Curriculum Vitae

Wei Wennie Shu

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Education

- 1990: Ph.D. in Electrical and Computer Engineering, University of Illinois at Urbana-Champaign
- 1984: M.S.E.E., Santa Clara University
- 1982: B.S. in Computer Science, Hefei Polytechnic University, China

Employment

- 2000–present: Associate Professor, Department of Electrical and Computer Engineering, University of New Mexico.

  - 2012.01-2013.12 Associate Dean for Graduate Recruiting, School of Engineering.
  - 2005.01-2011.07 Associate Chair, Director of Graduate Program, Department of Electrical and Computer Engineering.

- 1997–1999: Associate Professor, Department of Electrical and Computer Engineering, University of Central Florida.

- 1996–1997: Associate Professor, Department of Computer Science, State University of New York at Buffalo.

- 1990–1996: Assistant Professor, Department of Computer Science, State University of New York at Buffalo.

- 1989–1990: Associate Research Scientist, Department of Computer Science, Yale University.

- 1986–1989: Research Assistant, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign.

- 1985–1986: Teaching Assistant, Department of Computer Science, Purdue University.

Research Interests

- Distributed and Parallel Operating Systems
- Multimedia Networking with Audio/Video Stream Scheduling
- Wireless ad hoc networks and sensor networks
- Multicasting, overlay networks and proxy deployment

Funding

2006-2008	National Science Foundation, $209,000 "Collaborative Research: Future Internet Transient Network Design," co-PI at UNM, lead by PI: Chaouki C. Abdallah
2007-2007	National Science Foundation, $34,655 "Future Internet Design (FIND) Principle Investigator's Metting," co-PI at UNM, lead by PI: Greg Heileman
2005-2010	Investigator in project 4 "Dynamic Analysis of Signaling Networks in Leukemia" of "Specialized Center of Research in Acute Leukemia: Comprehensive Molecular Technologies for Improved Risk Classification and Therapy" funded by The Leukemia & Lymphoma Society's Specialized Center of Research (SCOR), UNM Cancer Research and Treatment Center lead by Chery L. William, M.D. Total $6,215,000, Shu's share is %5 faculty time and graduate student support.
2000-2001	Albuquerque High Perfornace Computing Center, co-PI with M.Y. Wu and T. Caudell, $150,000, "Research Projects on Access Grid"
2000-2001	Sandia National Laboratory, $35,000, "Portal-level Bridge for High Performance Heterogeneous Computer Clusters"
1999	NASA Kennedy Space Center, $10,000, NASA/ASEE Summer Faculty Fellowship "Characterization of the Reliable Messaging Protocol in the Checkout and Launch Control Systems."
1995-1999	National Science Foundation, $94,956 "Runtime Incremental Parallel Scheduling for Solving Irregular and Dynamic Applications"
1998	National Science Foundation, PI, $ 45,750 Equipment Grant,"Gigabit ATM Network Research Technology Distribution Program."
1997-1998	USAirForce Rome Laboratory, Co-PI with Jame Llinas, $ 74,786 "Highly Parallel and Advanced Data Fusion Processing Concepts for Ballistic Missile Tracking and Discrimination."
1991-1994	National Science Foundation, $ 59,989 Research Initiation Award, "Runtime Support for Machine–independent Parallel Programming: the Chare Kernel."

Professional Activities

- IEEE senior member with Computer Society,
- Reviewer for IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Multimedia, Journal of Parallel and Distributed

Computing, Journal of Supercomputing, International Journal of Parallel Programming, and various conferences.

