

Curriculum Vitae of Sanguthevar Rajasekaran

Current Address: 252 ITEB, Dept. of CSE, 371 Fairfield Road, Storrs,
CT 06269; (860) 486 2428; Sanguthevar.Rajasekaran@uconn.edu

Citizen of: the USA;

Degrees

<i>Year</i>	<i>Degree</i>	<i>Institution</i>
1988	Ph.D. in Computer Science	Harvard University (Advisor: John H. Reif) Thesis Title: Randomized Parallel Computation
1983	M.E. in Automation	Indian Institute of Science
1981	B.E. in Electrical Technology	Indian Institute of Science
1977	B.Sc. in Special Physics	Madurai Kamaraj University

Areas of Expertise

• Big Data Science; • AI and Machine Learning; • Algorithms and Complexity; • Bioinformatics and Computational Biology; • Computational Science - Materials Genomics; • Parallel and High-Performance Computing; etc.

Appointments

- Since February 1, 2019, Head of the Computer Science and Engineering Department, University of Connecticut.
- Since April 2017, Board of Trustees Distinguished Professor, University of Connecticut.
- Since August 2002, UTC Chair Professor of CSE, University of Connecticut.
- January 2005-January 2019, Director of Booth Engineering Center for Advanced Technology, University of Connecticut.
- August 2000–June 2002, Chief Scientist, Arcot Systems, Santa Clara, CA (on leave from University of Florida).
- August 1999–July 2002, Professor of Computer and Information Science, University of Florida.
- August 1994–July 1999, Associate Professor of Computer and Information Science, University of Florida.
- August 1988–July 1994, Assistant Professor of Computer and Information Science, University of Pennsylvania.
- July–August 1993, Part-time Visiting Scholar, University of Maryland Institute for Advanced Computer Studies.
- July–August 1991, Visiting Scientist, SFB for VLSI-Entwurf und Parallelität, University of Saarlandes, Saarbrücken, Germany.

Honors and Awards

- Fellow of the IEEE (since 2008).
- Fellow of the AAAS (since 2009).
- Fellow of the AAIA (since 2021).
- Fellow of the AIMBE (since 2022).
- Member, Connecticut Academy of Science and Engineering (from May 2005). Members are elected on the basis of their accomplishments in Science and Engineering and/or technology. Membership to this academy is limited to 400 by statute.
- School of Engineering Outstanding Teaching Award, Univ. of Connecticut, 2004.
- Outstanding CSE Faculty of the Year Award, University of Connecticut, 2005.

Selected Research Fundings

1. **PI: S. Rajasekaran**, “Randomized Parallel Algorithms,” Research Initiation Award, National Science Foundation, \$75,000, 1992-95.
2. **PI: S. Rajasekaran**, “Randomized Parallel Algorithms,” National Science Foundation, \$60,000, 1995-97.
3. **Co-PI: S. Rajasekaran**, “Using Parallelism and Randomness in the Analysis of Large-Scale Real-Time Systems,” **PI:** Insup Lee, National Science Foundation, CCR93-11622, \$ 200,000. Sept. 1993 – Aug. 1996.
4. **Co-PI: S. Rajasekaran**, “High-Performance Environmental Models and Class Libraries of Parallel Algorithms,” **PI:** Peter Sheng, Environmental Protection Agency, \$768,015, Jan. 1997-Dec. 2000.
5. **Co-PI: S. Rajasekaran**, “Mainstreaming Parallel and Distributed Computing in the Computer Science Undergraduate Curriculum,” **PI:** Sanjay Ranka. Other **Co-PIs:** Gerhard Ritter, Sartaj Sahni, and Theodore J. Johnson. National Science Foundation, \$391,565, 9-1-96 to 8-31-99,
6. **PI: S. Rajasekaran**, “Integrating Randomization Techniques in the Undergraduate and Graduate Curricula,” **Co-PIs:** Randy Chow, Linda Crocker, Panos Pardalos, Sanjay Ranka, Gerhard Ritter, Sartaj Sahni, Stanley Su, Baba Vemuri. National Science Foundation, \$372,312, August 1998 to July 2001.
7. **PI: S. Rajasekaran**, “An Algorithmic Evaluation of Optical Architectures,” **Co-PI:** Sartaj Sahni. National Science Foundation, \$280,000, August 2000 to July 2003.
8. **PI: S. Rajasekaran**, “Very Fast Modeling Tools for Fuel Cells,” **Co-PI:** R. Ammar, US Army, \$68,242, January 2003 to December 2003.
9. **PI: S. Rajasekaran**, “ITR: Information Extraction from Massive Data Sets,” **Co-PIs:** Sartaj Sahni, Tom Cormen, Reda Ammar, Chun-Hsi Huang, Panos Pardalos, N. Prabahkar, Dong-Guk Shin. National Science Foundation, \$1,231,000, September 2003 to August 2008.
10. **Co-PI: S. Rajasekaran**, “Transformation Spaces, Specifications, and Characterizations,” **PI: Ian Greenshields**, **Co-PIs:** Reda Ammar, Steve Demurjian, Krishna Pattipati, Alex Russell. DARPA, \$500,000, January 2004 to December 2004.

11. **PI: S. Rajasekaran**, “Randomization Methods in Algorithm Design,” **Co-PIs:** P.M. Pardalos and J. Rolim, National Science Foundation and New Jersey Commission of Science and Technology, Workshop Funding, \$15,000, December 1997.
12. **PI: S. Rajasekaran**, “Mobile Networks and Computing,” **Co-PIs:** B.R. Badrinath, P.M. Pardalos and F. Hsu, National Science Foundation and New Jersey Commission of Science and Technology, Workshop Funding, \$15,000, March 1999.
13. **Co-PI: S. Rajasekaran**, “International Workshop on Bio-Grid Computing,” **PI:** C.-H. Huang, National Institutes of Health, \$100,000, January 2005 to December 2010.
14. **Co-PI: S. Rajasekaran**, “High Performance Techniques and Tools for Aircraft Diagnosis and Prognosis,” **PI:** Reda A. Ammar, Pratt and Whitney, \$18,000, Fall 2005.
15. **Co-PI: S. Rajasekaran**, “An Advanced Multi-core Micro-server Development System,” **PI:** Reda A. Ammar, Pratt and Whiney, \$25,000, Fall 2006.
16. **Co-PI: S. Rajasekaran**, “An Advanced Multi-core Micro-server Development System,” **PI:** Reda A. Ammar, AVETeC, \$100,000, May 1, 2007 to April 30, 2008.
17. **Co-PI: S. Rajasekaran**, “Building Motif Lexicons”, **PI:** Matrin Schiller, National Institutes of Health, \$1,120,000, June 2007 to May 2011.
18. **PI: S. Rajasekaran**, “U.S.-Egypt Cooperative Research: High Performance Techniques for Remote Sensing”, **Co-PI:** R.A. Ammar, NSF, \$89,989, January 2008 to December 2009.
19. **Co-PI: S. Rajasekaran**, “US-Egypt International Workshop on Supercomputing Applications in Climate Sciences and Remote Sensing”, March 17-19, Cairo, Egypt **PI:** I. Green-shields, **Co-PI:** R.A. Ammar, NSF, \$47,721, January to June 2008.
20. **Co-PI: S. Rajasekaran**, “Collaborative Research: CRI: IAD: Developing a Novel Infrastructure for Underwater Acoustic Sensor Networks **PI:** J. Cui, NSF, \$319,998, July 2007 to June 2010.
21. **Co-PI: S. Rajasekaran**, “Botnet Detection and Migration”, Sonalysts Inc., Phase II SBIR Grant, Dept. of Homeland Security, \$229,004, June 2007 to May 2009.
22. **PI: S. Rajasekaran**, “Data Integration Techniques”, Connecticut Health Information Network, \$47,000, Jan. 2008 to June 2008.
23. **PI: S. Rajasekaran**, “Data Mining Techniques for Drug Discovery”, Boehringer-Ingelheim, \$18,000, March 2010 to July 2010.
24. **PI: S. Rajasekaran**, “EMT/NANO: Computing with Protein Based Associative Memory Processors,” **Co-PIs:** R. Birge, V. Kumar, and S. Sahni, NSF, \$749,999, September 2008 to August 2011.
25. **PI: S. Rajasekaran**, “Data Integration Techniques,” UCHC Institute for Public Health Research (IPHR), \$30,000, August 2009 to July 2010.
26. **Co-PI: S. Rajasekaran**, “Real-Time Monitoring of Transportation Vulnerability,” **PI:** R.A. Ammar, **Co-PI:** N. Lownes, Department of Homeland Security, July 1, 2009 - June 30, 2010, \$100,000.
27. **PI: S. Rajasekaran**, “Data Integration Techniques,” UCHC Institute for Public Health Research (IPHR), \$30,000, August 2010 to July 2011.

