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MILAD MEHRI SOOKHTEKOOHI

PERSONAL INFORMATION

1. Nationality: Iranian
2. Date of Birth: May 30th , 1987
3. Place of Birth: Lahijan, Guilan, Iran
4. Marital Status: Married

EDUCATIONS

1. **[Sep. 2011 – Dec. 2016] Ph.D. in Electrical Engineering – Electronics, Circuit and Systems,** School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran, Iran; Supervisor: Prof. Nasser Masoumi; Overall GPA:**16.00/20.00 (3.20/4.00);** Degree of Defense: **Excellent.**
2. **[Sep. 2009 – Sep. 2011] M.Sc. in Electrical Engineering – Electronics, Circuit and Systems**, Department of Electrical Engineering, Sharif University of Technology, Tehran, Iran; Supervisor: Dr. Reza Sarvari; Overall GPA: **17.12/20.00 (3.42/4.00)**
3. **[Sep. 2005 – Sep. 2009] B.Sc. in Electrical Engineering - Electronics, Circuit and Systems**, School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran, Iran; Overall GPA: **17.04/20.00 (3.41/4.00)**
4. **[Sep. 2004 – Jul. 2005] Pre-university Certificate**, Shahid Motahhari, Tehran, Iran; Overall GPA**: 19.67/20.00 (3.93/4.00)**
5. **[Sep. 2001 – Jul. 2004] High School Diploma,** Alborz High School, Tehran, Iran; Overall GPA: **19.79/20.00 (3.96/4.00)**

FIELD OF INTEREST

1. Electromagnetic Compatibility (EMC/EMI) Analysis of Electronic Systems
2. Circuit and System Design: Integrated Circuit and System Level Design
3. High Speed Electrical/Optical Interconnects: Design, Modeling, and Analysis – System/IC Levels
4. High Frequency Multilayer Printed Circuit Board (PCB): Design and Modeling
5. Statistical Estimation of PCB Radiated Susceptibility/Emission
6. VLSI and Nano Systems: Modeling and Analysis Nanowires, TSV, and 3D ICs
7. Susceptibility of Digital Electronic Systems – System/IC Level
8. Statistical Prediction of System Behavior – Crosstalk, Power, Delay, Jitter - Fault
9. Packaging for IC – Modeling and Analysis – IBIS
10. Bioelectronics/magnetics: Modeling Cell/Body Behavior in Harsh Electromagnetic Environments

RESEARCH

1. **PhD Thesis**: "The Susceptibility Analysis of Electronic Systems PCBs Due to External Electromagnetic Waves" School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran, Iran.
   Thesis Supervisor: Prof. Nasser Masoumi, University of Tehran.
   Thesis Advisor: Prof. Jalil Rashed-Mohassel, University of Tehran.
2. **M.Sc. Project**: "Interconnect Modeling, Its Step Response Analysis, and Introducing Fast Look-up Tables for Propagation Delay and Bit Rate in VLSI Applications" Department of Electrical Engineering, Sharif University of Technology, Tehran, Iran; 2011.
   Project Supervisor: Dr. Reza Sarvari, Sharif University of Technology, Grade: 20/20

3. **B.Sc. Project**: "Simulation and Analysis of Delay and Crosstalk Noise on Interconnect," School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran, Iran; 2009
   Project Supervisor: Prof. Nasser Masoumi, University of Tehran Grade: 20/20

