

Department of Computer Science, UTSA  
One UTSA Circle  
San Anotnio, TX, 78249

Tel: (210)458-7453  
Fax: (210)458-4437  
Email: dzhu@cs.utsa.edu

## EDUCATIONAL BACKGROUND

- **Ph.D. in Computer Science, Dec. 2004,** University of Pittsburgh  
Computer Science Department Pittsburgh PA, USA  
Dissertation: *Energy and Reliability Management in Parallel Real-Time Systems*  
Advisors: Prof. Rami Melhem and Prof. Daniel Mossé
- **M.S. in Computer Science, Apr. 2001,** University of Pittsburgh  
Computer Science Department Pittsburgh PA, USA
- **M.E. in Computer Science and Technology, Jun. 1999,** Tsinghua University  
Department of Computer Science and Technology Beijing, P.R.China
- **B.E. in Computer Science and Technology, Jun. 1996,** Xi'an Jiaotong University  
Department of Computer Science and Engineering Xi'an Shanxi, P.R.China

## PROFESSIONAL EMPLOYMENT HISTORY

- **Associate Professor, Sept. 2011– present**  
Department of Computer Science, University of Texas at San Antonio
- **Assistant Professor, Jan. 2005– Aug. 2011**  
Department of Computer Science, University of Texas at San Antonio
- **Teaching/Research Assistant, Aug. 1999 – Dec. 2004**  
Department of Computer Science, University of Pittsburgh
- **Research Assistant, Sept. 1996–Jun. 1999**  
Department of Computer Science and Technology, Tsinghua University, P.R.China

## AWARDS AND HONORS

- **NSF CAREER Award** 2010  
“An Integrated Scheduling Framework for Multicore-Based Real-Time Embedded Systems”
- **Service Award as the Webmaster** 2009  
IEEE Computer Society Technical Committee on Real-Time Systems (TCRTS)
- **Best Paper Award** 2008  
Title: “Power Management for Real-Time Embedded Systems on Block-Partitioned Multicore Platforms” in the International Conference on Embedded Software and Systems (ICESS)
- **Andrew Mellon Fellowship** 2003 - 2004  
Faculty of Arts and Sciences, University of Pittsburgh
- **Compunetix Graduate Student Research Award** 2001 - 2002  
Department of Computer Science, University of Pittsburgh

PUBLICATIONS (\* indicates students under my supervision)

- *Book Chapters*

- B2. **Dakai Zhu**, Hakan Aydin, “Reliability-Aware Power Management for Real-Time Embedded Systems”, to appear in the *Handbook of Energy-Aware and Green Computing*, Jan. 2011
- B1. **Dakai Zhu**, Bruce R. Childers, Daniel Mossé and Rami Melhem, “Chap. 40: Power Aware Mapping of Real-Time Tasks to Multiprocessors”, in the *Handbook of Parallel Computing: Models, Algorithms, and Applications* (ISBN: 1584886234), Edited by Sanguthevar Rajasekaran and John Reif, CRC Press, Dec. 2007