28. **PI: S. Rajasekaran**, “Data Integration Techniques,” UCHC Institute for Public Health Research (IPHR), \$30,000, August 2011 to July 2012.
29. **Co-PI: S. Rajasekaran**, “Risk, Resilience and Response Models with Applications to High Speed Rail Transportation,” **PI: N. Lownes**, **Co-PI: R. Ammar**, Department of Homeland Security, July 1, 2010 to June 30, 2012, \$200,000.
30. **Co-PI: S. Rajasekaran**, “The effects of Impurities on Fuel Cell Performance and Durability,” Department of Energy, March 2007 to February 28, 2011, \$1.9M.
31. **Senior Personnel: S. Rajasekaran**, “MRI: Development of Instrumentation for an Autonomous UW Sensor Network,” **PI: J-H. Cui**, **Co-PIs: I. Babb, Z. Shi, T. Torgerson and S. Zhou**, **Senior Personnel: R.A. Ammar, A. Bagtzoglou, Y. Fei, Y. Lei, L. Lui, E. Schultz, L. Wang, B. Wang and P. Willett**, National Science Foundation - Computer & Information Science & Engineering, August 1, 2008 to July 31, 2011, \$500,000.
32. **PI: S. Rajasekaran**, “Data Integration Techniques,” UCHC Institute for Public Health Research (IPHR), \$60,000, August 2012 to July 2013.
33. **PI: S. Rajasekaran**, “Data Integration Techniques,” UCHC Institute for Public Health Research (IPHR), \$60,000, August 2013 to July 2014.
34. **PI: S. Rajasekaran**, “Graduate Assistantship in Areas of National Need Project on Cloud Computing,” **Co-PIs: R.A. Ammar, J. Cui, I. Greenshields, and P. Luh**, Department of Education, \$400,000, August 2010 to July 2013.
35. **Co-PI: S. Rajasekaran**, “Graduate Assistantship in Areas of National Need Project on Advanced Computing,” **PI: R.A. Ammar**, **Co-PIs: S. Demurjian, J. Cui, and S. Zhou**, Department of Education, \$500,000, September 2009 to August 2012.
36. **PI: S. Rajasekaran**, “Efficient Algorithms for Motif Search,” **Co-PIs: R.A. Ammar, S. Sahni, and M. Schiller**, National Institutes of Health, \$1,505,429, September 30, 2010 to September 29, 2014.
37. **PI: S. Rajasekaran**, “First International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards,” **co-PI: I.I. Mandiou**, NSF/CISE, February 1, 2011 to January 31, 2012, \$20,000.
38. **PI: S. Rajasekaran**, “Second International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, February 1, 2012 to January 31, 2013, \$20,000.
39. **PI: S. Rajasekaran**, “Third International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, February 1, 2013 to January 31, 2014, \$12,000.
40. **Co-PI: S. Rajasekaran**, “Efficient Algorithms for Data Processing in Chemicals Detection”, **PI: R.A. Ammar**, Owlstone, Inc., July 1, 2013 to June 30, 2014, \$75,000.
41. **PI: S. Rajasekaran**, “Big Data Analytics for Revenue Assurance,” **Co-PI: R.A. Ammar**, Northeast Utilities, August 1, 2013 to January 31, 2014, \$47,400.
42. **PI: S. Rajasekaran**, “Fourth International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, February 1, 2014 to January 31, 2015, \$12,000.

43. **Co-PI: S. Rajasekaran**, “Graduate Assistantship in Areas of National Need Project on Exascale Computing in Science and Engineering,” **PI: C.-H. Huang**, **Co-PI: M. Khan**, Department of Education, \$805,032, August 16, 2013 to August 15, 2016.
44. **Co-PI: S. Rajasekaran**, “CC-NIE Network Infrastructure: Enabling Data-intensive Research at the University of Connecticut Through Science DMZ,” **PI: B. Wang**, NSF, \$372,457, September 1, 2013 to August 31, 2016.
45. **PI: S. Rajasekaran**, “BIGDATA: F: DKA: DKM: Novel Out-of-core and Parallel Algorithms for Processing Biological Big Data,” **Co-PIs: J. Bi, J. Graf, S. Sahni, and G. Weinstock**, National Science Foundation, \$1,200,000, September 1, 2014-August 31, 2018.
46. **PI: S. Rajasekaran**, “Data Integration Techniques,” UCHC Institute for Public Health Research (IPHR), \$60,000, August 2014 to July 2015.
47. **PI: S. Rajasekaran**, “Big Data Solutions for Attack Forecasting,” **Co-PIs: R. Ammar and S. Gokhale**, Comcast, \$100,000, January 2015 through December 31, 2015.
48. **PI: S. Rajasekaran**, “A Cloud Enabled HPC Infrastructure for Materials Genomics, Big Data and Big Compute Sciences,” **Other PIs: R. Ramprasad, Y.-J. Shin**, University of Connecticut, \$1,400,000, July 1, 2015 through June 30, 2016.
49. **Co-PI: S. Rajasekaran**, “AF: Medium: A High Performance Computing Foundation to Whole-Genome Prediction,” **PI: Jinbo Bi**, NSF, \$750,000, August 1, 2015-July 31, 2018.
50. **Co-PI: S. Rajasekaran**, “AOI1 Wireless 3D Nanorod Composite Arrays based High Temperature Surface-Acoustic-Wave Sensors for Selective Gas Detection through Machine Learning Algorithms,” **PI: Yu Lei**, **Co-PI: Puxian Gao**, Department of Energy, \$400,000, September 1, 2015 to August 31, 2018.
51. **PI: S. Rajasekaran**, “Fifth International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, February 1, 2016 to December 31, 2016, \$12,000.
52. **PI: S. Rajasekaran**, “Sixth International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, August 1, 2016 to July 31, 2017, \$20,000.
53. **PI: S. Rajasekaran**, “RAISE: Big Data Tools: From Bioinformatics to Materials Genomics,” **Co-PI: R. Ramprasad**, NSF, \$700,000, August 1, 2017 to July 31, 2022.
54. **Co-PI: S. Rajasekaran**, “MATDAT18: Materials and Data Science Hackathon,” **PI: B. Reich**, **Co-PIs: A. Ferguson, T. Mueller**, NSF, \$148,810, August 1, 2017 to July 31, 2018.
55. **PI: S. Rajasekaran**, “Seventh International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, August 1, 2017 to July 31, 2018, \$20,000.
56. **PI: S. Rajasekaran**, “Computational Techniques to Accelerate the Discovery of Biomaterials,” **Co-PIs: S. Kumbar, S. Nukavarapu, R. Ramprasad, and M. Wei**, University of Connecticut BME seed grant, August 1, 2017 to July 31, 2018, \$60,000.
57. **PI: S. Rajasekaran**, “Automated System Identification and Sequencing,” **Co-PI: Reda A. Ammar**, Control Station, August 1, 2018 to July 31, 2019, \$46,082.
58. **PI: S. Rajasekaran**, “Predicting Product Sensory Characteristics from Formulation Composition,” Unilever, September 13, 2018 to August 12, 2019, \$14,630.

