CURRICULUM VITAE

Neeraj Mittal

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EDUCATION

Doctor of Philosophy (Ph.D.) in Computer Science, The University of Texas at Austin, USA, May 2002, (GPA: 4.0/4.0).

Dissertation Title: Techniques for Analyzing Distributed Computations

Advisor: Vijay K. Garg

Abstract: Designed, implemented and evaluated global fault detection and recovery algorithms for tolerating software faults in distributed programs.

Master of Science (M.S.) in Computer Science, The University of Texas at Austin, USA, May 1997, (GPA: 4.0/4.0).

Bachelor of Technology (B.Tech.) in Computer Science and Engineering, Indian Institute of Technology, Delhi, India, May 1995, (GPA: 9.75/10.0).

PROFESSIONAL EMPLOYMENT

September 2020 - Present: **Professor**, Department of Computer Science, *The University of Texas at Dallas*, Richardson, Texas, USA.

September 2009 - August 2020: **Associate Professor**, Department of Computer Science, *The University of Texas at Dallas*, Richardson, Texas, USA.

September 2002 - August 2009: **Assistant Professor**, Department of Computer Science, *The University of Texas at Dallas*, Richardson, Texas, USA.

July 2004 - August 2004: **Visiting Professor**, Department of Computer Science, *RWTH (Rhine-Westphalia Technical University) Aachen*, Germany.

June 2002: **Post-Doctoral Fellow**, Electrical and Computer Engineering Department, *The University of Texas at Austin*, Austin, Texas, USA.

May 1999 - August 1999: **Summer Research Intern**, Content Management Group, *IBM Almaden Research Center*, San Jose, California, USA.

May 1997 - August 1997: **Summer Research Intern**, Quality of Service (QOS) Group, *Lucent Bell Laboratories*, Murray Hill, New Jersey, USA.

May 1994 - July 1994: **Software Engineer Intern**, *CMR Design Automation Pvt. Ltd.*, New Delhi, India.

PROFESSIONAL ACTIVITY

August 1999 - May 2002: **Graduate Research Assistant**, Electrical and Computer Engineering Department, *The University of Texas at Austin*, USA.

June 1996 - May 1999: **Graduate Teaching Assistant**, Department of Computer Sciences, *The University of Texas at Austin*, USA.

HONORS AND AWARDS

- **Student Best Paper Award:** Awarded by the program committee of the thirty-ninth ACM Symposium on Principles of Distributed Computing (PODC), 2020, for work with student Sahil Dhoked.
- **Outstanding Service Award:** Awarded by the Department of Computer Science, The University of Texas at Dallas, December 2018.
- **Outstanding Service Award:** Awarded by the Department of Computer Science, The University of Texas at Dallas, December 2016.
- **Outstanding Service Award:** Awarded by the Department of Computer Science, The University of Texas at Dallas, December 2014.
- **Outstanding Service Award:** Awarded by the Department of Computer Science, The University of Texas at Dallas, December 2010.
- **Distinguished Teacher of the Year, Department of Computer Science:** Awarded by the Erik Jonsson School of Engineering and Computer Science, The University of Texas at Dallas, 2009 - 2010.
- **MCD Graduate Fellowship**: Awarded by University of Texas at Austin for graduate studies, 1995 - 1997.
- **Suresh Chandra Memorial Award**: Awarded by Indian Institute of Technology, Delhi, for the best undergraduate software project, 1995.
- **Certificate of Merit**: Awarded by Indian Institute of Technology, Delhi, for securing the highest grade point average, 1991 - 1994.
- Secured **6th** rank among more than 100,000 candidates in the Joint Entrance Examination (JEE) for the Indian Institute of Technologies (IIT's), 1991.
- **Gold Medal** for securing first position in Mathematics Examination conducted by Ramanujan Society of Born Mathematicians, New Delhi, India, 1991.
- **Junior Science Talent Search Scholarship**: Awarded by Directorate of Education, Delhi, India for two years, 1987 - 1989.

AREAS OF RESEARCH

Multicore computing, Distributed computing, Fault tolerant distributed systems, Testing and debugging of distribued programs, Cognitive radio networks

RESEARCH GRANTS/GIFTS

1. *CSR: Small: Design and Optimization of Scalable Concurrent Data Structures for Multi-Core Systems*, August 1, 2016 - July 31, 2021, $301,856. Investigator: Neeraj Mittal (PI). Funding Organization: National Science Foundation (NSF).

2. Industrial Research Assistant, September 8, 2014 - May 31, 2015, Total amount: $28,402. Funding Organization: NetApp, Inc.

3. *Collaborative Research: Phase II NSF Net-Centric and Cloud Software and Systems Industry/University Cooperative Research Center (NCSS I/UCRC)*, March 1, 2014 - February 28, 2019, $200,000. Investigators: Farokh Bastani (PI), Gopal Gupta (co-PI), Dung T. Huynh (co-PI), Neeraj Mittal (co-PI) and I-Ling Yen (co-PI). Funding Organization: National Science Foundation (NSF).

4. Unrestricted Gift, September 2013, $7,000. Funding Organization: Signalogic, Inc.

5. Unrestricted Gift, July 2011, $4,000. Funding Organization: Tektronix, Inc.

6. *CSR: Small: Collaborative Research: Improving Dependability of Multithreaded Distributed Programs*, September 1, 2011 - November 30, 2015, Total amount: $449,981, UTD's component: $224,272. Investigators at UTD: Neeraj Mittal (PI). Funding Organization: National Science Foundation (NSF).

7. *MRI Consortium: Development of Wireless Networking Testbed and Emulator (WiNeTestEr)*, October 1, 2010 - September 30, 2014, Total amount: $1,001,918, UTD's component: $514,190. Investigators at UTD: Ravi Prakash (PI), S. Venkatesan (co-PI), Neeraj Mittal (co-PI) and Bhaskar Banerjee (co-PI). Funding Organization: National Science Foundation (NSF).

8. *Efficient Algorithms for Not-Filtering*, January 2010, Unrestricted Gift, $13,000. Investigator: Neeraj Mittal. Funding Organization: Tektronix, Inc.

9. *Collaborative Research: IUCRC Center Proposal: Net-Centric Software and Systems*, March 1, 2009 - February 28, 2014, $418,807. Investigators: Farokh Bastani (PI), Gopal Gupta (co-PI), Dung T. Huynh (co-PI), I-Ling Yen (co-PI) and Neeraj Mittal (co-PI). Funding Organization: National Science Foundation (NSF).

10. *Concurrent Data Structures for Multi-Core Systems*, January 16, 2009 - January 15, 2010, $42,654. Investigator: Neeraj Mittal (PI). Funding Organization: Tektronix, Inc.

11. *Concurrent Data Structures for Multi-Core Systems*, September 1, 2008 - January 15, 2009, $21,569. Investigator: Neeraj Mittal (PI). Funding Organization: Tektronix, Inc.

12. *Texas Networking Testbed*, June 1, 2008 - May 31, 2009, $673,000. Investigators: S. Venkatesan (PI), Ravi Prakash (co-PI) and Neeraj Mittal (co-PI). Funding Organization: Defense Microelectronic Activity/Crane Aerospace.

