

# Jie Wu

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## 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

Distinguished Professor, Florida Atlantic University	9/06-present
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 Instructional Experience

### 3.1 Graduate Level Courses (12, including 7 new courses)

Algorithms for Bioinformatics, 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, and Analysis of Algorithms.

### 3.2 Undergraduate Level Courses (11)

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, and Programming Methodologies (Shanghai University).

### 3.3 Theses and Dissertations

**(Ph.D. Dissertations: 11 completed and 8 in progress)**

- 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) (Senior Instructor at Florida Atlantic University, Florida)
- 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) (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)
- S. Yang, “Mobility-based Routing in Sensor Networks,” (in progress)
- X. Tang, “An Efficient Page Ranking System,” (in progress)
- M. Lu, “Incentive Mechanisms in Mobile Ad Hoc Networks,” (in progress)
- J. Chen, “Securing Mobile Ad Hoc Networks,” (in progress)
- A. Srinivasan, “Secured Broadcasting in Mobile Ad Hoc Networks,” (in progress)
- L. Cong, “Self-Organization in Mobile Ad-hoc and Sensor Networks,” (in progress)
- F. Li, “Design and Analysis of Ad Hoc Trusted Networks,” (in progress)

- Q. Yuan, “On Avoiding Free-Riders in Peer-to-Peer Networks,” (in progress)  
(MS Theses: 26 completed and 5 in progress)

## 4 Research Interests

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

### 4.1 Refereed Journals

(selected from 121 journal publications)

1. J. Wu, S. Yang, and F. Dai, “Logarithmic Store-Carry-Forward Routing in Mobile Ad Hoc Networks,” accepted to appear in *IEEE Transactions on Parallel and Distributed Systems*.
2. W. Lou and J. Wu, “Towards Broadcast Reliability in Mobile Ad Hoc Networks With Double Coverage,” accepted to appear in *IEEE Transactions on Mobile Computing*.
3. S. Yang, M. Lu, and J. Wu, “Scan-Based Movement-Assisted Sensor Deployment Methods in Wireless Sensor Networks,” accepted to appear in *IEEE Transactions on Parallel and Distributed Systems*.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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, 1-14.

9. J. Wu and F. Dai, "Virtual Backbone Construction in MANETs using Adjustable Transmission Ranges," *IEEE Transactions on Mobile Computing*, Vol. 5, No. 9, Sept. 2006, 1188-1200.
10. 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, Sept. 2005, 449-458.
11. 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, Sept. 2005, 402-411.
12. 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.
13. B. Roussev, J. Wu, and L. Liu, "Distributed Computing Using Java: A Comparison of Two Server Designs," accepted to appear in *Journal of Systems Architecture*.
14. M. Ye, C. Li, G. H. Chen, and J. Wu, "EECS: An Energy Efficient Clustering Scheme in Wireless Sensor Networks," accepted to appear in *Ad Hoc & Sensor Wireless Networks: An International Journal*.
15. M. Lu, J. Wu, M. Cardei, and M. Li, "Energy-Efficient Connected Coverage of Discrete Targets in Wireless Sensor Networks," accepted to appear in *International Journal of Ad Hoc and Ubiquitous Computing*.
16. B. Wu, J. Wu, E. B. Fernandez, M. Ilyas, and S. Magliveras, "Secure and Efficient Key Management in Mobile Ad Hoc Networks," *Journal of Network and Computer Applications*, 2005.
17. J. Wu and L. Sheng, "Deadlock-Free Multicasting in Irregular Networks Using Prefix Routing," *The Journal of Supercomputing*, Vol. 31, No. 1, Jan. 2005, 127-133.
18. M. Cardei and J. Wu, "Energy-Efficient Coverage Problems in Wireless Ad Hoc Sensor Networks," *Journal of Computer Communications on Sensor Networks*, 2005.
19. 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, Dec. 2005, 897-910.
20. F. Dai, Q. Dai, and J. Wu, "Power Efficient Routing Trees for Ad Hoc Wireless Networks using Directional Antenna," *International Journal of Ad Hoc Networks*, No. 3, 2005, 608-620.
21. J. Wu and D. Wang, "Fault-tolerant and Deadlock-free Routing in 2-D Meshes Using Rectilinear-Monotone Polygonal Fault Blocks," *International Journal of Parallel, Emergent and Distributed Systems*, Vol. 20, No. 2, June 2005, 99-111.

