

PERSONAL & CONTACT
INFORMATION

Mehrزد Nejat

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Date of birth 18/Jan/1989 | Gender male | Nationality Iranian

EDUCATION

Currently Studying:
(2011-now)

M.Sc. in Electronics - Circuits & Systems

At University of Tehran – Low power High performance Nano systems Lab. (nanolab.ut.ac.ir)
Thesis Title: " Design of Ultra-Low Power Digital Circuits at Micro-Architecture Level in Near-Threshold Region "

Supervisor(s): Prof. A. Afzali-Kusha & Dr. B. Alizadeh

GPA (courses only): 17.49 / 20

2007-2011

B.Sc. in Electrical Engineering - Electronics

At Ferdowsi University of Mashhad

Thesis Title: "Designing the Control mechanism of the power circuit of a series Hybrid-Electrical-Vehicle"

Supervisor: Dr. M. Maymandi-Nejad

GPA: 18.14 / 20 (Ranked 1st)

RESRESEARCH INTERESTS:

- Digital Electronics
- Low power & fault tolerant circuit & system design
- Real time & Embedded Systems
- Wireless Sensor Networks & Body Area Networks
- Energy Harvesting & power management for low-power ICs.

RESEARCH EXPERIENCES &
PUBLICATIONS:

Papers published in Conference
Proceedings

- M. Nejat, B. Alizadeh and A. Afzali-Kusha, "Dynamic Flip-Flop Conversion to tolerate Process Variation in Low Power Circuits," Design Automation & Test in Europe (DATE), 2014.
- M. Nejat, M. Mohammadi Abdevand and A. Mazraee Farahani, "A novel circuit topology for Clock-Gating-Cell suitable for Sub/Near-Threshold designs," in proc. Computer Architecture & Digital Systems (CADSD), 2013.

Works in progress

- "Performance optimization of near-threshold low power circuits using Dynamic Flip-Flop Conversion method," for submission to IEEE TCAD journal.

Reports

- M. Nejat et al, "Detail Design Report of Barsava Hybrid Electrical Vehicle," Iranian Machine Design Competitions (IMDC), Sharif University of Tech., 2011.
- M. Nejat et al, "Conceptual Design Report of Barsava Hybrid Electrical Vehicle," Iranian Machine Design Competitions (IMDC), Sharif University of Tech., 2010.
- M. Nejat, "Small signal analysis of DC-DC converters", Final project of Power Electronics 1 course, under supervision of Dr M. Monfared, Ferdowsi University of Mashhad, 2010.

HONORS & AWARDS:

- Graduated with the 1st Ranked among B.Sc. electronic students at Ferdowsi University of Mashhad, Sep 2011.
- Ranked 687 among more than 50000 participants in the National Entrance Examination for Iranian Universities, Iran, July 2007.
- Acceptance in National Organization for Developing Exceptional Talents (NODET), Hasheminejad high school, Mashhad, Iran, Sep 2003.

TEACHING & WORK EXPERIENCE**Teaching**

- Teaching Assistant, Ferdowsi University of Mashhad, Course Title: Microprocessors, spring 2011.
- Teacher, "Sama" & "Hasheminejad-2" high schools & "Besat" guiding school , Mashhad , Iran, Course Title: Robotics, 2008-2010.

Work

- Training supervisor on Hybrid Electrical Vehicle design, at "Harkat Gostar Pardis" Co., Mashhad, Iran, Jul-Aug 2013
- Digital implementation of GPS Acquisition & tracking systems on FPGA, Tehran, Iran, Apr-May 2013.
- Automatic Lighting System Design, at "Payatech" Co., Mashhad, Iran, summer 2009.

PROFESSIONAL ACTIVITIES & MEMBERSHIPS**Activities**

- Participation in "Iran-Korea Nanotechnology Workshop", Tarbiat Modares University, Tehran, Iran, Oct 2012
- Participation in 3rd Iranian Machine Design Competition (IMDC) – hybrid electrical vehicle design, Barsava team, 2010-2011, Sharif University, Tehran, Iran.
- Participation in 7th National Robotic competitions of Noshirvani University, Microsense team, Special Line follower league, Apr 2009, Babol , Iran
- Participation in Bafgh-Azad University Robotic competitions ,RAD1 team , Special Line follower league, May 2007, Bafgh, Iran
- Participation in Hellicup Robotic competitions, Line follower league , Feb 2006, Tehran, Iran