INDUSTERIAL PROJECTS

1. **Design and Analysis of Secure Radar Altimeter**, at High Frequency Circuits and Systems Design Lab and Advanced VLSI Lab, University of Tehran, 2012.
2. **Electromagnetic Compatibility Analysis and Simulation of an Automotive Electronic Systems Against External Electromagnetic Waves**, at High Frequency Circuits and Systems Design Lab and Advanced VLSI Lab, University of Tehran, 2013.
3. **Feasibility Study, Conceptual Design and Analysis of National Secure TABLET**, at High Frequency Circuits and Systems Design Lab and Advanced VLSI Lab, University of Tehran, 2014.
4. **Design and Fabrication of Full Duplex Optical Communication Converter Using Single Optical Fiber,** at High Frequency Circuits and Systems Design Lab and Advanced VLSI Lab, University of Tehran, 2015.
5. **Electromagnetic Compatibility Analysis for a Radar Jammer and Design Practical Guidelines and Immunity Measures in System Design and Verification Steps**
6. **Design and Fabrication of Exciter (Jamming System)**
7. **Preparing Some Industrial Project Proposals:**
   a. Design and Analysis of High Frequency Printed Circuit Boards PCBs
   b. Investigation, Design, Simulation and Fabrication of Double-to-Single Optical Fiber Converter for Synchronous Send and Receive
   c. The Susceptibility Analysis of Electronic Systems due to External Electromagnetic Waves and Extracting Practical Immunity Measures
   d. Electromagnetic Shielding of a Room against High Power Electromagnetic Waves
   e. Design of Practical Immunity Measures for Electronic Protection of VIP Automotive against High Power Electromagnetic Sources
   f. Design of Practical Immunity Measures and Shielding Fabric for Electronic Protection of Soldier and Equipment against High Power Electromagnetic Sources in War Field

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OTHER TECHNICAL PROJECTS AND EXPERIENCES

1. **Design and Implementation of Navigation Robot for ROBOCUP Competition,** University of Noshirvani/Amirkabir, Mazandaran/Tehran, 2008/2010.
2. **Internship Project**: "A Survey on Gamma Detectors," Summer 2008, Iran Mehr Informatics Co., Tehran - Project Supervisor: Eng. Ziaolhagh, Mehr Informatics Co. Advisor: Prof. Nasser Masoumi, University of Tehran.
3. **Design and Implementation of 25W Audio Power Amplifier.**
4. **Design and Implementation of Intelligent Battery Charger with Two Constant Current and Constant Voltage Modes.**
5. **Three Months of Work Experience in Maintenance Group of Urban Pay Telephone, Summer 2008.**
6. **Design and Implementation of 12V to 220V, 500W Inverter.**
7. **Design and Implementation of PID Controller for a 12V DC Motor with GUI.**

HONORS AND MEMEBRSHIP

1. [2005] *Ranked 329th* for Nationwide University Entrance Exam for B.Sc. Degree among More than 329000 Participants in the Nationwide University Entrance, Tehran, Iran.
2. [2008] *Ranked 62th* for Nationwide University Entrance Exam for M.Sc. Degree, Tehran,
3. [2012] IEEE Student Member.
4. [2016] *Member* of National Talents Foundation, Iran.
5. [2017] SPI2017 Young Investigator Training Program (YITP) Award, Turin, Italy

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TEACHING ASSISTANCE EXPERIENCE

1. **Co-Teacher** for "*Interconnect and Nano-wires"*, with Prof. Nasser Masoumi, University of Tehran, Winter 2017.

2. Workshop on "Electromagnetic Compatibility of Electronic Systems and Practical Immunity Measures", 1394, Shiraz.
3. Spring 2009 to 2016: Interconnect and Nano-wires, University of Tehran. Instructor: Prof. Nasser Masoumi.
4. Fall 2011: Electronic III, University of Tehran. Instructor: Prof. Nasser Masoumi.
5. Spring 2010: Fundamental of Electronics, Sharif University of Technology. Instructor: Dr. Reza Sarvari.
6. Spring 2010: VLSI Interconnects, Sharif University of Technology. Instructor: Dr. Reza Sarvari.
7. Spring 2011 and 2013: Advanced VLSI, University of Tehran. Instructor: Prof. Nasser Masoumi.

BOOK

Cooperation in (Under Preparation) "Interconnects in Integrated Circuits and Nano-Systems, Fundamental of Modeling and Issues," Prof. Nasser Masoumi, 2016.