59. **PI: S. Rajasekaran**, “Eighth International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, August 1, 2018 to July 31, 2019, \$20,000.
60. **PI: S. Rajasekaran**, “EAGER: Type II: Deep Learning and Combinatorial Algorithms for Inorganic Crystal Structure Prediction,” **Co-PI:** Bharat K. Medasani (University of Delaware), NSF/DMR, January 1, 2019 to December 31, 2021, \$299,999.
61. **PI: S. Rajasekaran**, “Ninth International IEEE Conference on Computational Advances in Bio and Medical Sciences (ICCABS) - Travel Awards”, NSF/CISE, August 1, 2019 to July 31, 2020, \$8,000.
62. **PI: S. Rajasekaran**, “GAANN Program in Artificial Intelligence,” **Co-PIs:** R. Ammar, M. Bansal, J. Bi, S. Duggirala, B. Javidi, K. Kazerounian, I. Mandoiu, S. Nabavi, B. Wang, Y. Wu, and Q. Yang, DOE, October 1, 2018 to September 30, 2021, \$945,870.
63. **Co-PI: S. Rajasekaran**, “UConn-HSB Collaboration: Statistical Computing Approaches for the Analysis of Multiple Time Course Data,” **PI: N. Ravishanker**, Hartford Steam Boiler, August 23, 2019 to August 22, 2020, \$127,262.
64. **Co-PI: S. Rajasekaran**, “Mapping Catalytic Energy Transformations: Convergence of Nanoarray Catalysis, In Situ Microscopy, and Data Science,” **PI:** P. Gao, **Co-PIs:** S. Suib, S. Nakhmanson, G. Zheng, and J. He, University of Connecticut, April 1, 2020 to August 31, 2022, \$240,000.
65. **Co-PI: S. Rajasekaran**, “UConn-HSB Collaboration: Statistical Computing Approaches for the Analysis of Multiple Time Course Data,” **PI: N. Ravishanker**, Hartford Steam Boiler, August 23, 2020 to August 22, 2022, \$334,732.
66. **Co-PI: S. Rajasekaran**, “Impact of microbiome diversity on toxicological outcome in pre-clinical studies,” **PI: I. Mandoiu**, **Co-PIs:** J. Bi, S. Nabavi, Pfizer, January 1, 2021 - December 31, 2022, \$763,176,.
67. **PI: S. Rajasekaran**, “Efficient Techniques for Record Linkage and Entity Resolution,” **Co-PIs:** O. Harel and S. Sahni, US Census Bureau, September 1, 2021 to August 31, 2026, \$917,530.
68. **Co-PI: S. Rajasekaran**, “CyberTraining: Pilot: Cyberinfrastructure Training in Computer Science and Geoscience,” **PI: B. Wang**, **Co-PIs:** C. Zhang, W. Wei, and S. He, NSF, October 1, 2021 to September 30, 2023, \$299,362.
69. **Co-PI: S. Rajasekaran**, “ICWERX/CIA Labs Partnership Opportunity: AI/ML Objective,” **PI: D. Aguiar**, **Co-PI:** L. Michel, DEFENSEWERX, March 3, 2022 to March 2, 2023, \$249,998.

Director of Dissertation Committees (Ph.D.)

1. Ahmed Soliman, University of Connecticut, August 2023.
2. Namitha Pais, University of Connecticut, July 2023 (Co-Major Advisor).
3. Patrick Toman, University of Connecticut, July 2023 (Co-Major Advisor).
4. Zigeng Wang, University of Connecticut, December 2022.
5. Xia Xiao, University of Connecticut, October 2020.

6. Xingyu Cai, University of Connecticut, May 2020.
7. Sudipta Pathak, University of Connecticut, May 2020.
8. Peng Xiao, University of Connecticut, December 2019.
9. Abdulla Baihan, University of Connecticut, December 2019.
10. Abdullah-Al Mamun, University of Connecticut (June 2018)
11. Robert Martin, University of Connecticut (June 2018)
12. Subrata Saha, University of Connecticut (June 2017)
13. Aljoharah Algwaiz, University of Connecticut (June 2017)
14. Marius Nicolae, University of Connecticut (May 2016)
15. Manal Al-Harbi, University of Connecticut (December 2015)
16. Mahmoud Maghraby, University of Connecticut (May 2015)
17. Mai Hamdalla, University of Connecticut (February 2014)
18. Rania Kilany, University of Connecticut (June 2013)
19. Samir A. Mohamed, University of Connecticut (June 2013)
20. Tian Mi, University of Connecticut (June 2013)
21. Hieu Dinh, University of Connecticut (June 2012)
22. Vamsi Kundeti, University of Connecticut (June 2011)
23. Dolly Sharma, University of Connecticut (June 2011)
24. Sahar Al Seesi, University of Connecticut (June 2010)
25. Dragos Trinca, University of Connecticut (June 2009)
26. Mingjun Song, University of Connecticut (June 2009)
27. Vishal Thapar, University of Connecticut (June 2009)
28. Jaime Davila, University of Connecticut (June 2008)
29. Sudha Balla, University of Connecticut (June 2007)
30. Ahmed Mohamed, University of Connecticut (June 2006)
31. Jaeyong Lim, University of Florida (June 2003)
32. Jun Luo, University of Florida (June 2002)
33. Lixin Fu, University of Florida, 2001.
34. Jon Freeman, University of Pennsylvania, 1994.
35. Suneeta Ramaswami, University of Pennsylvania, 1994.
36. David Wei, University of Pennsylvania, 1991.

Current Ph.D. Students

1. Nidhi Barodawala
2. Joyanta Basak
3. John Mcgunnigle, Jr.
4. Yijue Wang

Director of Thesis Committees (M.S.)