- *Refereed Journal Papers*

- J10. **Dakai Zhu**, Xuan Qi\*, Daniel Mossé and Rami Melhem, “An Optimal Boundary Fair Scheduling Algorithm for Multiprocessor Real-Time Systems”; *Journal of Parallel and Distributed Systems*, Vol. 71, pp. 1411-1425, June 2011
- J9. Xuan Qi\*, and **Dakai Zhu**, “Energy Efficient Block-Partitioned Multicore Processors for Parallel Applications”, *Journal of Computer Science and Technology, Special Issue on High-Performance Computing for Embedded Multicore Systems*, vol. 26, no. 3, pp. 418-433, May 2011.
- J8. Xuan Qi\*, **Dakai Zhu** and Hakan Aydin, “Cluster Scheduling for Real-Time Systems: Utilization Bounds and Run-Time Overhead”, *Real-Time Systems: The International Journal of Time-Critical Computing Systems, Special Issue on Embedded and Real-Time Computing Systems and Applications*, vol.47, no. 3, pp. 253-284, May 2011.
- J7. Xuan Qi\*, **Dakai Zhu** and Hakan Aydin, “Global Scheduling Based Reliability-Aware Power Management for Multiprocessor Real-Time Systems”, *Real-Time Systems: The International Journal of Time-Critical Computing Systems, Special Issue on Energy Aware Real-Time Systems*, vol. 47, no. 2, pp. 109-142, March 2011.
- J6. **Dakai Zhu**, “Reliability-Aware Dynamic Energy Management in Dependable Embedded Real-Time Systems”, *ACM Transactions on Embedded Computing Systems*, vol. 10, no. 2, Article 26 (27 pages), December, 2010.
- J5. Baoxian Zhao, Hakan Aydin and **Dakai Zhu**, “On Maximizing Reliability of Real-Time Embedded Applications under Hard Energy Constraint”, *IEEE Transactions on Industrial Informatics*, vol. 6, no. 3, pp. 316 - 328, August 2010.
- J4. **Dakai Zhu** and Hakan Aydin, “Reliability-Aware Energy Management for Periodic Real-Time Tasks”, *IEEE Transactions on Computers*, vol. 58, no. 10, pp. 1382 - 1397, IEEE Computer Society, October 2009. **Citations: 37 (Google Scholar)**
- J3. **Dakai Zhu**, Rami Melhem and Daniel Mossé, “Energy Efficient Redundant Configurations for Real-Time Parallel Reliable Servers”, *Real-Time Systems: The International Journal of Time-Critical Computing Systems* vol. 41, no. 3, pp. 195 - 221, Kluwer Academic Publishers, April 2009.
- J2. **Dakai Zhu**, Daniel Mossé and Rami Melhem, “Power Aware Scheduling for AND/OR Graph in Real-Time Systems”, *IEEE Transactions on Parallel and Distributed Systems*, vol. 15, no. 9, pp. 849-864, IEEE Computer Society, September 2004  
**Citations: 43 (Google Scholar)**
- J1. **Dakai Zhu**, Rami Melhem and Bruce R. Childers, “Scheduling with Dynamic Voltage/Speed Adjustment Using Slack Reclamation in Multi-Processor Real-Time Systems”, *IEEE Transactions on Parallel and Distributed Systems*, vol. 14, no. 7, pp. 686-700, IEEE Computer Society, July 2003 **Citations: 231 (Google Scholar)**