Courses Taught

- Undergraduate Courses:
  - Introduction to Computer Science II
  - Introduction to Operating Systems
  - Introduction to Computer Networks
  - Software Engineering
  - Computer System Design I
  - Data Structure and Algorithm Analysis
- Graduate Courses:
  - Operating Systems
  - Distributed Systems
  - Advanced Computer Network
  - Wireless Ad Hoc Networks
  - Web Caching and Content Distribution
  - Software Engineering

Publications

A. Refereed Journal Articles

1. T. Zhang, N. Jing, K. Jiang, W. Shu, M.-Y. Wu, X. Liang, "Buddy SM: Sharing Pipeline Front-End For Improved Energy Efficiency In GPGPUs," ACM Transactions on Architecture and Code Optimization (TACO), to apprea

2. T. Zhang, J. Zhang, W. Shu, M.-Y. Wu, X.Y. Liang, "Efficient Graph Computation on Hybrid CPU and GPU Systems," Journal of Supercomputing, 71(4), pp.1563-1586, April 2015.

3. T. Zhang, W. Shu, and M.Y. Wu, "CUIRRE: An Open-source Library for Load Balancing and Characterizing Irregular Applications on GPUs," *Journal of Parallel and Distributed Computing (JPDC)*, 74(10), pp. 2951–2966, October 2014.

4. L. Kong, M. Zhao, W. Shu and M.Y. Wu, "Surface Coverage in Sensor Networks," *IEEE Transactions on Parallel and Distributed Systems*, 25(1), Jan 2014.

5. Energy-Efficient High Performance Computing - Measurement and Tuning, by James H. Laros III, Kevin T. Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay T. Vaughan, Springer Publications, SpringerBriefs in Computer Science ISBN 978-1-4471-4491-5, 2013

6. J. L. Lu, W. Shu and M. Y. Wu, "A Survey on Multipacket Reception for Wireless Random Access Networks," *Journal of Computer Networks and Communications*,Volume 2012, Article ID 246359 Hindawi, September 2012.

7. Z. Ding, F. Zhao, W. Shu and M. Y. Wu, "Face Detection System for SVGA Source with Hecto-Scale Frame Rate on FPGA Board," *Microprocessors and Microsystems*, Volume 36, Issue 4, pp. 315-323, Elsevier, June 2012.

8. J. Crichigno, M.Y. Wu, S.K. Jayaweera and W. Shu, "Throughput Optimization in Multihop Wireless Networks with Multi-packet Reception and Directional Antennas," IEEE Transactions on Parallel and Distributed Systems, vol. 22, no. 7, pp.1206-1213, July 2011.

9. X. Li, H. Huang, X. Yu, W. Shu, M. Li and M.Y. Wu, "A New Paradigm for Urban Surveillance with Vehicular Sensor Networks," Computer Communications, Elsevier, vol. 34, no. 10, July 2011.

10. X. Li, H. Huang, M. Li, W. Shu and M.Y. Wu, "Packet-Oriented Routing in Delay-Tolerant Vehicular Sensor Networks," *Journal of Information Science and Engineering (JISE)*, 25(6), pp.1803-1817, Nov. 2009.

11. S. Zhou, M.Y. Wu and W. Shu, "Improving Mobile Target Detection on Randomly Deployed Sensor Networks," *International Journal of Sensor Networks,* pp.115–128, Vol.6, No.2, Oct. 2009.

12. C. Xie, N. Ghani, Q. Liu, R. KouatangW. Shu, Y. Qiao, and M.Y. Wu, "Traffic Engineering For Ethernet over SONET/SDH (EoS): Advances and Frontiers," *IEEE Network*, Vol. 23, No. 3, pp.18-25, May-June 2009

13. X. Li, W. Shu, M. Li, H.Y. Huang, P.E. Luo, and M.Y. Wu, "Performance Evaluation of Vehicle-based Mobile Sensor Networks for Traffic Monitoring," IEEE Transaction on Vehicular Technology, Vol.58, No.4, pp.1647-1653, May 2009

14. M.-Y. Hsieh, S. Yang, M.A. Raymond-Stinz, S. Steinberg, D. Vlachos, W. Shu, B. Wilson, J.S. Edwards, "Stochastic Simulations of ErbB Homo and Hetero-Dimerization: Potential Impacts of Receptor Conformational State and Spatial Segregation," IET Systems Biology, Vol.2, no.5, pp.256-272, September 2008.