1. Priya Periaswamy, 2015
2. Jerlin Camilus Merlin, 2012
3. Seema Munavalli, 2012
4. Hieu Dinh, 2010
5. Vamsi Kundeti, 2009
6. Snigdha Verma, University of Connecticut, 2006.
7. Ramandeep Kaur, University of Connecticut, 2006.
8. Vishal Thapar, University of Connecticut, 2005.
9. Betsy Cheriyan, University of Connecticut, 2004.
10. Guanqun Zhang, University of Connecticut, 2004.
11. Madhurima Pawar, University of Florida, 2001.
12. Meenakshi Sundar, University of Florida, 2001.
13. Xiaoming Jin, University of Florida, 2000.
14. Vidyamani Parkhe, University of Florida, 2000.
15. Huang Chunbo, University of Florida, 1999.
16. Craig Hill, University of Florida, 1998.
17. Faruqi Faisal, University of Florida, 1997.
18. Yi Cao, University of Florida, 1996.
19. José C. Cogolludo, University of Pennsylvania, 1993.
20. Jon Freeman, University of Pennsylvania, 1990.

Publications Summary

I have more than 400 scholarly papers in refereed journals, conferences, and books. Some highlights:

- Invited chapters in 23 books;
- Fifteen invited papers in international conferences and workshops and numerous other invited talks;
- Widely cited in journals, conference proceedings, and books.

Books

1. E. Horowitz, S. Sahni, and S. Rajasekaran, *Computer Algorithms/C++*, W.H. Freeman Press, New York, 1997; Second Edition by Silicon Press, 2008.
2. E. Horowitz, S. Sahni, and S. Rajasekaran, *Computer Algorithms*, W.H. Freeman Press, New York, 1998; Second Edition by Silicon Press, 2008.

Edited Books

1. P. M. Pardalos and S. Rajasekaran, *Advances in Randomized Parallel Computing*, Kluwer Academic Press, 1999.
2. P. M. Pardalos, S. Rajasekaran, and J. Rolim, *Randomization Methods in Algorithm Design*, DIMACS Series in Discrete Mathematics and Theoretical Computer Science 43, 1999.
3. S. Rajasekaran, P.M. Pardalos, and F. Hsu, *Mobile Networks and Computing*, DIMACS Series in Discrete Mathematics and Theoretical Computer Science 52, AMS Press, 2000.
4. S. Rajasekaran, P. M. Pardalos, J. H. Reif, and J. Rolim, *Handbook of Randomized Computing* (Two volumes), Kluwer Academic Press, 2001.
5. S. Rajasekaran and J.H. Reif, *Handbook of Parallel Computing: Models, Applications and Algorithms*, CRC Press, 2008.
6. S. Rajasekaran, L. Fiondella, M. Ahmed, and R.A. Ammar, *Multicore Computing: Algorithms, Architecture, and Applications*, Chapman & Hall/CRC, 2014.

Edited Proceedings and Special Issues

1. I. Mandoiu, T.M. Murali, G. Narasimhan, S. Rajasekaran, P. Skums, and A. Zelikovsky, Special Issue: 9th International Computational Advances in Bio and Medical Sciences (ICCABS 2019), *Journal of Computational Biology*, Volume 28, Number 2, 2021.
2. S. K. Jha, I. Mandoiu, S. Rajasekaran, P. Skums, A. Zelikovsky, Computational Advances in Bio and Medical Sciences - 10th International Conference, ICCABS 2020, Virtual Event, December 10-12, 2020, Revised Selected Papers, *Lecture Notes in Computer Science 12686*, Springer 2021, ISBN 978-3-030-79289-3.
3. A. Kalyanaraman, Y.-A. Kim, I. Mandoiu, S. Rajasekaran, P. Skums, and A. Zelikovsky, Selected articles from the 8th IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS 2018), *BMC Bioinformatics*, Volume 21(Supplement 1):192, December 9, 2020.
4. A. Kalyanaraman, Y.-A. Kim, I. Mandoiu, S. Rajasekaran, P. Skums, and A. Zelikovsky, Selected articles from the 8th IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS 2018), *BMC Genomics*, Volume 21(Supplement 6): 405, December 21, 2020.
5. I. Mandoiu, T.M. Murali, G. Narasimhan, S. Rajasekaran, P. Skums, and A. Zelikovsky, Computational Advances in Bio and Medical Sciences – 9th International Conference, ICCABS 2019, Miami, FL, USA, November 15-17, 2019, Revised Selected Papers, *Lecture Notes in Computer Science 12029*, Springer 2020, ISBN 978-3-030-46164-5.

6. D. Krizanc, I. Mandoiu, S. Rajasekaran, P. Skums, A. Zelikovsky, and S. Zhang, Selected articles from the 7th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS 2017), *BMC Genomics*, 20(5), June 2019.
7. D. Krizanc, I. Mandoiu, S. Rajasekaran, P. Skums, A. Zelikovsky, and S. Zhang, Selected articles from the 7th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS 2017), *BMC Bioinformatics*, 20(11), June 2019.
8. W. Feng, A. Kalyanaraman, Y.-A. Kim, I. Mandoiu, S. Rajasekaran, P. Skums, and A. Zelikovsky, *Proc. 8th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS)*, Oct. 18-20, 2018, Stan Fulton Building, University of Nevada, Las Vegas, Nevada, IEEE Xplore, <https://ieeexplore.ieee.org/xpl/conhome/8516261/proceeding>.
9. S. Aluru, S. Emrich, I. Mandoiu, S. Rajasekaran, P. Skums, L.-S. Wang, and A. Zelikovsky, Selected articles from the 6th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), *BMC Bioinformatics*, 18(Suppl 15), December 2017.
10. S. Aluru, S. Emrich, I. Mandoiu, S. Rajasekaran, P. Skums, L.-S. Wang, and A. Zelikovsky, Selected articles from the 6th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), *BMC Genomics*, 18(Suppl 10), December 2017.
11. D. Krizanc, I. Mandoiu, S. Rajasekaran, P. Skums, S. Yooseph, A. Zelikovsky, and S. Zhang, *Proc. IEEE 7th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS)*, October 19-21, 2017, Best Western Lake Buena Vista Resort Hotel, Orlando, FL, USA, <https://ieeexplore.ieee.org/xpl/conhome/8104489/proceeding>.
12. I. Mandoiu, S. Rajasekaran, and A. Zelikovsky, Selected articles from the Fifth IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS 2015): *BMC Bioinformatics*, 18(Suppl 8):238, 7 June 2017.
13. I. Mandoiu, S. Rajasekaran, and A. Zelikovsky, Selected articles from the Fifth IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS 2015): *Genomics*, 18(Suppl 4):392, 24 May 2017.
14. S. Aluru, S. Emrich, I. Mandoiu, S. Rajasekaran, P. Skums, L.-S. Wang, and A. Zelikovsky, *Proc. IEEE 6th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS)*, October 13-15, 2016, 1116 E&W Klaus Advanced Computing Building, Georgia Institute of Technology, Atlanta, GA, USA, <https://ieeexplore.ieee.org/xpl/conhome/7786293/proceeding>.
15. S. Rajasekaran, S. Aluru, and D.A. Bader, HiCOMB Introduction and Committees, *IPDPS Workshops*, 2015:329-330.
16. J. Huan, S. Miyano, A. Shehu, X.T. Hu, B. Ma, S. Rajasekaran, V.K. Gombhar, M.-P. Schapranow, I. Yoo, J. Zhou, B. Chen, V. Pai, B.G. Pierce, *2015 IEEE International Conference on Bioinformatics and Biomedicine*, BIBM 2015, Washington, D.C., USA, November 9-12, 2015, IEEE Computer Society 2015, ISBN 978-1-4673-6799-8.
17. J. Chen, Y. Khudyakov, V. Honavar, I. Mandoiu, S. Rajasekaran, and A. Zelikovsky, editors, Selected articles from the Fourth IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS 2014): *BMC Bioinformatics*, Volume 16, Supplement 17, 7 December 2015.

