

CURRICULUM VITAE

CAULIGI S. RAGHAVENDRA

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Education

Ph. D. (Computer Science), University of California at Los Angeles, 1982.
M. E. (Electrical Communication Engineering), Indian Institute of Science, 1978.
B. E. (Electronics and Communications Engineering), Indian Institute of Science, 1976.
B. Sc (Hons.) Physics, Bangalore University, India, 1973.

Professional Experience

July 1, 2006 – Senior Associate Dean for Strategic Initiatives, USC
June 1, 2005 – June 30, 2006, Senior Associate Dean for Academic Affairs, USC
July 03 – June 05, Professor and Chairman, Dept. EE-Systems, USC
September 02 – July 03, Professor, and Associate Chairman, Dept. EE-Systems, USC
January 02 – Present: Professor, Dept. of Computer Science
September 01 – Present: Professor, Dept. of EE-systems, USC
October 99 – September 01: Research Professor, Dept. of EE-systems, USC
August 97 – October 99: Senior Engineering Specialist, The Aerospace Corporation.
January 92 – July 97: Boeing Centennial Chair Professor in Computer Eng., Washington State University
Sept. 90 – Jan. 91: Acting Associate Chairman, Dept. EE-Systems, USC.
Sept. 87 – Dec. 91: Associate Professor of Electrical Engineering, USC.
Sept. 82 – Sept. 87: Assistant Professor of Electrical Engineering, USC.

Scholarships and Honors

National Scholarship for Study Abroad, 1979.
Presidential Young Investigator Award, 1985.
IEEE Fellow, 1997.

Research Interests

Wireless Networks and Mobile Computing, Sensor Networks, Computer Networks, Parallel and Distributed Computing.

Panel and Referee Services

Editor-in-Chief for Special Issues, *Cluster Computing Journal*, Kluwer Academic Publishers.
Co-Editor-in-Chief for Book Series, *Network Theory and Applications*, Kluwer Academic Publishers.

Subject Area Editor for the *Journal of Parallel and Dist. Comp.*

Member of Editorial Board, *Wireless Networks*, ACM/Kluwer.

Member of Editorial Board, *IEEE Transactions on Parallel and Distributed Systems*.

General Vice Chair, IEEE SECON Conference, 2004

General Chair, Active Middleware Services Workshop, 2001, 2002

General Co-Chair, Active Middleware Services Workshop, 2003

Program Co-Chair, WSNA 02, Workshop on Wireless Sensor Networks and Applications

General Co-Chair, WSNA 03, Workshop on Wireless Sensor Networks and Applications

Program Co-Chair, WMAN 03, Workshop on Mobile Wireless Ad Hoc Networks

General Co-Chair, WMAN 04, Workshop on Mobile Wireless Ad Hoc Networks

Program Chair, Heterogeneous Computing Workshop, held in conjunction with IPDPS 2000

Program Vice Chair for Communication Networks, HiPC01

Program Committee Co-Chair, HPDC-2 Conference, 1993

Guest Editor, Special Issue in IEEE Transactions on Reliability, 1991

Guest Editor, Special Issue in Concurrency: Practice and Experience, June 1994

Guest Editor, Special Issue on "Algorithms for Networks" in Journal of Interconnection Networks.

Steering Committee member, HPDC 2-10 Conferences

Program Committee member, IPPS 93, 94, 95 Conference

Program Committee member, Int. Conf. Par. Proc. ICPP 1995, 1997, 1998, 2001

Program Committee member, 27th Int. Symp. on Fault Tolerant Computing

Program Committee member, PRFTS 97, ICPADS 97, INFOCOM 98, PDCS 98

Program Committee member, HCW03, PerCom03, MobiHoc03

Consulting Services

Professional consulting services have been provided to the following companies: Hughes Aircraft Co., TRW Inc., The Aerospace Corporation, Aerojet Electro-Systems, AT&T Bell Labs, Lucent Technologies.