15. J. Crichigno, W. Shu and M.Y. Wu, "Protocols and Architectures for Channel Assignment in Wireless Mesh Networks," *Ad Hoc Networks*,vol.6, no.7, pp.1051–1077, Elsevier, September 2008.

16. H. Huang, P. Luo, M. Li, D. Li, X. Li, W. Shu, and M. Y. Wu , "Performance Evaluation of SUVnet with Real-Time Traffic Data," *IEEE Trans. on Vehicular Technology*, Vol. 56, No. 6, pp.3381-3396, November 2007.

17. G.L. Heileman, C.T. Abdallah, W. Shu, C.G. Christodoulou, D. Knotts, "Creating Online Graduate Engineering Degrees at University of New Mexico," *Journal of Universal Computer Science*, Vol 13, No. 7, pp 761-770, July 2007.

18. Y. Zhang, M.Y. Wu, and W. Shu, "Adaptive Channel Allocation for Large-Scale Streaming Content Delivery Systems," *Multimedia Tools and Applications*, Vol. 32, No. 3, pp.253-273, March 2007.

19. Y. Cai, M. Li, W. Shu, and M.Y. Wu, "ACOS: An Area-based Collaborative Sleeping Protocol for Wireless Sensor Networks," *Int'l Journal of Ad Hoc & Sensor Wireless Networks*, Vol 3, No. 1, pp. 77-97, January 2007.

20. M.Y. Wu, S.J. Ma, and W. Shu, "Scheduled Video Delivery — A Scalable On-Demand Video Delivery Paradigm," *IEEE Transactions on Multimedia*, vol 8, no 1, pp. 179-187, February 2006.

21. M.Y. Wu, Y. Zhu, and W. Shu, "Placement of Proxy-based Multicast Overlays," *Computer Networks: The International Journal of Computer and Telecommunications Networking*, volume 48, issue 4, pages 627-655, July 2005.

22. W. Shu and M.Y. Wu, "Resource Requirements of Closed-Loop Video Delivery Services," *IEEE MultiMedia*, pp. 24–37, April–June 2004.

23. M.Y. Wu, W. Shu, and C.S. Lin, "Odyssey: A High-Performance Clustered Video Server," *Software Practice & Experience*, vol. 33, no. 7, pp. 673–700, June 2003.

24. M.Y. Wu and W. Shu, "An Efficient Distributed Token-based Mutual Exclusion Algorithm with Central Coordinator," *Journal of Parallel and Distributed Computing*, vol. 62, no. 10, pp. 1602–1613, October 2002.

25. M.Y. Wu and W. Shu, "Efficient Support for Interactive Browsing Operations in Clustered CBR Video Servers," *IEEE Transactions on Multimedia*, Vol 4, no. 1, pages 48-58, March 2002.

26. M.Y. Wu, W. Shu, and J. Gu, "Efficient Local Search for DAG Scheduling," *IEEE Transactions on Parallel and Distributed Systems*, vol. 12, no. 6, pp. 617–627, June 2001.

27. M.Y. Wu and W. Shu, "Optimal Scheduling for Parallel CBR Video Servers," *Multimedia Tools and Applications*, vol. 14, no. 1, pp. 79–99, May 2001.

28. C.S. Lin. M.Y. Wu, and W. Shu, "Efficient Algorithms for Slot-Scheduling and Cycle-Scheduling of Video Streams on Parallel Video Servers," *Multimedia Tools and Applications*, vol. 13, no. 2, pp. 213–227, February 2001.

29. I. Ahmad, Y.K. Kwok, M.Y. Wu, and W. Shu, "CASCH: A Software Tool for Automatic Parallelization and Scheduling of Programs on Multiprocessors," *IEEE Concurrency*, vol. 8, no. 4, pp. 21–33, October 2000.

30. M.Y. Wu and W. Shu, "On Parallelization of Static Scheduling Algorithms," *IEEE Transactions on Software Engineering* vol. 23, no. 8, pp. 517–528, August 1997.

