

CURRICULUM VITAE

CAULIGI S. RAGHAVENDRA

Vice Dean for Global Academic Initiatives
Ming Hsieh Dept. of Electrical Engineering, EEB 216
Viterbi School of Engineering
University of Southern California
Los Angeles, CA 90089
Phone: (213) 740-9133 Fax: (213) 740-8493
E-mail: raghu@usc.edu

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, 2011 – Vice Dean for Global Academic Initiatives
Responsible for coordinating all global academic external relations overseas (including international research initiatives), and head the efforts for Academic Initiatives in India.

July 1, 2006 – June 30, 2011 Senior Associate Dean for Strategic Initiatives, USC
During the last 5 years worked on several initiatives:

- Established international partnerships with many leading institutions in China, India, Korea, and other countries. With a funded program with Tsinghua University in Beijing, organized annual faculty workshops alternately held at Tsinghua University and at USC. Established a summer research program with Tsinghua University for their students to come to USC and USC students going there.
- With a funded program with IIT Kharagpur in India, hosted IIT faculty at USC each year, and brought 10 to 15 summer interns from IIT each summer.
- Developed summer research programs for junior level international students to conduct research at USC. This summer research program has now expanded to student interns coming from India, China, Korea, Mexico, and across US.
- As director of the Division of Engineering Education (DEE) worked on innovative educational programs for the school; this includes a joint capstone design course between engineering, business, and fine arts schools; established X-prize lab at USC in support of X-prize foundation for a course where students come up with ideas for the next X-prize

- Coordinated the development of several new Master of Science programs working with faculty from different departments; these include MS in Green Technologies, MS in Financial Engineering, and MS in Wireless Health Technologies.
- Worked with the Provost's office on the faculty database project for capturing all faculty activities.
- Organized and participated in information sessions in India cities to recruit graduate students.

June 1, 2005 -- June 30, 2006, Senior Associate Dean for Academic Affairs, USC
As Dean of faculty responsible for handling faculty hires, promotion and tenure cases and overseeing academic programs of the School.

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. Pullman, WA
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*, Springer Publishers.
Co-Editor-in-Chief for Book Series, *Network Theory and Applications*, Springer Publishers.
Subject Area Editor for the *Journal of Parallel and Dist. Comp.*
Member of Editorial Board, *Wireless Networks*, ACM/Kluwer, 2001-2010.
Member of Editorial Board, *IEEE Transactions on Parallel and Distributed Systems*, 2004-2008.
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.

Grants and Contracts

- PIs Ke-Thia Yao, C. S. Raghavendra, "Smart Engineering Apprentice", CiSoft, Chevron, 1/1/2008 to 12/31/2012.
- PIs Viktor Prasanna, C. S. Raghavendra, "Integrated Asset Modeling," CiSoft Project, 1/1/05 to 12/31/08.
- John Heidemann, C. S. Raghavendra, "Asset Modeling and Optimizations", CiSoft, Chevron, Project, 8/1/04 to 12/31/05.
- 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.
- PIs K. P. Psounis, C. S. Raghavendra, "Efficient Routing in Delay Tolerant Networks," NSF, 8/15/05 to 8/15/08.

- 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.
- 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.
- Sr. investigator, PI Prof. Viktor Prasanna, “MILAN: A Model Integrated simuLatioN framework,” DARPA PAC/C Program. This is a joint project between USC and Vanderbilt University.
- 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.
- 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.
- 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.
- PIs C. S. Raghavendra, Viktor Prasanna, “Distributed Signal Processing over Wireless Networks,” DARPA/AFRL, 8/14/01 to 8/13/04.
- PIs Viktor Prasanna, C. S. Raghavendra, “A Model-Based Framework for Adaptive Algorithm Design” NSF NGS Program, 10/1/02 - 9/30/03.
- 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.
- 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.
- P. I. C. S. Raghavendra, “Multicast Routing in ATM Networks,” Lucent Technologies, Bell Labs, 3/1/97 to 12/31/97.
- P. I. C. S. Raghavendra, “Multicast Routing in ATM Networks,” Lucent Technologies, Bell Labs, 3/1/96 to 12/31/96.
- P. I. C. S. Raghavendra, “Admission Control and Routing Algorithms for ATM Networks,” Rome Laboratory, 7/1/94 to 6/30/97.
- P.I. C. S. Raghavendra, “Task Reconfiguration Problems in High Performance Distributed-Memory Machines,” NSF, 10/1/91 to 3/31/94.
- P.I. C. S. Raghavendra, “Study of Point-to-Point Networks,” Grant from Aerojet Electro-Systems, 12/1/89 to 10/31/90.
- P.I. C. S. Raghavendra, “Study of Point-to-Point Networks,” Grant from Aerojet Electro-Systems, 11/1/88 to 8/31/89.
- 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.
- P.I. C. S. Raghavendra, “Research in Interconnection Networks, Parallel and Distributed Systems,” Grant from AT&T, 7/1/88 to 8/31/90.

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

Current Graduate Students

1. Eric Coe, PhD Student in EE Dept., Delay Tolerant Networks
2. Appu Goundan, PhD student in CSCI, Delay Tolerant Networks
3. Joshua Train, PhD student in EE Dept., Routing Fountains
4. Shuping Liu, PhD student in EE Dept., Data mining and resource optimization
5. Yintao Liu, PhD student in CSCI, Machine learning for failure predictions
6. Dong Guo, PhD student in CSCI starting in Fall 2011
7. Anqi WU, PhD student starting in Fall 2011

Ph. D Thesis Supervised

1. Anujan Varma, “Design and Analysis of Reliable Interconnection Network”. Dr. Varma was at IBM from 3/86-12/90. Since January 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 a Professor at Tainan University 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.

LIST OF PUBLICATIONS

Books Published

1. 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. S. Raghavendra, Krishna Sivalingam, Taeb Znati, Eds., "Wireless Sensor Networks," Kluwer Academic Press, March 2004.

Journal Papers

- Shuping Liu, Anand Panangadan, Ashit Talukder and C. S. Raghavendra, "Coordinated Sensing of Networked Body Sensors using Markov Decision Processes", submitted to International Journal of Applied Artificial Intelligence (Applied AI).
- Caimu Tang, Dapeng Oliver Wu, Anthony T. Chronopoulos, Cauligi S. Raghavendra, "Efficient multi-party digital signature using adaptive secret sharing for low-power devices in wireless networks," IEEE Transactions on Wireless Communications 8(2): 882-889, 2009.
- Akis Spyropoulos, Konstantinos Psounis, C. S. Raghavendra, "[Efficient Routing in Intermittently Connected Mobile Networks: The Single Copy Case.](#)" IEEE Transactions on Networking, February 2008.
- Akis Spyropoulos, Konstantinos Psounis, C. S. Raghavendra, "[Multiple Copy Routing in Intermittently Connected Mobile Networks.](#)" IEEE Transactions on Networking, February 2008.
- 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).

