

Hassan Ghasemzadeh

Embedded Systems and Signal Processing Lab.
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Research Interests

Algorithms for Networked Embedded Systems
Distributed Signal Processing
Reconfigurable Computing
Computer Aided System Design

Education

- Jan. 2007 - Present** **Ph.D. in “Computer Engineering”**
Department of Electrical Engineering, University of Texas at Dallas, TX
Adviser: Prof. Roozbeh Jafari
- Sep. 1998 – Sep. 2001** **M.Sc. in “Computer Systems Architecture”**
Department of Electrical and Computer Engineering, University of Tehran, Iran
Adviser: Prof. Zeinalabedin Navabi
- Sep. 1993 – Feb. 1998** **B.Sc. in “Computer Hardware Engineering”**
Department of Computer Engineering, Sharif University of Technology, Iran
Adviser: Prof. Shaahin Hessabi

Employment History

- Jan '07-Present** **University of Texas at Dallas**, Department of Electrical Engineering, TX
- Reseach Assistant in Networked Embedded Systems
- Sep '07-Present** **University of Texas at Dallas**, Department of Electrical Engineering, TX
- Teaching Assistant (courses include Light-weight Embedded Systems, Digital Circuits Design, Introduction to Digital Systems Laboratory, Introduction to Experimental Techniques, Linear Algebra for Engineers)
- Sep '03-Dec '06** **Azad University of Damavand**, Department of Computer Engineering, Tehran, Iran
- Lecturer and Faculty Member
 - Director of Undergraduate Studies

Jul '01-Sep '03

Bamdad Computer Co., Training and Support Section, Tehran, Iran

- IT Manager
- Instructor (courses include Informix SQL, Introduction to Computer Networks, Solaris 2.x Concepts, Unix Administration)
- System and Database Administrator
- Network and Servers Administrator

Sep '99-Sep '01

University of Tehran, Department of Electrical and Computer Engineering, Tehran, Iran

- Teaching Assistant, Graduate Course of "Parallel Processing"
- Teaching Assistant, Graduate Course of "Advanced VLSI Design"
- Teaching Assistant, Graduate Course of "Advanced Computer Architecture"

Teaching

Sep '07-Present

Teaching Assistant, University of Texas at Dallas, Department of Electrical Engineering, TX

- Light-weight Embedded Systems, Digital Circuits Design, Introduction to Digital Systems Laboratory, Introduction to Experimental Techniques, Linear Algebra for Engineers.

Sep '03-Dec '06

Instructor, Azad University of Damavand, Tehran, Iran

- Computer Architecture, Digital Logic Design, Computer Networks, Computer Programming, Advanced Computer Programming, Data Structures & Algorithms, Operating Systems

Sep '03-Jun '04

Instructor, Shariati Faculty of Engineering, Tehran, Iran

- Computer Architecture

Jan '04-Mar '04

Instructor, Applied Science University, Tehran, Iran

- Computer Programming

Distinction and Awards

September 1998 Ranked 4th among 4,000 participants in nationwide M.S. entrance exam, Iran

September 1993 Ranked 59th among 300,000 participants in nationwide universities entrance exam, Iran

Professional Activities

Reviewer

IEEE International Symposium on Circuits and Systems (ISCAS 2007)

Membership

IEEE (Student Member), ACM (Student Member)

Skills

Hardware Description Languages: VHDL, Verilog

VLSI/CAD Tools: ModelSim, QuickWork, MaxPlusII, Leonardo Spectrum, SPICE, Simulink, MATLAB

Programming Languages/Environments: Tinyos, MPI, Perl, Awk, Sed, C, C++, Pascal, Assembly, TinyOS

Database Management Systems: Informix Online 5.x, Oracle 9i, SQL Server 2000

Operating Systems: SUN OS, Linux, SCO Unix, Windows 9x/2k/XP/Vista

Publications

1. **H. Ghasemzadeh**, J. Barnes, E. Guenterberg, R. Jafari, A Phonological Expression for Physical Movement Monitoring in Body Sensor Networks, *The Fifth IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, September-October 2008, Atlanta, GA.
2. A. Sathyanarayana, S. Nageswaren, **H. Ghasemzadeh**, R. Jafari, J. H.L. Hansen, Body Sensor Networks for Driver Distraction Identification, *IEEE International Conference on Vehicular Electronics and Safety (ICVES)*, September 2008, Columbus, OH.
3. R. Ramachandran, L. Ramanna, **H. Ghasemzadeh**, G. Pradhan, R. Jafari, B. Prabhakaran, Body Sensor Networks to Evaluate Standing Balance: Interpreting Muscular Activities Based on Inertial Sensors, *The 2nd International Workshop on Systems and Networking Support for Healthcare and Assisted Living Environments (HealthNet)*, June 2008, Breckenridge, CO.
4. J. Barnes, V. Ramachandra, K. Gilani, E. Guenterberg, **H. Ghasemzadeh** and R. Jafari, Locomotion Monitoring using Body Sensor Networks, *International Conference on Information Processing in Sensor Networks (IPSN)*, April 2008, St. Louis, MO.
5. **H. Ghasemzadeh**, E. Guenterberg, R. Jafari, Action Coverage Formulation for Power Optimization in Body Sensor Networks, *ACM/IEEE Asia and South Pacific Design Automation Conference (ASP-DAC)*, to appear, January 2008, Seoul, Korea.
6. E. Guenterberg, **H. Ghasemzadeh**, Roozbeh Jafari, Ruzena Bajcsy, A Segmentation Technique Based on Standard Deviation in Body Sensor Networks, *IEEE Dallas Engineering in Medicine and Biology Workshop (Dallas-EMBS)*, November 2007, Dallas, TX.
7. M. R. Kakoe, H. Shojaei, **H. Ghasemzadeh**, M. Sirjani, Z. Navabi, "A New Approach for Design and Verification of Transaction Level Models", *IEEE International Symposium on Circuits and Systems (ISCAS'07)*, Pages 3760-3763, New Orleans, USA, May 2007.
8. **H. Ghasemzadeh**, S. Mazouee, H. G. Moghaddam, H. Shojaei, M. R. Kakoe, "Hardware Implementation of Stack-Based Replacement Algorithms", *Enformatika Transactions on Engineering, Computing and Technology*, Volume 16, Pages 135-139, Venice, Italy, November 2006.
9. **H. Ghasemzadeh**, S. Mazrouee, M. R. Kakoe, "Modified Pseudo LRU Replacement Algorithm", *13th Annual IEEE International Conference and Workshop on the Engineering of Computer Based Systems (ECBS'06)*, Pages 368-376, Potsdam, Germany, March 2006.
10. **H. Ghasemzadeh**, S. O. Fatemi, "Pseudo-FIFO Architecture of LRU Replacement Algorithm", *9th IEEE International Multi Topic Conference (INMIC'05)*, Karachi, Pakistan, December 2005.
11. **H. Ghasemzadeh**, "Exploiting LRU Replacement Algorithm in Victim Caches", *4th Iranian Student's*

Conference on Electrical Engineering (ISCEE'01), Tehran, Iran, September 2001.

12. **H. Ghasemzadeh**, "Design and Performance Evaluation of Quasi LRU Replacement Algorithm", 4th *Iranian Student's Conference on Electrical Engineering (ISCEE'01) (in Persian), Tehran, Iran, September 2001.*