Patents

1. X.Chen, V.P.Kumar, C.S.Raghavendra, "Multicast Routing In Self-Routing Multistage Networks," 09/09/1997, Patent Number 5,666,360.
2. R. Venkateswaran, C. S. Raghavendra, X. Chen, V. Kumar, "System and Method for Hierarchical Multicast Routing in ATM Networks," November 3, 1998, Patent Number 5,831,975.
3. R. Venkateswaran, C. S. Raghavendra, X. Chen, V. Kumar, "Dynamic Distributed Multicast Routing Protocol," August 31, 1999, Patent Number 5,946,316.

Courses Taught

Computer Organization and Architecture, Computer Architecture, Parallel Processing, Interconnection networks, Fault Tolerant Computer Systems, Distributed Systems, Introduction to Computer Networks, Computer Communication Networks, Wireless Networks and Mobile Computing.

Grants and Contracts

Current Support:

1. PIs John Heidemann, C. S. Raghavendra, “Asset Modeling and Optimizations”, CiSoft Project, 8/1/04 to 12/31/05.
2. PIs Viktor Prasanna, C. S. Raghavendra, “Integrated Asset Modeling,” CiSoft Project, 1/1/05 to 12/31/08.
3. PIs Viktor Prasanna, C. S. Raghavendra, “Parallel Algorithms, Complexity Analysis and Architecture Tradespace Analysis,” part of CEARC Project, DARPA ACIP Program, ISI-East Lead., 8/16/04 to 12/31/06.
4. PIs K. P. Psounis, C. S. Raghavendra, “Efficient Routing in Delay Tolerant Networks,” NSF, 8/15/05 to 8/15/08.

Previous Grants:

1. P.I. C. S. Raghavendra, “Performance and Reliability Analysis of Interconnection Networks,” Sponsored by NSF, 8/1/83 to 2/28/86.
2. S.I. C. S. Raghavendra, P.I. A. Sawchuk, “Research in Optical Interconnection Techniques,” Sponsored by DARPA/ARO, 5/1/84 to 5/31/86.
3. P.I. C. S. Raghavendra, “Research in Parallel Architectures and Algorithms,” NSF Presidential Young Investigator Award, 9/1/85 to 8/31/86.
4. P.I. C. S. Raghavendra, “Research in Parallel Architectures and Algorithms,” Grant from AT&T Information Systems, 9/1/85 to 8/31/86.
5. S.I. C. S. Raghavendra, P.I. A. Sawchuk, “Research in Optical Arithmetic and Data Representation,” Sponsored by ONR, 7/1/86 to 9/30/89.
6. P.I. C. S. Raghavendra, “Research in Parallel and Distributed Systems,” NSF Presidential Young Investigator Award, Grant from AT&T Information systems, and TRW Inc., 9/1/86 to 8/31/87.
7. P.I. C. S. Raghavendra, “Research in Parallel Architectures and Algorithms,” NSF Presidential Young Investigator Award, 9/1/87 to 8/31/88.