- *Refereed Conference Papers*

- C26. Baoxian Zhao, Hakan Aydin and **Dakai Zhu**, “Energy Management under General Task-Level Reliability Constraints”, to appear in the *Proc. of the 18<sup>th</sup> IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, Beijing, China, Apr. 16-19, 2012, IEEE Computer Society.
- C25. Mohammad A. Haque, Hakan Aydin and **Dakai Zhu**, “Energy-Aware Standby-Sparing Technique for Periodic Real-Time Applications”, in the *Proc. of the IEEE International Conference on Computer Design (ICCD)*, Amherst, MA, Oct. 9-12, 2011. IEEE Computer Society.
- C24. Yifeng Guo\*, **Dakai Zhu** and Hakan Aydin, “Reliability-Aware Power Management for Parallel Real-time Applications with Precedence Constraints”, in the *Proc. Of the Second International Green Computing Conference (IGCC)*, Orlando, FL, July 25-28, 2011. IEEE Computer Society. **(Acceptance rate: 31%)**
- C23. Baoxian Zhao, Hakan Aydin and **Dakai Zhu**, “Generalized Reliability-Oriented Energy Management for Real-Time Embedded Applications”, in the *Proc. of the 48th Design Automation Conference (DAC)*, San Diego, CA, June 5-10, 2011, ACM. **(Acceptance rate: 23%)**
- C22. Xuan Qi\*, **Dakai Zhu** and Hakan Aydin, “Global Reliability-Aware Power Management for Multiprocessor Real-Time Systems”, in the *Proc. of the 16th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA)*, Macau SAR, China, August 23 - 25, 2010. IEEE Computer Society. **(Acceptance rate: 38%)**
- C21. Xuan Qi\*, **Dakai Zhu** and Hakan Aydin, “A Study of Utilization Bound and Run-Time Overhead for Cluster Scheduling in Multiprocessor Real-Time Systems”, in the *Proc. of the 16th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA)*, Macau SAR, China, August 23 - 25, 2010. IEEE Computer Society. **(Acceptance rate: 38%)**
- C20. Yifeng Guo\*, Fanxin Kong, **Dakai Zhu**, Ali Tosun and Qingxu Deng, “Sensor Placement for Lifetime Maximization in Monitoring Oil Pipelines”, in the *Proc. of the IEEE/ACM First International Conference on Cyber-Physical Systems (ICCPs)*, Stockholm, Sweden, April 12-16, 2010, ACM. **(Acceptance rate: 28%)**
- C19. Baoxian Zhao, Hakan Aydin and **Dakai Zhu**, “Enhanced Reliability-Aware Power Management through Shared Recovery Technique”, in the *Proc. of the IEEE/ACM International Conference on Computer Aided Design (ICCAD)*, pages 63–70, San Jose, CA, November 2-5, 2009, ACM. **(Acceptance rate: 26%)**
- C18. **Dakai Zhu**, Yifeng Guo\* and Ali Tosun, “Multi-Path Planning for Mobile Element to Prolong the Lifetime of Wireless Sensor Networks”, in the *Proc. of the IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA)*, pages 41–50, Beijing, China, August 24 - 26, 2009, IEEE Computer Society. **(Acceptance rate: 31%)**
- C17. **Dakai Zhu**, Hakan Aydin and Jian-Jia Chen, “Optimistic Reliability Aware Energy Management for Real-Time Tasks with Probabilistic Execution Times”, in the *Proc. of the IEEE Real-Time Systems Symposium (RTSS)*, pages 313–322, Barcelona, Spain, November 30 - December 3, 2008, IEEE Computer Society. **(Acceptance rate: 23%)**
- C16. Baoxian Zhao, Hakan Aydin and **Dakai Zhu**, “Reliability-Aware Dynamic Voltage Scaling for Energy-Constrained Real-Time Embedded Systems”, in the *Proc. of the IEEE Int’l Conference on Computer Design (ICCD)*, pages 633 – 639, Lake Tahoe, CA, October 12 - 15, 2008, IEEE Computer Society. **(Acceptance rate: 34%)**
- C15. **Dakai Zhu**, Xuan Qi\* and Hakan Aydin, “Energy Management for Periodic Real-Time Tasks with Variable Assurance Requirements”, in the *Proc. of the IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA)*, pages 259–268, Kaohsiung, Taiwan ROC, August 25-27, 2008, IEEE Computer Society. **(Acceptance rate: 26%)**