31. M.Y. Wu and W. Shu, "DDE: A Modified Dimension Exchange Method for Load Balancing in k-ary n-cubes," *Journal of Parallel and Distributed Computing*, vol. 44, no. 1, pp. 88–96, July 1997.

32. W. Shu and M.Y. Wu, "Runtime Incremental Parallel Scheduling on Distributed Memory Computers," *IEEE Transactions on Parallel and Distributed Systems*, vol. 7, no. 6, pp. 637–649, June 1996.

33. W. Shu, "Parallel Implementation of Sparse Simplex Algorithm on MIMD Distributed Memory Computers," *Journal of Parallel and Distributed Computing*, vol. 31 (1), pp. 25–40, November 1995.

34. W. Shu and M.Y. Wu, "Asynchronous Problems on SIMD Parallel Computers," *IEEE Transactions Parallel and Distributed Systems*, vol. 6 (7), pp. 704–713, July 1995.

35. W. Shu, "Runtime Support for User-Level Ultralightweight Threads on Distributed-Memory Computers," *Journal of Supercomputing*, vol. 9 (1/2), pp. 91–103, 1995.

36. W. Shu, "Adaptive Scheduling on Multicomputers," *Journal of Scientific Programming*, vol. 3 (4), pp. 341–352, 1994.

37. W. Shu and L.V. Kalé, "Chare Kernel — a Runtime Support System for Parallel Computation," *Journal of Parallel and Distributed Computing*, vol. 11, pp. 198–211, 1991.

38. W. Shu, M.Y. Wu, and S.M. Kang, "Improved Net Merging Method for Gate Matrix Layout," *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, vol. 7 (9), pp. 947–951, 1988.

39. M.Y. Wu, W. Shu, and S.P. Chan, "A Unified Theory for MOS Circuit Design — Switching Network Logic," *International Journal of Electronics*, vol. 58 (1), pp. 1–33, 1985.

B. Refereed Conference Papers

40. F. Yang, J.L. Lu, Y. Zhu, J. Peng, W. Shu, M.Y. Wu, "Heterogeneous Task Allocation in Participatory Sensing," IEEE Globecom, San Diego, CA, December 2015.

41. M. Zhu, L. Kong, X.-Y. Liu, R. Shen, W. Shu, M.Y. Wu, "A Public Vehicle System with Multiple Origin-Destination Pairs on Traffic Networks," IEEE Globecom, San Diego, CA, December 2015.

42. Mustafa Al-Mashhadani, W. Shu, M.Y. "Enhancing Traffic Flow by using Vehicle Dashboard Traffic Lights," IEEE 82nd Vehicular Technology Conference: VTC2015-Fall, Boston, MA, September 2015.

43. J. Peng, Y. Zhu, W. Shu, M.Y. Wu, "How Multiple Crowdsourcers Compete for Smartphone Contributions?," IEEE INFOCOM Computer Communications Workshops, Hong Kong, China, May 2015.

44. T. Zhang, G.S. Chen, W. Shu, and M.Y. Wu, "Microarchitectural Characterization of Irregular Applications on GPGPUs," the 32nd Int'l Symposium on Computer Performance, Modeling, Measurements and Evaluation, ACM SIGMETRICS Performance Evaluation Review, 42(2), pp.27-29, September 2014.

45. M. Zhu, X.-Y. Liu, L. Kong, R. Shen, W. Shu, M.Y. Wu, "The Charging-Scheduling Problem for Electric Vehicle Networks," IEEE Wireless Communications and Networking Conference (WCNC), April 2014.

46. S. Yang, J.L. Lu, F. Yang, L. Kong, W. Shu and M.Y. Wu, "Behavior-Aware Probabilistic Routing For Wireless Body Area Sensor Networks," IEEE Globecom, Atlanta, GA, December 2013.

47. G. Chen, X.Y. Liu, L. Kong, J.L. Lu, Y. Gu, W. Shu and M.Y. Wu, "Multiple Attributes-based Data Recovery in Wireless Sensor Networks," IEEE Globecom, Atlanta, GA, December 2013.

