

Reza Asadpour

Mahyari Alley
Chamran Blvd., Bandarabbas, Iran, 7916613956
(98) 912 2216939
r.asadpour@ut.ac.ir

Education

- *ECE Department, University of Tehran, Tehran, Iran*
M. Sc. in Electrical Engineering / Electronics / Device Technology
Thesis Title: Improvement of Performance and Reliability in Digital Circuits Using Nano-scale FinFET Transistors
GPA: 18.77 out of 20 Sep 2010 - present
- *ECE Department, University of Tehran, Tehran, Iran*
B. Sc. in Electrical Engineering / Electronics
Thesis Title: Analysis of Process Variation in Lithography
GPA: 18.10 out of 20 Sep 2006 – Sep 2010

Research Interests

- Novel Device Simulation and Design
- Nano-scale Circuit Design
- Device Fabrication
- Micro-electromechanical Systems (MEMS)

Research and Teaching Experience

- **Research Assistant** in Low-power High-performance Nano Lab Systems (Since 2011)
School of ECE, Faculty of Engineering, University of Tehran, Tehran, Iran
Modeled FinFET structures and analyzed the impacts of using non-symmetric structures like non-symmetric doping or spacer on the performance of 4T and 6T SRAMs.
Analyzed impacts of strained silicon using SiGe in PFinFET used in SRAMs.
- **Teaching Assistant** in the University of Tehran (2010-2012)
School of ECE, Faculty of Engineering, University of Tehran, Tehran, Iran
Electronics II (spring 2010, fall 2011, spring 2012)
Electronics I (spring 2011)
Electronics III (fall 2011)
Electronics Physics (spring 2011)

Journal Publications

- Hossein Aghababa, **Reza Asadpour**, Ali Afzali-Kusha and Behjat Forouzandeh, "[Finding optimum value of numerical aperture for the best aerial image quality](#)", *IEICE Electron. Express*, Vol. 8, No. 11, pp.879-883, June 2011.

Conference Presentations

- Ebrahimi, Behzad; **Asadpour, Reza**; Afzali-Kusha, Ali; , "[Low-power and robust SRAM cells based on asymmetric FinFET structures](#)," *Quality Electronic Design (ASQED), 2012 4th Asia Symposium on* , 2012, pp.41-45.
- Khosropour, Alireza; Kashani-Gharavi, Seyed-Ali; **Asadpour, Reza**; Afzali-Kusha, Ali; , "[Process variation tolerant SRAM cell design using additive model considering NBTI effect](#)," *Quality Electronic Design (ASQED), 2012 4th Asia Symposium on* , 2012, pp.46-53.
- Ahmadi, Mehdi; Azarpeyvand, Ali; Fakhraie, Sied Mehdi; **Asadpour, Reza**; , "[A novel hardware implementation for the IEEE 802.22 Turbo-Like Interleaver](#)," *Quality Electronic Design (ASQED), 2012 4th Asia Symposium on* , 2012, pp.223-226.

Honors & Awards

- **Ranked 1st** in ASQED Microelectronics Olympiad, Malaysia, 2012.
http://www.asqed.com/English/Conference/Microelectronic_Olympiad.html
- **Ranked 176th** amongst more than 300,000, 'Iranian Nation-Wide University Entrance Exam for B. Sc. Degree', 2006
- **Ranked 2nd** among **Electronics Engineering students** – ECE department – University of Tehran
- **Best Out-of-the-Box Solution** in Seventh Annual International Microelectronics Olympiad of Armenia, Armenia, 2012
<http://www.synopsys.com/Company/Locations/Armenia/News/Pages/pressid10042012.aspx>
- Received faculty of engineering's scholarship as an exceptional student – ECE department – University of Tehran (2006-2010)
- Selected as "Exceptional Talents" by "National Organization for Educational Testing" pre-university grade, Iran, 2006
- Awarded a research grant by "National Organization for Development of Exceptional Talents" (NODET) for proposing a method for offside detection (in soccer) with sensors in High School, Bandarabbas, Iran, 2003

Selected Academic Projects

- **"Sketching the dispersion relation for an Armchair Graphene Nano Ribbon (AGNR) for 1st nearest neighbor using MATLAB"**
A project in Quantum Transport course, under supervision Dr. M. Pourfath; Fall 2011
- **"Calculating matrix elements of the surface green's function for AGNR as contacts using simple iteration in MATLAB"**
A project in Quantum Transport course, under supervision Dr. M. Pourfath; Fall 2011
- **"Calculating characteristics of a one-dimensional transistor with perfect coupling between gate and source/drain using a non self-consistent potential in MATLAB"**
A project in Quantum Transport course, under supervision Dr. M. Pourfath; Fall 2011
- **"Impacts of non-rectangular gate shape on timing and power consumption of MOSFETs"**
A project in Low-Power Digital Integrated Circuit course, under supervision Dr. A. Afzali-Kusha; Spring 2011
- **"Modeling capacitance changes of through silicon via (TSV)"**
A project in Interconnect and Nanowires course, under supervision Dr. N. Masoumi; Spring 2011