- C14. Xuan Qi\* and **Dakai Zhu**, “Power Management for Real-Time Embedded Systems on Block-Partitioned Multicore Platforms”, in the *Proc. of the International Conference on Embedded Software and Systems (ICCESS)*, pages 110–117, Chengdu, P.R.China, July 29-31, 2008, IEEE Computer Society. **(Acceptance rate: 21%) Best Paper Award.**
- C13. **Dakai Zhu**, Xuan Qi\* and Hakan Aydin, “Priority-Monotonic Energy Management for Real-Time Systems with Reliability Requirements”, in the *Proc. of the 25<sup>th</sup> IEEE International Conference on Computer Design (ICCD)*, pages 629-635, Lake Tahoe, CA, Oct. 2007, IEEE Computer Society. **(Acceptance rate: 33%)**
- C12. **Dakai Zhu** and Hakan Aydin, “Reliability-Aware Energy Management for Periodic Real-Time Tasks”, in the *Proc. of the IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, pages 225-235, Bellevue WA, April 2007, IEEE Computer Society. **(Acceptance rate: 28%) Citations: 21 (Google Scholar)**
- C11. Hakan Aydin, Vinay Devadas and **Dakai Zhu**, “System-level Energy Management for Periodic Real-Time Tasks”, in the *Proc. of the 27<sup>th</sup> IEEE Real-Time Systems Symposium (RTSS)*, pp. 313-322, Rio de Janeiro, Brazil, December 2006, IEEE Computer Society. **(Acceptance rate: 24%) Citations: 61 (Google Scholar)**
- C10. **Dakai Zhu** and Hakan Aydin, “Energy Management for Real-Time Embedded Systems with Reliability Requirements”, in the *Proc. of the IEEE/ACM International Conference on Computer Aided Design (ICCAD)*, pages 528-534, San Jose, CA, November 2006, ACM. **(Acceptance rate: 24%) Citations: 27 (Google Scholar)**
- C9. **Dakai Zhu**, “Reliability-Aware Dynamic Energy Management in Dependable Embedded Real-Time Systems”, in the *Proc. of the IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, pages 397 - 407, San Jose, CA, April 2006, IEEE Computer Society. **(Acceptance rate: 30%) Citations: 50 (Google Scholar)**
- C8. Ruibin Xu, **Dakai Zhu**, Cosmin Rusu, Rami Melhem and Daniel Mossé, “Energy Efficient Policies for Embedded Clusters”, in the *Proc. of the ACM SIGPLAN/SIGBED Conference on Languages, Compilers, and Tools for Embedded Systems (LCTES)*, pages 1-10, Chicago, June 2005, ACM. **(Acceptance rate: 26%) Citations: 47 (Google Scholar)**
- C7. **Dakai Zhu**, Rami Melhem and Daniel Mossé, “Energy Efficient Configuration for QoS in Reliable Parallel Servers”, in the *Proc. of the Fifth European Dependable Computing Conference (EDCC)*, pages 122-139, Budapest, Hungary, April 2005, Springer. **(Acceptance rate: 36%)**
- C6. **Dakai Zhu**, Rami Melhem and Daniel Mossé, “The Effects of Energy Management on Reliability in Real-Time Embedded Systems”, in the *Proc. of the IEEE/ACM Int’l Conference on Computer Aided Design (ICCAD)*, pages 35-40, San Jose, CA, November 2004, ACM. **(Acceptance rate: 24%) Citations: 92 (Google Scholar)**
- C5. **Dakai Zhu**, Rami Melhem, Daniel Mossé and E. (Mootaz) Elnozahy, “Analysis of an Energy Efficient Optimistic TMR Scheme”, in the *Proc. of the International Conference on Parallel and Distributed Systems (ICPADS)*, pages 559-568, Newport Beach, CA, July 2004, IEEE Computer Society. **(Acceptance rate: 30%) Citations: 23 (Google Scholar)**
- C4. **Dakai Zhu**, Daniel Mossé and Rami Melhem, “Multiple Resource Periodic Scheduling Problem: how much fairness is necessary?”, in the *Proc. of the 24<sup>th</sup> IEEE Real-Time System Symposium (RTSS)*, pages 142-151, Cancun Mexico, December 2003, IEEE Computer Society. **Citations: 38 (Google Scholar)**
- C3. Ramesh Mishra, Namrata Rastogi, **Dakai Zhu**, Daniel Mossé and Rami Melhem, “Energy Aware Scheduling for Distributed Real-Time Systems”, in the *Proc. of the International Parallel & Distributed Processing Symposium (IPDPS)*, pages 21-29, Nice France, April 2003, IEEE Computer Society. **(Acceptance rate: 30%) Citations: 103 (Google Scholar)**

C2. **Dakai Zhu**, Nevine AbouGhazleh, Daniel Mossé and Rami Melhem, “Power Aware Scheduling for AND/OR Graph in Multi-Processor Real-Time Systems”, in the *Proc. of the International Conference on Parallel Processing (ICPP)*, pages 593-601, Vancouver B.C. Canada, August 2002, IEEE Computer Society. **(Acceptance rate: 36%)**

**Citations: 28 (Google Scholar)**

C1. **Dakai Zhu**, Rami Melhem and Bruce R. Childers, “Scheduling with Dynamic Voltage/Speed Adjustment Using Slack Reclamation in Multi-Processor Real-Time Systems”, in the *Proc. of the 22<sup>th</sup> IEEE Real-Time System Symposium (RTSS)*, pages 84-94, London England, December 2001, IEEE Computer Society.