18. J. Chen, Y. Khudyakov, V. Honavar, I. Mandoiu, S. Rajasekaran, and A. Zelikovsky, editors, Selected articles from the Fourth IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS 2014): *BMC Genomics*, Volume 16, Supplement 11, 10 November 2015.
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184. C.-W. Lee, C.-H. Huang, and S. Rajasekaran, TROJAN: A Scalable Parallel Semantic Network System, *Proc. of 15th IEEE Int'l Conference on Tools with Artificial Intelligence (IC-TAI)*, 219-223, Nov. 3-5 2003, Sacramento, CA.
185. J. Lim and S. Rajasekaran, Directly Selected and Limited Look up Cache Algorithm for Dynamic Web Contents, *Proc. 9th International Conference on Networks, Parallel and Distributed Processing, and Applications*, October 2002, Tsukuba, Japan.
186. J. Lim and S. Rajasekaran, Parallel Cache Management Protocol for Static and Dynamic Web Contents, *Proc. IADIS International WWW/Internet 2002 Conference (ICWI)*, November 2002, Lisbon, Portugal, pp. 20-28.
187. J. Lim and S. Rajasekaran, Distributed Cache Content Management Protocol for Cooperative Web Servers, *Proc. 14th International Conference on Parallel and Distributed Computing and Systems*, November 2002, Cambridge, U.S.A.
188. L. Fu and S. Rajasekaran, Novel Algorithms for Computing Medians and Other Quantiles of Disk Resident Data, *Proc. International Database Engineering and Applications Symposium (IDEAS)*, 2001.
189. J. Luo, S. Rajasekaran, and C. Qiu, Parallelizing Wave Simulation Model by Using PVM, *Proc. 8th Annual European PVM/MPI Conference*, 2001.
190. S. Rajasekaran and X. Jin, A Practical Realization of Parallel Disks, *Proc. Workshop on High Performance Scientific and Engineering Computing with Applications*, 2000.
191. S. Rajasekaran, P. Sheng, L Jun, A Simple Parallel Algorithm for Solving Banded Systems, *Proc. International Conference on Parallel and Distributed Computing Systems (PDCS)*, 1999.
192. * (Invited) S. Rajasekaran, H. Nick, P.M. Pardalos, S. Sahni, G. Shaw, Algorithms for Local Alignment Search, presented in the *DIMACS Workshop on Discrete Problems with Medical Applications*, 1999.
193. * (Invited) S. Rajasekaran, K. Naik, D. Wei, Frequency Assignment Algorithms for Cellular Networks, *Proc. DIMACS Workshop on Mobile Networks and Computing*, 1999.
194. * (Invited) X. Liu, P.M. Pardalos, S. Rajasekaran, and M.G.C. Resende, A GRASP for Frequency Assignment in Mobile Radio Networks, *Proc. DIMACS Workshop on Mobile Networks and Computing*, 1999.
195. S. Rajasekaran, A Framework For Simple Sorting Algorithms On Parallel Disk Systems, *Proc. 10th Annual ACM Symposium on Parallel Algorithms and Architectures*, 1998.
196. S. Rajasekaran, Selection Algorithms for Parallel Disk Systems, *Proc. International Conference on High-Performance Computing*, 1998.
197. S. Rajasekaran and S. Sahni, Randomized Routing, Selection, and Sorting on the OTIS-Mesh, *Proc. European Symposium on Parallel and Distributed Systems*, 1998.

198. S. Rajasekaran and S. Sahni, Computing on the Array with Reconfigurable Optical Buses, Proc. *World Multiconference on Systemics, Cybernetics, and Informatics*, Caracas, 1997, Volume 1, pp. 459-466.
199. * (Invited) S. Rajasekaran, Basic Algorithms for Computing on Optical Models, IMA Workshop on Parallel Processing for Discrete Problems, 1997.
200. * (Invited) S. Rajasekaran, Computing on Optical Models, DIMACS Workshop on Randomization Methods in Algorithm Design, 1997.
201. S. Rajasekaran and D.S.L. Wei, Designing Efficient Distributed Algorithms Using Sampling Techniques, Proc. *International Parallel Processing Symposium*, 1997.
202. S. Rajasekaran and S. Sahni, Sorting and Routing on the Array with Reconfigurable Optical Buses, Proc. 3rd International Conference on Algorithms and Parallel Processing, Singapore, 1996, pp. 105-112.
203. B. Thorndyke, P.A. Fishwick, and S. Rajasekaran, A Randomized Approach to Hybrid Monte-Carlo Simulation, Proc. *SCS Simulation Multiconference*, 1996, pp. 13-17.
204. D. S. L. Wei, S. Rajasekaran, and S. Kuo, Efficient Selection and Sorting Schemes for Processing Large Distributed Files in Finite Projectives Planes, Proc. International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA) 1996, Vol. I, pp. 69-78.
205. S. Rajasekaran and S. Yooseph, TAL Parsing in $O(M(n^2))$ Time, Proc. *Meeting of the Association for Computational Linguistics*, 1995.
206. S. Rajasekaran and S. Sahni, Sorting and Selection on the Distributed Memory Bus Computer, Proc. *International Conference on Parallel Processing*, 1995.
207. S. Rajasekaran, W. Chen, and S. Yooseph, Unifying Themes for Parallel Selection, Proc. *Fifth International Symposium on Algorithms and Computation*, August 1994. Springer-Verlag Lecture Notes in Computer Science 834, pp. 92-100.
208. I. Lee and S. Rajasekaran, A Parallel Algorithm for Relational Coarsest Partition Problems and Its Implementation, Proc. *6th International Conference on Computer Aided Verification*, June 1994. Springer-Verlag Lecture Notes in Computer Science 818, 1994, pp. 404-414.
209. * (Invited) S. Rajasekaran, Packet Routing on Meshes with Buses, presented in the *DIMACS Workshop on Organizing and Moving Data in Parallel Computers*, January 26-28, 1994.
210. S. Rajasekaran and S. Ramaswami, Optimal Parallel Randomized Algorithms for the Voronoi Diagram of Line Segments in the Plane and Related Problems, Proc. *10th Annual ACM Computational Geometry Conference*, June 1994, pp. 57-66.
211. J.C. Cogolludo and S. Rajasekaran, Permutation Routing on Reconfigurable Meshes, Proc. *Fourth Annual International Symposium on Algorithms and Computation*, Hong Kong, December 1993. Springer-Verlag Lecture Notes in Computer Science 762, 1993, pp. 157-166.
212. S. Rajasekaran, Mesh Connected Computers with Fixed and Reconfigurable Buses: Packet Routing, Sorting, and Selection, Proc. *First Annual European Symposium on Algorithms*, Oct. 1993. Springer-Verlag Lecture Notes in Computer Science 726, 1993, pp. 272-283.
213. I. Lee and S. Rajasekaran, Fast Parallel Algorithms for Model Checking using BDDs, Proc. *International Parallel Processing Symposium*, pp. 444-448, April 1993.

