Resume
David Nassimi

Contact Information:

Dr. David Nassimi Associate Professor Computer Science Department New Jersey Institute of Technology (NJIT) Newark, NJ 07102	Web: https://web.njit.edu/~nassimi Email: nassimi@njit.edu Tel: 973-596-5645 (office) Fax: 973-596-5777

Citizenship: USA

Education

PhD, Computer Science, University of Minnesota, 1979
MS, Computer Science, University of Minnesota, 1978
MS, Electrical Engineering, University of Minnesota, 1975
BS, Electrical Engineering, University of Minnesota, 1968

Academic Positions

Associate Professor, Computer Science Department, NJIT, 1989-present
Associate Professor, CIS Dept., University of Delaware, 1985-1989
Assistant Professor, Department of EECS, Northwestern University, 1979-1985

Industrial Positions (Prior to PhD)

Diagnostic Programmer, Control Data Corporation (CDC), 1969-1972
Quality Test Engineer, Sperry Univac, 1968-1969

Editorial Positions
- Editorial Board, *Journal of Parallel and Distributed Computing*, 1989-2003
- Editorial Board, *IEEE Transactions on Parallel and Distributed Systems*, 1994-98.

Administrative Positions, NJIT

PhD Program Director, CS Department, 2003-2014

Research Interests

Parallel Algorithms and Architectures, Interconnection Networks, Data Routing Algorithms, High-Performance Computing

Honors

"Highly Cited Researcher" in Computer Science, ISI / Thomson Reuters, 2003-2015
   http://www.highlycited.com
This website was originally established in 2003 by ISI and is now maintained by
Thomson Reuter. The website lists the top 300 most-cited researchers in each field
worldwide. The ranking is based on citations of published **journal articles** for the period
1981-1999. The mission of this website is to "identify individuals, departments and
laboratories that have made fundamental contributions to the advancement of science and
technology in recent decades."
The number of Highly-Cited-Researchers in an institution plays an important factor in
academic ranking of world universities:
   http://www.shanghairanking.com

Awards
- Outstanding Professor Award, Northwestern University, May 1985.
- CS Nominee for "Excellence in Undergraduate/Graduate Instructions," NJIT,
  numerous times including: 1993-94, 2000-01, 2002-03, 2003-04, and 2010-11.

University Service, NJIT

A. Institute Committees

- Graduate Council, member, 2003-present
- Faculty Council, Chair, 1998-99
- Faculty Council, Vice-Chair, 1997-98
- Faculty Council, member, 1995-99
- Student Appeals Committee, member, 1992-95

B. CS Department

- PhD Program Director, 2003-2014
- Excellence-in-Teaching Nominating Committee, 2005-present
- Faculty Recruiting Committee, Member, 2003-2004
- CS-Chair-Search Committee, Chair, 2002-2003
- Excellence-in-Teaching Nominating Committee, 2001-2003
- PhD Program Director, 1997-99
- PhD Qualifying Exam Committee, Chair, 1990-99
- CS-Chair-Search Committee, Member, 1998-99
- Co-Director, Parallel and Distributed Computing Laboratory, 1990-1995
- Research Committee, Member, 1990-91
- Graduate Curriculum Committee, Member, 1990-1991

Publications

A. Journal Publications (All Refereed)

1. R. Becker, D. Nassimi, and Y. Perl, "The New Class of g-Chain Periodic Sorters," *Journal of Parallel and Distributed Computing*, Vol. 54, No. 2, Nov. 1998, pp. 206-222.

2. D. Nassimi, "Nearly Logarithmic-Time Parallel Algorithms for the Class of $\pm 2^b$ ASCEND Computations on a SIMD Hypercube," *Journal of Parallel and Distributed Computing*, vol. 20, no. 3, March 1994, pp. 289-302.

3. D. Nassimi, "Parallel Algorithms for the Classes of $\pm 2^b$ DESCEND and ASCEND Computations on a SIMD Hypercube," *IEEE Transactions on Parallel and Distributed Systems*, vol. 4, no. 12, Dec. 1993, pp. 1372-1381.

4. D. Nassimi and Y.D. Tsai, "An Efficient Implementation of Batcher's Odd-Even Merge on a SIMD Hypercube," *Journal of Parallel and Distributed Computing*, vol. 19, no. 1, Sep. 1993, pp. 58-63.