- *Refereed Workshop/Short Papers/Posters*

W7. Yifeng Guo\* and **Dakai Zhu**, “Mixed-EDF Scheduling and Its Application to Energy Efficient Fault Tolerance in Real-Time Systems”, in *Works In Progress (WiP) Session of the IEEE Real-Time System Symposium (RTSS)*, Vienna, Austria, Nov. 30- Dec. 2, 2011

W6. Yifeng Guo\*, Hang Su\* and **Dakai Zhu**, “An Optimal Discrete-Time Based Boundary Fair Scheduler for Sporadic Tasks in Multiprocessor Real-Time Systems”, in *Works In Progress (WiP) Session of the IEEE Real-Time System Symposium (RTSS)*, San Diego, CA, December 1-3, 2010

W5. **Dakai Zhu** and Ali S. Tosun, “Adaptive Path Scheduling for Mobile Element to Prolong the Lifetime of Wireless Sensor Networks”, in the *Supplement Proc. of the IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), Work-in-Progress (WiP) session*, St. Louis, MO, April 21-24, 2008. Selected to appear in ACM SIGBED Review, Vol. 5-2, (July 2008).

W4. Frederick E. Diehl, Joshua J. Curtis\*, Salvador J. Rodriguez\*, Ali S. Tosun and **Dakai Zhu**, “Power-Efficient Real-Time Data Collection using Mobile Robots”, in the *Supplement Proc. of the IEEE Real-Time System Symposium (RTSS) for Works In Progress (WiP) Session*, Tucson, AZ, December 3-6, 2007

W3. **Dakai Zhu** and Hakan Aydin, “Low-Power Reliable Real-Time Embedded Systems”, in *IBM Austin Conference on Energy-Efficient Design (ACEED) - poster*, March 2007.

W2. **Dakai Zhu** and Hakan Aydin, “Reliability Effects of Process and Thread Redundancy on Chip Multiprocessors”; in *Supplement Proc. of the Int’l Conf. on Dependable Systems and Networks (DSN) - Fast Abstracts*, pages 212-213, Philadelphia, June 2006.

W1. Ruibin Xu, Cosmin Rusu, **Dakai Zhu**, Daniel Moss, and Rami Melhem, “Practical Energy-Efficient Policies for Server Clusters”, *Brazilian Workshop on Real-Time*, Gramado, Brazil, May 2004.

#### NON-REFEREED PUBLICATIONS

- *Technical Reports*

T7. Xuan Qi, **Dakai Zhu** and Hakan Aydin, “Global Scheduling Based Reliability-Aware Power Management for Multiprocessor Real-Time Systems”, *UTSA-CS-TR-2010-014, Department of Computer Science, University of Texas at San Antonio*, Sept. 2010

T6. Xuan Qi and **Dakai Zhu**, “Energy Efficient Block-Partitioned Multicore Processors for Parallel Applications”, *UTSA-CS-TR-2010-009, Department of Computer Science, University of Texas at San Antonio*, Jul. 2010

T5. **Dakai Zhu**, Xuan Qi\*, Daniel Mossé and Rami Melhem, “An Optimal Boundary Fair Scheduling Algorithm for Multiprocessor Real-Time Systems”; *UTSA-CS-TR-2009-005, Department of Computer Science, University of Texas at San Antonio*, Jun. 2009

- T4. **Dakai Zhu**, Yifeng Guo\* and Ali S. Tosun, “Multi-Path Planning for Mobile Element to Prolong the Lifetime of Wireless Sensor Networks”; *UTSA-CS-TR-2008-016*, Department of Computer Science, University of Texas at San Antonio, Nov. 2008
- T3. **Dakai Zhu**, Xuan Qi\* and Hakan Aydin, “Reliability-Aware Energy Management for Periodic Real-Time Tasks”; *UTSA-CS-TR-2008-001*, Department of Computer Science, University of Texas at San Antonio, Jan. 2008
- T2. **Dakai Zhu**, Rami Melhem and Daniel Mossé, “Energy Efficient Redundant Configurations for Reliable Servers in Distributed Systems”; *UTSA-CS-TR-2007-001*, Department of Computer Science, University of Texas at San Antonio, Feb. 2007
- T1. **Dakai Zhu**, “Reliability-Aware Dynamic Energy Management in Dependable Embedded Real-Time Systems”; *UTSA-CS-TR-2006-001*, Department of Computer Science, University of Texas at San Antonio, Jan. 2006; (accepted by ACM TECS, May 2006)