PUBLICATIONS (Journals & Conf.)

…… Journals ……

1. **M. Mehr**i and N. Masoumi, "Statistical Prediction and Quantification of Radiated Susceptibility for Electronic Systems PCB in Electromagnetic Polluted Environments," *IEEE Transactions on Electromagnetic Compatibility*, vol. 59, no. 2, Apr. 2017.
2. **M. Mehri** and N. Masoumi**, "**Estimation of EMI-induced Phase Noise and Jitter on Oscillator/Clock Signals**,"** *IET Electronics Letters,* vol. 53, issue 10, May 2017.
3. **M. Mehr**i, N. Masoumi, and J. Rashed-Mohassel, "Trace Orientation Function for Statistical Prediction of PCB Radiated Susceptibility and Emission," *IEEE Transactions on Electromagnetic Compatibility*, no. 57, vol. 5, Oct. 2015.
4. **M. Mehri**, M. H. M. Kouhani, R. Sarvari, and Z. Shariati, "VLSI Interconnect Issues in Definitive and Stochastic Environments," *Elsevier Microelectronics Journal* (*MEJ*), vol. 46, Issue 5, May 2015.
5. **M. Mehri** and N. Masoumi, "A Thorough Investigation into Active and Passive Shielding Methods for Nano-VLSI Interconnects Against EMI and Crosstalk," *Elsevier International Journal of Electronics and Communications* (*AEU*), vol. 69, Issue 9, Sep. 2015.
6. A. Atghiaee, N. Masoumi, P. Zarkesh-Ha, and **M. Mehri**, "Predictive Application of PIDF and PPC for Interconnects' Crosstalk, TSV, and LER Issues in UDSM ICs and Nano-Systems," *IEEE Transactions on Very Large Scale Integrations* (*VLSI*) *Systems*, vol. 22, no. 2, Feb. 2014.
7. **M. Mehri**, M. H. M. Kouhani, N. Masoumi, and R. Sarvari, "A New Approach to VLSI Buffer Modeling Considering Overshooting Effect," *IEEE Transactions on Very Large Scale Integrations (VLSI) Systems*, vol. 21, no. 8, Aug. 2013.

…… Conferences ……

8. Salomeh Heidari, **M. Mehri**, and N. Masoumi**, "**Statistical Prediction of Planar Power Consumption Distribution in Digital System Layout/PCB**,"** *The 21th IEEE Workshop on Signal and Power Integrity,* (SPI2017), Italy, 2017- Accepted; Presented in May 2017.
9. **M. Mehri**, Salomeh Heidari, and N. Masoumi**, "**The Analysis of EMI Effects on the Performance of Electronic Systems Implemented on a PCB**,"** *20th IEEE Workshop on Signal and Power Integrity,* (SPI2016), Italy, 2016.
10. Salomeh Heidari, **M. Mehri**, and N. Masoumi**, "**System Level Estimation of a PCB Electromagnetic Radiated Emission**,"** *The 20th IEEE Workshop on Signal and Power Integrity,* (SPI2016), Italy, 2016.
11. A. Ghadirian, N. Masoumi, and **M. Mehri**, **"**Oscillator Radiated Susceptibility Analysis by Estimating the Added Phase Noise**,"** *The 24th Iranian Conference on Electrical Engineering* (ICEE2016), Iran, 2016.
12. **M. Mehri**, Salomeh Heidari, and N. Masoumi**, "**Electromagnetic Susceptibility Analysis of PCBs Using Predictive Method**,"** *International Conference on Synthesis, Modeling,*

Analysis, and Simulation Methods and Applications to Circuit Design, (SMACD2015), Turkey, 2015.