48. W. Shu, G. Zhang, M.Y. Wu and J. Lu, "A Social-network-enabled Green Transportation System," *IEEE Intl Conference on Connected Vehicles and Expo (ICCVE)*, Las Vegas, Nevada, December 2013.

49. M. Zhu, J. Hu, L. Kong, R. Shen, W. Shu and M.Y. Wu, "An Algorithm of Lane Change Using Two-Lane NaSch Model in Traffic Networks," IEEE Intl Conference on Connected Vehicles and Expo (ICCVE), Las Vegas, Nevada, December 2013.

50. G. Chen, X.Y. Liu, L. Kong, J.L. Lu, W. Shu and M.Y. Wu, "Joint-Sparse Sensory Data Recovery in Wireless Sensor Networks," IEEE Intl Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), Lyon, France, October 2013.

51. S. Yang, J.L. Lu, L. Kong, W. Shu and M.Y. Wu, "Behavior-Aware Probabilistic Routing For Wireless Body Area Sensor Networks," Poster, IEEE INFOCOM, Turin, Italy, April 2013.

52. W. Hu, J.L. Lu, S. Jiang, W. Shu and M.Y. Wu, "WiBEST: A Hybrid Personal Indoor Positioning System," *IEEE Wireless Communications and Networking Conference (WCNC)*, Shanghai, China, April 2013.

53. T. Cao, X. Zhang, L. Kong, X.Y. Liu, W. Shu and M.Y. Wu, "Traffic Aware Routing in Urban Vehicular Networks," *IEEE Wireless Communications and Networking Conference (WCNC)*, Shanghai, China, April 2013.

54. J. Hu, L. Kong, M.Y. Wu and W. Shu, "Scheduling of Connected Autonomous Vehicles on Highway Lanes," *IEEE Globecom*, Anaheim, CA, December 2012.

55. L. Kong, T. Li, M.Y. Wu and W. Shu, "Eagle Eye: A Dual-Radio Architecture in Delay Tolerant Networks," *the 9th IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS)*, Las Vegas, Nevada, October 2012.

56. L. Kong, Y. Zhu, M.Y. Wu and W. Shu, "Mobile Barrier Coverage for Dynamic Objects in Wireless Sensor Networks," *the 9th IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS)*, Las Vegas, Nevada, October 2012.

57. J. Laros, K. Pedretti, S. Kelly, W. Shu, C. Vaughan, "Energy Based Performance Tuning for Large Scale High Performance Computing Systems," 20th High Performance Computing Symposium (HPC 2012), Orlando, Florida, March 2012, BEST PAPER award.

58. J.L. Lu, P. Vandenhove, W. Shu, M.Y. Wu, "Enhancing Throughput in Wireless Multi-Hop Network with Multiple Packet Reception," *WNS, IEEE Int'l Conference on Communications (ICC)*, Kyoto, Japan, June 2011

59. Z.Z. Xu, J.L. Lu, W. Shu, C.F. Curis. M.Y. Wu, "Optimizing Sensor Communication Exposure in Target Detection Applications," *AHSM, IEEE Int'l Conference on Communications (ICC)*, Kyoto, Japan, June 2011

60. Z. Ding, W. Shu, M.Y. Wu, "FPGA Based Parallel Transtive Closure Algorithm," *ACM Symposium On Applied Computing (SAC)*, Taichung, Taiwan, March 2011.

61. Z. Ding, F. Zhao, T. Wang, W. Shu, M.Y. Wu, "Hecto-Scale Frame Rate Face Detection System for SVGA Source on FPGA Board," *IEEE Int'l Symposium on Field-Programmable Custom Computing Machines (FCCM)*, Salt Lake City, Utah, May 2011.