8. P.I. C. S. Raghavendra, "Research in Parallel Architectures and Algorithms," Matching Grants from TRW Inc., Grant from Martin Marietta Corp., and Grant from Aerojet Electro-systems, 9/1/87 to 8/31/88.
9. P.I. C. S. Raghavendra, "Research in Interconnection Networks, Parallel and Distributed Systems," Grant from AT&T, 7/1/88 to 8/31/90.
10. P.I. C. S. Raghavendra, "Research in Parallel Architectures and Algorithms," NSF Presidential Young Investigator Award, Grant from TRW Inc., 9/1/88 to 8/31/89.
11. P.I. C. S. Raghavendra, "Study of Point-to-Point Networks," Grant from Aerojet Electro-Systems, 11/1/88 to 8/31/89.
12. P.I. C. S. Raghavendra, "Study of Point-to-Point Networks," Grant from Aerojet Electro-Systems, 12/1/89 to 10/31/90.
13. P.I. C. S. Raghavendra, "Task Reconfiguration Problems in High Performance Distributed-Memory Machines," NSF, 10/1/91 to 3/31/94.
14. P. I. C. S. Raghavendra, "Scalable Video Coding for ATM Networks," Intel Foundation, 1/1/94 to 6/30/94 (with R. Bamberger).
15. P. I. C. S. Raghavendra, "Admission Control and Routing Algorithms for ATM Networks," Rome Laboratory, 7/1/94 to 6/30/97.
16. P. I. C. S. Raghavendra, "Multicast Routing in ATM Networks," Lucent Technologies, Bell Labs, 3/1/96 to 12/31/96.
17. P. I. C. S. Raghavendra, "Multicast Routing in ATM Networks," Lucent Technologies, Bell Labs, 3/1/97 to 12/31/97.
18. PIs Viktor Prasanna and C. S. Raghavendra, "Information Theoretic Complexity Models for Performance Evaluation of AICE," DARPA, USC and The Aerospace Corporation, 2/1/99 to 6/30/2000.
19. P.I. C. S. Raghavendra, "Research in Active Networks – Technical Program Support and Distributed Simulations for Active Networks," DARPA, 3/1/00 - 3/1/03.
20. PIs Viktor Prasanna, C. S. Raghavendra, "A Model-Based Framework for Adaptive Algorithm Design," NSF NGS Program, 10/1/02 - 9/30/03.
21. PIs C. S. Raghavendra, Viktor Prasanna, "Distributed Signal Processing over Wireless Networks," DARPA/AFRL, 8/14/01 to 8/13/04.
22. P. I. C. S. Raghavendra, "NVAT: Network Vulnerability Analysis Toolkit," DARPA FTN Program, with Joseph Bannister of ISI, and Salim Hariri of University of Arizona (Subcontract), 6/23/02 to 9/30/04.

23. P. I. C. S. Raghavendra, "USC/Aerospace Technical Support for DARPA NMS Program," DARPA, 9/1/2003 to 12/31/2004. with Kirstie Bellman of The Aerospace Corporation.
24. PIs Viktor Prasanna, C. S. Raghavendra, "Framework and Energy Efficient Algorithms for Distributed Battlesite/Sensor Networks," DARPA, 6/1/2000 - 9/30/2002 (Phase 1 of PAC/C program) Subcontractor Prof. Suresh Singh, Portland State University.
25. Associated with the project "MILAN: A Model Integrated simuLatioN framework," DARPA PAC/C Program. This is a joint project between USC and Vanderbilt University, P.I. is Prof. Viktor Prasanna.
26. PIs Viktor Prasanna, C. S. Raghavendra, "PASTA: Power Aware Sensing and Tracking," DARPA, 4/1/02 - 9/30/05 (Phase 2 of PAC/C Program). Bob Parker of ISI-East is the lead in this team project and members include USC, UCB, UCLA, MIT, BAE Systems, and Rockwell.
27. PIs Viktor Prasanna, C. S. Raghavendra, "PARIS: Power Aware Remote Information System," DARPA, 7/1/02 - 9/30/04 (Phase 2 of PAC/C Program). Subcontract from Raytheon.

Current Graduate Students

1. Eric Coe, PhD Student in EE Dept., Delay Tolerant Networks

Ph. D Thesis Supervised

1. Anujan Varma, "Design and Analysis of Reliable Interconnection Networks". Dr. Varma was at IBM from 3/86-12/90. Since Jan 91 he is a faculty member at UC Santa Cruz.
2. Salim Hariri, "Reliability Analysis and Optimization in the Design of Distributed Systems". He was a faculty member at Syracuse University from 1982-1998. Since September 98 he is a faculty member at The University of Arizona.
3. Rajendra Boppana, "Self Routing and Parallel Memory Access in Multiprocessor networks". Since September 1991 he is a faculty member at the University of Texas, San Antonio.
4. Ge-Ming Chiu, "Resource Allocation in Distributed Systems". He is a faculty member at the Taiwan Institute of Technology in Taiwan.
5. Suresh Babu Chalasani, "Efficient Algorithms for Connection Assignment in Interconnection Networks". He was a faculty member at the University of Wisconsin from 1991-1998. He is now a faculty member at Univ. of Wisconsin at Milwaukee.

