

# Marium Ahmad

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## Education

**July 2010 - Masters in Engineering (M.E.) N.E.D. University of Engineering and Technology**

Micro Systems Design

**Jan 2006 – Dec 2009 Bachelors in Engineering (B.E.) N.E.D. University of Engineering and Technology**

Electronic Engineering Department

Passed with Distinction

Thesis Title: “Optimization of troubleshooting tools for GSM network using Python and SQL server”

## Employment Experience

**Apr 2010 - N.E.D. University of Engineering and Technology Karachi, Pakistan**  
**Junior Lecturer**

Lecturing and supervising lab sessions for courses titled, “Amplifiers and Oscillators” and “Programming with C Language” for 3rd/4th semester students of Bachelor program of Electronic Engineering. Also acted as Class Advisor for the same class. Also conducted lab sessions of Programming on “LabVIEW ”

Presently tutoring “Integrated Circuits” to 6<sup>th</sup> semester students of Electrical Engineering

**Jun 2008 – Jul 2008 Digitek Engineering Karachi, Pakistan**

**Internee**

Designing and testing of digital circuits on Virtex FPGA using Verilog HDL.

## Selected Projects

**2009 Optimization of troubleshooting tools for GSM network (B.E. Thesis)**

Tools used: Python 2.5.5, SQL Server 2005

- Parser manager, transfers raw data dumps from BSC in organized spreadsheets
- DB comparator, compares 2days/month/year sheets extracting anomalies and highlights

the changed parameters using SQL server

- DB Audit tool, shows the neighbor synchronization, relation between target & source cells,

BCCH comparison

**2008 Automated mechanical translational elevator for three floors (3rd year project)**

Tools used: Microcontrollers, Assembly programming

- Interfacing of LCD display, gears, motors, and sensor to a microcontroller

**2008 PQRST ECG Monitoring unit for Heart patients**

MATLAB based implementation and computer interfacing to electrodes

**2007 MOSFET based amplifying unit for Stereo speakers**

**2007 8-way traffic signal using fixed function digital integrated circuits**

## **Tools**

**Programming:** Python, C, MATLAB, SQL Server, Assembly, Ladder, Verilog

**Circuit Simulators:** Cadence Virtuoso, Modelsim, Orcad, Multisim, Verilogger Pro

**Hardware:** Programmable Logic Controllers (PLC), Microcontroller, FPGA, PCB Designing/Fabrication

**Miscellaneous:** MS-Office, Windows, Linux (basic), Photoshop, Web page designing (HTML)

## **Personal Information**

**Marital Status:** Married

**Maiden Name:** Ahmad

**Father's Name:** Muhammad Ahmad (Late)

**Languages:** Urdu (Native), English (Excellent)

**Nationality:** Pakistani