214. S. Rajasekaran and D.S.L. Wei, Selection, Routing, and Sorting on the Star Graph, Proc. *International Parallel Processing Symposium*, pp. 661-665, April 1993.
215. S. Rajasekaran and S. Ramaswami, Optimal Mesh Algorithms for the Voronoi Diagram of Line Segments, Visibility Graphs, and Motion Planning in the Plane, Proc. *Allerton Conference on Communication, Control, and Computing*, July 1992.
216. M. Kaufmann, S. Rajasekaran, and J.F. Sibeyn, Matching the Bisection Bound for Routing and Sorting on the Mesh, Proc. *4th Annual ACM Symposium on Parallel Algorithms and Architectures*, pp. 31-40, July 1992.
217. S. Rajasekaran and M. Raghavachari, Optimal Randomized Algorithms for Multipacket and Cut Through Routing on the Mesh, Proc. *IEEE Symposium on Parallel and Distributed Processing*, December 1991, Dallas, Texas, pp. 305-311.
218. M.A. Palis, S. Rajasekaran, and D.S.L. Wei, Emulation of PRAMs on Leveled Networks, Proc. *International Conference on Parallel Processing*, 1991.
219. S. Rajasekaran and R. Overholt, Constant Queue Routing on a Mesh, Proc. *Symposium on Theoretical Aspects of Computer Science*, Feb. 1991, Hamburg, Germany. Springer-Verlag Lecture Notes in Computer Science 480, pp. 444-455.
220. S. Rajasekaran, Randomized Parallel Selection, Proc. *Tenth conference on Foundations of Software Technology and Theoretical Computer Science*, Dec. 1990, Bangalore, India. Springer-Verlag Lecture Notes in Computer Science 472, pp. 215-224.
221. T. Alameldin, M. Palis, S. Rajasekaran, and N. Badler, On the Complexity of Computing Reachable Workspaces for Redundant Manipulators, Proc. *SPIE Intelligent Robots and Computer Vision IX: Algorithms and Techniques*, 1990.
222. M.A. Palis, S. Rajasekaran, and D.S.L. Wei, Optimal Routing Algorithms for a New Class of Interconnection Networks, Proc. *International Parallel Processing Symposium*, April 1990.
223. S. Rajasekaran and J.H. Reif, Nested Annealing: A Provable Improvement to Simulated Annealing, Proc. *15th International Colloquium on Automata, Languages, and Programming*, July 1988. Springer-Verlag Lecture Notes in Computer Science 317, pp.455-472.
224. D. Krizanc, S. Rajasekaran and T. Tsantilas, Optimal Routing Algorithms for Mesh-Connected Processor Arrays, Proc. *Third International Aegean Workshop on Parallel Computation and VLSI theory*. Springer-Verlag Lecture Notes in Computer Science 319, pp. 411-422, 1988.
225. S. Rajasekaran and T. Tsantilas, An Optimal Randomized Routing Algorithm for the Mesh and A Class of Efficient Mesh-Like Routing Networks, Proc. *7th Conference on Foundations of Software Technology and Theoretical Computer Science*, Pune, India, Dec. 1987. Springer-Verlag Lecture Notes in Computer Science 287, pp. 226-241.
226. * (Invited) S. Rajasekaran and S. Sahni, Arrays with Reconfigurable Optical Buses, *Workshop on Parallel Processing of Discrete Problems*, Institute for Mathematics and its Applications Minneapolis MN (May 12-16, 1997).
227. * (Invited) S. Rajasekaran and S. Sahni, Computing on the Array with Reconfigurable Optical Buses, *International Conference in Computer Science*, Caracuss, Venezuela, July 1997.
228. * (Invited) S. Rajasekaran, Sorting and Selection on Interconnection Networks, *DIMACS Workshop on Interconnection Networks and Mapping and Scheduling Parallel Computation*, Feb. 7-9, 1994.

229. * (Invited) S. Rajasekaran, Packet Routing on Meshes with Buses, *DIMACS Workshop on Organizing and Moving Data in Parallel Computers*, January 26-28, 1994.
230. * (Invited) S. Rajasekaran, Mesh Connected Computers with Fixed and Reconfigurable Buses, *DIMACS workshop on Models, Architectures, and Technologies for Parallel Computation*, Sept 20-22, 1993.
231. * (Invited) S. Rajasekaran, Separability of a Random Graph and Applications, presented in the *Fifth International Seminar on Random Graphs and Probabilistic Methods in Combinatorics and Computer Science*, *RANDOM GRAPHS 91*, Poznań, Poland, August 1991.
232. R. Paturi, S. Rajasekaran, and J.H. Reif, The Light Bulb Problem, *Proc. Second Workshop on Computational Learning Theory*, Santa Cruz, pp. 261-268, July 1989.
233. * (Invited) S. Rajasekaran and J.H. Reif, Randomized Parallel Computation, *Fundamentals of Computation Theory Conference*, Kazan, USSR, August 1987. Springer-Verlag Lecture Notes in Computer Science 278, pp. 364-376.
234. * (Invited) S. Rajasekaran and J.H. Reif, Randomized Parallel Computation, Presented in the *1987 Princeton Workshop on Algorithm, Architecture and Technology Issues in Models of Concurrent Computations*,.

Research Patents

1. S. Rajasekaran and R.A. Gopalakrishna, Efficient searching techniques, US Patent 7,634,470, December 15, 2009.
2. S. Rajasekaran and R. Varadarajan, Techniques for searching encrypted files, US Patent 7,484,092, January 27, 2009.
3. S. Rajasekaran, G.R. Hird, and B.N. Kausik, Method and system for camouflaging access-controlled data, US Patent 7,454,782, November 18, 2008.
4. S. Rajasekaran, Efficient Techniques for Sharing a Secret, US Patent 7,167,565, January 23, 2007.
5. S. Rajasekaran and R. Varadarajan, One-Time Credit Card Number Generator and Single Round-Trip Authentication, US Patent 6,908,030, June 21, 2005.
6. S. Rajasekaran and R.A. Gopalakrishna, Efficient Computational Techniques for Authorization Control, US Patent 6,928,427, August 9, 2005.
7. S. Rajasekaran and R.A. Gopalakrishna, Efficient Searching Techniques, US Patent 6,959,303, October 25, 2005.
8. S. Rajasekaran and J. Reno, Size-Dependent Hashing for Credit Card Verification and Other Applications, US Patent 7,020,782, March 28, 2006.
9. S. Rajasekaran, J. Reno, R. Varadarajan, S. Vyas, D.-P. Park, and R. Jerdonek, Enhancements to Multi-Party Authentication and Other Protocols, US Patent 7,111,789, September 26, 2006.

