

# CURRICULUM VITAE

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## ZAHRA EMRANI

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### Personal Details



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Birth Day: July 1985

Place of Birth: Iran-Isfahan

### Education

#### **M.Sc: (Electronic Engineering)**

- Electrical Engineering Department, Iran University of Science and Technology (IUST), Tehran, Iran ([www.iust.ac.ir](http://www.iust.ac.ir)) Sep.2008 - March.2011.
- *M.Sc Thesis*: Fault Tolerant Routing in NoC (Network on Chip) with Genetic Algorithm(GA).
- *Advisor*: Prof. K. Mohammadi

#### **B.Sc: (Electronic Engineering)**

- Department of Technology & Engineering, University of Isfahan, Isfahan, Iran ([www.ui.ac.ir](http://www.ui.ac.ir)) Sep. 2003 - Aug.2008.
- *B.Sc Thesis*: Design and Simulation of a Sample of MANO computer with VHDL.

- *Advisor*: Dr. P. Moallem and Dr. M. Niroomand

## Publications

- **ISI and PubMed papers**
  - ✓ Z Emrani, A Karbalaie, A Fatemi, M Etehadtavakol, BE Erlandsson, [Capillary density: An important parameter in nailfold capillaroscopy](#), *Microvascular Research*, vol.109, pp. 7-18, 2017.
  - ✓ Mahnaz Etehad Tavakol, Alimohammad Fatemi, Abdolamir Karbalaie, Zahra Emrani, and Björn-Erik Erlandsson, [Nailfold Capillaroscopy in Rheumatic Diseases: Which Parameters Should Be Evaluated?](#) *BioMed Research International*, Vol. 2015, pp. 1-17, 2015.
  - ✓ Zahra Emrani, Soroosh Bateni, hossein Rabbani, A new Parallel Approach for [accelerating the GPU-based execution of edge detection algorithms](#), Vol7, No1, pp. 39-48, 2017.
- **National Conference Papers**
  - ✓ Z Emrani, K Mohammadi, [A technique for NoC routing based on extended compact genetic optimization algorithm](#), 19th Iranian Conference on Electrical Engineering (ICEE), pp.1-4, 2011.
  - ✓ Abdolamir Karbalaie, Alimohammad Fatemi, Mahnaz Etehadtavakol, Farhad Abtahi, Zahra Emrani, Björn-Erik Erlandsson, [Counting Capillaries in Nailfold Capillaroscopy: State of the Art and a Proposed Method](#), IEEE, 2017.

## Professional Experiences

- Electronic Engineer in SUBSEA R&D Center ([subseard.iut.ac.ir](http://subseard.iut.ac.ir)), Isfahan University of Technology, Isfahan, Iran, Dec. 2009- June 2010. (My job: Design of electronic circuits)
- Electronic Engineer in Medical Image and Signal processing research Center, Isfahan University of Medical Sciences, Isfahan ([misp.mui.ac.ir](http://misp.mui.ac.ir)), Iran, Sep. 2011- now. (My job: research & development on the medical equipment.)

## Teaching Experiences

- **Course Tutoring** (2007) *Signals and Systems*, University of Isfahan.
- **Course Tutoring** (2007) *Linear Control Systems*, University of Isfahan.

- **Course Tutoring** (2007) *Electronic (I,II)*, University of Isfahan.
- **Course Tutoring** (2007) *Electrical Circuits I*, University of Isfahan.
- **Course Tutoring** (2008-2009) *Signals and Systems*, Iran University of Science and Technology.
- **Course Tutoring** (2009) *Electronic (I,II)*, Iran University of Science and Technology.
- **Course Tutoring** (2009) *Calculus (I)*, Iran University of Science and Technology.

## Research Interest

- Nailfold capillaroscopy
- Network on Chip
- FPGA
- Testability and Testing of digital systems
- Genetic Algorithm

## Computer and Microcontroller Skills

- Computer Software Packages:
  - ✓ MATLAB
  - ✓ ActiveHDL
  - ✓ Booksim
  - ✓ Protel DXP
  - ✓ C++ /C/VHDL Programs

## Language Skills

- Farsi: Mother Tongue
- English: Second Language
- Arabic: Basic Knowledge

## References

- Dr. Karim Mohammadi, Electrical Engineering Department, Iran University of Science and Technology, Tehran, Iran, Tel: (+98-21)79312617 , E-mail: [mohammadi@iust.ac.ir](mailto:mohammadi@iust.ac.ir).

- Dr. Mohammad Reza Mousavi Mirkolaei, Electrical Engineering Department, Iran University of Science and Technology, Tehran, Iran, Tel: (+98-21)73225775(5775) , E-mail: [m\\_mosavi@iust.ac.ir](mailto:m_mosavi@iust.ac.ir).
- Dr. Peyman Moallem, Department of Technology & Engineering, University of Isfahan, Isfahan, Iran, Tel: (+98-311)7934066, Fax: (+98-311) 7933071, E-mail: [p\\_moallem@eng.ui.ac.ir](mailto:p_moallem@eng.ui.ac.ir), Website: [http://eng.ui.ac.ir/~p\\_moallem](http://eng.ui.ac.ir/~p_moallem).
- Dr. Mehdi Niroomand, Department of Technology & Engineering, University of Isfahan, Isfahan, Iran, Tel: (+98-311)7934093, Cell: (+98-913-3266763), Fax: (+98-311) 7932772, E-mail: [mehdi\\_niroomand@eng.ui.ac.ir](mailto:mehdi_niroomand@eng.ui.ac.ir), Website: [http://eng.ui.ac.ir/~mehdi\\_niroomand](http://eng.ui.ac.ir/~mehdi_niroomand).
- Dr. Mahnaz Ettehad Tavakol, Medical Image and Signal Processing Research Center, Isfahan University of Medical Sciences, Isfahan, Iran, Tel: +98-311-7922362, Fax: +98-311-6691224, E-mail: [mahtavakol@yahoo.com](mailto:mahtavakol@yahoo.com).
- Dr. Hossein Rabbani, Medical Image and Signal Processing Research Center, Isfahan University of Medical Sciences, Isfahan, Iran, Tel: +98-311-7922362&+98-311-7922474, Fax: +98-311-6691224, E-mail: [hoss\\_rab@yahoo.com](mailto:hoss_rab@yahoo.com).