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Professional Preparation

Istanbul Technical University, Turkey, Computer Engineering B.S. 1988

Istanbul Technical University, Turkey, Computer Engineering M.S. 1992

Syracuse University, NY, USA, Computer Science Ph.D. 1999

Appointments

7/09 – present Professor, Computer Science and Engineering, Pennsylvania State University

7/07 – 7/12 Graduate Coordinator, Computer Science and Eng., Pennsylvania State University

9/04 – 7/09 Associate Professor, Computer Science and Eng., Pennsylvania State University

9/99 – 9/04 Assistant Professor, Computer Science and Eng., Pennsylvania State University

9/97 – 9/99 Visiting Ph.D. Student, ECE Department, Northwestern University

9/95 – 9/97 Teaching Assistant, EECS Department, Syracuse University

Five Related Products

- KaiSheng Ma, Jinyang Li, Tongda Wu, Zhibo Wang, Xueqing Li, Yongpan Liu, Yuan Xie, Mahmut Taylan Kandemir, Jack Sampson, and Vijaykrishnan Narayanan, “NEOFog: Nonvolatility-Exploiting Optimizations for Fog Computing”, *Proceedings of the Architectural Support for Programming Languages and Operating System (ASPLOS)*, 2018.
- V. Tang, M. T. Kandemir, P. Yedlapalli, J. Kotra, “Improving bank-level parallelism for irregular application”, *Proceedings of the IEEE/ACM International Symposium on Microarchitecture (MICRO)*, pp 1-12, 2016.
- W. Ding, X. Tang, M. T. Kandemir, Y. Zhang, E. Kultursay, “Optimizing Off-Chip Accesses in Multi-cores”, *Proceedings of the Programming Language Design and Implementation (PLDI)*, pp 131-142, 2015.
- N. Chidambaram, H. Zhang, J. Ryoo, N. Soundararajan, M. T. Kandemir, A. Sivasubramaniam, R. Iyer, C. R. Das, “VIP: Virtualizing IP Chains in Handheld Platforms”, *Proceedings of the International Symposium on Computer Architecture (ISCA)*, pp 655-667, 2015.
- A. Jog, O. Kayiran, N. Chidambaram, A. K. Mishra, M. T. Kandemir, O. Mutlu, R. Iyer, C. R. Das, “OWL: Cooperative Thread Array Aware Scheduling Techniques for Improving GPGPU Performance”, *Proceedings of the Architectural Support for Programming Languages and Operating System (ASPLOS)*, pp 395-406, 2013.

Five Other Products

- J. B. Kotra, N. Shahidi, Z. A. Chishti, M. T. Kandemir, “Hardware-Software Co-design to Mitigate DRAM Refresh Overheads: A Case for Refresh-Aware Process Scheduling”, *Proceedings of the Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, pp 723-736, 2017.
- M. Arjomand, M. T. Kandemir, A. Sivasubramaniam, C. R. Das, “Boosting Access

Parallelism to PCM- Based Main Memory”, *Proceedings of the International Symposium on Computer Architecture (ISCA)*, pp 695-706, 2016.

- M. Jung, W. I. Choi, J. Shalf, M. Kandemir, “Triple-A: A Non-SSD Based Autonomic All-Flash Array for Scalable High Performance Computing Storage Systems”, *Proceedings of the Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, pp 441-454, 2014.
- J. Liu, Y. Zhang, O. Jang, W. Ding, M. T. Kandemir, “A Compiler Framework for Extracting Superword Level Parallelism”, *Proceedings of the Programming Language Design and Implementation (PLDI)*, pp 347- 358, 2012.
- M. Jung, E. H. Wilson III, M. T. Kandemir, “Physically Addressed Queuing (PAQ): Improving Parallelism in Solid State Disks”, *Proceedings of the International Symposium on Computer Architecture (ISCA)*, pp 404-415, 2012.

Synergistic Activities

- Program Chair/Co-chair: ACM International Symposium on Supercomputing (ICS), 2016
- Tutorial Speaker: Influence of Software Optimizations on System Energy (In Parallel Architecture and Compilation Techniques Conference, 2000)
- Associate Editor: IEEE TPDS (2014)
- Professional Societies: IEEE Fellow (2016)
- Program Committee Member: PLDI (2019)