22. I. Jawhar and J. Wu, "Race-Free Resource allocation for QoS Support in Wireless Networks," *Ad Hoc & Sensor Wireless Networks: An International Journal*, Vol. 1, No. 3, May 2005, 179-206.
23. 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, Feb. 2005, 3-17.
24. Q. Dai and J. Wu, "Computation of Minimal Uniform Transmission Range in Ad Hoc Wireless Networks," *Cluster Computing*, Vol. 8, 2005, 127-133.
25. 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.
26. 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.
27. 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.
28. 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.
29. C. -S. Leung, J. Sum, H. Shen, J. Wu, and G. H. Young, "Analysis and Design of an Agent Searching Algorithm for E-marketplaces," *Journal of Cluster Computing*, 7, 2004, 85-90.
30. J. Shen, L. Sheng, and J. Wu, "Searching for Sorted Sequences of Kings in Tournaments," *SIAM Journal of Computing*, 32, 5, 2003, 1201-1209.
31. J. Wu, "Optimal Broadcasting in Injured Hypercubes Using Directed Safety Levels," *Journal of Parallel and Distributed Computing*, 63, 2003, 815-826.
32. J. Wu and L. Sheng, "Deadlock-Free Routing in Irregular Networks Using Prefix Routing," *Parallel Processing Letters*, Vol. 13, No. 4, 2003, 705-720.
33. 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.
34. 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.
35. 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.

36. 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.
37. 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.
38. 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.
39. Z. Jiang and J. Wu, "Fault-Tolerant Broadcasting in 2-D Wormhole-Routed Meshes," accepted to appear in *Journal of Supercomputing*, 25, 3, July 2003, 255-275.
40. 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.
41. J. Wu and F. Dai, "QoS Routing in Hypercube Multicomputers," *Parallel Processing Letters*, Vol. 13, No. 1, March 2003, 43-52.
42. 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.
43. 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.
44. 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.
45. 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.
46. 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.
47. 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.
48. J. Wu, "A Fault-Tolerant Adaptive and Minimal Routing Scheme in  $n$ -D Meshes," *The Computer Journal*, Vol. 45, No. 3, 2002, 349-363.

49. 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.
50. F. He and J. Wu, "An Efficient Parallel Implementation of the Everglades Landscape Fire Model Using Checkpointing," *Parallel Computing*, Vol. 28, 2002, 65-82.
51. 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.
52. J. Wu, F. Dai, M. Gao, and I. Stojmenovic "On Calculating Power-Aware Connected Dominating Set for Efficient Routing in Ad Hoc Wireless Networks," *Journal of Communications and Networks*, Vol. 5, No. 2, March 2002, 169-178.
53. J. Wu and L. Sheng, "An Efficient Sorting Algorithm for a Sequence of Kings in a Tournament," *Information Processing Letters*, 79, 2001, 297-299.
54. 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.
55. J. Wu and Y. Yang, "The Postal Network: A Recursive Network for Parameterized Communication Model," *The Journal of Supercomputing*, 19, 2001, 141-159.
56. J. Wu, "On Finding a Hamiltonian Path in a Tournament Using Semi-Heap," *Parallel Processing Letters*, Vol. 10, No. 4, 2000, 279-294.
57. 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.
58. 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.
59. 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.
60. 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.
61. 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.
62. J. Wu, "Maximum-Shortest-Path (MSP): An Optimal Routing Policy for Mesh-Connected Multicomputers," *IEEE Transactions on Reliability*, 48, (3), Sept. 1999, 247-255.
63. 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.

64. 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.
65. 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,
66. J. Wu, E. B. Fernandez, and D. Dai, "Fault-Secure Scheduling," *The Computer Journal*, 41, (4), 1998, 207-222.
67. 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.
68. J. Wu, "Extended Fibonacci Cubes," *IEEE Transactions on Parallel and Distributed Systems*, 8, (12), Dec. 1997, 1203-1210.
69. 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.
70. J. Wu, "Reliable Unicasting in Faulty Hypercubes Using Safety Levels," *IEEE Transactions on Computers*, 46, (2), Feb. 1997, 241-247.
71. J. Wu, "Dimension-Exchange-Based Global Load Balancing in Faulty Hypercubes," *Concurrency: Practice and Experience*, 9, (1), Jan. 1997, 41-61.
72. H. Qian and J. Wu, "Enhanced Fibonacci Cubes," *The Computer Journal*, 39, (4), 1996, 331-345.
73. 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.
74. J. Wu and K. Yao, "Fault-Tolerant Multicasting in Hypercubes Using Limited Global Information," *IEEE Transactions on Computers*, 44, (9), Sept. 1995, 1162-1166.
75. J. Wu, "Tight Bounds on the Number of  $L$ -nodes in a Faulty Hypercube," *Parallel Processing Letters*, 5, (2), 1995, 321-328.
76. L. Brown and J. Wu, "Snooping in Fault-Tolerant Distributed Shared Memories," *Journal of Systems and Software*, May 1995, 149-166.
77. J. Wu, "Safety Level – An Efficient Mechanism for Achieving Reliable Broadcasting in Hypercubes," *IEEE Transactions on Computers*, 44, (5), May 1995, 702-705.
78. 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.



