**Neshat Etemadi Rad**

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**Education:**

* PhD, **Electrical and Computer Engineering**, expected **May 2015** GPA: 4.0

George Mason University, Fairfax, VA

* MS, **Electrical and Computer Engineering,** Minor: **Telecommunications**, Oct 2010 GPA: 3.3

Sharif University of Technology, Tehran, Iran

* BS, **Electrical and Computer Engineering**, Aug 2008 GPA: 3.47

Amirkabir University of Technology (Polytechnic), Tehran, Iran

**Professional Experience:**

Research Assistant, George Mason University, Fairfax, VA, Aug 2011-Present:

* Statistical methods for “Network Tomography” analysis in transportation and data networks including:
  + Network traffic modeling
  + Traffic rate estimation using :
    - Baysian analysis, Monte Carlo Markov Chain
    - Maximum likelihood estimators, Expectation-Maximization algorithm
    - Maximum Entropy methods
    - Time-series Analysis
  + Network delay analysis using hidden bivariate Markov models.
* Study of the trace fitting algorithms for Markovian arrival processes.
* Bivariate Markov chain parameter estimation using:
  + Expectation-maximization algorithm
  + Recursive casual parameter estimation algorithm

Researcher, R&D Department of Toos-Fuse Co., Tehran, Iran, Dec 2010-June 2011:

* Metering Equipment, Automatic Meter Reading, Advanced Meter Infrastructure, Smart Grid.

Research Assistant, Sharif University of Technology, Tehran, Iran, Sep 2009- Oct 2010:

* Study of MAC, routing protocols and throughput analysis in vehicular ad-hoc networks (VANET).
* Study of channel Estimation Methods in OFDM systemssuch as blind methods.
* Modeling and simulation of networks using queueing theory concepts.
* Study and implementation of direct sequence spread spectrum communication using MATLAB.

Student Assistant, AmirKabir University of Technology, Tehran, Iran, June 2008- Sep 2008:

* Design and simulation of 6-pin phase shifters with minimum dimensions.

**Teaching Experience:**

* Introduction to signals and Systems, GMU, Fall 2013-Spring 2015.
* Introduction to random processes, GMU, Spring 2015.
* Communication and Information Theory, GMU, Spring 2014-Spring 2015.
* Computer Network Architectures and Protocols, GMU, Fall 2013.
* MATLAB Programming, Amirkabir University of Technology. Fall 2008 - Fall 2010.
* Probability and Statistics, SUT, Fall 2009.
* Electrical Circuits, SUT, Spring 2010.

**Selected Courses:**

* Wireless Networks
* Advanced Communication Systems
* High Speed Networks
* Detection and Estimation Theory
* Time Series Analysis and Forecasting
* Numerical methods in optimization
* Information Theory

**Publications:**

* **N. Etemadi**, F. Ashtiani, “Throughput Analysis of IEEE 802.11-based Vehicular Ad-Hoc Networks”*, IET communications*, vol. 5, Iss. 14, pp. 1954-1963, 2011.

**Skills:**

* **Electrical Engineering software:** MATLAB, Python, Pspice, R, FPGA, HFSS, Protel, Wireshark.
* **OS & Application packages:** Windows, Linux, Microsoft Office, LATEX.
* **Statistics:** Regression models, MCMC methods, Time series analysis, Hidden Markov models.
* **Digital Signal Processing:** Advanced DSP algorithms including digital modulation, adaptive filters, FIR, FFT, sampling,
* **High-level Programming Languages:** C++, Pascal, Visual Basic.

**Honors:**

* Graduate Teaching Assistantship, ECE department, GMU, Aug 2013- Present.
* Graduate Research Assistantship, ECE department, GMU, Aug 2012-Aug 2013.
* Provost's Scholarship Award, ECE department, GMU, Aug 2011 - Aug 2012.
* Ranked within top 1% in both Bachelor and Master national entrance exams, Iran.