- G. Lu, B. Krishnamachari, C. S. Raghavendra, "Adaptive Energy-Efficient and Low-Latency MAC for Tree-based Data Gathering in Sensor Networks," *Journal of Wireless Communications and Mobile Computing*, 2007.
- Ngai-Man Cheung, Caimu Tang, A. Ortega, C. S. Raghavendra, "Efficient wavelet-based predictive Slepian-Wolf coding for hyperspectral imagery," *Signal Processing*, 2006.
- Yu He, C. S. Raghavendra, "Building Autonomic Routing Services for Sensor Networks," *J. of Computer Communication*, special issue on active networks (submitted).
- Yu He, C. S. Raghavendra, S. Berson, R. Braden "[An Autonomic Routing Framework for Sensor Networks.](#)" *Cluster Computing*, April 2006, pp. 191-200.
- 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.
- 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.
- 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.
- 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.
- 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.
- Stephanie Lindsey, C. S. Raghavendra, "[Energy Efficient Broadcasting for Situation Awareness in Ad hoc Networks.](#)" *Journal of Parallel and Distributed Computing*, pp. 15-21, January 2003.
- 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.
- 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
- Ammar H. Alhusaini, Viktor Prasanna, C. S. Raghavendra, "A Unified Mapping Approach for Heterogeneous Computing Environments," *Cluster Computing*, (to appear).
- Prashant Bhat, Viktor Prasanna, C. S. Raghavendra, "Block-Cyclic Redistribution over Heterogeneous Networks," *Cluster Computing*, Vol. 3, No. 1, pp. 25-34, July 2000.
- 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, December 1999.
- 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.

- 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 Publisher.
- C. S. Raghavendra, Suresh Singh, "[PAMAS -- Power Aware Multi-Access protocol with Signaling for Ad Hoc Networks.](#)" *Computer Communication Review*, July 1998.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- C. S. Raghavendra, M. A. Sridhar, "Global Commutative and Associative Operations in Faulty SIMD Hypercubes," *IEEE Transactions on Computers*, April 1996, pp. 495-498.
- 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
- 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.
- 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.
- 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.

- Venkatesh Chandramouli, C. S. Raghavendra, "Nonblocking Properties of Interconnection Switching Networks," IEEE Transactions on Communications, April 1995, pp. 1793-1799.
- C. S. Raghavendra, "On the Rearrangeability Conjecture of $(\log_2 N - 1)$ -StagShuffle/Exchange Network," IEEE Computer Society Technical Committee on Computer Architecture Newsletter, Winter 1995, pp. 10-12. (Position paper).
- M. A. Sridhar, C. S. Raghavendra, "Computing Large Subcubes in Residual Hypercubes," Journal of Parallel and Distributed Computing, February 1995, pp. 213-217.
- 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.
- Suresh Chalasani, C. S. Raghavendra, A. Varma, "Fault-Tolerant Routing in MIN-Based Supercompute," Journal of Parallel and Distributed Computing, Vol. 22, No. 2, August 1994, pp. 154-167.
- 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.
- Pei-Ji Yang, Sing-Ba" 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- M. A. Sridhar, C. S. Raghavendra, "Fault-Tolerant Networks Based on the de Bruijn Graph," IEEE Transactions on Computers, October 1991, pp. 1167-1174.
- C. S. Raghavendra, R. Boppana "On Self Routing in Benes and Shuffle/Exchange Networks," IEEE Transactions on Computers, September 1991, pp. 1057-1064.
- 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.

- M. A. Sridhar, C. S. Raghavendra, "Minimal Full Access Networks: Enumeration and Characterization," *Journal of Parallel and Distributed Computing*, September 1990, pp. 347-356
- Meera Balakrishnan, C. S. Raghavendra, "On Reliability Modeling of Closed Fault-Tolerant Systems," *IEEE Transactions on Computers*, April 1990, pp. 571-575.
- 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.
- A. Varma, C. S. Raghavendra, "Reliability Analysis of Redundant-Path Interconnection Networks," *IEEE Transactions on Reliability*, April 1989, pp. 130-137.
- A. Varma, C. S. Raghavendra, "Fault-Tolerant Routing in Multistage Interconnection Networks," *IEEE Transactions on Computers*, March 1989, pp. 385-393.
- A. Varma, C. S. Raghavendra, "Rearrangeability of Multistage Shuffle/Exchange Networks," *IEEE Transactions on Communications*, October 1988, pp. 1138-1147.
- M. A. Sridhar, C. S. Raghavendra, "Uniform Minimal Full Access Networks," *Journal of Parallel and Distributed Computing*, August 1988, pp. 383-403.
- M. A. Sridhar, C. S. Raghavendra, "Uniform Minimal Full Access Networks," *Journal of Parallel and Distributed Computing*, August 1988, pp. 383-403.
- C. S. Raghavendra, V. K. Prasanna Kumar, S. Hariri, "Reliability Analysis in Distributed Systems," *IEEE Transactions on Computers*, March 1988, pp. 352-358.
- A. Varma, C. S. Raghavendra, "Realization of Permutations in Generalized Indra Networks," *Information Sciences -- An International Journal*, February 1988, pp. 51-69.
- 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.
- 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.
- C. S. Raghavendra, A. Varma, "Rearrangeability of 5-stage Shuffle/Exchange Network for N=8," *IEEE Transactions on Communications*, August 1987, pp. 808-812.
- A. A. Sawchuk, B. K. Jenkins, C. S. Raghavendra, A. Varma, "Optical Crossbar Networks," *IEEE Computer*, June 1987, pp. 50-60.
- V. K. Prasanna Kumar, C. S. Raghavendra, "Array Processor with Multiple Broadcasting," *Journal of Parallel and Distributed Computing*, April 1987, pp. 173-190.
- C. S. Raghavendra, V. K. Prasanna Kumar, "Permutations on Illiac IV-Type Networks," *IEEE Transactions on Computers*, July 1986, pp. 662-669.
- C. S. Raghavendra, S. V. Makam, "Reliability Modeling and Analysis of Computer Networks," *IEEE Transactions on Reliability*, June 1986, pp. 156-160.
- C. S. Raghavendra, A. Varma, "Fault-Tolerant Multiprocessors with Redundant-Path Interconnection Networks," *IEEE Transactions on Computers*, April 1986, pp. 307-316.
- 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
- 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.
- V. K. Prasanna Kumar, S. Hariri, C. S. Raghavendra, "Distributed Program Reliability Analysis," *IEEE Transactions on Software Engineering*, January 1986, pp. 42-50.

