

# Behzad Ebrahimi

Department of Electrical and Computer Engineering  
University of Tehran  
Tehran, Iran

**Date of Birth:** Nov/17/1983

**Marital Status:** Single

## CONTACT

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## EDUCATION

**M.Sc.** (Electrical Engineering, Electronics, Semiconductor Devices)

University of Tehran, Tehran, Iran, September 2006 to date  
GPA (up to now) 18.74/20.00 (Among two top students)

Thesis: **Device Modeling and Optimization of SRAM in Nanoscale era**

(Advisor: Dr. **Afzali-Kusha**)

**B.Sc.** (Electrical Engineering-Electronics)

University of Tehran, Tehran, Iran, 2001 to 2006  
Total GPA 15.14/20.00

Project: **Extraction of SOI parameters using MINIMOS simulator**

(Advisor: Dr. **Afzali-Kusha**)

**Diploma.** (Mathematics and Physics) Shahid Beheshti High School (Administrated by National Organization for Development of Exceptional Students, NODET) Sabzevar, Iran, 1997 to 2000  
Total GPA 19.37/20.00

## Honor

Ranked 93<sup>th</sup> in the entrance exam of the M.sc. degree in 2006 Ranked 78<sup>th</sup> the entrance exam of the Iranian universities among 350000 participants in 2001

## Publications

### Conference Papers

1- **B. Ebrahimi**, Ali Afzali-Kusha, "NBTI Tolerant 4T Double-Gate SRAM Design," in *Proceedings of the IEEE International Conference on Ultimate Integration of Silicon 2009 Aachen, Germany*.

- 2- S. Zeinolabedinzadeh, **B. Ebrahimi**, Ali Afzali-Kusha, " *V<sub>th</sub>*-Control Method in Double Gate Field effect Transistor Domino Circuits," in *Proceedings of the IEEE International Conference on Ultimate Integration of Silicon 2009* Aachen, Germany.
- 3- M.Moradinasab, **B. Ebrahimi**, Ali Afzali-Kusha, "A Compact Physical Model for Subthreshold Current in Nanoscale FD/SOI MOSFETs," in *Proceedings of the IEEE International Conference on Ultimate Integration of Silicon 2009* Aachen, Germany.
- 4- **B. Ebrahimi**, Ali Afzali-Kusha, "4T Double-Gate FinFET SRAMs Robust against NBTI Degradation," accepted in *the IEEE Workshop on Design & Diagnostics of Electronics Circuits and Systems 2009* Liberec, Czech Republic.
- 5- **B. Ebrahimi**, Ali Afzali-Kusha, "CNFET Based SRAM Cell Design with Body Biasing and Consideration of Process Variations," accepted in *the 17<sup>th</sup> Iranian Conference on Electrical Engineering 2009* Tehran, Iran.
- 6- A. Ahmadimehr, **B. Ebrahimi**, Ali Afzali-Kusha, "Subthreshold SRAM Cell Design Using FinFET and Bulk CMOS," accepted in *the 17<sup>th</sup> Iranian Conference on Electrical Engineering 2009* Tehran, Iran.
- 7- F. Jazayeri, S. Soleimani-Amiri, **B. Ebrahimi**, B. Forouzandeh, H-R Ahmadi, F. Raissi "Pseudo-Linear Automatic Gain Control System Based on Nanoscale Field Effect Diode and SOI-MOSFET," in *Proceedings of the IEEE 3rd International Design and Test Workshop 2008* Monastir, Tunisia.
- 8- **B. Ebrahimi**, S. Zeinolabedinzadeh, Ali Afzali-Kusha, "Low Power and Robust FinFET Based SRAM Design," in *Proceedings of the IEEE Computer Society Annual Symposium on VLSI 2008* Montpellier, France.
- 9- M. Rostami, **B. Ebrahimi**, A. Afzali-Kusha, " Design Centering Scheme for Robust SRAM Cell Design," in *Proceedings of the IEEE International Conference on Computer and Communication Engineering 2008* Kuala-Lumpur, Malaysia.
- 10- M.Moradinasab, **B.Ebrahimi**, Morteza Fathipour, Behjat Foroozandeh "A Compact Physical Model for Subthreshold Current in Nanoscale FD/SOI MOSFETs," in *Proceedings of the International Conference on Electronic Materials 2008* Sydney, Australia.
- 11- **B. Ebrahimi**, Ali Afzali-Kusha, "Double Gate Based SRAM Design Using Back Gate voltage," in *Proceedings of the Nanotechnology Student Conference 2008* Kermanshah, Iran.
- 12- H. Hosseinzadegan, M. Moradinasab, **B. Ebrahimi**, Ali Afzali-Kusha, Ezatollah Arzi, " Deriving a Compact Model for Current-Voltage in Carbon Nanotube Field Effect Transistors in their Subthreshold Regime," in *Proceedings of the Iran Physics Conference 2007* Yasooj, Iran.