13. *I/UCRC: A Planning Activity for Joining the Center for Embedded Systems*, September 1, 2007 - February 28, 2009, $10,000. Investigators: Farokh Bastani (PI), Gopal Gupta (co-PI), Dung T. Huynh (co-PI), Neeraj Mittal (co-PI) and I-Ling Yen (co-PI). Funding Organization: National Science Foundation (NSF).

14. *Texas Networking Testbed*, June 1, 2007 - May 31, 2008, $326,017. Investigators: S. Venkatesan (PI), Ravi Prakash (co-PI) and Neeraj Mittal (co-PI). Funding Organization: Defense Microelectronic Activity/Crane Aerospace.

15. *A Robust Distributed Messaging Architecture based on Publish-Subscribe Framework*, January 1, 2007 - December 31, 2007, $34,592. Investigator: Neeraj Mittal (PI). Funding Organization: Tektronix, Inc.

16. *Network-Centric Operations and Warfare Modelling and Simulation Integration Center*, August 22, 2005 - August 31, 2006, $200,000. Investigators: S. Venkatesan (PI), Ravi Prakash (co-PI) and Neeraj Mittal (co-PI). Funding Organization: Rockwell Collins, Inc.

RESEARCH COLLABORATORS

1. Prof. Vijay K. Garg, Department of Electrical and Computer Engineering, The University of Texas at Austin

2. Prof. S. Venkatesan, Department of Computer Science, The University of Texas at Dallas

3. Prof. Felix C. Freiling, Department of Computer Science, University of Mannheim, Germany

4. Prof. Ravi Prakash, Department of Computer Science, The University of Texas at Dallas

5. Prof. R. Chandrasekaran, Department of Computer Science, The University of Texas at Dallas

6. Dr. Hui-I Hsiao, IBM Almaden Research Center

7. Dr. Chakarat Skawratananond, IBM Austin

8. Prof. Alper Sen, Department of Computer Engineering, Bogazici University, Istanbul, Turkey

9. Prof. Mukesh Singhal, Department of Computer Science, University of California, Merced

10. Prof. Ajay D. Kshemkalyani, Department of Computer Science, University of Illinois at Chicago

11. Prof. Thuc D. Nguyen, Faculty of Information Technology, University of Natural Sciences, Vietnam National University of Ho Chi Minh City

12. Prof. Kamil Sarac, Department of Computer Science, The University of Texas at Dallas

13. Prof. Turgay Korkmaz, Department of Computer Science, The University of Texas at San Antonio

14. Prof. Gopal Gupta, Department of Computer Science, The University of Texas at Dallas

PUBLICATIONS

A. Refereed Journal Publications

1. K. Alex Mills, Neeraj Mittal and R. Chandrasekaran. Algorithms for Optimal Replica Placement Under Correlated Failure in Hierarchical Failure Domains. *Theoretical Computer Science (TCS)*, volume 809, pages 482–518, February 2020.

2. Aravind Natarajan, Arunmoezhi Ramachandran and Neeraj Mittal. FEAST: A Lightweight Lock-Free Concurrent Binary Search Tree. *ACM Transactions on Parallel Computing (TOPC)*, volume 7, issue 2, May 2020.

3. Kenneth Platz, Neeraj Mittal and S. Venkatesan. Practical Concurrent Unrolled Linked Lists Using Lazy Synchronization. *Journal of Parallel and Distributed Computing (JPDC)*, volume 139, pages 110–134, May 2020.

4. Aravind Natarajan, Himanshu Chauhan, Neeraj Mittal and Vijay K. Garg. Efficient Abstraction Algorithms for Predicate Detection. *Theoretical Computer Science (TCS) (Special Issue on Selected Papers from ICDCN 2014)*, volume 688, pages 24–48, August 2017.

5. Yanyan Zeng, K. Alex Mills, Shreyas Gokhale, Neeraj Mittal, S. Venkatesan and R. Chandrasekaran. Robust Neighbor Discovery in Multi-Hop Multi-Channel Heterogeneous Wireless Networks. *Journal of Parallel and Distributed Computing (JPDC)*, volume 92, pages 15–34, May 2016.

6. Ramon Novales, Neeraj Mittal and Kamil Sarac. SKAIT: A Parameterized Key Assignment Scheme for Confidential Communication in Resource Constrained Ad Hoc Wireless Networks. *Ad Hoc Networks*, volume 20, pages 163–181, September 2014.

7. Sara Arbab Yazd, Subbarayan Venkatesan and Neeraj Mittal. Boosting Energy Efficiency with Mirrored Data Block Replication Policy and Energy Scheduler. *Operating Systems Review*, volume 47, number 2, pages 30–37, July 2013.

8. Ramon Novales and Neeraj Mittal. Parameterized Key Assignment for Confidential Communication in Wireless Networks. *Ad Hoc Networks*, volume 9, issue 7, pages 1186–1201, September 2011.

9. Neeraj Mittal and Ramon Novales. Cluster-Based Key Pre-Distribution Using Deployment Knowledge. *IEEE Transactions on Dependable and Secure Computing (TDSC)*, volume 7, number 3, pages 329–335, July-September 2010.

10. Neeraj Mittal, Kuppahalli L. Phaneesh and Felix C. Freiling. Safe Termination Detection in an Asynchronous Distributed System when Processes may Crash and Recover. *Theoretical Computer Science (TCS) (Special Issue on Selected Papers from OPODIS 2006)*, volume 410, issues 6–7, pages 614–628, February 2009.

11. Srinivasan Krishnamurthy, Neeraj Mittal, R. Chandrasekaran and S. Venkatesan. Neighbor Discovery in Multi-Receiver Cognitive Radio Networks. *International Journal of Computers and Applications (IJCA)*, volume 31, number 1, pages 50–57, January 2009.

12. Tarun R. Belagodu and Neeraj Mittal. On Maximum Key Pool Size for a Key Pre-Distribution Scheme in Wireless Sensor Networks. *International Journal of Computers and Applications (IJCA)*, volume 31, number 1, pages 30–35, January 2009.

13. Neeraj Mittal, Felix C. Freiling, S. Venkatesan and Lucia D. Penso. On Termination Detection in Crash-Prone Distributed Systems with Failure Detectors. *Journal of Parallel and Distributed Computing (JPDC)*, volume 68, issue 6, pages 855–875, June 2008.

14. Srinivasan Krishnamurthy, Mansi Thoppian, Srikant Kuppa, R. Chandrasekaran, Neeraj Mittal, S. Venkatesan and Ravi Prakash. Time-efficient Distributed Layer-2 Auto-configuration for Cognitive Radio Networks. *Computer Networks (COMNET) (Special Issue on Cognitive Wireless Networks)*, volume 52, issue 4, pages 831–849, March 2008.

15. Vinay Madenur and Neeraj Mittal. A Delay-Optimal Group Mutual Exclusion Algorithm for a Tree Network. *Journal of Information Science and Engineering (JISE)*, volume 24, number 2, pages 573–583, March 2008.

16. Sathya Peri and Neeraj Mittal. Improving the Efficacy of a Termination Detection Algorithm. *Journal of Information Science and Engineering (JISE)*, volume 24, number 1, pages 159–174, January 2008.

17. Neeraj Mittal, Alper Sen and Vijay K. Garg. Solving Computation Slicing using Predicate Detection. *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, volume 18, number 12, pages 1700–1713, December 2007.

18. Ranganath Atreya, Neeraj Mittal and Sathya Peri. A Quorum-Based Group Mutual Exclusion Algorithm for a Distributed System with Dynamic Group Set. *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, volume 18, number 10, pages 1345–1360, October 2007.