- J. A. Fortes, C. S. Raghavendra, "Gracefully Degradable Processor Arrays," IEEE Transactions on Computers, November 1985, pp. 1033-1044.
- C. S. Raghavendra, S. Hariri, "Reliability Optimization in the Design of Distributed Systems," IEEE Transactions on Software Engineering, October 1985, pp. 1184-1193.
- C. S. Raghavendra, J. A. Silvester, "Double Loop Network Architectures -- A Performance Study," IEEE Transactions on Communications, February 1985, pp. 185-187.
- C. S. Raghavendra, M. Gerla, A. Avizienis, "Reliable Loop Topologies for Large Local Computer Networks," IEEE Transactions on Computers, January 1985, pp. 46-55.
- C. S. Raghavendra, "Fault Tolerance in Regular Network Architectures," IEEE Micro, December 1984, pp. 44-53.
- C. S. Raghavendra, A. Avizienis, M. Ercegovic, "Fault-Tolerance in Binary Tree Architectures," IEEE Transactions on Computers, June 1984, pp. 568-572.
- D.S. Parker, C.S. Raghavendra, "The Gamma Network," IEEE Transactions on Computers April 1984, pp. 367-372.

Conference Papers

- Joshua Train, Joseph Bannister, C. S. Raghavendra, "Routing Fountains: Leveraging Wide-Area Broadcast to Improve Mobile Inter-Domain Routing," Proceedings of MILCOM 2011, Baltimore, MD, November 2011.
- Shuping Liu, C. S. Raghavendra, Yintao Liu, Ke-Thia Yao, T. L. Lenz, L. Olatinjo, O. Balogun, C. Dineshbabu, I. Ershaghi, "Automatic Early Fault Detection for Rod Pump Systems," Proceedings of the SPE Annual Technical Conference and Exhibition, October 2011.
- Steve Chien, Joshua Doubleday, David McLaren, Daniel Tran, Veerachai Tanpipat, Royal Chitradon, Surajate Boonya-aroonnet, Poranee Thanapakpawin, Chatchai Khunboa, Watis Leelapatra, Vichian Plermkamon, C. S. Raghavendra, Daniel Mandl, "Combining Space Based and In-situ Measurements to Track Flooding in Thailand," Proceedings of IGARSS 2011 IEEE International Geoscience and Remote Sensing Symposium, July 2011.
- Shuping Liu, A. Panangadan, A. Talukder, C. S. Raghavendra, "Learning a Policy for Coordinated Sampling in Body Sensor Networks," Proceedings International Conference on Body Sensor Networks (BSN 2011), Dallas, TX, May 2011.
- Shuping Liu, Anand Panangadan, Ashit Talukder and C. S. Raghavendra, "Machine Learning for Automatic Patient Monitoring and Prioritization using Body Sensor Network Systems" in the Proceedings of the 18th Medicine Meets Virtual Reality International Conference (MMVR 18), NextMed, Newport Beach, CA, February 2011.
- Shuping Liu, A. Panangadan, A. Talukder, C. S. Raghavendra, "Compact Representation of Coordinated Sampling Policies for Body Sensor Networks," IEEE Global Communications Conference, Workshop on Advances in Communication and Networks, Smart Homes for Tele-Health, Miami, Florida, December 2010.
- Yintao Liu, Ke-Thia Yao, Shuping Liu, C. S. Raghavendra, Tracy L. Lenz, Lanre Olatinjo, Burcu B. Seren, C. G. Dinesh Babu and Sanaz Seddighrad, "Failure Prediction for Artificial Lift Systems" in the Proceedings of SPE (Society of Petroleum Engineers) Western Regional Meeting, California, USA, May 2010.

- Eric Coe, C. S. Raghavendra, "Token Based Congestion Control for DTNs," IEEE Aerospace Conference, March 2010.
- Appu Goundan, Eric Coe, C. S. Raghavendra, "Tree Free Utility Based Multicast in DTNs," IEEE Aerospace Conference, March 2010.
- M. Redekopp, A. Weber, T. Wilbur, G. Ragusa, C. S. Raghavendra, "A Fully Interdisciplinary Approach to Capstone Design Courses," Proceedings of ASEE Conference, June 2009.
- Shuping Liu, Anand Panangadan, Ashit Talukder and C. S. Raghavendra, "MDP Framework for Sensor Network Coordination," (Poster) the 8th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN), San Francisco, USA, April 2009.
- Appu Goundan, Eric Coe, C. S. Raghavendra, "Efficient Broadcasting in Delay Tolerant Networks," Proceedings of Globecom, December 2008.
- C. S. Raghavendra, "Summer Research Program for Meaningful International Experience," ASEE Conference, June 2008.
- T. Spyropoulos, K. Psounis, and C. Raghavendra, "Spray and Focus: Efficient Mobility-Assisted Routing for Heterogeneous and Correlated Mobility," Proceedings of IEEE PERCOM, on the International Workshop on Intermittently Connected Mobile Ad hoc Networks (ICMAN), March 2007.
- Akis Spyropoulos, Konstantinos Psounis, C. S. Raghavendra, "[Performance Analysis of Mobility-assisted Routing.](#)" Proceedings of The Seventh ACM International Symposium on Mobile Ad Hoc Networking and Computing, 2006.
- Caimu Tang and C. S. Raghavendra, "Wavelet Based Source Broadcasting for In-network Processing in Sensor Networks with Unknown Side-Information," Proceedings of Globecom 2005.
- Akis Spyropoulos, C. S. Raghavendra, "MAC-Physical Layer Interaction for Efficient Communication in Wireless Networks," Invited Paper for PIMRC 2005.
- Caimu Tang and C. S. Raghavendra, "Bitplane Coding for Correlation Exploitation in Wireless Sensor Networks," Proc. of IEEE International Conference on Communications (ICC), May 2005.
- Caimu Tang, Ngai-Man Chaeung, A. Ortega, C. S. Raghavendra, "Efficient Inter-band Prediction and Wavelet Based Compression for Hyperspectral Imagery: A Distributed Source Coding Approach," Proceedings of Data Compression Conference, March 2005.
- Yu He, C. S. Raghavendra, "XVR: X Visiting-pattern Routing for Sensor Networks," Proceedings of INFOCOM 2005, March 2005.
- Caimu Tang, Gang Lu, Cauligi S. Raghavendra, "Power Aware Wireless Sensor Networks Using Tripwire Detection and Cueing," Proceedings of HICSS minitrack on "Energy Management in Mobile and Pervasive Computing Systems," January 2005.
- Caimu Tang, C. S. Raghavendra, Viktor Prasanna, "Power Aware Coding for Spatio-Temporally Correlated Wireless Sensor Data," Proceedings of The 1st IEEE International Conference on Mobile Ad-hoc and Sensor Systems, October 2004.
- Akis Spyropoulos, Konstantinos Psounis, C. S. Raghavendra, "[Single-copy Routing in Intermittently Connected Mobile Networks.](#)" Proceedings of SECON 2004, October 2004.