Professional Experience

- Member, IEEE Fellows Evaluation Committee for CS, 2010, 2011, 2012, 2013, 2014, 2015.
- Area Editor, ACM/IEEE Transactions on Computational Biology and Bioinformatics (TCBB), since 2018.
- Area Editor, IEEE Transactions on Computers, 1996–1999; 2013-2016.
- Associate Editor, IEEE Big Data Mining and Analytics, since 2018.
- Area Editor, ACM Computing Surveys, since 2015.
- Subject Area Editor, Journal of Parallel and Distributed Computing, since 1995.
- Editor, Parallel Processing Letters, since 2010.
- Associate Editor, Computing Letters, 2004-2008.
- Area Editor, Journal of Interconnection Networks, 1999-2003.
- Associate Editor, *International Journal of Computers and Their Applications (IJCA)*, 2004-2008.
- Co-editor, Kluwer Series on Biocomputing, 2000-2003.
- Member, IASTED Technical Committee on Biomedical Engineering, 2003-2006.

- General Chair, International Conference on Computational Advances in Bio and medical Sciences (ICCABS), 2011-2021.
- Program Committee Co-Chair, IEEE International Conference on Bioinformatics and Biomedicine (BIBM), San Diego, CA, November 18-21, 2019.
- Conference Co-Chair, IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Washington D.C., November 9-12, 2015.
- Program Chair, 14th IEEE International Workshop on High Performance Computational Biology (HiCOMB), May 25, 2015.
- Program Committee Co-Chair, The 14th IEEE Symposium on Signal Processing and Information Technology (ISSPIT), December 2014.
- Steering Committee Chair and General Co-Chair, Fourth IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS), 2014.
- Program Committee Co-Chair, 19th IEEE Symposium on Computers and Communications, Madeira, Portugal, June 23-26, 2014.
- Steering Committee Chair and General Co-Chair, Third IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS), 2013.
- Steering Committee Chair and General Co-Chair, Second IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS), 2012.
- Founder and General Chair, First IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS), 2011.

- Advisory Chair, The Second International Conference on Access Networks, Services and Technologies (ACCESS), June 19-24, Luxembourg, 2011.
- Program Co-Chair, International Symposium on Bioinformatics Research and Applications (ISBRA), 2010.
- Founder and General Chair, First International Conference on Bioinformatics and Computational Biology (BICoB), 2009.
- General Chair, The Fourth International Conference on Networks and Communications (Net-Com), 2012, Dec. 22-24, Chennai, India.
- General Chair, The First International Workshop on Wireless & Mobile Networks (WiMo-2009), Brisbane, Australia, July 7-10.
- General Chair, The First International Conference on Networks & Communications (NetCom 2009), 27-29 Dec. 2009, Chennai, India.
- Co-Chair, Doctoral Dissertation Consortium, International Conference on High Performance Computing & Simulation (HPCS), Caen, France, June 28-July 2, 2010.
- Co-Chair, Algorithms Track, International Conference on Contemporary Computing, 2008.
- General Chair, Third International Conference on Communication, Network, and Information Security (CNIS), 2006.
- Program Co-Chair, 18th International Conference on Parallel and Distributed Computing Systems (PDCS), 2005.
- Co-Chair, International Workshop on Biomedical Computations on the Grid, 2004, 2005, 2006.
- General Co-Chair, The Third IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), 2003.
- Co-Chair, International Conference on Biocomputing, 2001.
- Co-Chair, Seventh International Workshop on Solving Irregularly Structured Problems in Parallel (IRREGULAR 2000).
- Chair, DIMACS Workshop on Mobile Networks and Computing, March 1999.
- Chair, Workshop on Randomized Parallel Computing, 1996, 1997.
- Co-Chair, Workshop on Randomized Parallel Computing, 1998.
- Vice Chair, Workshop on Routing and Communications Networks, EuroPar 1998.
- Co-Chair, DIMACS Workshop on Randomization Methods in Algorithm Design, Dec. 12 to 14, 1997.
- Panel Member, International Symposium on Parallel and Distributed Computing Systems (PDCS), 2004.
- Senior Program Committee Member, International Joint Conference on Artificial Intelligence (IJCAI), 2021, 2022.

- Program Committee Member, International Conference on Neural Information Processing Systems (*NeurIPS*), 2021, 2022.
- Program Committee Member, International Conference on Learning Representations (*ICLR*), 2020.
- Program Committee Member, International Conference on Language and Automata Theory and Applications (*LATA*), 2017, 2018, 2019, 2020.
- Program Committee Member, International Conference on Bioinformatics and Biomedicine (*BIBM*), 2016-2021.
- Program Committee Member, The 8th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (*ACM-BCB*), 2017-2021.
- Program Committee Member, 17th Workshop on Advances in Parallel and Distributed Computational Models (*APDCM*), May 2015.
- Program Committee Member, 29th IEEE International Parallel & Distributed Processing Symposium (*IPDPS*), May 25-29, 2015.
- Program Committee Member, 16th Workshop on Advances in Parallel and Distributed Computational Models (*APDCM*), 2015.
- 9th International Conference on Language Automata Theory and Applications (*LATA*), Nice, France, March 2-6, 2015.
- Program Committee Member, 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Chicago, August 26-30, 2014.
- Program Committee Co-Chair, The nineteenth IEEE Symposium on Computers and Communications, 2014
- Associated Editor, 36th Annual International IEEE EMBS Conference, August 26-30, 2014, Chicago.
- Program Committee member, the 13th European Conference on Computational Biology (*ECCB*), 2014.
- Program Committee Member, 16th Workshop on Advances in Parallel and Distributed Computational Models (*APDCM*), 2013.
- PC Member, 14th Workshop on Advances in Parallel and Distributed Computational Models (*APDCM*), May 21, 2012, Shanghai, China, in conjunction with IEEE *IPDPS*.
- PC member, 2nd International Conference on Cloud Computing and Service Science, April 18-21, 2012, Porto, Portugal.
- Program Committee Member, IEEE International Conference on Bioinformatics and Biomedicine (*BIBM*), Nov. 12 to 15, 2011, Atlanta, GA.
- Program Committee Member, 16th IEEE Symposium on Computers and Communications (*ISCC*), June 28-July 1, 2011, Kerkyra (Corfu), Greece.
- Program Committee Member, 1st International Conference on Computer Science, Engineering and Applications (*CCSEA*), Chennai, India, July 15-17, 2011.