79. J. Wu, "An Optimal Fault-Tolerant Nonredundant Broadcasting Scheme in Injured Hypercubes," *Journal of Parallel and Distributed Computing*, 22, (2), August 1994, 295-313.
80. 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.
81. 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.

## 4.2 Conference Proceedings

(those with acceptance rate < 30% selected from 234 refereed conference articles)

1. M. Lu and J. Wu, "Social Welfare Based Routing in Ad Hoc Networks," *Proc. of International Conference on Parallel Processing (ICPP)*, 2006, 211-218.
2. 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.
3. 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.
4. B. Wu and J. Wu, "k-Anycast Routing Schemes for Mobile Ad Hoc Networks," *Proc. of IEEE IPDPS*, April 2006.
5. I. Jawhar and J. Wu, "Resource Allocation in Wireless Networks Using Directional Antennas," *Proc. of IEEE PerCom 2006*, March 2006.
6. J. Wu, "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.
7. D. Li, X. Li, 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.
8. 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)*.
9. 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.)
10. M. Lu, J. Wu, M. Cardei, and M. Li, "Energy-Efficient Connected Coverage of Discrete Targets in Wireless Sensor Networks," *Proc. of 2005 International Conference on Computer Networks and Mobile Computing (ICCNMC'05)*, 2005.

11. H. Huang and J. Wu, "A Probabilistic Clustering Algorithm in Wireless Sensor Networks," accepted to appear in *Proc. of the 62nd IEEE Semiannual Vehicular Technology Conference (VTC2005-Fall)*, Sept. 2005.
12. J. Wu, F. Dai, and S. Yang, "Iterative Local Solutions for Connected Dominating Set in Ad Hoc Wireless Networks," accepted to appear in the *Proc. of the 2nd IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, Nov. 2005.
13. 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.)
14. 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.
15. F. Dai and J. Wu, "View Consistency for Reliable Topology Control in Mobile Ad Hoc Networks," *Proc. of IEEE Global Telecommunications Conference (GLOBECOM)*, Nov. 2005.
16. F. Dai and J. Wu, "Proactive Route Maintenance in Ad Hoc Wireless Networks," *Proc. of the IEEE 2005 International Conference on Communications (ICC 2005)*.
17. 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.
18. 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.
19. X. Li and J. Wu, "Hybrid Searching Scheme in Unstructured P2P Networks," *Proc. of International Conference on Parallel Processing (ICPP)*, June 2005.
20. 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.
21. 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)
22. 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)
23. W. Lou and J. Wu, "A K-hop Zone-Based Broadcast Protocol in Mobile Ad Hoc Networks," *Proc. of IEEE Global Telecommunications Conference (GLOBECOM)*, 2004.(CD-ROM)

24. 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.
25. 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)
26. 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)
27. 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)
28. 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.)
29. F. Dai and J. Wu, "Performance Analysis of Broadcast Protocols in Ad Hoc Networks Based on Self-Pruning," *Proc. of IEEE Wireless Communications and Networking Conference (WCNC)*, 2004.(CD-ROM)
30. 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)
31. 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)
32. 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)
33. W. Lou and J. Wu, "A Double-Covered Broadcast Protocol for Mobile Ad Hoc Networks," *Proc. of IEEE Global Telecommunications Conference (GLOBECOM)*, 2003. (CD-ROM)
34. J. Wu, "An Enhanced Approach to Determine A Small Forward Node Set Based on Multipoint Relays," *Proc. of 2003 IEEE Semiannual Vehicular Technology Conference (VTC2003-Fall)*, Oct. 2003. (CD-ROM)
35. J. Wu and B. Wu, "A Transmission Range Reduction Scheme for Power-Aware Broadcasting in Ad Hoc Networks Using Connected Dominating Sets," *Proc. of 2003 IEEE Semiannual Vehicular Technology Conference (VTC2003-Fall)*, Oct. 2003 (CD-ROM)

36. 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).
37. F. Dai and J. Wu, "Distributed Dominant Pruning in Ad Hoc Wireless Networks," *Proc. of IEEE International Conf. on Communications (ICC)*, 2003, (CD-ROM).
38. 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.)
39. 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).
40. 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).
41. 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.
42. 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.
43. 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.
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46. 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.
47. E. B. Fernandez, J. Wu, and D. Hancock, "A Design Method for Real-time Object-Oriented Systems Using Communicating Real-Time State Machines," *Proc. of 2001 Information Resources Management Association Conference (IRMA)*, May 2001, 792-797.
48. 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).