- Akis Spyropoulos, C. S. Raghavendra, "ADAPT: A Media Access Control Protocol for Mobile Ad Hoc Networks Using Adaptive Array Antennas," Proceedings PIMRC 04, September 2004.
- Caimu Tang, C. S. Raghavendra, "[Providing Power Awareness to Wireless Microsensor Networks Using Tripwires.](#)" Proceedings to IEEE 6th CAS Symposium on Emerging Technologies: Frontiers of Mobile and Wireless Communication (MWC 2004), Shanghai, May 2004.
- Gang Lu, B. Krishnamachari, C. S. Raghavendra, "Performance Evaluation of the IEEE 802.15.4 MAC for Low-Rate Low-Power Wireless Networks," Proceedings of EWCN 2004, April 2004.
- Gang Lu, B. Krishnamachari, C. S. Raghavendra, "An Adaptive Energy-Efficient and Low-Latency MAC for Data Gathering in Sensor Networks," Proceedings of WMAN04, April 2004.
- J. Stepanek, E. Coe, R. Sims, C. S. Raghavendra, "Fault-Tolerant Routing for Satellite Command and Control," Proceedings of 2004 Aerospace Conference, March 2004.
- Akis Spyropoulos, C. S. Raghavendra, "[Asymptotic Capacity Bounds for Ad-hoc Networks Revisited: The Directional and Smart Antenna Cases.](#)" Proceedings of Globecom 2003, December 2003.
- Eric Coe, James Stepanek, C. S. Raghavendra, "Analysis of UDP Performance Enhancement Proxies for Mobile Users," Proceedings of VTC'03 Conference, October 2003.
- Caimu Tang, C. S. Raghavendra, "A Rate-Adaptive Power Control Scheme for Wireless Microsensor Networks," Proceedings of the Fifth IEEE International Conference of Mobile and Wireless Communications Networks, October 2003.
- Gang Lu, Cauligi S. Raghavendra "Performance Improvement of IEEE 802.11 in Wireless Multihop Networks," Proceedings of the Fifth IEEE International Conference of Mobile and Wireless Communications Networks, October 2003.
- M. Singh, V. K. Prasanna, J. Rolim, C. S. Raghavendra, "Collaborative and Distributed Computation in Mesh-like Sensor Arrays," Proceedings PWC 2003 Conference (Invited).
- Yu He, Cauligi S. Raghavendra, Steve Berson, Bob Braden, "[A Programmable Routing Framework for Autonomic Sensor Networks.](#)" Proceedings of AMS 2003, June 2003.
- Yu He, Cauligi S. Raghavendra, Steve Berson, Bob Braden, "[TCP Performance with Active Dynamic Source Routing for Ad hoc Networks.](#)" Proceedings of the 2nd International Workshop on Active Network Technologies and Applications (ANTA 2003), May 2003.
- Caimu Tang, C. S. Raghavendra, "An Energy Efficient Adaptive Distributed Source Coding Scheme in Wireless Sensor Networks," Proceedings of ICC 2003, May 2003.
- Akis Spyropoulos, C. S. Raghavendra, "[Capacity Bounds for Ad-hoc Networks Using Directional Antennas.](#)" Proceedings of ICC 2003, May 2003.
- Akis Spyropoulos, C. S. Raghavendra, Viktor Prasanna, "[A Distributed Algorithm for Waking-up in Heterogeneous Sensor Networks.](#)" Proceedings of IPSN03 (Poster), April 2003.
- Gungzhi Qu, JayaPrakash, Ramkishore, S. Hariri, C. S. Raghavendra, "A Framework for Network Vulnerability Analysis," IASTED International Conference on Information and Knowledge Sharing, November 2002.

- C. Meesookho, S. Narayanan, C. S. Raghavendra, [“Collaborative Classification Applications in Sensor Networks,”](#) Second IEEE Sensor Array and Multichannel Signal Processing Workshop, Rosslyn, VA, Aug 2002.
- Yu He, Cauligi S. Raghavendra, Steve Berson, [“Gathercast with Active Networks,”](#) Proceedings 4th Annual International Workshop on Active Middleware Services, July 2002.
- Yu He, Cauligi S. Raghavendra, Steve Berson, Bob Braden, [“Active Packets Improve Dynamic Source Routing for Ad-hoc Networks,”](#) Proceedings OpenArch 2002, June 2002.
- Akis Spyropoulos, C. S. Raghavendra, [“Energy Efficient Routing in Ad Hoc Networks with Directional Antennas,”](#) Proceedings of INFOCOM 02, June 2002.
- Caimu Tang, C. S. Raghavendra, Viktor Prasanna, [“Energy Efficient Adaptation of Protocols in Power Controlled Wireless Ad hoc Networks,”](#) ISPAN'02 Conference, May 2002.
- Craig Lee, Eric Coe, Matt Clark, James Stepanek, C. S. Raghavendra, Sameer Bhatia, Rohan Puri, [“Scalable Time Management Algorithms Using Active Networks for Distributed Simulation,”](#) Proceedings DARPA Active Networks Conference and Exposition (DANCE), May 2002.
- Akis Spyropoulos, C. S. Raghavendra, [“A Token-based Greedy Chain scheduling Algorithm \(T-GCSA\) for Situation Aware, Long-Range Wireless LANs with Highly Mobile Nodes,”](#) 2002 IEEE Aerospace Conference, March 2002.
- Stephanie Lindsey, C. S. Raghavendra, [“PEGASIS: Power Efficient GATHERing in Sensor Information Systems,”](#) 2002 IEEE Aerospace Conference, March 2002.
- Stephanie Lindsey, C. S. Raghavendra, [“Energy Efficient Broadcasting for Situation Awareness in Ad hoc Networks,”](#) Proceedings of ICPP01, September 2001.
- Craig Lee, James Stepanek, C. S. Raghavendra, Kirstie Bellman, [“Time Management in Active Networks,”](#) 3rd Annual International Workshop on Active Middleware Services, August 2001.
- Bakshi, V. Mathur, S. Mohanty, V. K. Prasanna, C. Raghavendra, M. Singh, A. Agrawal, J. Davis, B. Eames, A. Ledeczi, S. Neema, G. Nordstrom, [“MILAN: A Model Based Integrated Simulation Framework for Design of Embedded Systems,”](#) Proceedings of LCTES, June 2001
- Ammar H. Alhusaini, C. S. Raghavendra, Viktor Prasanna, [“Run-Time Adaptation for Grid Environments,”](#) Proceedings of HCW01, April 2001.
- Ilkyeum Ra, S. Hariri, C. S. Raghavendra, [“An Adaptive Communication System for Heterogeneous Network Computing,”](#) Proceedings of HCW01, April 2001.
- R. Durst, K. Scott, M. Zukoski, C. S. Raghavendra, “Metrics for Comparing Multicast Protocols in Mobile Ad hoc Networks,” Aerospace Conference, March 2001.
- Salim Hariri, Muhamad Djunaedi, Yoonhee Kim, Rinda Nellipudi, Ashok Rajagopalan, Prasad Vadlamani, Yeliang Zhang, C. S. Raghavendra, “CATALINA: A Smart Application Control and Management Environment,” Proceedings of Active Middleware Services Workshop, August 2000.
- Ammar H. Alhusaini, Viktor Prasanna, C. S. Raghavendra, [“A Framework for Mapping with Resource Co-Allocation in Heterogeneous Computing Systems,”](#) Proceedings of HCW00, May 2000.