13. F. V. Zonouz, N. Masoumi, and **M. Mehri**, "Effect of IC Package on Radiated Susceptibility of Board Level Interconnect," *International Conference on Synthesis, Modeling, Analysis, and Simulation Methods and Applications to Circuit Design,* (SMACD2015), Turkey, 2015.
14. **M. Mehri** and N. Masoumi**, "**Quantitative Measures for Electromagnetic Compatibility Analysis of Electronic Systems**,"** *22nd Iranian Conference on Electrical Engineering* (*ICEE2014*), Iran, 2014.
15. **M. Mehri** and N. Masoumi**, "**Decomposition of Equal/Unequal Length Coupled Interconnect Step Response with Separate RC, LC, and RL Behaviors**,"** *22nd Iranian Conference on Electrical Engineering* (*ICEE2014*), Iran, 2014.
16. Z. Shariati, N. Masoumi, and **M. Mehri**, "A Complete Solution for Board-Level Signal Integrity Analysis Using IBIS Models," *13th Mediterranean Microwave Symposium* (*MMS*), Lebanon, 2013.
17. M. Takbiri, N. Masoumi, **M. Mehri**, and Z. D. Koozehkanani, "Crosstalk Reduction Using Open-loop Resonators for Printed Circuit Boards Traces," 13th Mediterranean Microwave Symposium (MMS), Lebanon, 2013.
18. **M. Mehri**, R. Sarvari, and A. Seyedolhosseini, "Eye-Diagram Parameter Extraction of Nano-scale VLSI Interconnects," *IEEE 21st Conference on Electrical Performance of Electronic Packaging and Systems* (*EPEPS*), USA, 2012.
19. **M. Mehri**, R. Sarvari, and A. Seyedolhosseini, "Statistical Study of Nano-scale VLSI Interconnect Crosstalk and Its Induced Power Estimation," *IEEE Components, Packaging, and Manufacturing Technology* (*CPMT*) *Symposium*, Japan, 2012.
20. A. Seyedolhosseini, N. Masoumi, **M. Mehri**, "VLSI Nano-scale Interconnect Induced Crosstalk Power Estimation," *IEEE Components, Packaging, and Manufacturing Technology* (*CPMT*) *Symposium*, Japan, 2012.
21. A. Seyedolhosseini, N. Masoumi, **M. Mehri**, "A Rigorous Analytical Method for Waveform Extraction of Fully Coupled RLC Nano-Scale Interconnects to PCB Traces,"*2nd Conference on Millimeter -Wave and Terahertz Technologies* (*MMWaTT*), Iran, 2012.

COMPUTER SKILLS

1. **MATHEMATICS:** EXPERT at: MATLAB AND MAPLE
2. **CIRCUIT DESIGN:** EXPERT at: HSPICE, PSPICE, ALTIUM PROTEL, ADS, SOC ENCOUNTER, DESIGN VISION
3. **DEVICE and ELECTROMAGNETICS:** EXPERT AT: COMSOL, CST; Familiar with HFSS
4. **DIGITAL DESIGN:** EXPERT at: MODELSIM, QUARTUS, LEONARDO, PROTEUS, LEDIT, SEDIT, VERILOG, FPGA AND CPLD DESIGN.
5. **MICROCONTROLLERs:** EXPERT AT: AVR, PIC, 8051 FAMILY
6. **PROGRAMMING, OPERATIONG SYSTEM, AND OTHER:** EXPERT at: C/C++ and Assembly-MICROSOFT WINDOWS and OFFICE, Microsoft Project, UBUNTU.

LANGUAGES

1. Persian: Mother Tongue
2. English: Advanced
3. Arabic: Intermediate
4. French: Basic

HOBBIES

Amateur Astronomy, Chess, Soccer, Ping Pong, Watching Movie, Travelling

REFERENCES

1. Prof. Nasser Masoumi, University of Tehran - Email: nmasoumi@ut.ac.ir
2. Prof. Jalil Rashed-Mohassel, University of Tehran - Email: jrashed@ut.ac.ir
3. Dr. Reza Sarvari, Sharif University of Technology - Email: sarvari@sharif.edu