49. 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.
50. 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.
51. 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.
52. 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.
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66. 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.
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70. 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.
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### 4.3 Books and Book Chapters

(selected from 2 books and 24 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.
3. 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, 2007.
4. M. O. Pervaiz, M. Cardei, and J. Wu, "Security in Wireless Local Area Networks," accepted to appear in *Security in Distributed and Networking Systems*, Y. Xiao and Y. Pan (eds.), World Scientific Publishing Co., 2007.

5. X. Li and J. Wu, "Searching Techniques in Peer-to-Peer Networks," *Handbook of Theoretical and Algorithmic Aspects of Ad Hoc, Sensor, and Peer-to-Peer Networks*, J. Wu (ed.), Auerbach Publications, 2006, pp. 613 - 642.
6. J. Wu and F. Dai, "Mobility Control and Its Applications in Mobile Ad Hoc Networks," accepted to appear in *Handbook of Algorithms for Mobile and Wireless Networking and Computing*, A. Boukerche and I. Chlamtac (eds.), CRC Press, 2006.
7. S. Yang and J. Wu, "New Technologies of Multicasting in MANET," accepted to appear in *Design and Analysis of Wireless Networks*, Y. Pan and Y. Xiao (eds.), Nova Science Publishers, 2006.
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, 2006.
9. 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, 2006.
10. 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, 2006.
11. W. Lou and J. Wu, "Broadcasting in Ad Hoc Networks using Neighbor Designating," accepted to appear in *Handbook of Mobile Computing*, I. Maghoub and M. Ilyas (eds.), CRC Press, 2005, 663-686.
12. I. Jawhar and J. Wu, "Quality of Service Routing in Mobile Ad Hoc Networks," *Resource Management in Wireless Networking*, M. Cardei, and D. -Z. Du (eds.), Springer, 2005.
13. D. Simplot-Ryl, I. Stojmenovic, and J. Wu, "Energy Efficient Broadcasting, Activity Scheduling and Area Coverage in Sensor Networks," *Handbook of Sensor Networks: Algorithms and Architectures*, I. Stojmenovic (ed.), Wiley, 2005, pp. 343-379.
14. 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, 2004, 205-229.
15. M. Cardei and J. Wu, "Coverage in Wireless Sensor Networks," in *Handbook of Sensor Networks*, M. Ilyas (ed.), CRC Press, 2004, 19.1-19.20.
16. 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.
17. 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.

18. 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.
19. 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.
20. B. Roussev and J. Wu, "Task Scheduling on NOWs using Lottery-Based Workstealing," in *Annual Review of Scalable Computing*, Y. C. Kwong (ed), World Scientific, 2001, 63-84.

#### 4.4 Department Technical Reports (80)

#### 4.5 Presentations (Invited Seminars)

Wayne State University, Georgia Institute of Technology, Ohio State University (Distinguished Lecture), Inner Mongolia Univresity (China), Central South University (China), Montclear 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), Michgan 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 Academic 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.



## 5 Sponsored Research

- Mobility-Assisted Routing in Mobile Networks (PI) 09/06-09/09  
Supported by National Science Foundation (NSF), Arlington, VI. (\$284,943)
- IEEE MASS 2006 Travel Grant (PI) 09/06-09/07  
Submitted to 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 Federal Earmark Projects (\$2,000,000)
- 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 Mul-  
ticomputers (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 (\$1,612,534)

- 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)
  - EDSS Corp., FL (2003-2003)

## 6 Professional Service

### 6.1 Membership Professional Societies

- Institute of Electrical and Electronics Engineering (IEEE): Computer Society (senior member since 1994).
- Association for Computing Machinery (ACM)
- Society for Computers and Their Applications (ISCA)
- Upsilon Pi Epsilon (UPE): Computing Science Honor Society