### Journal Papers

- 1- **B.Ebrahimi**, M.Rostami, Ali Afzali-Kusha, "Statistical Design Optimization of FinFET SRAM Using Back-Gate Voltages," to be submitted to a good journal.
- 2- B. Afzal, **B. Ebrahimi**, Ali Afzali-Kusha, "Modeling of I-V Characteristics of CMOS in nanometer area and extracting of SRAM Merits," to be submitted to a good journal.

### SUMMARY OF QUALIFICATIONS

## **Computer:**

- Microprocessor and Microcontroller (Assembly and Hardware)
- In depth practical experience with application packages such as
- Analog Circuit Simulators: HSPICE, PSPICE
- Digital Circuit Simulators
- Device and Fabrication Simulators
- Software: MATLAB, SIMULINK
- Programming: C++, Pascal, QBASIC

## **WORK EXPERIENCE**

### **Summer 2004: Electronics Lab., School of ECE, University of Tehran, Iran.**

- Preparing Instruction papers for Lab, and devising a new set of experiments for this lab.
- Designing a circuit for protecting refrigerator in varying of voltage and implementation with micro 8051 in Micro LAB

### **Spring 2006 – Winter 2006: Pardis Novel Processing Technology Company**

## **GRADUATE COURSES**

- SOI (20/20)
- Optoelectronics (19.5/20)
- Semiconductor Devices Fabrication Theory and Technology (19.8/20)
- Advanced VLSI (16/20)
- Semiconductor Devices (18/20)
- Custom Implementation of DSP Systems (17.1/20)
- Nano-Devices and Their Integration (20/20)
- Low Power Integrated Circuits (19/20)
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## **SCIENTIFIC TALKS**

- Double Gate Based SRAM Design Using Back Gate voltage in "Nanotechnology student conference" – Oct. 2008
- Design Consideration of SRAM cell in sub 100nm technologies in "Seminar" course – Feb. 2008
- Introduction to Sentaurus Device in "Optoelectronics" course – December 2007
- Circuit Design Issues in Multi-Gate FET CMOS Technologies in "Advanced VLSI" course – December 2006
- Wireless Sensor Networks in "Custom Implementation of DSP Systems " Course – June 2007
- Superconducting Quantum Interference Devices in "Semiconductor Devices" course – December 2006
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## **REFERENCES**

- **Dr. Ali Afzali-Kusha**, Professor, University of Tehran. Email: [afzali@ut.ac.ir](mailto:afzali@ut.ac.ir)
- **Dr. Seyed Mehdi Fakhraie**, Associate Professor, University of Tehran Email: [fakhraie@ut.ac.ir](mailto:fakhraie@ut.ac.ir)
- **Dr. Morteza Fathipour**, Associate Professor, University of Tehran Email: [mfathi@ut.ac.ir](mailto:mfathi@ut.ac.ir)
- **Dr. Shamsodin Mohajerzadeh**, Associate Professor, University of Tehran Email: [mohajer@chamran.ut.ac.ir](mailto:mohajer@chamran.ut.ac.ir)
- **Dr. Behjat Forouzandeh**, Assistant Professor, University of Tehran Email: [bforooz@ut.ac.ir](mailto:bforooz@ut.ac.ir)