6. Sing-Ban Tien, “Fault Tolerance Analysis of Hypercube Systems”. He was a faculty member at the University of Southern Illinois at Carbondale. Now he is working at IBM.
7. Hwa-Chun Lin, “Dynamic Load Balancing in Distributed Systems”. He is a faculty member at the Tsing-Hua University in Taiwan.
8. Pei-Ji Yang, “Embedding Task Graphs onto Faulty Hypercubes”. After PhD he has returned to Taiwan and is working for industry.
9. Meera Balakrishnan, “Reliability Evaluation of Fault Tolerant Computing Systems and Networks”. She was with Lucent Technologies, Naperville. She is now in India.
10. Tong-Yee Lee, “Parallel Processing for Graphics Rendering on Distributed Memory Multicomputers”. He is an Associate Professor in Taiwan.
11. Harikumar Sivaraman, “Automatic Porting of Programs to Network of Workstations”. He is at Compaq’s Tandem Computers.
12. R. Venkateswaran, “Multicast Routing in High-Speed Networks”. He was with Lucent Technologies, Naperville. He is now in India.
13. Yu He, “Sensor Networks”. He is at Google Inc.
14. Caimu Tang, “Wireless Sensor Networks”. He is at a company in US.
15. Akis Spyropoulos, “Wireless Sensor Networks”. He is in Europe.

LIST OF PUBLICATIONS

Books Published

1. A. Varma, C. S. Raghavendra, Eds., “Tutorial on Interconnection Networks for Multiprocessors and Multicomputers: Theory and Practice”, IEEE Computer Society Press, January 1994.
2. S. Hariri, C. Lee, C. S. Raghavendra, Eds., “Active Middleware Services,” Kluwer Academic Press, August 2000.
3. C. S. Raghavendra, Krishna Sivalingam, Taeb Znati, Eds., “Wireless Sensor Networks,” Kluwer Academic Press, March 2004.

Journal Papers

1. D.S. Parker, C.S. Raghavendra, “The Gamma Network,” *IEEE Transactions on Computers*, April 1984, pp. 367-372.

2. C. S. Raghavendra, A. Avizienis, M. Ercegovac, "Fault-Tolerance in Binary Tree Architectures," *IEEE Transactions on Computers*, June 1984, pp. 568-572.
3. C. S. Raghavendra, "Fault Tolerance in Regular Network Architectures," *IEEE Micro*, December 1984, pp. 44-53.
4. C. S. Raghavendra, M. Gerla, A. Avizienis, "Reliable Loop Topologies for Large Local Computer Networks," *IEEE Transactions on Computers*, January 1985, pp. 46-55.
5. C. S. Raghavendra, J. A. Silvester, "Double Loop Network Architectures – A Performance Study," *IEEE Transactions on Communications*, February 1985, pp. 185-187.
6. C. S. Raghavendra, S. Hariri, "Reliability Optimization in the Design of Distributed Systems," *IEEE Transactions on Software Engineering*, October 1985, pp. 1184-1193.
7. J. A. Fortes, C. S. Raghavendra, "Gracefully Degradable Processor Arrays," *IEEE Transactions on Computers*, November 1985, pp. 1033-1044.
8. V. K. Prasanna Kumar, S. Hariri, C. S. Raghavendra, "Distributed Program Reliability Analysis," *IEEE Transactions on Software Engineering*, January 1986, pp. 42-50.
9. C. S. Raghavendra, J. A. Silvester, "A Survey of Multi-Connected Loop Topologies for Local Computer Networks," *Computer Networks and ISDN Systems*, January 1986, pp. 29-42.
10. A. Varma, C. S. Raghavendra, "On Permutations Passable by the Gamma Network," *Journal of Parallel and Distributed Computing*, Vol 3, No. 1, March 1986, pp. 72-91.
11. C. S. Raghavendra, A. Varma, "Fault-Tolerant Multiprocessors with Redundant-Path Interconnection Networks," *IEEE Transactions on Computers*, April 1986, pp. 307-316.
12. C. S. Raghavendra, S. V. Makam, "Reliability Modeling and Analysis of Computer Networks," *IEEE Transactions on Reliability*, June 1986, pp. 156-160.
13. C. S. Raghavendra, V. K. Prasanna Kumar, "Permutations on Illiac IV-Type Networks," *IEEE Transactions on Computers*, July 1986, pp. 662-669.
14. V. K. Prasanna Kumar, C. S. Raghavendra, "Array Processor with Multiple Broadcasting," *Journal of Parallel and Distributed Computing*, April 1987, pp. 173-190.
15. A. A. Sawchuk, B. K. Jenkins, C. S. Raghavendra, A. Varma, "Optical Crossbar Networks," *IEEE Computer*, June 1987, pp. 50-60.
16. C. S. Raghavendra, A. Varma, "Rearrangeability of 5-stage Shuffle/Exchange Network for N=8," *IEEE Transactions on Communications*, August 1987, pp. 808-812.
17. C. S. Raghavendra, A. Varma "Reliability and Fault-Tolerance in Multi-stage Interconnection Networks," *SADHANA Journal*, Indian Academy of Sciences, India, October 1987, pp. 111-128.