19. Neeraj Mittal, S. Venkatesan and Sathya Peri. A Family of Optimal Termination Detection Algorithms. *Distributed Computing (DC)*, volume 20, number 2, pages 141–162, August 2007.

20. Neeraj Mittal and Prajwal K. Mohan. A Priority-Based Distributed Group Mutual Exclusion Algorithm when Group Access is Non-Uniform. *Journal of Parallel and Distributed Computing (JPDC)*, volume 67, issue 7, pages 797–815, July 2007.

21. Ranganath Atreya, Neeraj Mittal, Ajay D. Kshemkalyani, Vijay K. Garg and Mukesh Singhal. An Efficient Algorithm for Detecting a Locally Stable Predicate in a Distributed Computation. *Journal of Parallel and Distributed Computing (JPDC)*, volume 37, issue 4, pages 369–385, April 2007.

22. Vijay K. Garg, Chakarat Skawratananond and Neeraj Mittal. Timestamping Messages and Events in a Distributed System using Synchronous Communication. *Distributed Computing (DC)*, volume 19, number 5-6, pages 387–402, April 2007.

23. Vijay K. Garg and Neeraj Mittal. A Critique of Java for Concurrent Programming. *IEEE Distributed Systems Online*, volume 6, number 9, September 2005.

24. Neeraj Mittal and Vijay K. Garg. Techniques and Applications of Computation Slicing. *Distributed Computing (DC)*, volume 17, number 3, pages 251–277, March 2005.

25. Neeraj Mittal and Vijay K. Garg. Finding Missing Synchronization in a Distributed Computation using Controlled Re-execution. *Distributed Computing (DC)*, volume 17, number 2, pages 107–130, August 2004.

B. Refereed Conference, Symposium and Workshop Publications

1. Sarat Chandra Varanasi, Neeraj Mittal and Gopal Gupta. Pointer Data Structure Synthesis from Answer Set Programming Specifications In *Proceedings of the 30th International Symposium on Logic-based Program Synthesis and Transformation (LOPSTR), Preliminary Proceedings*, Virtual Meeting, September, 2020.

2. Sahil Dhoked and Neeraj Mittal. An Adaptive Approach to Recoverable Mutual Exclusion. In *Proceedings of the 39th ACM Symposium on Principles of Distributed Computing (PODC)*, Virtual Meeting, August 2020. **(Best Student Paper Award)**

3. Sarat Chandra Varanasi, Elmer Salazar, Neeraj Mittal and Gopal Gupta. Synthesizing Imperative Code from Answer Set Programming Specifications. In *Proceedings of the 29th International Symposium on Logic-based Program Synthesis and Transformation (LOPSTR), Revised Selected Papers*, pages 75–89, Porto, Portugal, October 2019.

4. Kenneth Platz, Neeraj Mittal and S. Venkatesan. Concurrent Unrolled Skiplist. In *Proceedings of the 39th IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 1579–1589, Dallas, Texas, USA, July 2019.

5. Arunmoezhi Ramachandran and Neeraj Mittal. Improving Efficacy of Concurrent Internal Binary Search Trees using Local Recovery. In *Proceedings of the 20th International Conference on Distributed Computing and Networking (ICDCN)*, pages 61–70, Bangalore, India, January 2019.

6. Shreyas Gokhale and Neeraj Mittal. Brief Announcement: Fast and Scalable Group Mutual Exclusion. In *Proceedings of the 32nd Annual International Symposium on Distributed Computing (DISC)*, pages 49:1–49:3, New Orleans, Louisiana, USA, October 2018.

7. K. Alex Mills, R. Chandrasekaran and Neeraj Mittal. Lexico-minimum Replica Placement in Multitrees. In *Proceedings of the 11th Annual International Conference on Combinatorial Optimization and Applications (COCOA)*, Volume Two, pages 122–137, Shanghai, China, December 2017.

8. Arunmoezhi Ramachandran and Neeraj Mittal. Poster: Improving Efficacy of Internal Binary Search Trees using Local Recovery. In *Proceedings of the 21st ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP)*, Article Number 42, Barcelona, Spain, March 2016.

9. K. Alex Mills, R. Chandrasekaran and Neeraj Mittal. On Replica Placement in High-Availability Storage under Correlated Failure. In *Proceedings of the 9th Annual International Conference on Combinatorial Optimization and Applications (COCOA)*, pages 348–363, Houston, Texas, USA, December 2015.

10. Arunmoezhi Ramachandran and Neeraj Mittal. Poster: CASTLE: Fast Concurrent Internal Binary Search Tree using Edge-Based Locking. In *Proceedings of the 20th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP)*, pages 281–282, San Francisco, California, USA, February 2015.

11. Arunmoezhi Ramachandran and Neeraj Mittal. A Fast Lock-Free Internal Binary Search Tree. In *Proceedings of the International Conference on Distributed Computing and Networking (ICDCN)*, pages 45–60, Goa, India, January 2015.

12. Kenneth Platz, Neeraj Mittal and S. Venkatesan. Practical Concurrent Unrolled Linked Lists Using Lazy Synchronization. In *Proceedings of the 18th International Conference on Principles of Distributed Systems (OPODIS)*, pages 388–403, Cortina d'Ampezzo, Italy, December 2014.

13. Aravind Natarajan and Neeraj Mittal. Fast Concurrent Lock-Free Binary Search Trees. In *Proceedings of the 19th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP)*, pages 317–328, Orlando, Florida, USA, February 2014.

14. Aravind Natarajan, Neeraj Mittal and Vijay K. Garg. Online Algorithms to Generate Slices for Regular Temporal Logic Predicates. In *Proceedings of the 15th International Conference on Distributed Computing and Networking (ICDCN)*, pages 165–180, Coimbatore, India, January 2014.

15. Aravind Natarajan, Lee Savoie and Neeraj Mittal. Concurrent Wait-Free Red-Black Trees. In *Proceedings of the 15th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS)*, pages 45–60, Osaka, Japan, November 2013.

16. Aravind Natarajan and Neeraj Mittal. Brief Announcement: A Concurrent Lock-Free Red-Black Tree. In *Proceedings of the 27th International Symposium on Distributed Computing (DISC)*, pages 565–566, Jerusalem, Israel, October 2013.

17. Himanshu Chauhan, Vijay K. Garg, Aravind Natarajan and Neeraj Mittal. A Distributed Abstraction Algorithm for Online Predicate Detection. In *Proceedings of the 32nd IEEE Symposium on Reliable Distributed Systems (SRDS)*, pages 101–110, Braga, Portugal, October 2013.

18. Sara Arbab Yazd, Subbarayan Venkatesan and Neeraj Mittal. Energy Efficient Hadoop using Mirrored Data Block Replication Policy. In *Proceedings of the 1st International Workshop on Dependability Issues in Cloud Computing (DISCCO)*, Irvine, California, USA, October 2012 (held in conjunction with SRDS 2012).

19. Aravind Natarajan, Lee Savoie and Neeraj Mittal. Brief Announcement: Concurrent Wait-Free Red-Black Trees. In *Proceedings of the 26th International Symposium on Distributed Computing (DISC)*, pages 421–422, Salvador, Brazil, October 2012.