- Neungsoo Park, Wenheng Liu, Viktor Prasanna, C. S. Raghavendra, "Efficient Matrix Multiplication Using Cache Conscious Data Layouts,".
- Suresh Singh, C. S. Raghavendra, James Stepanek, ["Power-Aware Broadcasting in Mobile Ad Hoc Networks,"](#) Proceedings of PIMRC'99 Conference, September 1999.
- Rajendra Boppana, C. S. Raghavendra, ["Designing Efficient Benes and Banyan Based Input-Buffered ATM Switches,"](#) Proceedings of ICC 99 Conference, Vancouver, June 1999.
- Prashant Bhat, C. S. Raghavendra, Viktor Prasanna, ["Efficient Collective Communication in Distributed Heterogeneous Systems,"](#) Proceedings of ICDCS, May 1999.
- Ammar H. Alhusaini, Viktor Prasanna, C. S. Raghavendra, "A Unified Resource Scheduling Framework for Heterogeneous Computing Environments," Proceedings of HCW99, April 1999.
- Neungsoo Park, Viktor Prasanna, C. S. Raghavendra, ["Efficient Communication Schedule for Block-Cyclic Array Redistribution Between Processor Sets,"](#) Proceedings of SC'98 Conference, Orlando, Nov. 1998.
- Suresh Singh, Mike Woo, C. S. Raghavendra, "Power-Aware Routing in Mobile AdHoc Networks," Proceedings of Mobicom 98 Conference, Dallas, October 1998.
- R. Venkateswaran, Shizhao Li, Xiaoqiang Chen, C. S. Raghavendra, Nirwan Ansari, "Improved VC-Merging for Multiway Communications in ATM Networks," Proceedings of ICCCN'98 Conf., Lafayette, Louisiana, Oct. 1998.
- Suresh Singh, C. S. Raghavendra, "Power Efficient MAC Protocol for Multihop Radio Networks," Proceedings of the ninth IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Boston, September 1998.
- Prashant Bhat, Viktor Prasanna, C. S. Raghavendra, ["Fully Adaptive Data Communication for Heterogeneous Systems,"](#) Proceedings of PDCS98 Conf., September 1998.
- Prashant Bhat, Viktor Prasanna, C. S. Raghavendra, ["Adaptive Data Communication Algorithms for Distributed Heterogeneous Systems,"](#) Proceedings of HPDC-7 Conference, July 1998.
- R. Venkateswaran, C. S. Raghavendra, Xiaoqiang Chen, V. P. Kumar, ["Support for Multiway Communications in ATM Networks,"](#) Proceedings of ATM'98, pp. 339-348, May 1998.
- Indu Mahadevan, C. S. Raghavendra, "Admission Control in ATM Networks using Fuzzy-ARTMAP," 1997 International Workshop on Applications of Neural Networks to Telecommunications, June 1997.
- R. Venkateswaran, C. S. Raghavendra, Xiaoqiang Chen, V. P. Kumar, ["DMRP: A Distributed Multicast Routing Protocol for ATM Networks,"](#) Proceedings of ATM'97 Workshop.
- R. Venkateswaran, C. S. Raghavendra, Xiaoqiang Chen, V. P. Kumar, "Improved Algorithm for Multicast Routing in ATM Networks," Proceedings ICC 97, June 1997.
- D. Markovic, J.R. Hagemeister, C.S. Raghavendra, and S. Bhansali, "Semi-Automatic Generation of Parallelizable Patterns from Source Code Examples," Proc. 5th International Workshop on Program Comprehension, May 1997.

- C. S. Raghavendra, M. A. Sridhar, [“Improved Algorithms for Computing with Faulty SIMD Hypercubes,”](#) International Conference on Mathematical and Computer Modelling and Scientific Computing, March 1997 (Invited).
- J.R. Hagemester, S. Bhansali, C.S. Raghavendra, “Implementation of a Pattern Matching Approach for Identifying Algorithmic Concepts in Scientific FORTRAN Programs,” Proc. ICHPC Conf., India, December 1996.
- R. Venkateswaran, C. S. Raghavendra, Xiaoqiang Chen, V. P. Kumar, “Hierarchical Multicast Routing in ATM Networks,” Proceedings of ICC 96, June 1996.
- Tong-Yee Lee, C. S. Raghavendra. “Parallel Graphics on Supercomputers,” Proc. 29th IASTA Dedicated Conference on Supercomputer Applications in the Transportation Industries, June 1996 (Invited).
- Sengupta, C. S. Raghavendra, “On Some Global Operations in Faulty SIMD Hypercubes,” Proceedings of IPPS 96, April 1996.
- Venkateswaran, R., Obradovic, Z., and Raghavendra, C.S. (1996) “Cooperative Genetic Algorithm for Optimization Problems in Distributed Computer Systems,” Proc. Second Online Workshop on Evolutionary Computation, pp. 49-52, March 1996. Electronic Proc., <http://www.bioele.nuee.nagoya-u.ac.jp/wec2/papers/index.html>.
- H. Sivaraman, C. S. Raghavendra, “ADDT: Automatic Data Distribution Tool for Porting Programs to PVM,” Proceedings of the HICSS96 96 Conference, January 1996.
- Tong-Yee Lee, C. S. Raghavendra, “A Practical Scheduling Scheme for Non-Uniform Parallel Loops on DMPMs,” Proceedings of the HICSS96 96 Conference, January 1996.
- Tong-Yee Lee, C. S. Raghavendra “Parallel Processing Techniques for Graphics Rendering Problems,” Proceedings HiPC Conference, India, December 1995.
- R. Venkateswaran, C. S. Raghavendra, “Multicast Switch Based on Tandem Expanded Delta Network,” Proceedings Globecom 95, November 1995.
- Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, “Image composition Methods for Sort-last Polygon Rendering on 2-D Mesh Architectures,” Proceedings of the 1995 Parallel Rendering Symposium, October 1995.
- H. Sivaraman, C. S. Raghavendra, “Parallelizing Sequential Programs to a Cluster of Workstations ,” Proc. of the Int. Conf. on Parallel Processing Workshop, Aug. 14, 1995.
- Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, “An Efficient Sort-Last Polygon Rendering Scheme on 2-D Mesh Parallel Computers,” Proceedings of ICPP 95, August 1995.
- C. S. Raghavendra, Xiaoqiang Chen, V. P. Kumar, “A Two Phase Multicast Routing Algorithm in Self-Routing Multistage Networks,” Proceedings of ICC 95, June 1995.
- Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, “Parallel Implementation of Ray Tracing Algorithm on the Intel Delta Parallel Computer,” Proceedings of IPPS 95, April 1995.
- Ram Krishnan, John A. Silvester, C. S. Raghavendra, “Jitter at an ATM Multiplexer in the Presence of Correlated Traffic,” Proceedings IPCCC 95, March 1995.
- C. S. Raghavendra, M. A. Sridhar, “On Computing with Faulty SIMD Hypercubes,” Proceedings of the First International Workshop on Parallel Processing, India, December 1994.
- R. Drossu, T. V. Lakshman, Z. Obradovic, C. S. Raghavendra, “Single and Multiple Frame Video Traffic Prediction Using Neural Network Models,” Proc. of the Networks'94 Conference, December 1994.