62. T. Zhang, W. Shu adn M.Y. Wu, "Optimization of N-Queens Solvers on Graphics Processors," APPT, Sept. 2011

63. Y. Yang, X. Lu, W. Shu and M.Y. Wu, "Quality Evaluation of Vehicle Navigation with Cyber Physical Systems," *IEEE Globecom*, Miami, USA, December 2010.

64. J. Crichigno, J. Khoury, W. Shu, M.Y. Wu and N. Ghani, "Dynamic Routing Optimization in WDM Networks" *IEEE Globecom*, Miami, USA , December 2010.

65. J. Crichigno, M.Y. Wu and W. Shu, "Throughput Optimization and Traffic Engineering in WDM Networks Considering Multiple Metrics," *IEEE Int'l Conf. on Communications: (ICC)*, Cape Town, South Africa, May 2010.

66. J. Crichigno, N. Ghani, M.Y. Wu and W. Shu, "Minimum Length Scheduling in Single-hop Multiple Access Wireless Networks," *IEEE Int'l Conf. on Communications (ICC)*, Cape Town, South Africa, May 2010.

67. Feng Gu, Xu Li, Min-You Wu and Wei Shu, "Impact of Using Multi-Packet Reception on Performance in Delay Tolerant Networks," *IEEE Int'l Symposium on Wireless Vehicular Communications (WiVeC)*, Taipei, Taiwan, May 2010.

68. X. Li, J. Hu, W. Shu and M.Y. Wu, ""BSS: A Distributed Top-k Processing in Mobile BusNet for Security Surveillance," *IEEE Int'l Symposium on Wireless Vehicular Communications (WiVeC)*, Taipei, Taiwan, May 2010.

69. J. Crichigno, M.Y. Wu and W. Shu, "Maximizing Throughput in Wireless Multi-Access Channel Networks," *IEEE Wireless Communications & Networking Conference (WCNC)*, Sydney, Australia, April 2010.

70. X. Li, T. Cao, H. Huang, M. Li, W. Shu and M.Y. Wu, "A Novel Bus Lane Enforcement system with Vehicular Sensor Networks," *IEEE Wireless Communications & Networking Conference (WCNC)*, Sydney, Australia, April 2010.

71. J. Crichigno, C. Xie, W. Shu, M.Y. Wu and N. Ghani, "A Multi-Objective Approach for Joint Throughput and Traffic Engineering Optimization in WDM Networks," *Asilomar Conf. on Signals, Systems, and Computers*, Nov. 2009.

72. J. Crichigno, M.Y. Wu, J. Khoury, and W. Shu, "A Joint Routing and Scheduling Scheme for Wireless Networks with Multi-packet Reception and Directional Antennas," *10th IEEE Int'l Symposium on World of Wireless, Mobile and Multimedia Networks* (WoWMoM), Kos Greece, June 2009.

73. C. Xie, N. Ghani, Q. Liu, W. Shu, A. Gumaste, Y. Qiao, M.Y. Wu, "Multi-Point Ethernet over Next-Generation SONET/SDH," *IEEE Int'l Conf. on Communications: (ICC)*, Dresden, Germany, June 2009.

74. M.C. Zhao, J. Lei, M.Y. Wu, Y. Liu and W. Shu, "Surface Coverage in Wireless Sensor Networks," *IEEE Infocom*, Rio de Janeiro, Brazil, April 2009.

75. J. Crichigno, M.Y. Wu, and W. Shu, "Throughput Optimization in Wireless Networks with Multi-packet Reception and Directional Antennas," *IEEE Wireless Communications & Networking Conference (WCNC)*, Budapest, Hungary, April 2009.

76. X. Li, W. Shu, M. Li and M.Y. Wu, "VStore: Towards Cooperative Storage in Vehicular Sensor Networks for Mobile Surveillance," *IEEE Wireless Communications & Networking Conference (WCNC)*, Budapest, Hungary, April 2009.

77. C. Xie, N. Ghani, Q. Liu, R. Kouatang, W. Shu, Y. Qiao, M.Y. Wu, S. Peng, "Multi-Point Ethernet-over-SONET/SDH Services," *IEEE Advanced Networks and Telecommunication Systems (ANTS 2008),* Bombay, India, December, 2008.