20. Ehsan Nourbakhsh, Ryan Burchfield, S. Venkatesan, Neeraj Mittal and Ravi Prakash. Enhancing ASSERT: Making an Accurate Testbed Friendly. In *Proceedings of the 6th ACM International Workshop on Wireless Network Testbeds, Experimental evaluation and Characterization (WiNTECH)*, pages 3–10, Las Vegas, Nevada, USA, September 2011 (held in conjunction with MobiCom 2011).

21. Matthew Holiday, Neeraj Mittal and S. Venkatesan. Secure Location Verification with Randomly-Selected Base Stations. In *Proceedings of the 3rd International Workshop on Specialized Ad Hoc Networks and Systems (SAHNS)*, pages 119–122, Minneapolis, Minnesota, USA, June 2011 (held in conjunction with ICDCS 2011).

22. Neeraj Mittal, Yanyan Zeng, S. Venkatesan and R. Chandrasekaran. Randomized Distributed Algorithms for Neighbor Discovery in Multi-Hop Multi-Channel Heterogeneous Wireless Networks. In *Proceedings of the 31st IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 57–66, Minneapolis, Minnesota, USA, June 2011.

23. Suhel Patel, Kamil Sarac, R. Chandrasekaran, Turgay Korkmaz and Neeraj Mittal. Relay Assignment in AMT-based Multicast Content Distribution. In *Proceedings of the 9th Annual Conference on Communication Networks and Services Research (CNSR)*, pages 263–271, Ottawa, Ontario, Canada, May 2011.

24. Chanaka Liyana Arachchige, S. Venkatesan, R. Chandrasekaran and Neeraj Mittal. Minimal Time Broadcasting in Cognitive Radio Networks. In *Proceedings of the 12th International Conference on Distributed Computing and Networking (ICDCN)*, pages 364–375, Bangalore, India, January 2011.

25. Yanyan Zeng, Neeraj Mittal, S. Venkatesan and R. Chandrasekaran. Fast Neighbor Discovery with Lightweight Termination Detection in Heterogeneous Cognitive Radio Networks. In *Proceedings of the 9th International Symposium on Parallel and Distributed Computing (ISPDC)*, pages 149–156, Istanbul, Turkey, July 2010.

26. Ramon Novales, Neeraj Mittal and Kamil Sarac. SKAIT: A Parameterized Key Assignment Scheme for Wireless Networks. In *Proceedings of the 9th International Symposium on Parallel and Distributed Computing (ISPDC)*, pages 157–164, Istanbul, Turkey, July 2010.

27. Ehsan Nourbakhsh, Jeff Dix, Paul Johnson, Ryan Burchfield, S. Venkatesan, Neeraj Mittal and Ravi Prakash. ASSERT: A Wireless Networking Testbed. In *Proceedings of the 6th International Conference on Testbeds and Research Infrastructures for the Development of Networks & Communities (TridentCom)*, pages 209–218, Berlin, Germany, May 2010.

28. Aravind Natarajan and Neeraj Mittal. False Conflict Reduction in the Swiss Transactional Memory (SwissTM) System. In *Proceedings of the 15th International Workshop on High-Level Parallel Programming Models and Supportive Environments (HIPS)*, Atlanta, Georgia, USA, April 2010 (held in conjunction with IPDPS 2010).

29. Tarun Bansal and Neeraj Mittal. A Scalable Algorithm for Maintaining Perpetual System Connectivity in Dynamic Distributed Systems. In *Proceedings of the 24th IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, Atlanta, Georgia, USA, April 2010.

30. Ramon Novales and Neeraj Mittal. TASK: Template-Based Key Assignment for Confidential Communication in Wireless Networks. In *Proceedings of the 28th IEEE Symposium on Reliable Distributed Systems (SRDS)*, pages 209–216, Niagara Falls, New York, USA, September 2009.

31. Hai T. Vu, Thuc D. Nguyen, Neeraj Mittal and S. Venkatesan. PEQ: A Privacy-Preserving Scheme for Exact Query Evaluation in Distributed Sensor Data Networks. In *Proceedings of the 28th IEEE Symposium on Reliable Distributed Systems (SRDS)*, pages 189–198, Niagara Falls, New York, USA, September 2009.

32. Paul Johnson and Neeraj Mittal. A Distributed Termination Detection Algorithm for Dynamic Asynchronous Systems. In *Proceedings of the 29th IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 343–351, Montreal, Quebec, Canada, June 2009.

33. Chanaka Liyana Arachchige, S. Venkatesan and Neeraj Mittal. An Asynchronous Neighbor Discovery Algorithm for Cognitive Radio Networks. In *Proceedings of the 3rd IEEE Symposia on New Frontiers in Dynamic Spectrum Access Networks (DySPAN)*, Chicago, Illinois, USA, October 2008.

34. Tarun Bansal, Neeraj Mittal and S. Venkatesan. Leader Election Algorithms for Multi-Channel Wireless Networks. In *Proceedings of the International Conference on Wireless Algorithms, Systems and Applications (WASA)*, pages 310–321, Dallas, Texas, USA, October 2008.

35. Hai T. Vu, Ajay Kulkarni, Kamil Sarac and Neeraj Mittal. WORMEROS: A New Framework for Defending Against Wormhole Attacks on Wireless Ad Hoc Networks. In *Proceedings of the International Conference on Wireless Algorithms, Systems and Applications (WASA)*, pages 491–502, Dallas, Texas, USA, October 2008.

36. Thuc D. Nguyen, Duc H. M. Nguyen, Bao N. Tran, Hai T. Vu and Neeraj Mittal. A Lightweight Solution for Defending against Deauthentication/Disassociation Attacks on 802.11 Networks. In *Proceedings of the 17th IEEE International Conference on Computer Communications and Networks (ICCCN)*, pages 185–190, St. Thomas, Virgin Islands, USA, August 2008.

37. Noun Choi, Alieza Mahdian, Ravi Prakash, S. Venkatesan, Neeraj Mittal, Albert J. Anderson, Eric Redding and Robert Butler. A Unified Framework of Node Mobility Models. In *Proceedings of the IEEE Military Communications Conference (MILCOM)*, Orlando, Florida, USA, October 2007.

38. Neeraj Mittal. Space-Efficient Keying in Wireless Communication Networks. In *Proceedings of the 3rd IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob) (Special Session on Security in Mobile Ad hoc Networks and Wireless Sensor Networks)*, White Plains, New York, USA, October 2007.

39. Felix C. Freiling, Matthias Majuntke and Neeraj Mittal. On Detecting Termination in the Crash-Recovery Model. In *Proceedings of the 13th European Conference on Parallel and Distributed Computing (Euro-Par)*, pages 629–638, Rennes, France, August 2007.

40. Hai T. Vu, Neeraj Mittal and S. Venkatesan. THIS: THreshold security for Information aggregation in Sensor networks. In *Proceedings of the 4th International Conference on Information Technology: New Generations (ITNG)*, pages 89–95, Las Vegas, Nevada, USA, April 2007.

41. Neeraj Mittal, Kuppahalli L. Phaneesh and Felix C. Freiling. Safe Termination Detection in an Asynchronous Distributed System when Processes may Crash and Recover. In *Proceedings of the 10th International Conference on Principles of Distributed Systems (OPODIS)*, pages 126–141, Bordeaux, France, December 2006.