- C. S. Raghavendra, S. Bhansali, "On Porting Sequential Programs to Parallel Machines," Proc. the 8th Annual COMPSAC Conference, November 1994 (Invited Paper).
- S. Bhansali, J. Hagemester, C. S. Raghavendra, H. Sivaraman, "Parallelizing Sequential Programs by Algorithm Level Transformations," Third Workshop on Program Comprehension, November 1994.
- R. Boppana, S. Chalasani, C. S. Raghavendra, "On Multicast Wormhole Routing in Multicomputers," Proceedings of Sixth Symposium on Parallel and Distributed Processing, October 1994.
- R. Drossu, T. V. Lakshman, Z. Obradovic, C. S. Raghavendra, "Neural Network Techniques for Video Traffic Prediction," Proc. Sixth International Workshop on Packet Video, September 1994.
- Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, "Experimental Evaluation of Load Balancing Strategies for Ray Tracing on Parallel Machines," Proceedings of ICPP 94, August 1994
- Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, "Load Balancing Strategies for Ray Tracing on Parallel Machines," Proceedings of IEEE TENCON'94, August 1994.
- A. Sengupta, C. S. Raghavendra, "Total Exchange in Faulty SIMD Hypercubes," Proceedings of the IPPS 94, April 1994, pp. 853-857.
- Tong-Yee Lee, C. S. Raghavendra, J. B. Nicholas, "A Scalable Parallel Ray Tracing Scheme on Parallel Machines," Paragraph'94, Hagenberg, Austria, March 1994.
- C. S. Raghavendra, M. A. Sridhar, "Exact Solutions to Diameter and Routing Problems in PEC Networks," Proceedings of the Fifth Symposium on Parallel and Distributed Processing, December 1993.
- C. S. Raghavendra, M. A. Sridhar, S. Harikumar, "Prefix Computation on a Faulty Hypercube," Proceedings of the 1993 International Conference on Parallel Processing, August 1993
- Tong-Yee Lee, C. S. Raghavendra, John B. Nicholas, "A Fully Distributed Ray Tracing Scheme on the Delta Touchstone Machine," Proc. of 2nd Int. Symp. on High Performance Distributed Computing, July 1993.
- Hwa-Chun Lin, C. S. Raghavendra, "An Aggregation Method for Analyzing Dynamic Load-Balancing Policies for Distributed Systems," Proceedings of the International Conference on Distributed Computing Systems, May 1993.
- C. S. Raghavendra, M. A. Sridhar, "Global Semi-group Operations on Faulty SIMD Hypercubes," Proceedings of IPPS 93, April 1993.
- Pei-Ji Yang, C. S. Raghavendra, "Reconfiguration of Binary Trees in Faulty Hypercubes," Proceedings of IPPS 93, April 1993.
- Suresh Chalasani, R. Boppana, C. S. Raghavendra, "A Comparison of Adaptive Packet Routing Algorithm for Tori," Proc. IPCCC-93, April 1993.
- C. S. Raghavendra, M. A. Sridhar, "Broadcasting Algorithms in Faulty SIMD Hypercubes," Proceedings of the Fourth IEEE Symposium on Parallel and Distributed Systems, December 1992.
- C. S. Raghavendra, Pei-Ji Yang, Sing-Ban Tien, "Free Dimensions - An Effective Approach to Achieving Fault Tolerance in Hypercubes," Proceedings of the 22nd Annual International Symposium on Fault Tolerant Computing, July 1992, pp. 170-177.

- Hwa-Chun Lin, C. S. Raghavendra, "An Analysis of the Join the Shortest Queue (JSQ) Policy," Proceedings of the 12th International Conference on Distributed Computing Systems, June 1992.
- Pei-Ji Yang, C. S. Raghavendra, "Embedding and Reconfiguration of Binary Trees in Faulty Hypercubes," Proceedings of the IPPS 92 Conference, March 1992, pp. 2-9.
- C. S. Raghavendra, M. A. Sridhar, "Routing in Hypercube Multiprocessors," Proc.4th ISMM Conf., October 1991, pp. 41-45 (Invited paper).
- R. V. Boppana, C. S. Raghavendra, "Efficient Data Access and Alignment Methods for Arbitrary Size Square Matrices with Shuffle-Exchange Networks," Proceedings of the 1991 International Conference on Parallel Processing, August 1991
- Pei-Ji Yang, Sing-Ban Tien, C. S. Raghavendra, "Embedding of Multidimensional Meshes on to Faulty Hypercubes," Proceedings of the 1991 International Conference on Parallel Processing, August 1991.
- Sing-Ban Tien, C. S. Raghavendra, "Emulating Normal Algorithms on Faulty Hypercubes," Proceedings of the 1991 International Conference on Parallel Processing, August 1991 (Poster Session).
- K. Kim, C. S. Raghavendra, "A Simple Algorithm to Route Arbitrary Permutations on 8-input 5-stage Shuffle/Exchange Network," Proc. 5th International Parallel Processing Symposium, May 1991 .
- C. S. Raghavendra, S. Chalasani, R. Boppana, "Improved Algorithms for Load Balancing in Circuit-Switched Hypercubes," Proc. 5th International Parallel Processing Symposium, May 1991.
- Ge-Ming Chiu, Suresh Chalasani, C. S. Raghavendra, "Flexible, Fault-Tolerant Routing Criteria for Circuit-Switched Hypercubes," Proceedings of the 11th International Conference on Distributed Computing Systems, May 1991.
- Hwa-Chun Lin, C. S. Raghavendra, "A Dynamic Load Balancing Policy with a Central Job Dispatcher (LBC)," Proceedings of the 11th International Conference on Distributed Computing Systems, May 1991.
- Hwa-Chun Lin, Ge-Ming Chiu, C. S. Raghavendra, "Performance Study of Dynamic Load Balancing Policies for Distributed Systems with Service Interruptions," Proceedings of the 1991 INFOCOM Conference, April 1991, pp. 797-805.
- C. S. Raghavendra, S. Hariri, "Reliability Measures and their Approximate Evaluations for Networks and Distributed Systems," (Invited Paper), Proceedings of the Globecom 90 Conference, December 1990.
- M. A. Sridhar, C. S. Raghavendra, "On Finding Maximal Subcubes in Residual Hypercubes," Proceedings of the Second IEEE Symposium on Parallel and Distributed Processing, December 1990.
- Suresh Chalasani, C. S. Raghavendra, A. Varma, "Fault-Tolerant Routing in MIN Based Supercomputers," Proceedings of the Supercomputing 90 Conference, November 1990, pp. 244-253.
- Sing-Ban Tien, C. S. Raghavendra, "Algorithms and Bounds for Shortest Paths and Diameter in Faulty Hypercubes," Proceedings of the 28th Annual Allerton Conference on Communication, Control, and Computing, October 1990, pp. 216-225.
- C. S. Raghavendra, R. Boppana, "On Methods for Fast and Efficient Parallel Memory Access," Proceedings of the 1990 International Conference on Parallel Processing, August 1990.

