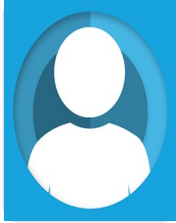




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h-index (Scopus):
11
Citations (Scopus):
318

Supervised MSc Theses

#	Thesis title	By	Date
1	Energy Improvement of Re-Inforcement Learning Algorithms on Neuromorphic Processors for Cryptocurrency Market	Seyyed Amirhossein Saeidi & Hamed Farbeh	June 2022
2	An Authentication method to improve security and computational overhead for perception layer in IoT	Robabe Najafi & Hamed Farbeh	June 2022
3	An Energy-Efficient Processing-In-Memory Architecture for Big Data bitwise Application	Mahsa Rashedi & Hamed Farbeh	October 2021
4	A Content - A ware Memory management technique for improving performance of racetrack caches	Amirreza Kazemzadeh & Hamed Farbeh	October 2021
5	A low power Embedded MRAM Architcture For Iot Applications	Belal Jahan Nia & Hamed Farbeh	September 2021
6	An Efficient ReRAM-based In-Memory-Processing Architecture for Graph Computing	Seyed Ali Ghasemi & Hamed Farbeh	August 2021
7	Reliability Improvement in Domain-Wall based Cache Memories	Fateme Shokouhinia & Hamed Farbeh	July 2021
8	Designing an algorithm to reduce the volume of computations in the wireless sensor network of the intelligent highway transfer barrier system using the fuzzy rule base	Mohammad Masoomzadeh & Hamed Farbeh	October 2020
9	Communication Energy Management in SDN based IoT	Shahab Salehi & Hamed Farbeh	July 2020

Journal Papers

Portal Records

- 1 Marjan Rahbari, Hamed Farbeh, "CRP: Conditional Replacement Policy for Reliability Enhancement of STT-MRAM Caches", IEEE TRANSACTIONS ON MAGNETICS, May 2022 Vol. In press, Num. 2, Page 1-13, May 2022,
- 2 Nooshin Mahdavi, Farhad Razaghian, Hamed Farbeh, "Data block manipulation for error rate reduction in STT-MRAM based main memory", JOURNAL OF SUPERCOMPUTING, March 2022 Vol. 78, Num. 7, Page 1-31, March 2022,
- 3 Nooshin Mahdavi, Farhad Razaghian, Hamed Farbeh, "An Architectural-Level Reliability Improvement Scheme in STT-MRAM Main Memory", MICROPROCESSORS AND MICROSYSTEMS, March 2022 Vol. 90, Num. 1, Page 104462-104480, March 2022,
- 4 Maede Safari, Zahra Shirmohammadi, Nezam Rohbani, Hamed Farbeh, "LETHOR: a thermal-aware proactive routing algorithm for 3D NoCs with less entrance to hot regions", JOURNAL OF SUPERCOMPUTING, January 2022 Vol. 78, Num. 6, Page 1-25, January 2022,
- 5 Farshid Sanei, Hamed Farbeh, "A link adaptation scheme for reliable downlink communications in narrowband IoT", MICROELECTRONICS JOURNAL, July 2021 Vol. 114, Num. 1, Page 105154-105154, July 2021,
- 6 Shahab Salehi, Hamed Farbeh, "Energy Optimization in SDN-based Internet of Things", Journal of Soft Computing and Information Technology, June 2021 Vol. 10, Num. 2, Page 27-38, June 2021,
- 7 Hamed Farbeh, Leila Delshadtehrani, Hyeonggyu Kim, Soontae Kim, "ECC-United Cache: Maximizing Efficiency of Error Detection/Correction Codes in Associative Cache Memories", IEEE TRANSACTIONS ON COMPUTERS, April 2021 Vol. 70, Num. 4, Page 640-654, April 2021,
- 8 Mojdeh Mahdavi, Mohammad Amin Amiri, Hamed Farbeh, "Improving Reliability of Processing Board of Cube Satellites by Modifying the Memory Structure", , December 2020 Vol. 22, Num. 2, Page 66-79, December 2020,
- 9 Faezeh Sadat Saadatmand, Nezam Rohbani, Farshad Baharvand, Hamed Farbeh, "TAMER: An Adaptive Task Allocation Method for Aging Reduction in Multi-core Embedded Real-time Systems", JOURNAL OF SUPERCOMPUTING, May 2020 Vol. 0, Num. 0, Page 1-21, May 2020,
- 10 Arezoo Dabaghi, Hamed Farbeh, "High Performance and Predictable Memory Controller for Multicore Mixed-Criticality Real-Time Systems", IET COMPUTERS AND DIGITAL TECHNIQUES, June 2019 Vol. 13, Num. 5, Page 376-382, June 2019,
- 11 Hamed Farbeh, Amir Mahdi Hosseini Monazzah, "CLEAR: Cache Lines Error Accumulation Reduction by exploiting invisible accesses", MICROELECTRONICS JOURNAL, June 2019 Vol. 90, Num. 0, Page 123-132, June 2019,
- 12 Elham Cheshmikhani, Hamed Farbeh, Hossein Asadi, "A System-Level Framework for Analytical and Empirical Reliability Exploration of STT-MRAM Caches", IEEE TRANSACTIONS ON RELIABILITY, May 2019 Vol. 0, Num. 0, Page 1-15, May 2019,
- 13 Ensieh Aliagha, Amir Mahdi Hosseini Monazzah, Hamed Farbeh, "REACT: Read/Write Error Rate Aware Coding Technique for Emerging STT-MRAM Caches", IEEE TRANSACTIONS ON MAGNETICS, April 2019 Vol. 55, Num. 5, Page 1-8, April 2019,
- 14 Seyedeh Golsana Ghaemi, Iman Ahmadpour Yasouri, Mehdi Ardebili, Hamed Farbeh, "Sleepy-LRU: Extending the Lifetime of Non-Volatile Caches by Reducing Activity of Age Bits", JOURNAL OF SUPERCOMPUTING, January 2019 Vol. -, Num. 0, Page 1-30, January 2019,
- 15 Hamed Farbeh, Amir Mahdi Hosseini Monazzah, Ensieh Aliagha, Elham Cheshmikhani, "A-CACHE: Alternating Cache Allocation to Conduct Higher Endurance in NVM-based Caches", IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS, November 2018 Vol. 99, Num. 0, Page 1-5, November 2018,