42. Felix C. Freiling, Matthias Majuntke and Neeraj Mittal. Termination Detection in an Asynchronous Distributed System with Crash-Recovery Failures (Brief Announcement). In *Proceedings of the 8th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS)*, pages 572–573, Dallas, Texas, USA, November 2006.

43. Mansi Thoppian, S. Venkatesan, Hai T. Vu, Ravi Prakash, Neeraj Mittal and Jackson Anderson. Improving Performance of Parallel Simulation Kernel for Wireless Network Simulations. In *Proceedings of the IEEE Military Communications Conference (MILCOM)*, Washington, DC, USA, October 2006.

44. Srinivasan Krishnamurthy, R. Chandrasekaran, Neeraj Mittal and S. Venkatesan. Brief Announcement: Synchronous Distributed algorithms for Node Discovery and Configuration in

Multi-channel Cognitive Radio Networks. In *Proceedings of the 20th International Symposium on Distributed Computing (DISC)*, pages 572–574, Stockholm, Sweden, September 2006.

45. Sathya Peri and Neeraj Mittal. Monitoring Stable Properties in Dynamic Peer-to-Peer Distributed Systems. In *Proceedings of the 25th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*, pages 420–431, Hyderabad, India, December 2005.

46. Neeraj Mittal and Prajwal K. Mohan. An Efficient Distributed Group Mutual Exclusion Algorithm for Non-Uniform Group Access. In *Proceedings of the 17th IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS)*, pages 367–372, Phoenix, Arizona, USA, November 2005.

47. Srinivasan Krishnamurthy, Mansi Thoppian, Srikant Kuppa, S. Venkatesan, R. Chandrasekaran, Neeraj Mittal and Ravi Prakash. Time-efficient Layer-2 Auto-configuration for Cognitive Radios. In *Proceedings of the 17th IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS)*, pages 459–464, Phoenix, Arizona, USA, November 2005.

48. S. Venkatesan, Maulin Patel and Neeraj Mittal. A Distributed Algorithm for Path Restoration in Circuit Switched Communication Networks. In *Proceedings of the 24th IEEE Symposium on Reliable and Distributed Systems (SRDS)*, pages 226–236, Orlando, Florida, USA, October 2005.

49. Neeraj Mittal, Felix C. Freiling, S. Venkatesan and Lucia D. Penso. Efficient Reduction for Wait-Free Termination Detection in a Crash-Prone Distributed System. In *Proceedings of the 19th International Symposium on Distributed Computing (DISC)*, pages 93–107, Cracow, Poland, September 2005.

50. Ranganath Atreya and Neeraj Mittal. A Dynamic Group Mutual Exclusion Algorithm using Surrogate-Quorums. In *Proceedings of the 25th IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 251–260, Columbus, Ohio, USA, June 2005.

51. Neeraj Mittal, S. Venkatesan and Sathya Peri. Message-Optimal and Latency-Optimal Termination Detection Algorithms for Arbitrary Topologies. In *Proceedings of the 18th International Symposium on Distributed Computing (DISC)*, pages 290–304, Amsterdam, The Netherlands, October 2004.

52. Sathya Peri and Neeraj Mittal. On Termination Detection in an Asynchronous Distributed System. In *Proceedings of the 17th ISCA International Conference on Parallel and Distributed Computing Systems (PDCS)*, pages 209–215, San Francisco, California, USA, September 2004.

53. Neeraj Mittal, Alper Sen, Vijay K. Garg and Ranganath Atreya. Finding Satisfying Global States: One for All and All for One. In *Proceedings of the 18th International Parallel and Distributed Processing Symposium (IPDPS)*, Santa Fe, New Mexico, USA, April 2004.

54. Ranganath Atreya, Neeraj Mittal and Vijay K. Garg. Detecting Locally Stable Predicates without Modifying Application Messages. In *Proceedings of the 7th International Conference on Principles of Distributed Systems (OPODIS)*, pages 20–33, La Martinique, France, December 2003.

55. Neeraj Mittal and Vijay K. Garg. Software Fault Tolerance of Distributed Programs using Computation Slicing. In *Proceedings of the 23rd IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 105–113, Providence, Rhode Island, USA, May 2003.

56. Bharat Goyal, Sriranjani Sitaraman, Neeraj Mittal and S. Venkatesan. Methods to Tackle Vulnerabilities Caused by Lack of Mutual Exclusion. In *Proceedings of the Texas Workshop on Security of Information Systems (TWSIS)*, pages 17–21, College Station, Texas, USA, April 2003.

57. Neeraj Mittal and Vijay K. Garg. Computation Slicing: Techniques and Theory. In *Proceedings of the 15th International Symposium on Distributed Computing (DISC)*, pages 78–92, Lisbon, Portugal, October 2001.

58. Vijay K. Garg and Neeraj Mittal. On Slicing a Distributed Computation. In *Proceedings of the 21st IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 322–329, Phoenix, Arizona, USA, April 2001 **(nominated for the best paper award)**.

59. Neeraj Mittal and Vijay K. Garg. On Detecting Global Predicates in Distributed Computations. In *Proceedings of the 21st IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 3–10, Phoenix, Arizona, USA, April 2001.

60. Neeraj Mittal and Hui-I Hsiao. Database Managed External File Update. In *Proceedings of the 17th IEEE International Conference on Data Engineering (ICDE)*, pages 557–564, Heidelberg, Germany, April 2001.

61. Neeraj Mittal and Vijay K. Garg. Debugging Distributed Programs using Controlled Reexecution. In *Proceedings of the 19th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 239–248, Portland, Oregon, USA, July 2000.

62. Chakarat Skawratananond, Neeraj Mittal and Vijay K. Garg. A Lightweight Algorithm for Causal Message Ordering in Mobile Computing Systems. In *Proceedings of the 12th ISCA International Conference on Parallel and Distributed Computing Systems (PDCS)*, pages 245–250, Florida, USA, 1999.

63. Neeraj Mittal and Vijay K. Garg. Consistency Conditions for Multi-Object Distributed Operations. In *Proceedings of the 18th IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 582–589, Amsterdam, The Netherlands, May 1998.

C. Refereed Abstracts

1. Ramon Novales and Neeraj Mittal. Templatized Assignment of Symmetric Keys for Confidential Communication in Wireless Networks. *Raytheon Information Systems and Computing Technology Network (ISaC) Technical Symposium*, Dallas, Texas, USA, April 2010.

2. Aravind Natarajan and Neeraj Mittal. Improving Swiss Transactional Memory (SwissTM) System Performance in the Presence of False Conflicts. *Raytheon Information Systems and Computing Technology Network (ISaC) Technical Symposium*, Dallas, Texas, USA, April 2010.

3. Bharat Goyal, Neeraj Mittal and S. Venkatesan. A Dynamic Approach to Test Programs for Binding Based Race Condition Vulnerabilities. In *Proceedings of the South Central Information Security Symposium (SCISS)*, Houston, Texas, USA, April 2004.

4. Bharat Goyal, Sriranjani Sitaraman, Neeraj Mittal and S. Venkatesan. A Partial Order Approach to Detect Race Condition Attacks. In *Proceedings of the South Central Information Security Symposium (SCISS)*, Denton, Texas, USA, April 2003.

D. Articles in Edited Volumes

1. Vijay K. Garg and Neeraj Mittal. Time and State in Asynchronous Distributed Systems. *Wiley Encyclopedia of Computer Science and Engineering*, January 2008.

