

# Abdolreza Abdolhosseini Moghadam

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## Personal Information

**First Name:** Abdolreza  
**Nickname:** Nima  
**Last Name:** Abdolhosseini Moghadam  
**Birth Date:** August, 1981  
**Gender:** Male

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## Education

**Sharif University of Technology** *Master of Science in Computer Architecture*  
Tehran, Iran **2003-2005**  
GPA currently: 17.29/20 (3.625/4)  
**Thesis:** Designing an Scalable Overlay Protocol  
Supervised by Dr. H. R. Rabiee,

**Sharif University of Technology** *Bachelor of Science in Hardware Engineering*  
Tehran, Iran **1999-2003**  
GPA: 15.45/20  
Last four semesters GPA: 16.127/20  
**Thesis:** Implementing a Multicast Video Proxy Server Using Intel IXP1200 Network Processor  
Supervised by Dr. H. R. Rabiee,

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## Research Interests

- Peer-to-Peer and Overlay Networks
  - Network Architecture and Protocols
  - Sensor Networks
  - Computer Networks
  - Wireless and Ad-hoc Networks
  - Network Security
  - Parallel and Distributed Processing
  - Operating Systems
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## Research Experience

**Digital Media Lab**  
Khodro building,  
Sharif University of Technology

**Research Assistant**  
Fall 2003 - Present

Supervised By *Dr. H. R. Rabiee*  
*Research on efficient transmission of the multimedia contents over IP networks by the use of overlays or proxy servers. Designing and implementing an extremely low overhead, robust overlay protocol.*

Supervised By *Dr. G. Miremadi*

Research and Development in the fields of dependable and fault tolerant systems. Research on fault injection in some processors and FPGA.

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## Publications

- A. Abdolhosseini Moghadam, H. R. Rabiee, M. Ghanbari, "E-Nice: an enhanced NICE", The 2006 International Symposium on Frontiers in Networking with Applications in conjunction with The IEEE 20th International Conference on Advanced Information Networking and Applications, Vienna, 18-20 April 2006.
- A. Abdolhosseini Moghadam, S. Barghi, H. R. Rabiee, M. Ghanbari, "A new scheme on recovery from failure in NICE overlay protocol", IEEE P2P Information Management 2006, Hong Kong, 29 May 2006 .
- A. Abdolhosseini Moghadam, H. R. Rabiee, M. Ghanbari, "Nice2: an enhanced and robust hierarchical overlay protocol", To be submitted to a journal.

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## Teaching Experience

<b>Operating Systems Concepts</b> Semiconductor Industry of Iran. Tehran, Iran	Instructor Fall 2003
<b>Real Time Systems</b> Semiconductor Industry of Iran. Tehran, Iran	Instructor Winter 2003
<b>Workshop on Linux device driver and interrupt handler programming</b> Semiconductor Industry of Iran. Tehran, Iran	Lecturer Winter 2003

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## Awards and Honors

- Ranked 31<sup>st</sup> among more than 350,000 applicants in the Iranian Nationwide University Entrance Exams (Konkoor), 1999
- Ranked 38<sup>th</sup> among more than 100,000 graduate applicants in the Graduate Iranian Nationwide University Entrance Exams (Arshad Konkoor), 2003

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## Accomplished Academic Projects

- **Object tracking using UWPT** (*Advanced Digital Signal Processing course, Fall 2003*)
  - Object Tracking using the Undecimated Wavelet Packet Transform
  - Resilient in the presence of the noise
- **A Linux Machine Specific Registers device driver** (*Advanced Micro-Processors course, Spring 2003*)
  - A linux device driver with ability of calculating number of L1,L2/Data,code cache miss/hit, pipeline stalls, mispredictions and etc. (Technical report In Farsi)
- **Designing a pitch-shifting, time-scaling system** (*Digital Signal Processing Course, Spring 2003*)
  - Implementing a pitch shifter - time scaler system using MATLAB

- **A comprehensive survey of super computer's operating systems** (*Advanced Computer Architecture course, Fall 2003*)
  - A comprehensive study of advanced techniques used in super computer's operating systems such as: journaling, issues in multiprocessor operating systems, real-time operating systems, advanced file system topics, and distributed systems. (Technical report In Farsi)
- **Designing a Messenger** (*Advanced Programming Course, Spring 2000*)
  - Multiuser Messenger using Socket Programming
  - Having the feature of getting offline messages from other users
  - Showing the status of other users

## Professional Experience

**AICTC (Advanced Communication and Telecommunication Center)** *System designer and developer*  
 Computer Engineering Department, **Summer 2003 - Present**  
 Sharif University of Technology  
<http://www.aictc.com/>

- Working on Linux thin-client: A diskless, cheap linux terminal, with the feature of booting from the network and running the operating system and applications on the server side
- Working on Linux Set-Top-Box: A cheap linux terminal capable of receiving Digital Video Broadcast Terrestrial signals

**Semiconductor Industry of Iran** *System designer*  
 Tehran, Iran **Aug. 2003 - Feb. 2004**

- Designing and implementing an embedded real time system based on RTAI Linux

**Signal Co. (Supervised by professor K. Nayebi)** *Verilog developer*  
 Tehran, Iran **Summer 2001**

- As a trainee, I was a member of verilog developer team in implementing a robust video coder

## Professional Skills

- Programming Languages : C, C++, VC++, Java, Delphi, Pascal and Assembly
- Network Programming in Linux and Windows
- Network simulator tools : Professional in Omnet++, familiar with NS
- Signal Processing using MATLAB
- Designing Microprocessor based Systems using Motorola 68000 and Intel 808x
- HDL Programming : VHDL and Verilog HDL
- Designing Hardware Systems using MAX-PLUS, OrCAD, PSPICE and Modelsim
- Familiar with Web Services
- Operating Systems: Linux, RTLinux, RTAI ,Windows and DOS
- Other Skills:
  - Familiar with Perl, Unix Shell Scripts, L<sup>A</sup>T<sub>E</sub>X and T<sub>E</sub>X

## Languages

**Persian:** Native

### **English:**

- Listening: Excellent
  - Speaking: Good
  - Reading: Excellent
  - Writing: Good
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## References

### **Hamid Reza Rabiee**

Assistant Professor

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Computer Engineering Department  
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### **Mohammed Ghanbari**

Professor

Essex University of Technology,  
Department of Electronic Systems Engineering  
web: <http://www.essex.ac.uk/ese/staff/StaffDetails/ghanbari.htm>  
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### **Amir Hossein Jahangir**

Assistant Professor

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Computer Engineering Department  
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