5. M. Misra, D. Nassimi, and V.K. Prasanna, "Efficient VLSI Implementation of Iterative Solutions to Sparse Linear Systems," *Parallel Computing*, vol. 19, No. 5, May 1993, pp. 525-544.

6. D. Nassimi and S. Sahni, "Parallel Permutation and Sorting Algorithms and a New Generalized Connection Network," *Journal of the ACM*, vol. 29, no. 3, July 1982, pp. 642-667.

7. D. Nassimi and S. Sahni, "Optimal BPC Permutations on a Cube-Connected SIMD Computer," *IEEE Transactions on Computers*, vol. C-31, no. 4, April 1982, pp. 338-341.

8. D. Nassimi and S. Sahni, "Parallel Algorithms to Set-up the Benes Permutation Network," *IEEE Transactions on Computers*, vol. C-31, no. 2, Feb. 1982, pp. 148-154.

9. E. Dekel, D. Nassimi, and S. Sahni, "Parallel Matrix and Graph Algorithms," *SIAM Journal on Computing*, vol. 10, no. 4, Nov. 1981, pp. 657-675.

10. D. Nassimi and S. Sahni, "A Self-Routing Benes Network and Parallel Permutation Algorithms," *IEEE Transactions on Computers*, vol. C-30, no. 5, May 1981, pp. 332-340.

11. D. Nassimi and S. Sahni, "Data Broadcasting in SIMD Computers," *IEEE Transactions on Computers*, vol. C-30, no. 2, Feb. 1981, pp. 101-107.

12. D. Nassimi and S. Sahni, "Finding Connected Components and Connected Ones on a Mesh-Connected Parallel Computer," *SIAM Journal on Computing*, vol. 9, no. 4, Nov. 1980, pp. 744-757.

13. D. Nassimi and S. Sahni, "An Optimal Routing Algorithm for Mesh-Connected Parallel Computers," *Journal of the ACM*, vol. 27, no. 1, Jan. 1980, pp. 6-29.

14. D. Nassimi and S. Sahni, "Bitonic Sort on a Mesh-Connected Parallel Computer," *IEEE Transactions on Computers*, vol. C-28, no. 1, Jan. 1979, pp. 2-6.

B. Conference Publications (All Refereed)

15. D. Nassimi, J. Milind, and A. Sohn, "A Hash-Based Scalable Technique for Parallel Bidirectional Search," *IEEE Symposium on Parallel and Distributed Processing* (SPDP'95), Oct. 1995, pp. 414-421.

16. D. Nassimi, Y. Perl, and R. Becker, "The Generalized Class of g-Chain Periodic Sorting Networks," *The 8th International Parallel Processing Symposium* (IPPS'94), Cancun, Mexico, IEEE Computer Society, April 1994, pp. 424-432.

17. R. Becker, D. Nassimi, and Y. Perl, "The New Class of g-Chain Periodic Sorters," *The 5th Annual ACM Symposium on Parallel Algorithms and Architectures*, June 1993, Velen, Germany, pp. 356-364.

18. D. Nassimi, "A Parallel MSF Algorithm for Planar Graphs on a Mesh and Applications to Image Processing," *Proceedings of the 7th International Parallel Processing Symposium*, IEEE Computer Society, April 1993, pp. 205-211.

19. D. Nassimi, "Parallel Algorithms for PM2B-ASCEND Computations on a SIMD Hypercube Using Multiple Levels of Iteration-Grouping," *Proceedings of 1992 International Conference on Parallel Processing*, Sponsored by Penn State University, Aug. 1992, Vol. III, pp. 221-228.

20. D. Nassimi, "Nearly Logarithmic-Time Parallel Algorithms for the Class of $\pm 2^b$ ASCEND Computations on a SIMD Hypercube," *Proceedings of the 6th International Parallel Processing Symposium*, IEEE Computer Society, March 1992, pp. 122-129.

21. M.R. Hakami, P.J. Warter, C.G. Boncelet, D. Nassimi, "VLSI Architectures for Recursive and Multiple-Window Order Statistic Filtering," *Proceedings of the 6th International Parallel Processing Symposium*, IEEE Computer Society, March 1992, pp. 294-297.

22. D. Nassimi, "A Parallel Algorithm for the Class of $\pm 2^b$ ASCEND Computations on a SIMD Hypercube," *Proc. Twenty-Ninth Annual Allerton Conference on Communication, Control, and Computing*, University of Illinois, Oct. 1991, pp. 845-846.