#### SCHOLARLY PRESENTATIONS

- Invited Talk: “Research on Low Power Reliable Computing”, Northeastern University, Shenyang, China, August 2010;
- Invited Talk: “Optimistic Reliability Aware Energy Management for Real-Time Tasks with Probabilistic Execution Times”, Zhejiang University, Hangzhou, China, July 2008;
- Invited Talk: “Reliability-Aware Energy Management for Real-Time Systems”, Tsinghua University, Beijing, China, June 2008;

#### GRANTS

- **NSF, CNS-1016974: CSR: Small: Collaborative Research: Generalized Reliability-Aware Power Management for Real-Time Embedded Systems**, PI (with Dr. Hakan Aydin at GMU; Total: \$453,708; UTSA share is \$185,379;), 8/1/2010 – 7/31/2013
- **NSF, CNS-0953005: CAREER: An Integrated Scheduling Framework for Multicore-Based Real-Time Embedded Systems**, PI, \$400,000; 7/1/2010 – 6/30/2015
- **NSF, CNS-0855247: II-NEW: Enhanced Parallelization for High Performance Computing**, Co-PI (PI: Kleanthis Psarris; Co-PIs: Ali Tosun and Qing Yi), \$227,178; 8/1/2009 – 7/31/2012
- **NSF, CNS-0720651: Collaborative Research: CSR-EHS: Towards an Integrated Framework for Low Power Reliable Real-Time Embedded Systems**, PI (with Dr. Hakan Aydin at GMU; Total: \$284,983; UTSA share is \$179,983), 8/1/2007 – 7/31/2010 (no cost extension to 7/31/2011)
- **UTSA, UTSA Faculty Research Award: Exploiting Chip-Multiprocessors (CMPs) in Real-Time Embedded Systems**, PI, \$5,000; 9/1/2007 – 8/31/2008

#### TEACHING ACTIVITIES

##### *Courses Taught:*

- **Undergraduate CS 1063: Introduction to Computer Programming**, Fall 2007, Spring 2008, Fall 2008, Fall 2009, Fall 2010, Fall 2011;
- **Undergraduate CS 1713: Introduction to Computer Science**, Fall 2005, Fall 2006, Spring 2007;
- **Undergraduate CS 4833: Embedded Systems**, Summer 2007, Fall 2008, Fall 2009, Fall 2010;
- **Graduate CS 5523: Operating Systems**, Spring 2005, Spring 2006, Spring 2007, Spring 2008, Spring 2009, Spring 2010, Spring 2011;

*Dissertations Directed:*

- **Hang Su**, *Ph.D.*, “*Real-Time Multicore Scheduling in Cyber-Physical Systems*”; May 2014 (expected);
- **Yifeng Guo**, *Ph.D.*, “*Energy-Efficient Fault Tolerance in Multiprocessor Real-Time Systems*”; May 2013 (expected);
- **Xuan Qi**, *Ph.D.*, “*Scheduling for Energy and Reliability Management on Multiprocessor Real-Time Systems*”; May, 2011 (**graduated**);

*Theses Directed:*

- **Nirali Patel**, *Master*, “*Fixed-Priority Based Reliability-Aware Power Management for Periodic Real-Time Tasks*”; Dec. 2007 (**graduated**);

*Projects Supervised:*

- **Joshua J. Curtis**, *BS*, “*Programming of Handyboard and Tmote to Build a Mobile Sensor Element*”; Dec. 2007 (**graduated**);
- **Salvador J. Rodriguez**, *BS*, “*Design and Programming of LEGO Robots*”; Dec. 2007 (**graduated**);

SERVICE ACTIVITIES

*Departmental Committees:*

- Faculty search committee, 2009-2010, 2011-2012;
- Communication committee (maintain department news and seminar webpages etc.), 2009-2010;
- Colloquium Coordinator, 2007–2011;
- PhD exam committee (prepare and grade phd qualification exam on OS), 2005–2012;
- Lab and Facilities committee (manage and maintain department technical reports), 2005-2008;

*Editorship:*

- Guest Co-Editor: Special issue of *International Journal of Embedded Systems (IJES)* on *Low-Power Real-Time Embedded Computing*, 2006;

