
AMIRALI HABIBI CURRICULUM VITAE

CONTACT
INFORMATION

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EDUCATION

SHARIF UNIVERSITY OF TECHNOLOGY, TEHRAN, IRAN
M.S. COMPUTER ENGINEERING (COMPUTER ARCHITECTURE)
SEPTEMBER 2007 - JANUARY 2010

FERDOWSI UNIVERSITY OF MASHHAD, MASHHAD, IRAN
B.S. COMPUTER ENGINEERING (SOFTWARE ENGINEERING)
SEPTEMBER 2002 - SEPTEMBER 2007

RESEARCH
INTERESTS

System on chip Design Aspects

- Network on Chip and On-Chip Interconnect
- Testability and Fault Tolerant Issues in SoCs
- Power Issues for Complex SoC Design

Low Power and Power Aware Design of Digital Systems

- Low Power Design at System Level
- Interplay Between Low Power Design and Reliability

Interplay between Power, Reliability, Precision and Design Complexity

PUBLICATIONS

Vahid Salmani, Mahmoud Naghizadeh, Amirali Habibi, Hossein Deldari, “**Quantitative Comparison of Job-level Dynamic Scheduling Policies in Parallel Real-time Systems**”, *IEEE TENCON 2006*, Hong Kong, November 2006.

Amirali Habibi, Mohammad Arjomand, Hamid Sarbazi-Azad, “**A Multicast-Aware Mapping Algorithm for On-Chip Networks**”, PDP 2011.

Work in Progress: Amirali Habibi, Alireza Ejlali, “**Low Precision Hardware Redundancy for Fault Detection in Reliable Computing**”.

HONORS & AWARDS

- Ranked 3rd as M.Sc Student, Sharif University of Technology.
- Ranked 3rd as Senior Student, Ferdowsi University of Mashhad.
- Ranked Top 5% as Undergraduate student.
- Accepted in First Stage, Mathematics Olympiad, Young Scholars Club, 2000.
- Accepted in First Stage, Physics Olympiad, Young Scholars Club, 2000.
- Top 1% of National University Undergrad Entrance Examination among 500,000.
- Top 1% of National University Graduate Entrance Examination among 20,000.

RESEARCH
EXPERIENCE AND
ACADEMIC
ACTIVITIES

CURRENT POSITION

- Research Center for Integrated Circuit Design, Sharif University of Technology.
JANUARY 2010 - NOW

RESEARCH ASSISTANT

- High-Performance Computer Architecture and Network Lab (HPCAN), Department of Computer Engineering, Sharif University of Technology.
SEPTEMBER 2009 - JANUARY 2010
- School of Computer Science at IPM: Institute for Research in Fundamental Sciences.
SEPTEMBER 2009 - JANUARY 2010

CONFERENCE REVIEWER

Reviewer for AICCSA 2010, ACS/IEEE International Conference on Computer Systems and Applications.

PARTICIPATION IN LAB INSTRUCTION PREPARATION

The Following Labs Instructions in Department of Computer Engineering at Sharif University of Technology are Prepared with my participation:

- Microprocessor Lab cooperating with Dr.Miremadi
- Computer Aided Design Lab cooperating with Dr.Ejlali
- Digital Logic Lab cooperating with Dr.Asadi
- Computer Architecture Lab cooperating with Dr.Asadi

TECHNICAL REPORTS

- FAULT-TOLERANT IN DISTRIBUTED REAL-TIME SYSTEMS (TECHNICAL REPORT), As a part of Fault Tolerant System Design Project, Department of Computer Engineering, Sharif University of Technology, Winter 2008.
- FLOW CONTROL IN INTERCONNECTION NETWORKS (TECHNICAL REPORT), As a part of Interconnection Network Seminar, Department of Computer Engineering, Sharif University of Technology, Summer 2008.
- ANALYSIS OF POWER CONSUMPTION FOR SWITCH FABRICS IN NETWORK ROUTERS (TECHNICAL REPORT), As a part of Advanced Topics in Hardware Engineering - a System on Chip Design Project and Seminar, Department of Computer Engineering, Sharif University of Technology, Summer 2008.
- LOW POWER, LOW PRECISION ENTITY FOR RELIABILITY ISSUES : This project was an extension of my "Low Power Design" project which shows the trade off between Low Power Design, Reliability and Precision.

PROJECTS SUPERVISION

- CACHE SIMULATOR FOR EDUCATIONAL PURPOSE: This Project Defined and Implemented under Dr.Jahangir's supervision(Refer to "Reference Section") and managed by me. In this simulator we propose a Cache simulator with graphical user interface which can be used by students in order to help them to understand cache placement and replacement.
- ARITHMETIC SIMULATOR FOR EDUCATIONAL PURPOSE: This Project Defined and Implemented under Dr.Jahangir's supervision(Refer to "Reference Section") and managed by me. In this simulator we propose a Arithmetic simulator with graphical user interface which can be used by students in order to help them to understand different arithmetic algorithms.