2. Vijay K. Garg, Neeraj Mittal and Alper Sen. Applications of Lattice Theory to Distributed Computing. *ACM Special Interest Group on Algorithms and Computation Theory (SIGACT) News Distributed Computing Column*, volume 34, number 3, pages 40–61, September 2003.

E. Invited Papers

1. Vijay K. Garg, Neeraj Mittal and Alper Sen. Using Order in Distributed Computing. *American Mathematical Society (AMS) Annual Meeting*, San Antonio, Texas, USA, January 2006.

F. Demonstrations

1. Paul Johnson, Ehsan Nourbakhsh, T. Ryan Burchfield, Jeff Dix, Ravi Prakash, S. Venkatesan and Neeraj Mittal. ASSERT: Advanced wireleSS Environment Research Testbed. In *Proceedings of the 7th ACM International Conference on Embedded Networked Sensor Systems (SenSys)*, pages 297–298, Berkeley, California, USA, November 2009.

G. Poster Presentations

1. Shreyas Gokhale, Sahil Dhoked and Neeraj Mittal. On Group Mutual Exclusion for Dynamic Systems *26th ACM SIGPLAN Annual Symposium on Principles and Practice of Parallel Programming (PPoPP)*, Seoul, South Korea, February 2021.

2. Arunmoezhi Ramachandran and Neeraj Mittal. Improving Efficacy of Internal Binary Search Trees using Local Recovery. *21st ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP)*, Barcelona, Spain, March 2016.

3. Arunmoezhi Ramachandran and Neeraj Mittal. CASTLE: Fast Concurrent Internal Binary Search Tree using Edge-Based Locking. *20th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP)*, San Francisco, California, USA, February 2015.

4. Arunmoezhi Ramachandran, Neeraj Mittal and Jerome Vienne. A Concurrent Binary Search Tree for Intel Xeon Phi. *Annual Conference on Extreme Science and Engineering Discovery Environment (XSEDE)*, Atlanta, Georgia, USA, July 2014.

5. Chanaka J Liyana Arachchige, Yanyan Zeng, S. Venkatesan, Neeraj Mittal and R. Chandrasekaran. MAC and Higher Layer Protocols for Heterogeneous Cognitive Radio Networks. *NSF Industry University Cooperative Research Center (I/UCRC) Semi-Annual Meeting*, Grapevine, Texas, USA, April 2012.

6. Neeraj Mittal, Kamil Sarac and Suku Nair. A Robust Distributed Messaging System based on Publish-Subscribe Framework. *NSF Industry University Cooperative Research Center (I/UCRC) Planning Meeting*, Plano, Texas, USA, February 2008.

7. Sathya Peri and Neeraj Mittal. On Efficient Departure for Dynamic Asynchronous Systems. *Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC)*, Denver, Colorado, USA, July 2006.

H. Unpublished Technical Reports

8. Neeraj Mittal and Vijay K. Garg. Rectangles are Better than Chains for Encoding Partially Ordered Sets. *Technical Report UTDCS-07-05*, Department of Computer Science, The University of Texas at Dallas, February 2005.

9. Neeraj Mittal and Vijay K. Garg. A Rigorous Proof of $O(n^2)$ Bound on the Number of Moves for Stabilization of Dijkstra's 3-State Algorithm. *Technical Report TR-PDS-2001-005*, The Parallel and Distributed Systems Laboratory, Department of Electrical and Computer Engineering, The University of Texas at Austin, December 2001.

DOCTORAL DISSERTATIONS SUPERVISED

1. Shreyas Gokhale, Summer 2019
2. Kenneth Platz, Fall 2017 (co-advised with S. Venkatesan)
3. K. Alex Mills, Summer 2017
4. Arunmoezhi Ramahcandran, Spring 2016
5. Aravind Natarajan, Spring 2014
6. Chanaka J. Liyana Arachchige, Summer 2012 (co-advised with S. Venkatesan)
7. Eric A. Etheridge, Spring 2012
8. Yanyan Zeng, Summer 2011
9. Ramon Novales, Fall 2010
10. Hai T. Vu, Summer 2009 (co-advised with S. Venkatesan)
11. Sathya Peri, Summer 2007

MASTER'S THESES SUPERVISED

1. David Guill, Fall 2013
2. K. Alex Mills, Spring 2013
3. Hari Haran Chandra Sekaran, Summer 2012
4. Divya Chandrasekaran, Spring 2010

5. Paul Johnson, Fall 2009 (co-advised with S. Venkatesan)
6. Aravind Natarajan (Computer Engineering), Fall 2009
7. Lee H. Savoie, Fall 2009
8. Tarun Bansal, Summer 2009
9. Vasant Patil, Fall 2008
10. Chowdhury Sucharit Barua, Fall 2007
11. Kuppahalli L. Phaneesh, Summer 2006
12. Tarun R. Belagodu, Spring 2006
13. Matthias Majuntke, RWTH Aachen, Germany, Fall 2005 (co-advised with Felix C. Freiling)
14. Vinay Madenur, Fall 2005
15. Prajwal K. Mohan, Summer 2005
16. Vedha C. Bharathi, Spring 2005
17. Ranganath Atreya, Fall 2004

BACHELOR'S (SENIOR) THESES SUPERVISED

1. Paul Johnson, Spring 2008

SENIOR DESIGN PROJECTS SUPERVISED

1. Vitali Loseu, Spring 2007

CLARK RESEARCH SCHOLARS SUPERVISED

1. Sanner Barnes (co-advised with S. Venkatesan), Summer 2005

DOCTORAL COMMITTEES SERVED

1. Himanshu Chauhan (The University of Texas at Austin), Summer 2017
2. Tien Tran, Summer 2017
3. Ahmad Askarian (Telecommunications Engineering), Spring 2017
4. Wei-Lun Hung (The University of Texas at Austin), Fall 2016
5. Nhat X. Lam, Spring 2013
6. Duk-Jin Kim, Fall 2012

7. Qasim Javed, Fall 2012
8. Nipatjakorn Kannasoot, Summer 2011
9. Stanley Jointer II, Spring 2011
10. Paul Phipps, Spring 2011
11. Travis Steel, Fall 2010
12. Jinu Kurian, Fall 2009
13. Ajay Bansal, Fall 2007
14. Xu Zhe, Fall 2007
15. Srinivasan Krishnamurthy (Computer Engineering), Fall 2006
16. Maulin Patel, Fall 2006
17. Mansi R. Thoppian, Fall 2006
18. Ajay Mallya, Fall 2006
19. Luke Simon, Summer 2006
20. Sriranjani Sitaraman, Spring 2005

DOCTORAL DISSERTATIONS REFEREED

1. Panduranga Rao M V, National Institute of Technology Karnataka, Suratkal, India, Fall 2012

MASTER'S COMMITTEES SERVED

1. Madison Pickering, Fall 2020
2. Vinay Nagarad Dasavandi Krishnamurth, Summer 2018
3. Lily Lorkowski, Spring 2013
4. Suhel Patel, Summer 2010
5. Manoj Garg, Spring 2010
6. Gadigeppa Malagund, Fall 2009
7. Abhilash Tiwari, Summer 2009
8. Kunal Sahu, Summer 2008
9. Shrirang Khisti, Summer 2008
10. Parag Doshi, Fall 2007
11. Siddanagouda M. Khot, Fall 2006