- **“Simulating process flow of 1.0 μ CMOS using Silvaco”**
A project in Fabrication Of Elctrical Comp. 1 course, under supervision Dr. M. Fathipour; Fall 2010
- **“Mask optimization for i-line wavelength using Silvaco”**
A project in Nanotechnology course, under supervision Dr. S. Mohajerzadeh; Spring 2010
- **“Simulating Snake game on a console using Proteus and CodeVisionAVR”**
A project in Microprocessor Lab course, under supervision Dr. O. Fatemi; Spring 2010
- **“Designing and assembling a vehicle capable of being controlled remotely and transporting load”**
A project in Industrial Electronics course, under supervision Dr. B. Asaei ; Spring 2010
- **“Assembling a path finder robot”**
A project in General Workshop course, under supervision Dr. S. M. Fakhraie; Spring 2010
- **“Optimization of 4-bit Ripple Carry Adder in 65nm Technology in Transistor Level using Hspice”**
A project in Digital Electronics course, under supervision Dr. S. M. Fakhraie; Spring 2010
- **“Designing 1GHz and 1V swing Oscillator in 0.18 μ CMOS RF Technology using ADS”**
A project in Communication Circuit course, under supervision Dr. M. Kamarei; Fall 2009
- **“Simulation of Electron Movements in Potential Wells using MATLAB”**
A computer assignment in Modern Physics course, under supervision Dr. E. Asl-Soleimani; Spring 2008
- **“Designing and Implementing Morse Code Transmitter and Receiver”**
A project in Microprocessor course, under supervision Dr. O. Fatemi; Spring 2008
- **“Designing and implementing a voter using Altera Quartus”**
A project in Logic Design Lab course, under supervision Dr. Z. Navabi; Spring 2008
- **“Logic circuits simulator at gate level using C”**
A project in Fundamental Computer and Programming course, under supervision Dr. S. Mohammadi; Fall 2006

Membership

- IEEE and society of Electron Device, Since 2010
- Member of alumni association of "National Organization for Development of Exceptional Talents" (NODET).
Annually, Less than eighty secondary school students are admitted at the school of this organization by intelligent entrance examination in Hormozgan, Iran

Work Experience

- Summer Internship - Bandarabbass oil refining and distributing national Corp.
July 2009- Sep. 2009
Became familiar with an industrial environment and new devices and learned how to work with them and solve their problems.
Utilized a TDR (Time Domain Reflectometer) for finding fault in cables having two problems, including dead zone and inability to work when the cable is under voltage. For dead zone suggested a new method and device proposed in an article about "Zero dead zone TDR" from [freepatents](#) and for the second problem, provided a high-pass filter.

Computer Skills

- Programming languages: C/C++, PASCAL, VERILOG, CodeVisionAVR
- Electrical design and simulation tools: PSPICE, HSPICE, SILVACO, QUARTUS, MODELSIM, ADS, SENTAURUS
- Engineering software: MATLAB, SIMULINK, PSCAD
- Others: Microsoft Office

Language Skills

- English
 - **TOEFL iBT:** (Date: 8/25/2012)
Reading: 29/30, Listening: 27/30, Speaking: 22/30, Writing: 24/30
Total: 102/120
 - **GRE:** (Date 20/10/2012)
Verbal Reasoning: 153/170 (500/800), 57% Below
Quantitative Reasoning: 163/170 (780/800), 88% Below
Analytical Writing: 3.0/6.0, 11% Below
- Persian (native)

References

- Ali Afzli-Kusha, PhD (M. Sc. and B. Sc. Thesis Supervisor)
Professor in Electrical and Computer Engineering Department and Vice Dean for Undergraduate and Graduate Studies
University of Tehran,
School of ECE, University of Tehran, North Kargar Avenue, PO Box 14395-515, Tehran, 14399, Iran
Tel: +98-21-61114920
Email: afzali@ut.ac.ir
- Shams Mohadjerzadeh, PhD
Professor in Electrical and Computer Engineering Department
University of Tehran,
School of ECE, University of Tehran, North Kargar Avenue, PO Box 14395-515, Tehran, 14399, Iran
Tel: +98-21-61114905
Email: mohajer@ut.ac.ir
- Shahin Jafarabadi-Ashtiani, PhD
Assistant Professor in Electrical and Computer Engineering Department
University of Tehran,
School of ECE, University of Tehran, North Kargar Avenue, PO Box 14395-515, Tehran, 14399, Iran
Tel: +98-21-61114952
Email: sahtiani@ut.ac.ir
- Jalil-Agha Rashed-Mohassel, PhD
Professor and Dean of school in Electrical and Computer Engineering Department
University of Tehran,
School of ECE, University of Tehran, North Kargar Avenue, PO Box 14395-515, Tehran, 14399, Iran
Tel: +98-21-61114208
Email: jrashed@ut.ac.ir