OTHER ACADEMIC ACTIVITIES

- Network Administrator as part of Student Participation in Common Lab Administration
- Real-Time System Scheduling.
- *Voice over IP* Specially SIP (BS Project)
- Security in Multimedia Communication such as VoIP Security.
- Design and Implementation of Line Card SDL for Telephony.

- As an Internship Research Activity at Iranian Telecommunication Research Center(ITRC).
- IPM Winter School 2008
 - Participated in IPM Winter School 2008
IPM School of Computer Science & United Nations University
Winter School on Foundations and Trends in Computer Science (IPM/UNU - FTCS) Fundamental Concepts in Sequential and Concurrent Systems,
31 January - 10 February of 2008
School of Computer Science, IPM: Institute for Research in Fundamental Sciences , Tehran, Iran.

TEACHING EXPERIENCE

TEACHER ASSISTANTSHIP

- System on Chip Design (Instructor: Dr.Hessabi, Sharif University of Technology) ,Fall 2009.
- Advanced Computer Networks(Instructor: Dr. Khonsari, Sharif University of Technology), Fall 2008
- Computer Architecture (Instructor: Dr.Jahangir, Sharif University of Technology), Fall 2007 and Spring 2008
- Computer Networks(Instructor: Mr.Mizanian, Sharif University of Technology), Spring 2008
- Computer Architecture: Dr.Sepidnam and Ghandeharian (Ferdowsi University of Mashhad), Fall 2004, Spring 2005
- Introduction to Programming for Non-Computer Student(Mechanics for Two Semester, Metallurgy, Ferdowsi University of Mashhad), Dr.Saeed Abrishami (Ferdowsi University of Mashhad), Fall 2004
- Discrete Structure (Instructor: Dr.A.Ghaemi Bafghi, Ferdowsi University of Mashhad), Spring 2006
- File Structure and Data Retrieval (Instructor: Dr.A.Ghaemi Bafghi Ferdowsi University of Mashhad), Fall 2005, Spring 2006

LABORATORY ASSISTANT

- Computer Architecture Lab for 4 semesters: Managing the laboratory and Supervise the students
- Microprocessor Lab, Summer 2008 and Spring 2009: Managing the laboratory and Supervise the students
- Digital Electronic Lab, Spring 2009: Managing the laboratory and Supervise the students
- Computer Aided Design Lab, Spring 2009 and Fall 2009: Managing the laboratory and Supervise the students
- Digital Logic Lab, Fall 2009: Managing the laboratory and Supervise the students

COMPUTER SKILLS

- Hardware Programming Skills and Tools: Verilog and VHDL
- Altera FPGA and Tools, Xilinx FPGA and Tools
- Familiar with Synopsys Design Compiler
- Familiar with Cadence SoC Encounter
- *MATLAB* and *Simulink*® professional user
- Microcontroller expert: *AVR, 8051*
- Programming Languages: *C, C++, Microsoft VC++, Microsoft C#, JAVA2*
- Professional Linux User
- Microsoft SQL Server
- Design and Analysis in both Hardware and Software: *SDL(Specification and Description Language)*, *UML(Unified Modeling Language)*
- Professional *MS-Office* User and *L^AT_EX* Expert (Both in Farsi and English)
- *NS2*: Used for my B.S Thesis.

- Xmulator: Developed at HPCAN, Used for M.Sc Thesis.
- MPARM: Developed at University of Bologna under Supervision of Prof.Luca Benini, Used for part of my M.Sc Thesis also SoC course.
- RAPIDS: Developed at University of Massachusetts under Supervision of Prof.Israel Koren

LANGUAGE International English Language Testing System (IELTS) Academic 7.0, September 2008
 EXPERTISE Test Of English as Foreign Language (TOEFL), 96 iBT, October 2008.
 Italian: Beginner

- REFERENCES
- Dr.Hamid Sarbazi Azad, Associate Professor
 Department of Computer Engineering, Sharif University of Technology,Tehran, Iran. Also, Head of School of Computer Science at IPM.
 - Dr.Seyyed Ghasem Miremadi, Professor
 Department of Computer Engineering, Sharif University of Technology,Tehran, Iran.
 - Dr.Shaahin Hessabi, Associate Professor
 Head of Department of Computer Engineering, Sharif University of Technology,Tehran, Iran.
 - Dr.Amir Hossein Jahangir, Associate Professor
 Department of Computer Engineering, Sharif University of Technology,Tehran, Iran.
 - Dr.Alireza Ejlali, Assistant Professor
 Department of Computer Engineering, Sharif University of Technology,Tehran, Iran.
 - Dr.Mohammad Hossein Yaghmaee Moghaddam, Associate Professor
 Department of Computer Engineering, Ferdowsi University of Mashhad, Mashhad, Iran.