18. S. Hariri, C. S. Raghavendra, "SYREL: A Symbolic Reliability Algorithm Based on Path and Cutset Methods," *IEEE Transactions on Computers*, October 1987, pp. 1224-1232.
19. A. Varma, C. S. Raghavendra, "Realization of Permutations in Generalized Indra Networks," *Information Sciences – An International Journal*, February 1988, pp. 51-69.
20. C. S. Raghavendra, V. K. Prasanna Kumar, S. Hariri, "Reliability Analysis in Distributed Systems," *IEEE Transactions on Computers*, March 1988, pp. 352-358.
21. M. A. Sridhar, C. S. Raghavendra, "Uniform Minimal Full Access Networks," *Journal of Parallel and Distributed Computing*, August 1988, pp. 383-403.
22. A. Varma, C. S. Raghavendra, "Rearrangeability of Multistage Shuffle/Exchange Networks," *IEEE Transactions on Communications*, October 1988, pp. 1138-1147.
23. A. Varma, C. S. Raghavendra, "Fault-Tolerant Routing in Multistage Interconnection Networks," *IEEE Transactions on Computers*, March 1989, pp. 385-393.
24. A. Varma, C. S. Raghavendra, "Reliability Analysis of Redundant-Path Interconnection Networks," *IEEE Transactions on Reliability*, April 1989, pp. 130-137.
25. A. Majumdar, C. S. Raghavendra, M. Breuer, "Fault Tolerance in Linear Systolic Architectures Using Time Redundancy," *IEEE Transactions on Computers*, February 1990, pp. 269-276.
26. Meera Balakrishnan, C. S. Raghavendra, "On Reliability Modeling of Closed Fault-Tolerant Systems," *IEEE Transactions on Computers*, April 1990, pp. 571-575.
27. M. A. Sridhar, C. S. Raghavendra, "Minimal Full Access Networks: Enumeration and Characterization," *Journal of Parallel and Distributed Computing*, September 1990, pp. 347-356.
28. R. Boppana, C. S. Raghavendra, "Generalized Schemes for Access and Alignment of Data in Parallel Processors with Self-Routing Interconnection Networks," *Journal of Parallel and Distributed Computing*, February 1991, pp. 97-111.
29. C. S. Raghavendra, R. Boppana, "On Self Routing in Benes and Shuffle/Exchange Networks," *IEEE Transactions on Computers*, September 1991, pp. 1057-1064.
30. M. A. Sridhar, C. S. Raghavendra, "Fault-Tolerant Networks Based on the de Bruijn Graph," *IEEE Transactions on Computers*, October 1991, pp. 1167-1174.
31. Hwa-Chun Lin, C. S. Raghavendra, "A Dynamic Load Balancing Policy with a Central Job Dispatcher (LBC)," *IEEE Transactions on Software Engineering*, February 1992, pp. 148-158.
32. Meera Balakrishnan, C. S. Raghavendra, "An Analysis of a Reliability Model for Repairable Fault-Tolerant Computer Systems," *IEEE Transactions on Computers* March 1993, pp. 327-339.

