IEEE Technical Committee on Distributed Processing (12/05 - present)

6.8 University Service

Director of CSE Graduate Programs (9/1997-8/2002)

Department TA/GA Committee (Chair, 8/2002-12/2006)

Department Personnel Committee (8/1999-12/2006)

College Personnel Committee (8/2001-12/2006, chair 11/2005-12/2006)

IEEE student advisor (9/1995-8/2002)

7 Professional Recognition

- ACM Distinguished Lecturer, 2009 - present.
- EMC Endowed Visiting Professor, Department of Computer Science, Tsinghua University, China, 2009-present.
- Chair Professor, IV Chair Professor Group, Tsinghua University, China, 2011-present.
- Distinguished Lecture: Some Challenges in Routing in Dynamic Networks, Ohio State University, 2011.
- Outstanding Overseas Achievement Award, China Computer Federation (CCF), China, 2011.
- Outstanding Overseas Young Researcher Award, National Natural Science Foundation of China (NSFC), China, 2006.
- Fulbright Senior Specialist, 12/2006-12/2010.
- Researcher of the Year (Full Professor level): FAU, 2006-2007 and 2001-2002.
- IEEE Distinguished Visitor: Computer Society, Sept. 1998 - Aug. 2001.
- IEEE Computer Society and ICDCS'03 Outstanding Service Award, May 2003.
- Concurrent Professor: Nanjing University, China, 1999 - present.
- Guest Professor: Shanghai Jiaotong University, Shanghai, China, 2002 - present.
- AP Professor: Shenzhen Institutes of Advanced Technology, Chinese Academic of Sciences
- International Advisory Board: School of Electronics, Information and Electrical Engineering (SEIEE), Shanghai Jiaotong University, Shanghai, China, 2002 - 2005.
- Researcher of the Year (Associate Professor level): FAU, 1996-1997.

- Distinguished Guest Lecturer: Department of Computer Science and Engineering, The Ohio State University, 2005.
- Outstanding Achievements Award: International Association of Science and Technology for Development (IASTED), 1998.