

### Education

- Since 2012 **Ph.D. Candidate in Electrical Engineering**, *Shahid Beheshti University*, Tehran, Iran, *GPA 3.87/4*. Ellite Student.
- 2008–2011 M.Sc. Electrical Engineering, Shahid Beheshti University. THESIS: Design of a High Speed Current-Conveyor based Current Comparator for sigma delta modulator A/D Application, ELITE STUDENT, Tehran, Iran.
- 2003–2007 **B.Sc. in Electrical Engineering**, School of Engineering, University of Guilan. THESIS: Design and fabrication of Ultrasonic Distance Measurement (UDM), Rasht, Iran.

## Ph.D. Dissertation

Title Design of a Continuous Time Current Conveyor Based Sigma-Delta Modulator.

- Supervisors Dr. O. Hashemipour (Associate Professor).
- Description This Dissertation study the new and alternative approach to low power and high resolution continuous time sigma delta modulator and SAR-based sigma delta, based on current mode block specially current conveyor.

# Experience

2011–Present **Analog Designer**, MICROLAB, SBU, Tehran. Research Assictance in Micro Lab Circuit Design.

Detailed achievements:

- Experienced and Skilled in CADENCE.
- Experienced and Skilled in UNIX and LINUX OS.
- 2010–2011 Analog Designer, RESEARCH PROJECT. Tape out a 2-Channel Time-Interleaved Sigma-Delta Modulator IC in 180 nm TSMC. (See appendix. I).
- 2009–2010 **Circuit Designer in High-Persicion Labratoary**, *Pars. co*, Tehran. Project manager of a High persicion pre-amplifier and low-power Logarithmic Amplifier.

## • Research Interests

- ADC Continuous-Time Delta-Sigma Modulator Successive Approximation ADC FILTER Current Mode Circuits and Current Conveyor based filter
- Switch Capacitor (SC) and Switch Current (SI) filter Design of low voltage analog integrated circuits
- nanometer Carbon Nano-tube and submicron CMOS technology Nano Scale CMOS technology

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## Publications

- R. Chavoshisani, and O. Hashemipour. "A high-speed current conveyor based current comparator." Microelectronics Journal 42.1 (2011): 28-32.
- 2. R. Chavoshisani, and O. Hashemipour. "Differential current conveyor based current comparator." AEU-International Journal of Electronics and Communications 65.11 (2011): 949-953.
- M. H. Moaiyeri, R. Chavoshisani, A. Jalali, K. Navi and O. Hashemipour, "High-performance mixed-mode universal min-max circuits for nanotechnology." Circuits, Systems, and Signal Processing 31.2 (2012): 465-488.
- 4. M. H. Moaiyeri, R. Chavoshisani, A. Jalali, K. Navi and O. Hashemipour, "Design of CNFETbased Mixed-Mode Adders for Nanoelectronics" Digital Signal Processing Journal of Springer, 2012, In Press.

Sunbmission

- I. R. Chavoshisani, M. H. Moaiyeri, O. Hashemipour, " A High-Speed, High-Precision Fully Differential Current Conveyor-Based Comparator with WTA Application", 2013.
- II. R. Chavoshisani, O. Hashemipour, "Current Conveyor-Based Continuous-Time Sigma-Delta Modulator", 2013.
- III. R. Chavoshisani, O. Hashemipour," A 1V 89-dB Dynamic Range Current Mode Continuous time Audio Delta-Sigma Modulator", 2013.

### Ongoing Research

Current Mode SAR based Sigma-Delta Modulator.

### Programming skills

Basic Python, Java, SQL.

Intermediate TCP/IP, LATEX, WIN APP, HTML.

Advanced CADENCE (SPECTRE-VIRTUSO-CALIBRE-ASURA), HSPICE, LINUX, C/C++/C#, MATLAB, ARM/AVR, OFFICE.

# Professional Activities

- 2008 Spice CMOS Model BSIM 4.6.2, Lecture in "Semiconductor Devices".
- 2008 Reliability of 45nm Transistors lecture in "Semiconductor Devices".
- 2009 Graphene electronic device and application Lecture in "Quantum Electronic".
- 2011 Details Considerations in SNR Calculation, Lecture in "Advanced Analog Design".
- 2012 Cadence Advanced tools for optimization, Lecture in "Advanced Analog Design".

#### Awards

2011 Elite Student

### Languages

FarsiMothertongueEnglishAdvancedFrenchBasic

Basic words and phrases only

### Interests

- Novel
- Play Violin

- Movie

- Climbing



2-Channel Time Interleaved Sigma-Delta Modulator Layout (TSMC 180nm)