- C. S. Raghavendra, M. A. Sridhar, "Optimal Routing of Bit-Permuters on Hypercube Machines," Proceedings of the 1990 International Conference on Parallel Processing, August 1990.
- Ge-Ming Chiu, C. S. Raghavendra, "A Model for Optimal Database Allocation in Distributed Computing Systems," Proceedings of the IEEE INFOCOM 90 Conference, June 1990.
- R. Boppana, C. S. Raghavendra, "Optimal Self Routing of Linear-Complement Permutations in Hypercubes," Proceedings of the 5th Distributed Memory Computing Conference, April 1990.
- Ge-Ming Chiu, C. S. Raghavendra, "Resource Allocation in Hypercube Systems," Proceedings of the 5th Distributed Memory Computing Conference, April 1990.
- Sing-Ban Tien, C. S. Raghavendra, M. A. Sridhar, "Reconfiguring Embedded Task Graphs in Faulty Hypercubes by Automorphisms," Proceedings of the 23rd Hawaii International Conference on System Sciences, January 1990, pp. 91-100.
- C. S. Raghavendra, M. A. Sridhar, "On Dynamic Full Access in Multistage Interconnection Networks," Proceedings of the DIMACS workshop on Network Reliability, Rutgers University, December 1989.
- C. S. Raghavendra, D. A. Lee, "Reliability Modeling of Fault-Tolerant Computers for Aerospace Applications," AIAA Conference, October 1989, pp. 1003-1016.
- Ge-Ming Chiu, C. S. Raghavendra, "Queueing Analysis in Dynamic Distributed Real Time Systems," Proceedings of the EUROMICRO Workshop on Real Time, June 1989.
- C. Suresh Babu, C. S. Raghavendra, "On the Invariants of Shuffle/Exchange Networks," Proceedings of the First IEEE Symp. on Parallel and Distributed Processing, May 1989, pp. 249-256.
- Ge-Ming Chiu, C. S. Raghavendra, Shu Ming Ng, "Resource Allocation with Load Balancing Consideration in Distributed Computing Systems," Proceedings of the IEEE INFOCOM Conference, April 1989, pp. 758-765.
- B. Sharma, R. Jain, M. Breuer, A. Parker, C. S. Raghavendra, C. Tseng, "The POTATO Chip Architecture: A Study in Tradeoffs for Signal Processing Chip Design," Proc. ICCD 1988.
- M. Breuer, A. Majumdar, C. S. Raghavendra, "Fault Tolerance and Testing Aspects of an Architecture for a Generalized Sidelobe Canceller," Proc. ICCD 1988, October 1988.
- R. Boppana, C. S. Raghavendra, "Minimum Spanning Tree on the HMESH Architecture," Proceedings of the 2nd Symposium on the Frontiers of Massively Parallel Computation, October 1988.
- Boppana, C. S. Raghavendra, "On Self Routing in Benes and Shuffle/Exchange Networks," Proceedings of the 1988 International Conference on Parallel Processing, August 1988.
- Meera Balakrishnan, Rajiv Jain, C. S. Raghavendra, "On Array Storage for Conflict free Memory Access for Parallel Processors," Proceedings of the 1988 International Conference on Parallel Processing, August 1988.
- Ge-Ming Chiu, C. S. Raghavendra, "A Model for Optimal Resource Allocation in Distributed Computing Systems," Proceedings of the 1988 IEEE INFOCOM Conference, March 1988.

- James Yee, Hwa-Chun Lin, C. S. Raghavendra, "Optimal Joint Load balancing and Routing in Message Switched Computer Networks," Proceedings of the 1988 IEEE INFOCOM Conference, March 1988.
- Khiem Van Le, C. S. Raghavendra, "Fault-Tolerant Routing in a Class of Double Loop Networks," Proceedings of the 1988 IEEE INFOCOM Conference, March 1988.
- Majumdar, M. Breuer, C. S. Raghavendra, "Fault Tolerance in Linear Systolic Architectures Using Time Redundancy," Proceedings of the 21st Annual Hawaii International Conference on System Sciences, January 1988.
- Varma, C. S. Raghavendra, "Fault Tolerance Techniques for Multistage Interconnection Networks," Workshop on Fault Tolerance in Parallel and Distributed Computing, December 1987.
- Sing-Ban Tien, C. S. Raghavendra, "A Parallel Algorithm for Execution of Production Systems on HMESH," Proceedings of the 1987 Fall Joint Computer Conference, October 1987.
- C. Suresh Babu, C. S. Raghavendra, "Geometric Problems on the HMESH Architecture," Proceedings of the 1987 Workshop on Computer Architecture for Pattern Analysis and Machine Intelligence, October 1987.
- M. A. Sridhar, C. S. Raghavendra, "Uniform Minimal Full-Access Networks," Proceedings of the 1987 International Conference on Parallel Processing, August 1987, pp. 401-406.
- Varma, C. S. Raghavendra, "Rearrangeability of Multistage Shuffle/Exchange Networks," Proceedings of the 14th Annual Symposium on Computer Architecture, June 1987, pp. 154-162.
- Chiu Ge-Ming, C. S. Raghavendra, "An Algorithm for Optimal File Allocation in Distributed Computing Systems," Proceedings of 1987 INFOCOM Conference, March 1987.
- C. S. Raghavendra, "Parallel Algorithms on the HMESH Architecture," Proceedings of the Platinum Jubilee Conference on Systems and Signal Processing, December 1986.
- S. Hariri, C. S. Raghavendra, "Distributed Resource Allocation for Combined Reliability and Delay Optimization," Proceedings of the 1986 Fall Joint Computer Conference, November 1986.
- Jin H. Hwang, C. S. Raghavendra, "VLSI Implementation of Fault-Tolerant Systolic Arrays," Proceedings of the ICCD 86 Conference, October 1986.
- C. S. Raghavendra, "HMESH: A VLSI Architecture for Parallel Processing," Proceedings of the CONPAR Conference, September 1986.
- A. Sawchuk, B. K. Jenkins, C. S. Raghavendra, A. Varma, "Optical Matrix-Vector Implementation of Crossbar Interconnection Networks," Proceedings of the 1986 International Conference on Parallel Processing, August 1986.
- C. S. Raghavendra, A. Varma, "Rearrangeability of 5-stage Shuffle/Exchange Network for $N=8$," Proceedings of the 1986 International Conference on Parallel Processing, August 1986.
- S. Hariri, C. S. Raghavendra, "SYREL: A Symbolic Reliability Algorithm Based on Path and Cutset Methods," Proceedings of the Conference INFOCOM 86, March 1986, pp. 293-301.