memberships

- Member of IEEE , 2009 & 2013
- Member of IEEE-CAS society , 2009
- Active member of IEEE student branch at Ferdowsi University, Mashhad, Iran, 2009-2011.
- Member of executive team of "1st National workshop on soft computing & intelligent systems", Ferdowsi University, Mashhad, Iran, 2011.
- Member of executive team of "Smart Grid Workshop", Ferdowsi University of Mashhad, Nov 2010.
- Member of Young Researchers Club, No 97919, Azad University, Mashhad, Iran, 2007-2011.
- Member of Iranian Inventors Club, 2007-2009.
- Chairman of Iranian Inventors Club office in Ferdowsi University of Mashhad, 2008-2009.
- Member of Ferdowsi University of Mashhad Robotics Club, 2007-2009.
- Member of Secretariat of 3rd, 4th & 5th Young Mathematical scholars Conference, Hasheminejad High school, Mashhad, Iran, 2005-2007.

LANGUAGE:

- Persian: native language
- English: full proficiency
TOEFL iBT score : 105 (Reading: 28, Listening: 24, Speaking: 26, Writing: 27) - Nov 2013
- Arabic: basics
- German: basics

SKILLS & CERTIFICATES

- Certificates**
- Certificate of PLC Operator from Iran Technical & Vocational Training Organization, total score: 94.45/100, Level: Excellent , Oct 2009
 - Certificate of Success from Publications committee, Ministry of Science Researches & Technology of Iran, for Journalist 1 day course, Ferdowsi University of Mashhad, Nov 2009.
 - Certificate of Success from ASSB Co. Training Centre (No: 1854) in AVR microcontrollers course, Sep 2008.
 - Certificate of Photoshop professional Operator from Iran Technical & Vocational Training Organization, Oct 2003.
 - Certificate of Computer Operator from Iran Technical & Vocational Training Organization, Oct 2002.
- Programming Languages**
- C/C++, Basic, Assembly, Verilog, VHDL
- Technical software & CAD tools**
- **Digital** : System-C, Code Composer Studio, L-Edit, S-Edit, Modelsim
 - **FPGA** : Xilinx ISE, Active HDL, Altera Quartus,
 - **ASIC** : Synopsys Design Compiler, Power Compiler, Prime Time, Library compiler, Cadence SOC Encounter
 - **Controller** : Code-vision AVR, Bascom AVR, Siemens logo (PLC), Siemens Step7 (PLC)
 - **Analogue & Power Electronic** : P-Spice, H-Spice, Psim
 - **Other** : Proteus, Protel, Matlab, Visio, Latex

SOME RELATED COURSE GRADES

M.Sc.	- Low power Integrated circuits (<i>Prof Afzali Kusha</i>)	19.5
	- VHDL (<i>Prof Navabi</i>)	17.5
	- Custom Implementation of DSP systems (<i>Dr Fakhraei</i>)	17
	- High speed Serial Links (<i>Dr Sheikhaei</i>)	17.7
	- Real time DSP lab (<i>Dr Lahuti</i>)	17
	- Advanced VLSI (<i>Dr Masoumi</i>)	16
	- Linear Analogue Integrated Circuits (<i>Dr Ashtiani</i>)	16.7
	- RF Integrated Circuits (<i>Dr Sheikhaei</i>)	17.4
	- Nano Devices & their integration (<i>Prof Afzali Kusha</i>)	17
	B.Sc.	- Computer programming
- Computer Architecture		20
- Microprocessors		19
- Logical circuits		19.5
- Solid State Pulse Circuits		20
- Electronics1,2,3		20 , 17.5 , 15.75
- Electronic physics		17.25
- Introduction to Biomedical Engineering		19.5
- Industrial electronics		17
- Power electronics1 (graduate course)		19
- Signals & systems Analysis	16	

- *The numerical grades range from 0 to 20*

REFERENCES

- University of Tehran**
- Prof. Ali Afzali-Kusha (Thesis Supervisor - first)
School of Electrical & Computer Eng., University of Tehran, afzali@ut.ac.ir
 - Dr Bijan Alizadeh (Thesis Supervisor - second)
School of Electrical & Computer Eng., University of Tehran, b.alizadeh@ut.ac.ir
- Ferdowsi University of Mashhad**
- Dr Reza Lotfi
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