

Mohsen Jafari

PERSONAL Info. & CONTACT

First Name: Mohsen
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Birth: February 27th, 1989. Tehran, Iran
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EDUCATION

- University of Tehran, Tehran, IRAN [sep.2007- present] School of Electrical and Computer Engineering**
 - Center of Excellence in Electronic
 - The Department of Engineering of University of Tehran is ranked 1st in Iran and 112th in world according to Top universities Ranking, 2009)
- M.Sc. Electronics Engineering –Digital Design (Straight):** 2011-present, *University of Tehran*. GPA: 19.46/20 (1st rank).
 - Thesis title: “Digital Circuits Design in Near-threshold Region Considering Process Variation”.
- B.Sc. Electrical Engineering – Electronics:** (2007- 2011, *University of Tehran*, GPA: 17.44/20(3.68/4.00). (4th rank)
 - Thesis title: CV measurement for MOS and semiconductor contact
- B.Sc. Management science–Business and Commercial (Exceptional Simultaneous study:** *University of Tehran*, 2009- 2012, GPA: 16.69 /20(3.53/4.00)
- Diploma in Mathematics & Physics major and Pre-University Certificate in Mathematics and Physics**
 - *Seyedalshohada Educational Center, Tehran, Iran , 2003-2007, Tehran, Iran*,GPA:19.97/20.

SELECTED UNDERGRADUATE PASSED COURSES:

Mathematics	20/20	Electronics I (top 5%)	18.4/20
Microprocessors	20/20	Microprocessors	20/20
Engineering Probability and Statistics	20/20	Modern Physics	20/20
Electrical Circuit I(top mark)	17.75/2	Signal and System(2 nd rank)	19/20
Engineering Mathematics(3 rd rank)	0	Logic Circuit(2 nd rank)	19.5/20
	18/20		

SELECTED GRADUATE PASSED COURSES:

Design of Digital System with VHDL(2 nd rank)	18.2/20	Nano devices and their integrations(top mark)	20/20
VLSI Circuits(top mark)	20/20		20/20
Custom implementation of DSP systems(top mark)	19/20	Low power ICs(top mark)	18.6/20
	20/20	Active Integrated Circuits(2 nd rank)	19.5/20

Optional courses

Filed and waves	An introduction to biomedical engineering
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Awards and HONORS

- Ranked 140th in national university entrance exam among 500,000+ applicants,2007.
- Ranked 2th in national Azad University entrance among 100,000+ applicants, 2007.
- Ranked 4th (top 3%) among the B.Sc. Under graduate students of electronics branch of ECE, 2010.
- Top marked student in more than 10 courses.
- Ranked 1st in M.Sc. between Electronics Engineering-Circuit students 2011-present.
- Head of Digital design laboratory 2008-2009.
- Pursuing and completing B.Sc of Business management simultaneously as second field of study available for exceptional students of University of Tehran(2 out of 16,000+ students)
- Accepted without entrance exam (straight) for M.Sc. and Ph.D degrees for being among top 10% student.(2011 and 2013)
- Awarded Faculty of Engineering Scholarship 2007-2009.
- Qualified for the 2nd level of Iran's National Mathematical Olympiad.
- Finalist in Physics laboratory Olympiad in Tehran 2005.
- Bronze medal in Robot design laboratory Olympiad in Tehran 2003.
- Selected first author of IEEE Region 8 Student Paper Contest, University of Tehran 2012.
- Achieving Teaching Assistance Certificate (TAC), University of Tehran, 2011.

Research interest

- Near/sub threshold region for newer technologies
- Computer Aided Design
- Low-Power High-Performance Circuits/Architectures/Systems.
- Process variation tolerant design for nano-scaled VLSI device and circuits
- Nano-technology, CNT-based devices
- Advanced Semiconductor Modeling
- MEMS Devices