33. Sing-Ban Tien, C. S. Raghavendra, "Algorithms and Bounds for Shortest Paths and Diameter in Faulty Hypercubes," *IEEE Transactions on Parallel and Distributed Systems*, June 1993, pp. 713-718.
34. Hwa-Chun Lin, C. S. Raghavendra, "Dynamic Load Balancing for Distributed Systems in Real-Time Environment," *CSI Journal Computer Science and Informatics*, Vol. 23, No. 4, December 1993, pp. 19-36.
35. C. S. Raghavendra, M. A. Sridhar, "Routing Permutations on Hypercube Machines with Half-Duplex Links," *Journal of Parallel and Distributed Computing*, January 1994, pp. 14-19.
36. Pei-Ji Yang, Sing-Ban Tien, C. S. Raghavendra, "Embedding of Rings and Meshes on to Faulty Hypercubes Using Free Dimensions," *IEEE Transactions on Computers*, May 1994, pp. 608-613.
37. Pei-Ji Yang, Sing-Ban Tien, C. S. Raghavendra, "Reconfiguration of Rings and Meshes in Faulty Hypercubes," *Journal of Parallel and Distributed Computing*, Vol. 22, No. 1, July 1994, pp. 96-106.
38. Suresh Chalasani, C. S. Raghavendra, A. Varma, "Fault-Tolerant Routing in MIN-Based Supercomputers," *Journal of Parallel and Distributed Computing*, Vol. 22, No. 2, August 1994, pp. 154-167.
39. Ge-Ming Chiu, Suresh Chalasani, C. S. Raghavendra, "Flexible, Fault-Tolerant Routing Criteria for Circuit-Switched Hypercubes," *Journal of Parallel and Distributed Computing*, Vol. 22, No. 2, August 1994, pp. 279-294.
40. M. A. Sridhar, C. S. Raghavendra, "Computing Large Subcubes in Residual Hypercubes," *Journal of Parallel and Distributed Computing*, February 1995, pp. 213-217.
41. C. S. Raghavendra, "On the Rearrangeability Conjecture of $(2 \log_2 N - 1)$ -Stage Shuffle/Exchange Network," *IEEE Computer Society Technical Committee on Computer Architecture Newsletter*, Winter 1995, pp. 10-12. (Position paper).
42. Venkatesh Chandramouli, C. S. Raghavendra, "Nonblocking Properties of Interconnection Switching Networks," *IEEE Transactions on Communications*, April 1995, pp. 1793-1799.
43. R. Boppana, C. S. Raghavendra, "On Methods to Align and Access Data Arrays in Parallel Computers," *Journal of Parallel and Distributed Computing*, Vol. 26, No. 2, April 15, 1995, pp. 261-269.
44. C. S. Raghavendra, Pei-Ji Yang, Sing-Ban Tien, "Free Dimensions – An Effective Approach to Achieving Fault Tolerance in Hypercubes," *IEEE Transactions on Computers*, Vol. 44, No. 9, September 1995, pp. 1152-1157.