- 16 Elham Cheshmikhani, Hamed Farbeh, Hossein Asadi, Seyed Ghassem Miremadi, "TA-LRW: A Replacement Policy for Error Rate Reduction in STT-MRAM Caches", IEEE TRANSACTIONS ON COMPUTERS, November 2018 Vol. 67, Num. 0, Page 1-16, November 2018,








Conference Papers

Portal Records

- 1 Mohammad Masoomzadeh, Hamed Farbeh, Mohsen Tarighi, S.Ahmad Motamedi, "Designing a fuzzy rule base highway traffic management system using intelligent guardrails ", 6th National Conference on Applied Research in Electrical, Mechanical and Mechatronics Engineering, September 2020
- 2 Azadeh Mokhtapour, Amir Mahdi Hosseini Monazzah, Hamed Farbeh, "PB-IFMC: A Selective Soft Error Protection Method Based on Instruction Fault Masking Capability ", International Computer Conference, January 2020
- 3 Farshid Sanei, Hamed Farbeh, "A Link Adaptation Scheme for Spectral Efficiency Enhancement of Downlink Communication in Narrow-band IoT ", National Annual Computer Society of Iran Conference, March 2019
- 4 Elham Cheshmikhani, Hamed Farbeh, Hossein Asadi, "Enhancing Reliability of STT-MRAM Caches by Eliminating Read Disturbance Accumulation ", Design, Automation and Test in Europe (DATE), March 2019
- 5 Elham Cheshmikhani, Hamed Farbeh, Hossein Asadi, "ROBIN: Incremental Oblique Interleaved ECC for Reliability Improvement in STT-MRAM Caches ", Asia and South Pacific Design Automation Conference (ASPDAC), January 2019
- 6 Maede Safari, Zahra Shirmohammadi, Nezam Rohbani, Hamed Farbeh, "Floating XY-YX: An Efficient Thermal Management Routing Algorithm for 3D NoCs ", The 16th IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC 2018), August 2018
- 7 Hamed Farbeh, Nezam Rohbani, "PCM-oriented cache management strategies for solid-state disks ", The CSI Symposium on Real-Time and Embedded Systems and Technologies (RTEST), May 2018

Taught Courses

#	Course title	Description	Headlines	Date
1	Special Topics) Memory Technologies(آشنایی با مباحث پایه‌ای انواع حافظه‌های کامپیوتری، فناوری‌های مختلف حافظه‌های کنونی و حافظه‌های نوظهور، مشخصه‌ها و کاربردهای انواع		Spring 2022
2	Computer Architecture	Introducing the basic hardware structure of modern computers, including the basic laws underlying performance evaluation. We will learn how to design the control and data path hardware for a processor, how to make machine instructions execute simulta		Spring 2022
3	Embded and Real-Time Systems	An introduction to embedded systems and timeliness, application domain of embedded and real-time systems, their constraints and capabilities, design considerations, implementation options, and hardware aspects as well as designing, implementing, and		Spring 2022
4	Microprocessor and Assembly Language	Microprocessor and Assembly Language		Spring 2022
5	Advanced Computer Architecture	Introduction to high performance computer architectures and parallel processing in different hierarchies		Fall 2021

6	Advanced Computer Architecture	Introduction to high performance computer architectures and parallel processing in different hierarchies		Fall 2021
7	Microprocessor and Assembly Language	Microprocessor and Assembly Language		Fall 2021
8	Microprocessor and Assembly Language	Microprocessor and Assembly Language		Fall 2021
9	(Special Topics) (Memory Technologies	آشنایی با مباحث پایه‌ای انواع حافظه‌های کامپیوتری، فناوری‌های مختلف حافظه‌های کنونی و حافظه‌های نوظهور، مشخصه‌ها و کاربردهای انواع		Spring 2021
10	Embded and Real-Time Systems	An introduction to embedded systems and timeliness, application domain of embedded and real-time systems, their constraints and capabilities, design considerations, implementation options, and hardware aspects as well as designing, implementing, and		Spring 2021
11	Special Topics) Memory Technologies(آشنایی با مباحث پایه‌ای انواع حافظه‌های کامپیوتری، فناوری‌های مختلف حافظه‌های کنونی و حافظه‌های نوظهور، مشخصه‌ها و کاربردهای انواع		Spring 2021
12	Microprocessor and Assembly Language	Microprocessor and Assembly Language		Spring 2021