78. Y. Zhang, Y.K. Ji, W. Shu and M.Y. Wu, "Capacity-aware Mechanisms for Service Overlay Design," *IEEE Globecom,* New Orleans, USA, December 2008.

79. J. Crichigno, J. Khoury, M.Y. Wu, and W. Shu, "A Dynamic Programming Approach for Routing in Wireless Mesh Networks," *IEEE Globecom,* New Orleans, USA, December 2008.

80. X. Li, W. Shu, M. Li, H. Huang and M.Y. Wu, "DTN Routing in Vehicular Sensor Networks," *IEEE Globecom*, New Orleans, USA, December 2008

81. X. Li, H. Huang, M. Li, X. Lin, W. Shu and M.Y. Wu, "A Mobile Sensor System and Its Performance of Traffic Monitoring," *IEEE Vehicular Technology Conference (VTC-Fall)*, Calgary, Canada, September 2008.

82. X. Li, W. Shu, M. Li, P.E. Luo, H. Huang and M.Y. Wu, "Traffic Data Processing in Vehicular Sensor Networks," *IEEE International Conference on Computer Communications and Networks (ICCCN)*, U.S. Virgin Islands, August 2008.

83. P. Luo, H. Huang, W. Shu, M. Li and M.Y. Wu, "Performance Evaluation of Vehicular DTN Routing under Realistic Mobility Models," *IEEE Wireless Communications and Networking Conference (WCNC)*, Las Vegas, March 2008.

84. Y. Li, M. Li, W. Shu, and M.Y. Wu, "FFT-DMAC: A Tone Based MAC Protocol with Directional Antennas," *IEEE Globecom*, Washington, DC, November 2007.

85. Q. Pan, M. Li, W. Shu, and M.Y. Wu, "Optimization of Accurate Top-k Query in Sensor Networks with Cached Data," *IEEE Wireless Communications and Networking Conference (WCNC)*, Hong Kong, China, March 2007.

86. W. Zhang, M. Li, M.Y. Wu, and W. Shu "Smart Path-finding with Local Information in a Sensory Field," *International Conference on Mobile Ad-hoc and Sensor Networks (MSN)*, Hong Kong, China, December 2006.

87. S. Zhou, M.Y. Wu, and W. Shu, "Blocking Vulnerable Paths of Wireless Sensor Networks," *IEEE Globecom,* San Francisco, November 2006.

88. G. Heileman, C. T. Abdallah, W. Shu, C. Christodoulou, and D. Knotts, "Creating On-line Graduate Engineering Degrees at the University of New Mexico," *The 8th Int'l Symp. on Computers in Education,* Leon, Spain, October 2006.

89. M. Hsieh, W. Shu, S. Steinberg, B. Wilson, "Modeling Cell Signaling Pathways with Spatially Explicit Mobile Agents," *Keystone Symposia Conference on the Systems Biology: Integrating Biology, Technology and Computation*, Taos, New Mexico, March 2006.

90. Y. Cai, M. Li, W. Shu, and M.Y. Wu, "ACOS: A Precise Energy-aware Coverage Control Protocol for Wireless Sensor Networks," *Int'l Conference on Mobile Ad-hoc and Sensor Networks (MSN)*, pp.710–710, Wuhan, China, December 2005.

91. S. Zhou, M.Y. Wu, and W. Shu, "Terrain-aware Mobile Sensor Networks," *IEEE Globecom,* St. Louis, November 2005.

92. M.Y. Wu and W. Shu, "InterSensorNet: Strategic Routing and Aggregation," *IEEE Globecom,* St. Louis, November 2005.

93. Y. Zhu, W. Shu, and M.Y. Wu, "Approaches to Establishing Multicast Overlays" *IEEE International Conference on Service Computing*, Orlando, July 2005.

94. M.Y. Wu and W. Shu, "RPP: A Distributed Routing Mechanism for Strategic Wireless Ad hoc Networks," *IEEE Globecom,* Dallas, November 2004.