*Organizing Committee:*

- Program Co-Chair of the IEEE Int’l Conference on Embedded Software and Systems (ICCESS), 2009;
- Program Chair/Co-Chair for Work-in-Progress (WiP) session of the IEEE Real-Time System Symposium (RTSS), 2005, 2009;
- Web-Chair of the IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), 2007, 2008, 2009, 2010, 2011, 2012;
- Publicity Chair of the 6th IEEE International Symposium on Embedded Computing (SEC), 2009;
- Workshop Co-Chair of the IFIP Int’l Conference on Embedded And Ubiquitous Computing (EUC), 2008;
- Program Co-Chair of the First Int’l Workshop on Wireless Mesh and Ad-hoc Networks (WiMan), 2007 (in conjunction with ICCCN’07);
- Program Co-Chair of the Int’l Workshop on Scheduling Techniques for Real-Time Systems, 2005 (in conjunction with the ICCESS’05);
- Program Co-Chair of the Second Int’l Workshop on Power-Aware Real-time Computing (PARC) 2005 (in conjunction with the EMSOFT’05);

*Technical Program Committee:*

- IEEE Real-Time System Symposium (RTSS), 2005, 2006, 2008, 2009, 2010, 2011;

- IEEE Real-Time Technology and Applications Symposium (RTAS), 2006,2007,2008, 2010, 2011, 2012;
- IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA), 2009
- ACM SIGPLAN/SIGBED Conference on Languages, Compilers and Tools for Embedded Systems (LCTES), 2010;
- ACM Symposium on Applied Computing, Power Aware Design and Optimization Track, 2010
- Design, Automation and Test in Europe (DATE), Real-time and dependable systems track, 2008, 2009;
- The Int'l Conference on Computer Science and its Applications (CSA), 2009
- The Int'l Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), 2009
- Int'l Conference on Embedded Software and Systems (ICCESS), 2004,2005,2007,2008;
- The Second Int'l Workshop on Cyber-Physical Systems (WCPS), 2009;
- The Int'l Symposium on Embedded Computing (SEC) 2007,2008;
- IFIP Int'l Conference on Embedded And Ubiquitous Computing (EUC), 2005,2007,2008;
- IEEE Int'l Conference on Sensor Networks, Ubiquitous and Trustworthy Computing (SUTC), 2008
- IEEE International Conference on Computational Science and Engineering (CSE), 2008;
- Int'l Conference on Intelligent Pervasive Computing (IPC) 2007;
- The 2nd Int'l Symposium on Smart Home (SH'07) 2007;
- 2006 International Workshop on Embedded Software Optimization (ESO 2006) (with EUC'06);
- 3rd International Workshop on Embedded Computing, 2006 (with ICPP'06);

*External Reviewer for Journals:*

- ACM Transactions on Embedded Computing Systems (TECS), 2005(1 paper reviewed), 2006(3), 2007(1), 2008(1), 2009(1), 2010(2);
- ACM Transactions on Design Automation of Electronic Systems (TODAES), 2005(1), 2007(1);
- IEEE Transactions on Computers (TC), 2006(2), 2007(5), 2008(2), 2009(2), 2010(1);
- IEEE Transactions on Parallel and Distributed Systems (TPDS), 2007(3), 2010(2);
- IEEE Transactions on Industrial Informatics (TII), 2007(3), 2009 (2), 2010(3);
- IEEE Transactions on Mobile Computing (TMC), 2009(1), 2010(1);
- IEEE Transactions on CAD of Integrated Circuits and Systems (TCAD), 2008(1), 2009(2), 2010(3);
- IEEE Transactions on Very Large Scale Integration Systems (TVLSI), 2007(2), 2008(1);
- IEEE Transactions on Reliability (TR), 2005(1);
- Journal of Real-Time Systems (JRTS), 2006(1), 2007(1), 2008(2), 2009(2), 2010(4);
- Journal of Parallel and Distributed Computing (JPDC), 2007(2);
- Journal of Computer Science and Technology (JCST), 2008(1);
- Journal of Systems and Software (JSS), 2005(1), 2006(3), 2007(3), 2008(2);
- Information Processing Letter (IPL), 2006(1);
- Parallel Computing, 2010(1);

*Proposal Reviews:*

- NSF panel, *Program – omitted*, 2009, 2011;
- NCERC (Canada), *Program – Discovery Grants*, 2009;