12. Siddharth Chitnis, Fall 2006
13. Anshuman Jain, Fall 2005
14. Sriram S. Raman, Fall 2005
15. Ganesh Shanmuganathan, Spring 2004

OTHER ACTIVITIES

1. Leader, Licentiate Seminar, Bapi Chatterjee, Chalmers University of Technology, Sweden, March 2015

PROFESSIONAL AND UNIVERSITY SERVICES

A. Editorial Boards of Journals

1. Member, Editorial Board, International Journal of Computational Mathematics, 2013 - 2014
2. Member, Editorial Board, International Journal on Applications of Graph Theory in Wireless Ad Hoc Networks and Sensor Networks (GRAPH-HOC), 2009 - Present

B. Member/Chair, Program Committees of Conferences, Symposiums and Workshops

1. Co-Chair, Program Committee, Twenty-Second International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), 2020
2. Co-Chair, Publicity Committee, Twenty-First International Conference on Distributed Computing and Networking (ICDCN), 2020
3. Member, Program Committee (Algorithms and Theory Track), Sixteenth IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS), 2019
4. Member, Program Committee and Co-Chair, Publicity Committee, Twentieth International Conference on Distributed Computing and Networking (ICDCN), 2019
5. Member, Program Committee, Thirty-Seventh IEEE International Symposium on Reliable Distributed Systems (SRDS), 2018
6. Member, Program Committee, Fifth International Symposium on Formal Approaches to Parallel and Distributed Systems (4PAD), 2018
7. Member, Program Committee (Formal Approaches to Parallel and Distributed Systems Track), Twenty-Fifth Euromicro International Conference on Parallel, Distributed, and Network-Based Processing (PDP), 2017
8. Member, Program Committee, First International Workshop on Algorithms and Architectures for Distributed Data Analytics (AADDA), 2017
9. Member, Program Committee, Eighteenth International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), 2016
10. Co-Chair (Parallel and Distributed Algorithms Track), Program Committee, Forty-Fifth International Conference on Parallel Processing (ICPP), 2016

11. Member, Program Committee, First International Workshop on Information Security, Assurance and Reliability in the Cloud (WISARC), 2015
12. Member, Program Committee, Twenty-Ninth IEEE International Parallel and Distributed Processing Symposium (IPDPS), 2015
13. Member, Program Committee (Internet of Things and Communications for the Smart Grid Tracks part of Selected Areas in Communications Symposium), IEEE International Conference on Communications (ICC), 2015
14. Member, Program Committee, Sixteenth IEEE International Symposium on High Assurance Systems Engineering (HASE), 2015
15. Member, Program Committee (Internet of Things Track part of Symposium on Selected Areas in Communications), IEEE Global Communications Conference (Globecom), 2014
16. Member, Program Committee, First International Conference on Applied Algorithms (ICAA), 2014
17. Member, Program Committee, Thirty-Second IEEE Symposium on Reliable Distributed Systems (SRDS), 2013
18. Program Committee Co-Chair, Second International Workshop on Dependability Issues in Cloud Computing (DISCCO), 2013
19. Member, Program Committee (Internet of Things Track part of Symposium on Selected Areas in Communications), IEEE Global Communications Conference (Globecom), 2013
20. Member, Program Committee, Ninth International Conference on Distributed Computing and Internet Technology (ICDCIT), 2013
21. Organizer and Program Committee Co-Chair, First International Workshop on Dependability Issues in Cloud Computing (DISCCO), 2012
22. Member, Program Committee, Fifteenth IEEE International Conference on Computational Science and Engineering (CSE), 2012
23. Member, Program Committee, International Conference on Systems and Informatics (ICSAI), 2012
24. Member, Program Committee (Safety and Security Track), Fourteenth International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), 2012
25. Member, Program Committee, First International Conference on Security of Internet of Things (SecurIT), 2012
26. Member, Program Committee, Second International Conference on Parallel, Distributed and Grid Computing (PDGC), 2012
27. Member, Program Committee, First International Workshop on Internet-of-Things Communications and Networking (IoT-CN), 2012
28. Member, Program Committee, Eighth International Conference on Distributed Computing and Internet Technology (ICDCIT), 2012
29. Member, Program Committee (Distributed Computing Track), Thirteenth International Conference on Distributed Computing and Networking (ICDCN), 2012
30. Member, Program Committee, Fourth International Conference on Theories and Applications of Computer Science (ICTACS), 2011
31. Member, Program Committee, First International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), 2011

32. Member, Program Committee, Third International Conference on Theories and Applications of Computer Science (ICTACS), 2010
33. Member, Program Committee, Ninth International Symposium on Parallel and Distributed Computing (ISPDC), 2010
34. Member, Program Committee, First International Conference on Parallel, Distributed and Grid Computing (PDGC), 2010
35. Member, Program Committee (Fault Tolerance and Dependability Track), Thirtieth IEEE International Conference on Distributed Computing Systems (ICDCS), 2010
36. Member, Program Committee (Algorithms Track), Twenty-Fourth IEEE International Parallel and Distributed Processing Symposium (IPDPS), 2010
37. Member, Program Committee (Distributed Computing Track), Eleventh International Conference on Distributed Computing and Networking (ICDCN), 2010
38. Member, Program Committee, Fourth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM), 2010
39. Member, Program Committee (Distributed Algorithms Track), Twenty-Ninth IEEE International Conference on Distributed Computing Systems (ICDCS), 2009
40. Member, Program Committee (Systems Safety and Security Track), Eleventh International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), 2009
41. Member, Program Committee, Fourth IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), 2009
42. Member, Program Committee, Third International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM), 2009
43. Member, Program Committee, First Workshop on Applications of Graph Theory in Wireless Ad hoc Networks and Sensor Networks (GRAPH-HOC), 2009
44. Member, Program Committee (Distributed Computing Track), Tenth International Conference on Distributed Computing and Networking (ICDCN), 2009
45. Member, Program Committee, Second International Conference on Theories and Applications of Computer Science (ICTACS), 2009
46. Member, Program Committee, Fourth IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), 2008
47. Member, Program Committee (Distributed and Parallel Algorithms Track), Twenty-Second IEEE International Conference on Advanced Information Networking and Applications (AINA), 2008
48. Member, Program Committee, Third International Conference on Internet Monitoring and Protection (ICIMP), 2008
49. Member, Program Committee (Algorithms and Theory Track), Twenty-Seventh IEEE International Conference on Distributed Computing Systems (ICDCS), 2007
50. Member, Program Committee, Third IFIP International Conference on Embedded and Ubiquitous Computing (EUC), 2007
51. Member, Program Committee, Second International Conference on Internet Monitoring and Protection (ICIMP), 2007

52. Member, Program Committee, Fifth IEEE International Workshop on Assurance in Distributed Systems and Networks (ADSN), 2006
53. Chair, Program Committee, First IASTED International Workshop on Distributed Algorithms and Applications for Wireless and Mobile Systems (DAAWMS), 2005

C. **Invited Tutorials**

(a) *A Lattice-Theoretic Approach to Monitoring Distributed Computations*, 14th International Conference on Runtime Verification (RV), Toronto, Canada, September 2014 (co-speaker with Vijay K. Garg)

D. **Invited Talks**

(a) *Harnessing Concurrency in Multicore Systems*, Tenth International Advanced Computing Conference (IACC), Panaji, Goa, India, December 5, 2020