45. Pei-Ji Yang, C. S. Raghavendra, "Embedding and Reconfiguration of Binary Trees in Faulty Hypercubes," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 7, No. 3, March 1996, pp. 237-245.
46. Hwa-Chun Lin, C. S. Raghavendra, "An Approximate Analysis of the Join the Shortest Queue Policy," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 7, No. 3, March 1996, pp. 301-307.
47. C. S. Raghavendra, M. A. Sridhar, "Global Commutative and Associative Operations in Faulty SIMD Hypercubes," *IEEE Transactions on Computers*, April 1996, pp. 495-498.
48. C. S. Raghavendra, M. A. Sridhar, "Exact Solutions to Diameter and Routing Problems in PEC Networks," *Journal of Parallel and Distributed Computing*, May 1, 1996, pp. 202-210.
49. C. S. Raghavendra, M. A. Sridhar, "Dimension Ordering and Broadcast Algorithms in Faulty SIMD Hypercubes," *Journal of Parallel and Distributed Computing*, May 25, 1996, pp. 57-66.
50. Hwa-Chun Lin, C. S. Raghavendra, "Approximating the Mean Response Time of Parallel Queues with JSQ Policy," *Journal of Computers and Operations Research*, Vol. 23, No. 8, 1996, pp. 733-740.
51. Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, "Sort-Last Polygon Rendering on 2-D Mesh Parallel Computers," *IEEE Trans. on Visualization and Computer Graphics*, Vol. 2, No. 3, September 1996, pp. 202-217.
52. Hwa-Chun Lin, C. S. Raghavendra, "Modeling and Analyses of Dynamic Load-Balancing Policies by State Aggregation," *International Journal of Modeling and Simulation*, Vol. 17, No. 1, 1997, pp. 20-28.
53. Tong-Yee Lee, C.S Raghavendra, J.B. Nicholas, "Experimental Evaluation of Load Balancing Strategies for Ray Tracing on Parallel Processors," *Integrated Computer-aided Engineering Journal*, Issue 4(4), October 1997, pp. 260-275.
54. Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, "Parallel Implementation of a Ray Tracing Algorithm for Distributed Memory Parallel Computers," *Journal Concurrency: Practice and Experience*, Vol. 9, No. 10, October 1997, pp. 947-965.
55. R. Boppana, S. Chalasani, C. S. Raghavendra, "Resource Deadlocks and Performance of Wormhole Multicast Routing Algorithms," *IEEE Transactions on Parallel and Distributed Systems*, June 1998, pp. 535-549.
56. A. Sengupta, C. S. Raghavendra, "All-to-all Broadcast and Matrix Multiplication in Faulty Hypercubes," *IEEE Transactions on Parallel and Distributed Systems*, June 1998, pp. 550-560.

57. Suresh Singh, C. S. Raghavendra, "PAMAS – Power Aware Multi-Access protocol with Signaling for Ad Hoc Networks", *Computer Communication Review*, Vol. 28, No. 3, pp. 5-26, July 1998.
58. C. S. Raghavendra, M. A. Sridhar, "Improved Algorithms for Computing with Faulty SIMD Hypercubes," *International Journal of Telecommunication Systems*, October 1998, pp. 149-156, Baltzer Science Publishers.
59. Prashant Bhat, Viktor Prasanna, C. S. Raghavendra, "Adaptive Data Communication Algorithms for Distributed Heterogeneous Systems," *Journal of Parallel and Distributed Computing*, Vol. 59, No. 2, pp. 252-279, November 1999.
60. Neungsoo Park, Viktor Prasanna, C. S. Raghavendra, "Efficient Communication Schedule for Block-Cyclic Array Redistribution Between Processor Sets," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 10, No. 12, pp. 1217-1240, December 1999.
61. Prashant Bhat, Viktor Prasanna, C. S. Raghavendra, "Block-Cyclic Redistribution over Heterogeneous Networks," *Cluster Computing*, Vol. 3, No. 1, pp. 25-34, July 2000.
62. Ammar H. Alhusaini, Viktor Prasanna, C. S. Raghavendra, "A Unified Mapping Approach for Heterogeneous Computing Environments," *Cluster Computing*, (to appear).
63. Stephanie Lindsey, K. Sivalingam, C. S. Raghavendra, "Power Optimization in Routing Protocols for Wireless and Mobile networks," in *Handbook of Wireless Networks and Mobile Computing*, Ed. Ivan Stojmenovic, John Wiley & Sons, 2001.
64. Stephanie Lindsey, C. S. Raghavendra, K. Sivalingam, "Data Gathering Algorithms in Sensor Networks Using Energy Metrics," *IEEE Transactions on Parallel and Distributed Systems*, September 2002.
65. Fang Bian, Ashish Goel, C. S. Raghavendra, Xin Li, "Energy Efficient Broadcasting in Wireless Ad hoc Networks: Lower Bounds and Algorithms," in *Journal of Interconnection Networks*, Vol. 3, Nos. 3 & 4, pp. 149-166, December 2002.
66. Stephanie Lindsey, C. S. Raghavendra, "Energy Efficient All-to-all Broadcasting for Situation Awareness in Wireless Ad hoc Networks," *Journal of Parallel and Distributed Computing*, pp. 15-21, January 2003.
67. Prashant Bhat, C. S. Raghavendra, Viktor Prasanna, "Efficient Collective Communication in Distributed Heterogeneous Systems," *Journal of Parallel and Distributed Computing*, pp. 251-263, March 2003.
68. S. Hariri, Guangzhi Qu, Tushneem Dharmagadda, Modukuri Ramkishore, C. S. Raghavendra, "Impact Analysis of Faults and Attacks in Large Scale Networks," *IEEE Security and Privacy*, October/November 2003.