23. D. Nassimi and Y.D. Tsai, "Efficient Implementations of a Class of $\pm 2^b$ Parallel Computations on a SIMD Hypercube," *Proceedings of the 5th International Parallel Processing Symposium*, IEEE Computer Society, April 1991, pp. 2-9.

24. D. Nassimi, "A Fault-Tolerant Routing Algorithm for BPC Permutations on Multistage Interconnection Networks," *Proceedings of the 1989 International Conference on Parallel Processing*, Sponsored by Penn State University, Vol. 1, Aug. 1989, pp. 278-287.

25. D. Nassimi and S. Sahni, "Data Broadcasting in SIMD Computers," *Proceedings of the 1980 International Conference on Parallel Processing*, IEEE Computer Society, Aug. 1980, pp. 325-326.

26. D. Nassimi and S. Sahni, "A Self-Routing Benes Network and Parallel Permutation Algorithms," *Proceedings of the 7th International Symposium on Computer Architecture*, Cosponsored by IEEE Computer Society and ACM, France, May 1980, pp. 190-195.

27. D. Nassimi and S. Sahni, "Parallel Algorithms to Set-up the Benes Permutation Network," Proceedings of Workshop on Interconnection Networks for Parallel and Distributed Processing, Cosponsored by ACM SIGARCH and IEEE Computer Society, Purdue University, April 1980, pp. 70-71.

28. E. Dekel, D. Nassimi, and S. Sahni, "Parallel Matrix and Graph Algorithms," *Proceedings of 17th Annual Allerton Conference on Communication, Control, and Computing*, University of Illinois, Oct. 1979, pp. 27-36.

29. D. Nassimi and S. Sahni, "Parallel Permutation and Sorting Algorithms," *Proceedings of 17th Annual Allerton Conference on Communication, Control, and Computing*, University of Illinois, Oct. 1979, pp. 1-10.

C. Book Articles

30. D. Nassimi and S. Sahni, "Parallel Permutation and Sorting Algorithms and a New Generalized Connection Network," in *Interconnection Networks for Parallel and Distributed Processing*, edited by C.L. Wu and T.Y. Feng, IEEE Computer Society Press, 1984, pp. 217-240.

31. D. Nassimi and S. Sahni, "A Self-Routing Benes Network and Parallel Permutation Algorithms," in *Interconnection Networks for Parallel and Distributed Processing*, edited by C.L. Wu and T.Y. Feng, IEEE Computer Society Press, 1984, pp. 241-249.

32. D. Nassimi and S. Sahni, "Data Broadcasting in SIMD Computers," in *Interconnection Networks for Parallel and Distributed Processing*, edited by C.L. Wu and T.Y. Feng, IEEE Computer Society Press, 1984, pp. 282-288.

33. E. Dekel, D. Nassimi, and S. Sahni, "Parallel Matrix and Graph Algorithms," in *Supercomputers: Design and Applications*, edited by Kai Hwang, IEEE Computer Society Press, 1984, pp. 387-403.

International Affiliation

Affiliated with "International Research Collaboration Program," Computing Science, King Abdulaziz University, Jeddah, Saudi Arabia, 2011-2012

Professional Activities

1. Executive Committee Member, IEEE Technical Committee on Parallel Processing (TCPP)}, 1992-2002

2. Program Committee Member, *9th International Conference on High Performance Computing* (HiPC 2002), Bangalore, India, Dec. 2002.

3. Program Committee Member, *International Conference on Parallel Processing* (ICPP 2002), Vancouver, Canada, Sep. 2002.

4. Program Committee Member, *The 13th International Conference on Parallel and Distributed Computing and Systems* (PDCS 2001), Anaheim, California, August

2001. Organized by International Association of Science and Technology for Development (IASTED).

5. Program Vice-Chair, *1999 International Symposium on Parallel Architectures, Algorithms, and Networks* (I-SPAN'99), IEEE Computer Society, Australia, June 1999.

6. Advisory Committee Member, *Eleventh IASTED International Conference on Parallel and Distributed Computing and Systems* (PDCS'99), Cambridge, Massachusetts, Nov. 1999.

7. Program Committee Member, *The 12th International Parallel Processing Symposium* (IPPS/SPDP'98), IEEE Computer Society, 1998.

