# **Areeb Ali**

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### **Career Objectives:**

"To become a professional engineer and work for the betterment of humanity"



Education: 2006-2010	BE-Electronics (CGPA: 3.4/4.0)	NUST School of Electrical Engineering and
		Computer Sciences, Islamabad, Pakistan
2004-2006	Intermediate/H.S.S.C (82%)	F.G Degree College for Boys, Wah Cantt, Pakistan
2001-2004	GCE O'levels (86%)	Beaconhouse School System, Wah Cantt, Pakistan

## Final Year Project: GPS Tracking & Automation of Train

The main idea of the project is to automate the old systems of Pakistan railway. Tracking of the train through GPS, Platform Identification System, Automatic Railway Crossing Barrier System, Passenger counting system are the major features of the project.

Academic Projects:	
<b>Differential Amplifier</b> (System Integration: VLSI/ULSI ) Description: Design and simulation of Differential Amplifier + Layout	(May, 2010)
Tunable Audio Amplifier (Integrated Circuits and Design) Description: Designed a 25W into $8\Omega$ audio amplifier	(Jan, 2010)
<b>DC Servo Motor Control Project</b> (Control Systems II)  Description: Controlled the direction & speed of Servo motor using microcontroller	(Jan, 2010)
Automatic Cruise Control System (Control Systems) Description: Controlled Speed of DC motor using micro-controller	(Jul, 2009)
AM- Transmitter (Analog and digital Communication Systems) Description: Developed an AM transmitter	(Jul, 2009)
<b>Simulation of Bowtie-Wideband Antenna</b> (Microwave devices & Antennas) Description: Simulated the radiation patterns of Bow-tie antenna on HFSS	(Jul, 2009)
Game Buzzer System (Digital Systems) Description: Designed a buzzer system using digital components	(Jul, 2008)

### **Work Experience:**

### July 2010-Current (Research Assistant)

NUST-SEECS, Islamabad, Pakistan

Working on Switch Mode Transmitter Architecture Project with hands-on experience in Cadence. Research area includes design and simulation of 4-bit High Speed Flash ADCs based on MCML- 250nm Technology (Delta Sigma Modulators) - Frequency of operation – 1GHz

- -Collaboration with IHP Germany.
- <u>http://amsg.seecs.nust.edu.pk/</u>

### July 2010-Current (Teaching Assistant)

NUST-SEECS, Islamabad, Pakistan

Conducting the labs of Linear Circuit Analysis for Electrical Engineering Students.

### February 2010-June 2010 (Teaching Assistant)

NUST-SEECS, Islamabad, Pakistan

Conducted the Electronics-2 labs for Electronics students.

August 2009 - September 2009 (Training) Pakistan Aeronautical Complex, Kamra, Pakistan Got training on the Air defense systems(Radars), Avionics of Fighter aircrafts, Integration and simulation of JF-17 modules, production and testing department, I-C chip manufacturing. Also visited the aircraft manufacturing department.

March 2009 - August 2009 (Teaching Assistant)

NUST-SEECS, Islamabad, Pakistan

Assisted the teacher in Power Electronics course. Checked quizzes, assignments and arranged tutorials.

**August 2008-September 2008 (Internship)** Pakistan Ordnance Factories, Wah Cantt, Pakistan Got experience in Digital Telephone Exchange, Power Generation and Distribution, Traffic Signal Systems and Programmable Logic Controllers.

### **Professional Skills and Personal Strengths:**

- Hard worker, research orientated, scientific in approach and able to work individually as well as in teams
- A highly cooperative and skilled graduate student with a strong academic background

#### Technical skills:

- Cadence, Mentor Graphics, Microwind, Matlab, Multisim, PSpice, HFSS, Proteus, LabVIEW, Xilinx, ADS, Design using AutoCAD, Keil
- Livewire (PCB Designing & Development), Express PCB
- C/C++ Programming, Verilog-A, Verilog HDL Programming, Assembly language, PLC Programming, HTML
- Microsoft Office, Windows 98/XP, Learning Management System (LMS), CPanel

#### **Achievements and Awards:**

- Got merit scholarship from NUST, Federal Government and Pakistan Ordnance Factories
- Got an opportunity to organize the Olympiad, under IEEE
- Got 2<sup>nd</sup> Merit Position in NUST Entry test for Electronics Engineering, 2006
- Member of NUST(SEECS) Cricket Team
- Maintained the CGPA > 3.3 in all eight semesters
- Successfully completed the workshop on Cadence, Delta Sigma Modulator and Introduction to Microelectronics

### **Hobbies:**

Collecting coins, watching television, playing cricket and computer games

**References:** Available on request.