RESEARCH EXPERIENCES & COURSE PROJECTS

- 2009: "Design of a Low-Power Telescopic OTA using HSPICE", Electronics II, **Advisor:** Dr. A. Afzali-Kusha. Grade 100/100.
- 2010: "Design of a Compensated, Reliable, Low-power Op-amp Using HSPICE", Electronics III, **Advisor:** Dr. SJ.Ashtiani. Grade 100/100.
- 2010: "Design and Implementation of an automotive remote-control vehicle line follower", general workshop. **Advisor:** Dr. M. Fakhraei. Fall2009, Grade 100/100.
- 2010: "Design and Implementation of a reliable DC to DC convertor", Industrial Electronics, **Advisor:** Dr. B. Asaei. Fall 2010. Grade 100/100.
- 2010: "Design and Implementation of a reliable AC to DC convertor", Industrial Electronics, **Advisor:** Dr. B. Asaei. Fall 2010. Grade 100/100.
- 2010: "Design of a Low Phase-noise 2.4 GHz VCO using ADS", Communication Circuits, **Advisor:** Dr. M. Kamarei. Fall 2010. Grade 100/100.
- 2010: "Design of a reliable Mixer for RF signals using ADS", Communication Circuits, **Advisor:** Dr. M. Kamarei. Fall 2010. Grade 100/100.
- 2011: "Design of a 32-bit Ripple-Carry-Adder and Minimum Energy Point Concept using HSPICE", Digital Electronics, **Advisor:** Dr. M. Fakhraei. Fall2010. Grade 100/100.
- 2011: "Design of a tlm transport network with an arbiter implemented in system C",VHDL, **Advisor:** Dr. Navabi. Spring 2011. Grade 85/100.
- 2011: "Design of a accelerometer in MEMS technology by Intelisuit",MEMS, **Advisor:** Dr. Fathi pour. Fall 2011. Grade 100/100.
- "Design of a 12 ENB analog to digital convertor base on switch capacitor circuits",IC, **Advisor:** Dr.SJ. Ashtiani. Spring 2011. Grade 95/100.

COMPUTER SKILLS

- Electronic Design Automation Tools: ModelSim, Quartus, ISE-Xilinx, HSPICE, ADS, Matlab/Simulink, Labview, Altium Designer, Proteus and DC shell. (Expert)
- Microcontrollers: Codevision, Bascom, Protel, Proteus, AVRStudio. (Expert)
- Device design Tools: Solid works, Intelisuit, Comsol, Silvaco. (Expert)
- Lay-out designing Tool: Tanner Tools (LEdit-SEdit)(Expert)
- Software Programming language:C,C++(Expert),G++,Java(familiar), Assembly Language.
- Hardware Programming language: System C,Verilog, VHDL. (Expert)
- OS and others: Win98,XP,2000,Vista,se7en,Linux, Mac, Office(Expert)

TEACHING and WORK EXPERIENCES:

- Teaching experience:
 - Logic design lab. 2009-2012: Preparing lab's instructions and supervising lab sessions.
- Selected Teaching assistances:
 - "Engineering Mathematical" 2009; Teacher: Prof. J. Rashed-Mohassel.
 - "Logic Design" 2009; Teacher: Prof. Z. Navabi.
 - "Digital electronics" 2012; Teacher: Prof. SM Fakhraie.
 - "Introduction to MEMS" 2012; Teacher: Prof. M. Fathi-Pour.
 - "Fabrication Of Electronic Com I" 2011; Teacher: Prof. M. Fathi-Pour.
 - "Electrical Circuit II" 2012; Teacher: Prof. J. Rashed-Mohassel.
 - "Physics of Electronics Devices" 2012; Teacher: Dr. M. Kolahdouz.
- Internship Projects: [2010-11] National Communication Co.[Iran/Tehran]. Switching boards design and providing CAD tools for terrestrial municipal telephone.
- Working on project for biomedical uses as image processing of Othicon plate effect on patient (Bio medical joint department activity).
- Working for measurement devices for motivator for animal laboratory
- Working on C-V meter for MOS devices, 2010-2011, Supervisor M. Fathipour.
- Working on HEMT and VDMOS transistor characterization 2010 Course Project: MEMS / Advisor: Prof. M. Fathipour

Spoken Languages

- Persian(farsi): mother tongue
- English: Fluent
 - TOEFL iBT Total score: 103 (Reading:29, Listening:26, Speaking:24, Writing:24)
 - GRE: Registered for the November 9th 2013 exam
- Arabic: Good

Hobbies

- Playing guitar
- Watching movies
- Mountain climbing and swimming.