95. M.Y. Wu, Y. Zhu, and W. Shu, "Optimal Multicast Overlay Placement for Realtime Streaming Media," *IEEE International Conference on Multimedia and Expo (ICME2004),* June 2004.

96. Y. Jiang, M.Y. Wu, and W. Shu, " Hierarchical Overlay Multicast Network," *IEEE International Conference on Multimedia and Expo (ICME2004),* June 2004.

97. S. Zhou, M.Y. Wu, and W. Shu, "Finding Optimal Placements for Mobile Sensors: Wireless Sensor Network Topology Adjustment," *IEEE 6th CAS Symposium on Emerging Technologies: Frontiers of Mobile and Wireless Communication,* May 2004.

98. M.Y. Wu and W. Shu, "A Distributed Strategic Routing Mechanism for Wireless Ad hoc Networks," *IEEE 6th CAS Symposium on Emerging Technologies: Frontiers of Mobile and Wireless Communication,* May 2004.

99. M.Y. Wu and W. Shu, "Cachecast Networks and its Proxy placement," *International Conference on Computers and Their Applications (CATA-2004),* March 2004.

100. W. Shu and M.Y. Wu, "Capacity Analysis of Scheduled Video Delivery Service," *International Conference on Computers and Their Applications (CATA-2004),* March 2004.

101. M.Y. Wu and W. Shu, "Mechanism Design for Proxy Placement on Overlay Networks," *International Conference on Computers and Their Applications (CATA-2004),* March 2004.

102. M.Y. Wu and W. Shu, "Video Distribution with Edge Stations and Wi-Fi Delivery Networks," *IEEE International Conference on Multimedia and Expo (ICME2003),* July 2003.

103. Y. Zhu, W. Shu, and M.Y. Wu, "Comparison Study and Evaluation of Overlay Multicast Networks," *IEEE International Conference on Multimedia and Expo (ICME2003),* July 2003.

104. W. Shu and M.Y. Wu, "Scalability of Closed-Loop Video Delivery Service," *IEEE International Conference on Multimedia and Expo (ICME2003),* July 2003.

105. Y. Zhang, M.Y. Wu, and W. Shu, "Adaptive Channel Allocation for Large-Scale Streaming Content Delivery Systems," *International Conference on Computers and Their Applications (CATA-2003),* March 2003.

106. Y. Zhu, M.Y. Wu, and W. Shu, "Comparison Study and Evaluation of Overlay Multicast Networks," *IEEE International Conference on Multimedia and Expo (ICME2003),* July 2003.

107. W. Shu and M.Y. Wu, "Scalability of Closed-Loop Video Delivery Service," *IEEE International Conference on Multimedia and Expo (ICME2003),* July 2003.

108. M.Y. Wu, and W. Shu, "Video Distribution with Edge Stations and Wi-Fi Delivery Networks," *IEEE International Conference on Multimedia and Expo (ICME2003)*, July 2003.

109. S. Zhou, M.Y. Wu, and W. Shu, "Towards Generalized Optimal Cache Proxy Placement," *International Conference on Computers and Their Applications (CATA-2003)*, March 2003.

110. Y. Jiang, M.Y. Wu, and W. Shu, "Web Prefetching: Costs, Benefits and Performance," *International Workshop on Web Content Caching and Distribution (WCW)*, August 2002.

111. S. Ma, M.Y. Wu, and W. Shu, "A Scalable On-Demand Video Delivery Paradigm," *IEEE International Conference on Multimedia and Expo (ICME2002)*, August 2002.

112. M.Y. Wu, S. Ma, and W. Shu, "Scheduled Video Delivery for Scalable On-Demand Service," *International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV)*, May 2002.

113. M. Mowafi, N. Jiang, T. Caudell, W. Shu, and M.Y. Wu, "Real-time Transmission of Stereo Images Over the Access Grid," *IEEE International Symposium on Circuits and Systems*, May 2002.

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