Peyman Pouyan

Personal and Contact Information

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Education

[2011-present] **PhD in Electronics Engineering**
Universitat Politècnica de Catalunya (UPC), Barcelona, Spain

[2007-2010] **M.Sc. in System On Chip**
Lund Institute of Technology (LTH), Lund University, Lund, Sweden

[2002-2006] **B.Sc. in Electrical Engineering, Electronics**
University of Qazvin, Faculty of Electrical Engineering, Qazvin, Iran

Technical Interests

- Digital ASIC Design
- Reliability and Test in Memories
- Process Variability and Aging Aware Design
- Resistive Switching Memories
- Reconfiguration Techniques in Memories
- Low Power Digital Design

Work Experiences

- Researcher in the High Performance Integrated Circuits Design Group (HIPICS) Department of electronic Engineering, UPC 2011-2015
- Part Time Electrical Engineer, Tolypers Company 2005-2007
- Responsibilities: Embedded Design Engineer

Technical Hardware/Software Skills

- **EDA Tools:** Xilinx ISE-Quartus-Modelsim-SoC Encounter-Design Compiler- Aldec Active HDL-RC Compiler
- **Programming Languages**: VHDL-Verilog-C-Matlab -Tcl
- **IC and Circuit Design and Simulation**: HSPICE-Cadance-ADS-Pspice
- **Programming Tools**: Matlab- Eclips-Emacs-Codeblocks
- **Microcontroller**: MPLAB-Proteus-Picbasic-Bascom-Keil
- **Operating Systems:** Linux-Solaris-Windows
- **Other:** Html-Css-Php-Latex

Major Accomplished Academic Projects

PhD. Thesis

- Reliability Aware Memory Design Using Adaptive Proactive Reconfiguration

M.Sc. Thesis

- VLSI Implementation Of Unary Functions, Logarithm and Exponent, Using Parabolic Synthesis Methodology Compared to the CORDIC Algorithm

Other Graduate Projects

- *IC-project and Verification, Digital Asic Design*
  OFDM Symbol Detection Using the Cyclic Prefix

- *VLSI Architecture*
  Implementing 2*2 Torus Network On Chip in DE1 Altera FPGA board

- *Algorithms in Signal Processors*
  A Midi Synthesizer Using Texas Instrument DSP

- *Advanced Embedded Design*
  2D Physics Engine

- *Altera Innovate Nordic Design Contest*
  Analog Modeling Synthesizer

Selected Academic Publications

Peyman Pouyan, Esteve Amat, Antonio Rubio; ”Memristive Crossbar Design and Test in Non-adaptive Proactive Reconfiguring Scheme”, Submitted to ECCTD, 2015

Peyman Pouyan, Esteve Amat, Antonio Rubio; ” ”Statistical Lifetime Analysis of Memristive Crossbar Matrix”, DTIS, Naples, Italy, 2015.

Peyman Pouyan, Esteve Amat, Antonio Rubio; ” Reliability Challenges in Design of Memristive Memories”, Vari, Palma de Mallorca, Spain, 2014.

Peyman Pouyan, Esteve Amat, Antonio Rubio; ” Impact of Proactive Reconfiguration Technique on Vmin and Liftime of SRAM Caches”, ISQED, San Jose, USA, 2014.

Peyman Pouyan, Esteve Amat, Antonio Rubio; ”On-Chip Aging and Process-Variability Sensor in SRAM Memories” , IEEE Sensors Journal, Under review.

Peyman Pouyan, Esteve Amat, Antonio Rubio; ” Adaptive Proactive Reconfiguration: A Technique for Process-Variability- and Aging-Aware SRAM Cache Design”, IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2014.

Peyman Pouyan, Esteve Amat, Francesc Moll and Antonio Rubio, " Design and Implementation of an Adaptive Proactive Reconfiguration technique in SRAM Caches ", DATE, Grenoble, France, 2013.

Peyman Pouyan, Esteve Amat, and Antonio Rubio, "Process-Variability Aware Proactive Reconfiguration Technique for Mitigating Aging Effects in Nano Scale SRAM Lifetime", VTS, Hawaii, USA, 2012.

Peyman Pouyan, Erik Hertz, Peter Nilson; "A VLSI Implementation of Logarithmic and Exponential Functions using a Parabolic Synthesis Methodology compared to the CORDIC Algorithm", ECCTD, Sweden, 2011.

Language Proficiency

English	Fluent (Written and Spoken), TOEFL IBT and GRE
Spanish	Intermediate
Persian	Native
Swedish	Familiar
Azari	Fluent speaking

Honors

- FP7 scholarship in TRAMS project, EU commission
- Outstanding Paper Award Mixdes 2012
- Altera Innovate Nordic Design Contest Second Prize 2008
- Dean's list Fall 2006

Activities/Interests

Traveling, Listening Music, Reading Books, Playing Chess, Hiking and Bike riding, Swimming, Surfing on Internet

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References

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Peter Nilsson
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