(b) *Harnessing Concurrency in Multicore Systems*, Department of Computer Science and Automation, Indian Institute of Science, Bangalore, India, January 7, 2019

(c) *Harnessing Concurrency in Multicore Systems*, International Conference in Information Science (ICIS), Cochin, India, August 12, 2016

(d) *Fast Concurrent Lock-Free Binary Search Trees*, Texas Instruments, Richardson, Texas, USA, April 17, 2014

(e) *Scalable Topology Maintenance in Dynamic Distributed Systems and its Applications*, Part of "Food for Thought Tech Talks" series, Cisco, Richardson, Texas, USA, December 12, 2012

E. **Reviewer**, NSF (National Science Foundation) Panel, 2010 and 2017

F. **Reviewer for Journals, Conferences, Symposiums and Workshops**

- **Journals:**
  - Distributed Computing (DC)
  - ACM Transactions on Parallel Computing (TOPC)
  - IEEE Transactions on Parallel and Distributed Systems (TPDS)
  - IEEE Transactions on Dependable and Secure Computing (TDSC)
  - IEEE Transactions on Software Engineering (TSE)
  - IEEE Transactions on Mobile Computing (TMC)
  - Journal of Parallel and Distributed Computing (JPDC)
  - Computer Networks (COMNET)
  - Algorithmica
  - ACM Transactions on Architecture and Code Optimization (TACO)
  - IEEE Transactions on Sustainable Computing (TSUSC)
  - ACM SIGOPS Operating Systems Review
  - Ad Hoc Networks
  - Computer Communications (COMCOM)
  - The Computer Journal

- Journal of Network and Computer Applications (JNCA)
- International Journal of Wireless and Mobile Computing (IJWMC)
- Journal of Systems and Software (JSS)
- Information Processing Letters (IPL)
- Parallel Processing Letters (PPL)
- Advances in Software Engineering (ASE)
- EURASIP Journal on Wireless Communications and Networking (JWCN)
- Journal of Computers (JCP)
- International Journal of Parallel, Emergent and Distributed Systems (IJPEDS)
- Computing
- Journal of Computer Science and Technology (JCST)
- International Journal on Applications of Graph Theory in Wireless Ad hoc Networks and Sensor Networks (GRAPH-HOC)
- Software: Practice and Experience
- Concurrency and Computation: Practice and Experience

- **Conferences, Symposiums and Workshops:**
  - ACM Symposium on Principles of Distributed Computing (PODC)
  - International Symposium on Distributed Computing (DISC)
  - IEEE International Conference on Distributed Computing Systems (ICDCS)
  - IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)
  - IEEE International Parallel and Distributed Processing Symposium (IPDPS)
  - IEEE/IFIP International Conference on Dependable Systems and Networks (DSN)
  - Annual European Symposium on Algorithms (ESA)
  - IEEE International Conference on Communications (ICC)
  - IEEE Symposium on Reliable Distributed Systems (SRDS)
  - IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS)
  - European Conference on Parallel Computing (Euro-Par)
  - IEEE Conference on Local Computer Networks (LCN)
  - IEEE International Conference On Networking, Sensing and Control (ICNSC)
  - IEEE Symposia on New Frontiers in Dynamic Spectrum Access Networks (DySPAN)
  - IEEE Vehicular Technology Conference (VTC)
  - European Conference on Wireless Sensor Networks (EWSN)
  - IEEE International Conference on Advanced Information Networking and Applications (AINA)
  - IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob)
  - International Conference on Distributed Computing and Networking (ICDCN)
  - Latin-American Symposium on Dependable Computing (LADC)
  - International Symposium on Stabilization, Safety and Security of Distributed Systems (SSS)
  - International Symposium on Parallel and Distributed Computing (ISPDC)

- International Conference on Parallel, Distributed and Grid Computing (PDGC)
- International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS)
- Workshop on Self-Stabilizing Systems (WSS)
- International Conference on Software Engineering and Knowledge Engineering (SEKE)
- Annual International Conference on Advanced Computing and Communications (ADCOM)

G. **Professional Organizations Membership**

1. Association for Computing Machinery (ACM)

H. **Service to the Program/Department**

1. Assessment Coordinator (ABET and SACSCOC), Department of Computer Science, Spring 2010 - Present
2. Member, Undergraduate Curriculum Committee, Department of Computer Science, November 2017 - Present
3. Member, Ph.D. Qualifying Examination Committee for CS 6378 (Advanced Operating Systems), Spring 2003 - Fall 2008, Spring 2010 - Fall 2020 (Chair in Fall 2004, Spring 2007, Fall 2013, Fall 2014, Fall 2016, Spring 2017 and Fall 2020)
4. Faculty Mentor, Senior Design Projects, Fall 2011, Spring 2012, Spring 2013, Fall 2014, Spring 2015 and Spring 2016 - Fall 2020
5. Member, Ad Hoc Committee (Mid-Probationary Review) for Dr. Kyle Fox, Fall 2019
6. Member, Ad Hoc Committee (Mid-Probationary Review) for Dr. Nicholas Ruozzi, Fall 2017
7. Member, Assessment Committee, Computer Engineering Program, October 2017 - Spring 2018
8. Member, Ph.D. Committee, Department of Computer Science, Fall 2011 - Summer 2016
9. Member, Ad Hoc Committee (Promotion and Tenure) for Dr. Zhiqiang Lin, Fall 2015
10. Member, Computer Engineering Ph.D. Qualifying Examination Committees (for two students), Fall 2014
11. Member, Undergraduate Curriculum Committee, TE (Telecommunication Engineering) Program, Summer 2011 - Spring 2014
12. Member, Annual Review Committee, Department of Computer Science, The University of Texas at Dallas, Spring 2010 - Fall 2011
13. Member, Graduate Admissions Committee, Department of Computer Science, The University of Texas at Dallas, Summer 2005 - Summer 2011
14. Member, Undergraduate Curriculum Committee, Computer Engineering Program, The University of Texas at Dallas, Spring 2008 - Spring 2011
15. Judge, ComputingFest Programming Competition, Department of Computer Science, Fall 2006, Spring 2007, Spring 2008 and Spring 2011
16. Member, Computer Equipment Committee, Department of Computer Science, Fall 2004 - Spring 2007

17. Member, Ph.D. Qualifying Examination Committee for CS 6385 (Algorithmic Aspects of Telecommunication Networks), Fall 2002

I. **Service to the School**

1. Member, Faculty Personnel Review Committee (FPRC), Erik Jonsson School of Engineering and Computer Science, Fall 2020 - Present
2. Member, Teaching Award Committee, Erik Jonsson School of Engineering and Computer Science, Spring 2014 - Present
3. Member, ECS Graduate Fellowships Committee, Erik Jonsson School of Engineering and Computer Science, Spring 2015 - Spring 2020

J. **Service to the University**

1. Member, Faculty Senate, The University of Texas at Dallas, 2010 - 2011
2. External Chair, Ph.D. (Dissertation) Committees: Georgios Volanis (Summer 2020), Lillian Love Kennedy (Spring 2018), Paul Mason (Spring 2015), Steve Sauerwald (Spring 2013), Sudarshan Narayanan (Fall 2012), Ling Liu (Summer 2008), Yanxin Na (Summer 2005) and David L. Seida (Summer 2003)