

## ducational Background

**PHD** in Electrical Engineering (Microelectronics), Urmia University (2007-2014)

Thesis Title: Design and Implementation of a 16Gbps Single-Channel Transceiver in 0.18 $\mu$ m RF CMOS Technology (for PCI-Express application); Advisor: Prof. Kh.Hadidi, Co-Advisor: Prof. A.Khoei

**M. Sc.** In Electrical Engineering (Microelectronics), Urmia University (2004-2007)

Thesis Title: Design and Implementation of an x16 Low jitter (<1.5ps) Clock Frequency Multiplier in 0.35 $\mu$ m CMOS Technology; Advisor: Prof. Kh.Hadidi, Co-Advisor: Prof. A.Khoei

**B. Sc.** In Electrical Engineering (Electronics), Urmia University (1999-2003)

Thesis Title: Design and Implementation of an Automatic Tuning Filter for Audio Frequency;

Advisor: Prof. Kh.Hadidi

## Research Interests:

- RF circuits
- Transceivers (SerDes)
- Circuit Noise Analysis
- Line Modeling and Equalization Circuits
- Clock and Data Recovery
- Controlling Loops
- High Performance Analog/Digital/Mix Circuit Design

## Working Experiences:

- Urmia Semiconductor Company as IC Designer
- Design of a high speed full CMOS ADDER
- Design and Implementation of a Wide Range Low power PLL
- Design and Implementation of a Clock Recovery System
- Participating in Design of a 13-bit 50MS/s ADC
- Participating in the Design of a 10-bit 200MS/s ADC
- Participating in the Design of a 10-bit 250MS/s ADC
- Participating in Design of a Post-Processing Circuit for a 14-bit 280MS/s ADC
- Design and Implementation of a 16Gbps SERDES Core for SATA Applications
- Design and Implementation of a 16Gbps SERDES Core for PCI-E Applications
- Urmia Telecommunication Research Center as IC Designer
- Design and Implementation of a low jitter DLL
- Mad-System company as a Designer Engineer

## Publications:

### Books Publications:

- Translation of "Make Electronics" , Hadiseh Babazadeh, Sobhan Javan, 2018, UUT pub.

## Journals:

- Parisa Nabati, Hadiseh Babazadeh, Hamed Azadfar, "**Noise Analysis of Band Pass Filters Using Stochastic Differential Equations**", International Journal for Computation and Mathematics in Electrical and Electronics Engineering, 2019
- Hadiseh Babazadeh, Arash Esmaili, Khayrollah Hadidi, Abdollah Khoei, "**A Wide-Range Programmable Pulse Width Controller**", International Journal of Circuits, Systems and Computers, 2013
- Arash Esmaili, Hadiseh Babazadeh, Khayrollah Hadidi, "**A Low Power 13 Bit 50MS/s Recirculating Pipeline Analog to Digital Converter**", International Journal of Circuits, Systems and Computers, 2013

## Conferences:

- Morteza Vasegh, Hadiseh Babazadeh, Mehdi Borjkhani, "**The Dynamic Simulation and Modeling of a Four-legged Robot**", 5th International Conference on Applied Research in Electrical, Mechanical, & Mechatronics Engineering, 2019
- Sobhan Javan, Hadiseh Babazadeh, "**Ultrasonic Volume Meter and Material Detector**", 5th International Conference on Applied Research in Electrical, Mechanical, & Mechatronics Engineering, 2019
- Babak Ardabili, Hadiseh Babazadeh, "**Fruit Sorting with SCARA ARM Using Fuzzy Logic Controller**", 5th International Conference on Applied Research in Electrical, Mechanical, & Mechatronics Engineering, 2019
- Hadi Esfandiyari, Hadiseh Babazadeh, "**Detecting Geometrical Shapes in Images**", 5th International Conference on Applied Research in Electrical, Mechanical, & Mechatronics Engineering, 2019
- Fateme Edalati, Hadiseh Babazadeh, "**Computing of Jacobian for Six Degrees of Freedom Manipulator**", 5th International Conference on Applied Research in Electrical, Mechanical, & Mechatronics Engineering, 2019
- Elaheh Rezazadeh, Hadiseh Babazadeh, "**Design of First- and Second-Order Sliding Mode Control for 2-link Robotic Manipulator**", 5th International Conference on Electrical Engineering and Computer with Emphasis on Native Knowledge, 2018
- Parya Farajzadeh, Arash Esmaili, Hadiseh Babazadeh, "**Q-Factor Evaluation of LC-Oscillator with Capacitor Bank**", 5th International Conference on Electrical Engineering and Computer with Emphasis on Native Knowledge, 2018
- — حدیثه بابازاده، محمد رضا عقدائی "درایور دیود لیزر با طول موج ۶۵۰ نانو متر و توان ۲۵۰ میلی وات"، پنجمین کنفرانس بین المللی برق و کامپیوتر، ۱۳۹۶
- Arash Esmaili, Hadiseh Babazadeh, Parya Farajzadeh, "**LC Oscillator with Tunable Active Inductor**", 5th International Conference on Electrical engineering and Computer with Emphasis on Native Knowledge, 2018

- Arash Esmaili - Hadiseh Babazadeh - Ali Ghahremani ,"**A Novel Capacitive Peaking Amplifier for Transmitters**", 4th National and 2nd International Conference on Applied Research in Electrical, Mechanical, and Mechatronics Engineering, 2017
- Hadiseh Babazadeh, Arash Esmaili, Khayrollah Hadidi, Abdollah Khoei, "**A Wide-Range Programmable Duty Cycle Corrector (DCC)**" Iranian Conference on Electrical Engineering, 2012
- Arash Esmaili, Hadiseh Babazadeh, Khayrollah Hadidi, Abdollah Khoei, "**Bulk Driven Indirect Feedback Compensation Technique for Low Voltage Applications**" Iranian Conference on Electrical Engineering, 2012
- Hadiseh Babazadeh, Arash Esmaili, Khayrollah Hadidi, "**A High-Speed and Wide Detectable Frequency Range Phase Detector for DLLs**", 27th Norchip Conference, Trondheim, Norway, 2009
- Hadiseh Babazadeh, Khayrollah Hadidi, Abdollah Khoei, "**High Speed High Precision Voltage Mode MIN/MAX Circuits,**" Iranian Conference on Electrical Engineering, 2006

## Teaching Experiences:

### Undergraduate:

- Circuit Theory I & II
- Electronics Circuits I & II & III
- Computer Architecture
- Microprocessor Systems
- Assembly of x86 Family
- Design and Synthesis of Filters
- Fundamentals of electrical circuits
- Technical English for electronics

### Graduate:

- Pulse techniques
- Computer Architecture
- Robotics