- Program Committee Member, First International Conference on Computer Science, Engineering and Information Technology (CCSEIT), September 23-25, Tirunelveli, India, 2011.
- Program Committee Member, IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), Dec. 14-17, Bilbao, Spain, 2011.
- PC Member, IEEE ICC Workshop on Advanced Communications Technologies and Applications for Intelligent Transportation Systems, June 5-9, 2011, Kyoto, Japan.
- Program Committee Member, The First International Conference on Access Networks, Services and Technologies (ACCESS), September 20-25, Valencia, Spain, 2010.
- Program Committee Member, International Forum on Next Generation Multicore/Manycore Technologies (IFMT), 2010.
- Program Committee Member, International Conference on Digital Society (ICDS), 2009, 2010, 2011.
- Program Committee Member, 20th International Symposium on Algorithms and Computation (ISAAC), 2009.
- Program Committee Member, IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2009, 2010, 2011.
- Program Committee Member, 4th International Conference on Internet Monitoring and Protection (ICIMP), 2009.
- Program Committee Member, NEUTRAL 2009 (French Riviera, France)
- Program Committee Member, ISCA 22nd International Conference on Parallel and Distributed Computing and Communication Systems, 2009.
- Program Committee Member, 22nd International Conference on Parallel and Distributed Computing and Communication Systems (PDCCS), Louisville, KY, September 24-26, 2009.
- Program Committee Member, International Symposium on Bioinformatics Research and Applications (ISBRA), 2008, 2009, 2010.
- Program Committee Member, ACM Symposium on Applied Computing (SAC) Special session on Data Mining, 2006, 2007, 2008, 2009, 2010, 2011.
- Program Committee Member, Workshop on Advances in Parallel and Distributed Computational Models (APDCM), 2001, 2002, 2005, 2006, 2007, 2008, 2009, 2010, 2011.
- Program Committee Member, Tenth IEEE Symposium on Computers and Communication (ISCC), 2005, 2006, 2007, 2008, 2009, 2011.
- Program Committee Member, IASTED international conference on Communications and Computer Networks (CCN) 2005, 2006.
- Program Committee Member, International Symposium on Signal Processing and Information Technology (ISSPIT), 2005, 2006, 2008.
- Program Committee Member, International Parallel and Distributed Processing Symposium (IPDPS), 2004, 2005, 2006.
- Program Committee Member, International Conference on Biomedical Engineering (BioMED), 2003, 2004, 2005, 2006, 2008.

- Program Committee Member, Fourth International Conference on Modeling, Simulation, and Optimization, Kuai, Hawaii, August 17-19, 2004.
- Program Committee Member, *Third Workshop on Optics and Computer Science*, 1999.
- Program Committee Member, International Conference on Parallel Processing (ICPP), 2000, 2006.
- Program Committee Member, International Parallel Processing Symposium, 1997, 1998.
- Program Committee Member, International Symposium on Parallel Architectures, Algorithms, and Networks (ISPAN) 1996, 1997, 1998.
- Program Committee Member, Workshop on Interconnection Networks and Communication Algorithms, 1998.
- Program Committee Member, Randomized Algorithms (A satellite workshop to MFCS), 1998.
- Program Committee Member, International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA), 1996, 1997.
- Program Committee Member, International Conference on Parallel and Distributed Computing and Systems (PDCS), 1998, 2001, 2002, 2003, 2005, 2006, 2007, 2008, 2011.
- Program Committee Member, IEEE Symposium on Parallel and Distributed Processing, 1995.
- Program Committee Member, International Conference on High Performance Computing (HiPC), 1995, 1996, 1997, 2006, 2009.
- Session Chair, International Parallel and Distributed Processing Symposium (IPDPS), 2005.
- Session Chair, International Parallel Processing Symposium, Geneva, Switzerland, April 1997.
- Session Chair, International Parallel Processing Symposium, Newport Beach, CA, April 1993.
- Session Chair, Third IEEE Symposium on Parallel and Distributed Processing, Dallas, Texas, Dec. 1991.
- Made a site-visit on behalf of the US Department of Energy and evaluated a proposal for the DOE SBIR program.
- Referee: SIAM Journal on Computing, Journal of Computer and Systems Science, Information and Computation, Theoretical Computer Science, Algorithmica, Journal of Algorithms, Symposium on Foundations of Computer Science, Symposium on Theory of Computing, Oxford University Press, Prentice Hall Publishers, Conference on Foundations of Software Technology and Theoretical Computer Science, International Conference on Parallel Processing, IEEE Symposium on Parallel and Distributed Processing, IEEE Transactions on Computers, Parallel Processing Letters, Information Processing Letters, International Journal of Parallel Programming, Journal of Parallel and Distributed Computing, ASME Dynamic Systems, and Control Division Technical Papers.
- Panel Member for NIH, October 2016, February 2017
- Reviewer for NSF, 2003, 2004, 2005, 2018, 2019

- Panel Member, NSF, 2005, 2006, 2010, 2011 (two panels), 2013, 2014 (two panels), 2018 (two panels), 2019 (two panels)
- Reviewer, New York State Technology Transfer Incentive Program, May 2006, May 2017.
- Panel Member for New York State CART Program, 2016
- Panel Member, NYSTAR CAT Program, 2017, Some Fundamental Problems in Data Science 2018, 2019
- State of Texas Research Assessment Program (RAP) Review Board member, August 2004.
- Reviewer for the US Department of State Research Program
- Member, External Advisory Board, Dept. of Computer Science, Univ. of New Haven, 2003-2005.

Keynotes and Tutorials

1. Keynote Speech, The Closest Pair Problem: Algorithms and Applications, First International Conference on Informatics, JIIT, April 15, 2022.
2. Keynote Speech, Some Fundamental Problems in Data Science, International Conference on Computational Intelligence, December 12-13, 2020.
3. Keynote Speech, Algorithmic Challenges in Data Analytics and Machine Learning, International Conference on Computational Sciences (ICCS – 2019), Alagappa University, Karaikudi, Tamilnadu, India, October 23-24, 2019.
4. Keynote Speech, Algorithms for Big Data Analytics, International Conference on Machine Learning and Data Science (ICMLDS), Hyderabad, India, December 21-22, 2018.
5. Invited Talk, Big Data: Challenges and Algorithms, Southern Illinois University, November 1, 2018.
6. Keynote Speech, IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Kansas City, MO, USA, November 13 - 16, 2017.
7. Keynote Speech, First Symposium on Computational Materials Research, Advanced Electronic Structure Calculations and Big Data, University of Connecticut, Storrs, July 27, 2017.
8. Keynote Speech, QPRC 2017: The 34th Quality and Productivity Research Conference, June 13-15, University of Connecticut, Storrs, CT.
9. Keynote Speech, The 31st New England Statistics Symposium, April 21-22, 2017, University of Connecticut, Storrs, CT.
10. Keynote Speech, The 22nd IEEE Symposium on Computers and Communications (ISCC), 03 - 06 July 2017, Heraklion, Crete, Greece.
11. Keynote Speech, Fifth International Conference on Bioinformatics and Computational Biology (BICoB), Honolulu, Hawaii, March 4-6, 2013.
12. Keynote Speech, IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), Ho Chi Minh City, Vietnam, December 12-15, 2012.

13. Keynote Speech, International Conference on Advances in Computer Science and Technology (ACST), Langkawi, Malaysia, April 2-4, 2008.
14. Keynote speaker, National Symposium on Bioinformatics, Annamalai University, India, Feb. 23, 2009.
15. Keynote speaker, 4th International Conference on Contemporary Computing (IC3), Noida, India, August 8-10, 2011.
16. Keynote Speaker, First International Conference on Advanced Computing and Communication, September 15-17, 2010, Orlando, Florida.
17. Indo-US Collaboration for Engineering Education (IUCEE) Workshop on Analysis of Algorithms, June 29 to July 3, Mysore, India. Gave a full course on algorithms to 30+ college teachers in India.
18. Tutorial on Sequential and Parallel Algorithms for Motif Search, International Symposium on Bioinformatics Research and Applications (ISBRA), Atlanta, May 8, 2008.
19. Invited Talk, Bio-IT World Conference & Expo, April 12, Boston, 2011.