- Varma, C. S. Raghavendra, "Optimal Mapping of BPC Permutations on Generalized Indra Networks," Proc. of the 19th Annual Hawaii International Conference on System Sciences, January 1986.
- V. K. Prasanna Kumar, C. S. Raghavendra, "Image Processing on an Enhanced Mesh Connected Computer," Proc. IEEE Workshop on Computer Architecture for Pattern Analysis and Image Database Management, November 1985, pp. 243-247.
- C. S. Raghavendra, V. K. Prasanna Kumar, A. Varma, "On Systolic Processing with Bounded I/O Bandwidth," Proc. of the International Conference on Computer Design, October 1985, pp. 632-635.
- V. K. Prasanna Kumar, C. S. Raghavendra, "Parallel Routing Algorithms for Illiac IV-Type Networks," Proc. of the International Conference on Parallel Computing, Germany, September 1985.
- V. K. Prasanna Kumar, C. S. Raghavendra, "An Array Architecture for High Speed Parallel Processing," Proceedings of the International Symposium on New Directions in Computing, August 1985, pp. 278-283.
- S. Hariri, C. S. Raghavendra, V. K. Prasanna Kumar, "Reliability Measures for Distributed Processing Systems," Proceedings of the International Symposium on New Directions in Computing, August 1985, pp. 362-370.
- Varma, C. S. Raghavendra, "Performance Analysis of a Redundant Path Interconnection Network," Proceedings of the International Conference on Parallel Processing, August 1985, pp. 474-479.
- Varma, C. S. Raghavendra, "Realization of Permutations in Generalized Indra Networks," Proceedings of the International Conference on Parallel Processing, August 1985, pp. 328-333.
- A Sawchuk, K. Jenkins, C. S. Raghavendra, A. Varma, "Optical Interconnection Networks," Proceedings of the International Conference on Parallel Processing, August 1985, pp. 388-392.
- V. K. Prasanna Kumar, C. S. Raghavendra, "An Enhanced Mesh Connected VLSI Architecture for Parallel Image Processing," Proceedings of the Conference on Computer Vision and Pattern Recognition, June 1985.
- V. K. Prasanna Kumar, C. S. Raghavendra, "Array Processor with Multiple Broadcasting," Proceedings of the 12th Annual International Symposium on Computer Architecture, June 1985, pp. 2-10.
- J. L. Gaudiot, C. S. Raghavendra, "Fault-Tolerance and Data-Flow Systems," Proceedings of the 5th Distributed Computing Symposium, May 1985, pp. 16-23.
- Varma, C. S. Raghavendra, "On Permutations Passable by the Gamma Network," Proceedings of the 18th Hawaii International Conference on System Sciences, January 1985, pp. 10-20.
- V. K. Prasanna Kumar, C. S. Raghavendra, "Parallel Algorithms for Permutations on Illiac IV-Type Networks," Proceedings of the International Conference on Computers, Systems and Signal Processing, India, December 1984, pp. 1661-1665.
- C. S. Raghavendra, A. Varma, "Terminal Reliability Analysis of Loop Networks," Proceedings of the International Conference on Computers, Systems and Signal Processing, India, December 1984, 520-524.

- C. S. Raghavendra, A. Varma, "INDRA: A Class of Interconnection Networks with Redundant Paths," Proceedings of the Fifth Real-Time Systems Symposium, December 1984, pp. 153-164.
- S. Al-Hariri, C. S. Raghavendra, "Terminal Reliability Optimization in Distributed Processing Systems," Proceedings of the Fifth Real-Time Systems Symposium, December 1984, pp. 71-79.
- E. Mangir, C. S. Raghavendra, "Issues in VLSI Implementation of Fault-Tolerant Architectures," Proceedings of the International Conference on Computer Design: VLSI in Computers, October 1984, pp. 95-100.
- C. S. Raghavendra, V. K. Prasanna Kumar, "Permutations on Illiac IV-Type Networks," Proceedings of the 1984 International Conference on Parallel Processing, August 1984, pp. 59-62.
- Jose A. Fortes, C. S. Raghavendra, "Dynamically Reconfigurable Fault-Tolerant Array Processors," Proceedings of the 1984 International Conference on Fault-Tolerant Computing, June 1984, pp. 386-392.
- C. S. Raghavendra, J. A. Silvester, "A Survey of Multi-Connected Loop Topologies for Local Computer Networks," Proceedings of the First African Conference on Computer Communication, May 1984, pp. 335-349.
- C. S. Raghavendra, D. S. Parker, "Reliability Analysis of an Interconnection Network," Proceedings of the 4th International Conference on Distributed Computing Systems, May 1984, pp. 461-471.
- C. S. Raghavendra, J. A. Silvester, "A Comparative Study of a Class of Double Loop Network Architectures," Proceedings of the Conference ICC 84, Amsterdam, May 1984, pp. 149-152.
- J. A. Silvester, C. S. Raghavendra, "Analysis and Simulation of a Class of Double Loop Network Architectures," Proceedings of the Conference INFOCOM 84, April 1984, pp. 30-35.
- C. S. Raghavendra, T. E. Mangir, "On the VLSI Implementation of Fault Tolerant Architectures," Proceedings of the International Conference on Computer Design: VLSI in Computers, October 1983, pp. 744-747.
- S. V. Makam, C. S. Raghavendra, "Dynamic Reliability Modeling and Analysis of Computer Networks," Proceedings of the 1983 International Conference on Parallel Processing, August 1983, pp. 496-502.
- C. S. Raghavendra, A. Avizienis, M. Ercegovic, "Fault Tolerance in Binary Tree Architectures," Proceedings of the FTCS-13 International Symposium on Fault Tolerant Computing, June 1983, pp. 360-364.
- Avizienis, C. S. Raghavendra, "Applications for Arithmetic Error Codes in Large, High-Performance Computers," Proceedings of the 6th symposium on Computer Arithmetic, June 1983, pp. 169-173.
- C. S. Raghavendra, M. Gerla, A. Avizienis, "Reliability Optimization in the Design of Distributed Systems," Proceedings of the 3rd International Conference on Distributed Computing Systems", October 1982, pp. 388-393.
- D. S. Parker, C. S. Raghavendra, "The Gamma network: A Multiprocessor Interconnection Network with Redundant Paths," Proceedings of the 9th Annual symposium on Computer Architecture, April 1982, pp. 73-80.

- C. S. Raghavendra, M. Gerla, D. S. Parker, "Multi-Connected Loop Topologies for Local Computer Networks," Proceedings of the IEEE INFOCOM 82, March 1982, pp. 184-190.
- C. S. Raghavendra, M. Gerla, "Optimal Loop Topologies for Distributed Systems," Proceedings of the 7th Data Communications symposium, October 1981, pp. 218-224.
- C. S. Raghavendra, M. D. Ercegovic, "A Simulator for On-Line Arithmetic," Proceedings of the 5th Symposium on Computer Arithmetic, May 1981, pp. 92-98.
- Grnarov, C. S. Raghavendra, M. Ercegovic, "Fast Multiplication Schemes for Microprocessor Applications," International Conference on Microcomputer Application to Industrial Control.