### 6.2 Editorial Board

- IEEE Transactions on Parallel and Distributed Systems, (2002-2005)
- 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-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. General Chair: IEEE International International Parallel & Distributed Processing Symposium (IPDPS), 2008.
2. General Chair: The International Conference on Wireless Algorithms, Systems and Applications (WASA), 2007.
3. General Vice Chair: IEEE International International Parallel & Distributed Processing Symposium (IPDPS), 2007.
4. General Chair: The 3rd IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS), 2006.
5. Program Co-Chair: International Workshop on Networking, Architecture, and Storage, 2006.
6. General Vice Chair: The 2nd IEEE International Conference on Distributed Computing Sensor Systems (DCOSS), 2006.
7. General Chair: International workshop on Wireless and Sensor Networks Security (WSNS'05) (in conjunction with MASS), 2005.
8. Program Co-Chair: The 1st International Workshop on Security and Mobility in Peer-to-Peer Systems (MPPS) (in conjunction with ICDCS), 2005.
9. Program Co-Chair: The 1st International Workshop on Ad Hoc, Sensor and P2P Networks (AHSP) (in conjunction with ISADS), 2005.
10. Program Co-Chair: International Conference on Mobile Ad-hoc and Sensor Networks (MSN), 2005.

11. Program Vice Chair: International Conference on Computer Networks and Mobile Computing (ICCNMC), 2005.
12. Program Chair: The 1st IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS), 2004.
13. General Co-Chair: The 2nd International Workshop on Mobile Distributed Computing (MDS), 2004.
14. Workshops Chair: The IEEE International Conference on Distributed Computing Systems (ICDCS), 2003.
15. General Co-Chair: The 7th International Conference on Computer Science and Informatics (ICS), 2003.
16. Program Co-Chair: The 4th and 5th Workshops on Advances in Parallel and Distributed Computational Models (in conjunction with IPDPS), 2002 and 2003.
17. Program Vice Chair: The 21th IEEE International Conference on Distributed Computing Systems (ICDCS), 2001.
18. Program Co-Chair: Workshop on Wireless Networks and Mobile Computing 2001 (in conjunction with ICPP 2001), 2001.
19. Program Vice Chair: The 29th International Conference on Parallel Processing (ICPP), 2000.
20. Program Co-Chair: The 12th ISCA International Conference on Parallel and Distributed Computing Systems (PDCS), 1999.
21. Local Arrangements Chair: The 5th IEEE International Symposium on High Performance Computer Architecture (HPCA), 1999.
22. Advisory Committee: The 13th and 14th ISCA International Conference on Parallel and Distributed Computing Systems (PDCS), 2000 and 2001.
23. Advisory Committee: The 18th and 21st International Conference on Advanced Information Networking and Applications (AINA), 2004 and 2007.
24. Steering Committee: The 6th Workshops on Advances in Parallel and Distributed Computational Models (in conjunction with IPDPS), 2004.
25. Steering Committee: Workshop on Advances in Parallel and Distributed Computational Models (APDCM).
26. Steering Committee: International Symposium on Parallel and Distributed Processing and Application (ISPA).
27. Steering Committee: IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS).
28. ACM International Symposium on Mobile Ad Hoc Networking and Computing, 2006.

29. Program Committee: The International Conference on Parallel Processing (ICPP), 1999, 2000, 2001, 2002, 2004, 2006, and 2007.
30. Program Committee: The 16th, 18th, 20th, and 23rd International Conference on Distributed Computing Systems (ICDCS), 1996, 1998, 2000, 2001, and 2004.
31. Program Committee: The 23rd and 24th Annual Joint Conference of the IEEE Computer and Communications (INFOCOM), 2004 and 2005.
32. Program Committee: The IEEE Global Telecommunications Conference (GLOBECOM), 2004.
33. Program Committee: IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), 2005.
34. Program Committee: IEEE International Parallel and Distributed Processing Symposium (IPDPS), 2005.
35. Program Committee: The 10th Annual International Symposium on High Performance Computing (HPCA), 2003.
36. Organization Committee of over 100 other international conferences and workshops.

#### **6.4 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:

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 Semiannual 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*

## 6.5 IEEE Computer Society

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

## 6.6 University Service

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

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

Department Personnel Committee (8/1999-present)

College Personnel Committee (8/2001-present, chair since 11/2005)

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

## 7 Professional Recognition

- IEEE Distinguished Visitor: Computer Society, Sept. 1998 - Aug. 2001.
- IEEE Computer Society and ICDCS'03 Outstanding Service Award, May 2003.
- Concurrent Professor: Nanjing University, P. R. China, 1999 - present.
- Adjunct Professor: Shanghai Jiaotong University, Shanghai, China, 2002 - present.
- International Advisory Board: School of Electronics, Information and Electrical Engineering (SEIEE), Shanghai Jiaotong University, Shanghai, China, 2002 - present.
- Researcher of the Year (Full Professor level): Florida Atlantic University, 2001-2002.
- Researcher of the Year (Associate Professor level): Florida Atlantic University, 1996-1997.
- 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.
- 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.

**References are available upon request.**