8. Program Committee Member, *The 11th International Parallel Processing Symposium*} (IPPS'97), IEEE Computer Society, 1997.

9. Program Committee Member, *Symposium on Parallel and Distributed Processing*} (SPDP'96), IEEE Computer Society, 1996.

10. Program Committee Member, *The 3rd International Conference on High Performance Computing* (HiPC'96), 1996.

11. Program Committee Member, *The 9th International Parallel Processing Symposium*} (IPPS'95), Sponsored by IEEE Computer Society, Santa Barbara, California, April 1995.

12. Program Committee Member, *1995 International Conference on Parallel Processing* (ICPP'95), Sponsored by Penn State University, Oconomowoc, Wisconsin, Aug. 1995.

13. Program Committee Member, *Seventh IEEE Symposium on Parallel and Distributed Processing* (SPDP'95)}, Sponsored by IEEE Computer Society, San Antonia, Texas, Oct. 1995.

14. Program Committee Member, *Seventh IASTED-ISMM International Conference on Parallel and Distributed Computing and Systems*, Georgetown University, Washington D.C., Oct. 1995.

15. Program Committee Member, *International Conference on High Performance Computing* (HiPC'95), in Cooperation with IEEE Computer Society, India, Dec. 1995.

16. Program Committee Member, The *8th International Parallel Processing Symposium*} (IPPS'94), Sponsored by IEEE Computer Society, 1994.

17. Program Committee Member, *First International Workshop on Parallel Processing*, India, Dec. 1994.

18. Session Chair, *1992 International Conference on Parallel Processing* (ICPP)}, Aug. 1992.

19. Panelist, "HPCC (High Performance Computing and Communications) Initiative and the Role of Academia," *International Parallel Processing Symposium*, (IPPS), March 1992.

Refereeing Activities

I have done extensive refereeing for the following journals, conferences, and agencies:

- IEEE Transactions on Computers
- IEEE Transactions on Parallel and Distributed Systems
- Journal of Parallel and Distributed Computing
- International Journal on Parallel Programming
- Parallel Computing
- International Conference on Parallel Processing
- International Parallel Processing Symposium
- Symposium on Parallel and Distributed Processing
- National Science Foundation

Science Citations Index (SCI) -- Partial List

My journal publications are widely referenced in parallel processing literature. Below is the number of journal citations, taken from Science Citation Index (SCI) -- Citation Index annual volumes. This partial list only includes journal papers citing my journal publications, and only those with me as the first author.)

Year	Citations	SCI Source
1980-1984	98	5-year vol.
1985	14	Annual vol.
1986	14	Annual vol.
1987	15	Annual vol.
1988	24	Annual vol.
1989	28	Annual vol.
1990	27	Annual vol.
1991	50	Annual vol.
1992	31	Annual vol.
1993	45	Annual vol.
1994	62	Annual vol.
1995	30	Annual vol.
1996	16	Annual vol.
1997	14	Bimonthly vol., Jan.-June
1998	--	Not compiled
1999	--	Not compiled
Total	468	

Sample of Citations

Citing Author	Citing Journal	Author's Affiliation
R.M. Karp	SIAM J Disc Math, 92	Berkeley; Turing award winner
J. Ullman	VLSI book, 84	Stanford
L.G. Valiant	IEEE Tr. Comp, 81	Harvard
N. Pippenger	IEEE Tr. Comp, 81	IBM Research
S.L. Johnsson	J Par Dist Comp, 91	Harvard
J. JaJa	IEEE Tr. Comp, 84 J Par Dist Comp, 92	U. Maryland
S. Hambrusch	SIAM J. Comp, 83 Comp. Geometry, 92	Purdue
M. Atallah	JACM, 84 IEEE Tr. Comp, 88 J Par Dist Comp, 92	Purdue
Q. Stout	IEEE Tr. Comp, 83 J Par Dist Comp, 87 Proc IEEE, 88	U. Michigan
T.Y. Feng	Computer, 81	Penn State
Z. Gaul	JACM, 83	Columbia?
F. Preparata	CACM 81	Brown
J. Schwartz	IEEE Tr. Program, 80	NYU
A. Gottlieb	JACM, 84	NYU
P.C. Yew	IEEE Tr. Comp, 81	U. Illinois Urbana
J. Reif	JACM 87	Duke
JLC Sanz	Proc IEEE, 88	IBM Research