

Mehran Atamanesh

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Objective:

- Wave Propagation, Frequency Planning, Model development in Wireless Network.
 - Numerical Computations in Electromagnetic.
 - Design and Simulation of Microwave Circuits.
 - Design and Simulation of Antennas.
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Qualifications:

• Programming Language:

- ✓ **MATLAB**
- ✓ **C++** (Implementing of G.728 standard for speech coding as a B.Sc. Thesis)
- ✓ **Visual C++** (Develop of Wave Propagation Software Tools for 2G Mobile, see below)
- ✓ **.Net** (Development of LB-VHF Wave Propagation Software Tool)
- ✓ **Visual Basic**
- ✓ **Pascal** (University Course)
- ✓ **Assembler** (University Course)

• Electrical Engineering Software:

- ✓ **Advanced Design Systems** (Simulation of IFM Receiver in M.Sc. Thesis, Simulation of active antennas, OFDM receiver, Up-converter in signal generator, etc.)
- ✓ **Microwave Office** (Simulation of IFM Receiver in M.Sc. Thesis)
- ✓ **HFSS** (Design and Simulation of Various Antennas including 80-1300MHz Log-Periodic, 1-4GHz Log-Periodic, 1-18GHz Log Periodic, 1-2GHz Horn Antenna, Patch Antennas, etc.)
- ✓ **CST-Microwave** (Design and Simulation of 1-4 Stripline Coupler, 1-18GHz Stripline Coupler, Patch Antennas, etc.)
- ✓ **Feko** (Design and Simulation of Horn Antenna)
- ✓ **IE3D** (Design and Simulation of 20-100 MHz Log-Periodic Antenna)
- ✓ **Orcad** (Course projects)
- ✓ **PSpice** (Course projects)
- ✓ **Code Composer** (DSP Programming, Implementing G.728 on C64 DSP in B.Sc. Thesis)

• Languages:

- ✓ **Persian** (native)
 - ✓ **English** (fluent)
 - ✓ **German** (fluent)
 - ✓ **French** (beginner)
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Professional Experiences:

- Software development used for simulating and calculation of signal strength, interference, carrier to interference, etc. in mobile cellular radio. This software namely HiPlan uses statistical models in order to predict signal levels. (Benchmark: ASSET), KavoshCom Company, 2003-2005.
 - Software development used for frequency planning in mobile cellular radio by using Genetic Algorithm (Benchmark: ILSA), KavoshCom Company, 2003-2005.
 - Software development used for simulating and calculation of Microwave link Parameters and Fading Losses (Benchmark: CONNECT), KavoshCom Company, 2003-2005.
 - Software development used for simulating and calculating GPRS and EGPRS signal strength, data rate, etc. in mobile cellular radio (Benchmark: ASSET), KavoshCom Company, 2003-2005.
 - Software development used for simulation and calculation of signal level in LB-VHF, KavoshCom Company, 2006-2008.
 - Software development used for simulating the signal strength in L-, C-, and Millimeterwave band using ray tracing method, Sharif University of Technology, 2009.
 - Design, Simulation and Manufacturing of L-, S-, C-, X-band Antennas (Active and Passive), Baregheh Company, 2004-2006.
 - Design, Simulation and Manufacturing of 1-4GHz and 2-18GHz Coupler, Baregheh Company, 2004-2006.
 - Design, Simulation and Manufacturing of OFDM Wireless Link, Baregheh Company, 2011.
 - Design, Simulation and Manufacture of 20-3000MHz Signal Generator (RF Part), Baregheh Company, 2011.
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Education:

- **Post Doc:** Dr. Khandani's group, University of Waterloo, Nov 2012- up to now
- **Ph.D.:** Microwave and Optical Communications, Sharif University of Technology, Jan 2005-Oct 2011.
 - ✓ Ranked 1st in Microwave and Optical Communications Ph.D. Entrance Exam, 2005.
 - ✓ G.P.A.: 17.85/20
 - ✓ Thesis Title: Radio-wave Propagation Modeling Using Statistical Models and Ray Tracing for Wideband Wireless Telecommunicaitons.

- **M.Sc.:** Microwave and Optical Communications, Sharif University of Technology, 2003-2005.
 - ✓ G.P.A.: 17.43/20.
 - ✓ Top student in Microwave and Optical Communications, 2005.
 - ✓ Thesis Title: Design and Simulation of an Instantaneous Frequency Measurement System in the Frequency Range of 2-18GHz.
 - **B.Sc.:** Telecommunications, Sharif University of Technology, 1999-2003.
 - ✓ G.P.A.: 17.34/20.
 - ✓ Ranked among top 10% in 2003.
 - ✓ Thesis title: Implementing of ITU-G.728 Standard on C6x DSP Processors.
 - **High School Diploma:** Abd-al-Razagh, Lahijan, Guilan.
 - ✓ G.P.A.: 19.9/20.
 - ✓ Ranked among top 0.02% in National University Entrance Exam (Concours), 1999.
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Teaching Experiences:

- Teacher assistant of Engineering Math.
 - Teacher assistant of Advance Engineering Math.
 - Teacher assistant of Microwaves I.
 - Teacher assistant of Telecommunication Circuits.
 - Teacher assistant of Satellite Communications.
 - Teacher assistant of Antenna I.
 - Teacher assistant of Microwave Semiconductor Devices.
 - Teaching of Electrical Engineering Principles and Lab. In Sharif University of Technology (2010 and 2011)
 - Reviewer of International Journal of Communication Systems (IJCS)
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Publications:

Conferences:

- M. Atamanesh, F. Farzaneh, "Design and Simulation of a wideband microwave receiver used for signal monitoring", 13th Iranian conference on electrical engineering, 2006.
- M. Atamanesh, F. Farzaneh, "Frequency Planning of GSM Cellular Communication Network in Urban Areas including traffic distribution, a Practical Implementation", 2008 Asia-Pacific Symposium on EMC & 19th International Zurich Symposium On Electromagnetic Compatibility, pp. 891-894, 19-23 May 2008.
- M. Atamanesh, F. Farzaneh, A. A. Shishegar, "Path Loss Estimation in Millimeter Band Cellular Wireless Communication Network in Rainy Condition", 14th International Symposium on Antennas and Propagation (ISAP 2009), Bangkok, Thailand, Oct 2009.
- M. Atamanesh, F. Farzaneh, "Space Diversity Evaluation in Millimeter Band Wireless Communication Systems," PIERS Conf. Marrakesh, 2011.

Journals:

- M. Atamanesh, F. Farzaneh, "Precision Enhancement in ETSI-Hata Propagation Model Tuning Using Experimental Data in a Dense Urban Area", Springer International Journal of Communication Systems, vol. 23, no. 1, pp. 101-108, Jan 2010.
- M. Atamanesh, F. Farzaneh, "Microwave Wireless OFDM System Optimum Guard Interval Evaluation in an Urban Scenario around 5GHz," IET Communications, vol. 5, no. 8, pp. 1113-1122, 2011.
- M. Atamanesh, F. Farzaneh, "A Proposed Equivalent Channel Power Delay Profile for a Millimeter Wave Wireless OFDM System and Optimum Guard Interval Evaluation in a Built-up Area Propagation Scenario," Springer Journal of Personal Wireless Communication, DOI 10.1007/s11277-012-0631-5,2012.