69. Caimu Tang, C. S. Raghavendra, "Energy Efficient Adaptation of Multicast Protocols in Power Controlled Wireless Ad hoc Networks," *Mobile Networks and Applications*, Kluwer, August 2004.
70. Yu He, C. S. Raghavendra, "Building Programmable Routing Services for Sensor Networks," *J. of Computer Communications (Elsevier Science)*, Special Issue on Activated and Programmable Internet, Vol. 28(6), April 2005, pp. 664-675.
71. Caimu Tang, C. S. Raghavendra, "Energy Efficient Detection Algorithms for Wireless Sensor Networks," Book chapter in "*Handbook on Theoretical and Algorithmic Aspects of Sensor, Ad Hoc Wireless, and Peer-to-Peer Networks*," edited by Jie Wu, CRC Press, June 2005.
72. Yu He, C. S. Raghavendra, S. Berson, R. Braden, "An Autonomic Routing Framework for Sensor Networks," *Cluster Computing*, April 2006, pp. 191-200.
73. N.-M. Cheung, C. Tang, A. Ortega and C. S. Raghavendra, "Efficient wavelet-based predictive Slepian-Wolf coding for hyperspectral imagery," *EURASIP Journal on Signal Processing* on the special issue of Distributed Source Coding, November 2006.
74. Gang Lu, Bhaskar Krishnamachari, C. S. Raghavendra, "An Adaptive Energy Efficient and Low Latency MAC for Tree-based Data Gathering in Sensor Networks," *Journal of Wireless Communications and Mobile Computing*, special issue on Advances in Resource-Constrained Device Networking, 2007.
75. Eric Coe, C. S. Raghavendra, Akis Spyropoulos, James Stepanek, "Delay Tolerant Networks – Classification and Routing Algorithms," *ACM Computer Communications Review* (Submitted).
76. Akis Spyropoulos and C. S. Raghavendra, "Analyzing the Effect of Antenna Type and MAC Protocol on Wireless Ad-Hoc Network Capacity," *JSAC special issue on Wireless Ad-hoc Networks*, (submitted).
77. Akis Spyropoulos, Konstantinos Psounis, C. S. Raghavendra, "Efficient Routing in Intermittently Connected Mobile Networks: The Single Copy Case," *IEEE/ACM Transactions on Networking*, February 2008.
78. Akis Spyropoulos, Konstantinos Psounis, C. S. Raghavendra, "Efficient Routing in Intermittently Connected Mobile Networks: The Multiple Copy Case," *IEEE/ACM Transactions on Networking*, February 2008.
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Conference Proceedings

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