Muhammad Shamaas

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Education

Lahore University of Management Sciences Graduated July 2018
BS Electrical Engineering.

1. LUMS National Outreach Program Scholar with 100% scholarship.
2. Graduated with CGPA = 3.81 / 4.00.
3. Specialization in Power Engineering.
4. Attained Gold Medal for Academic Achievement.

Beaconhouse College Gulberg Campus Lahore Graduated July 2014
A-Level (Pre-Engineering)

1. 3 A*, 1 A (IBCC Equivalent Marks: 86 %).

Beaconhouse School System Garden Town Campus Lahore Graduated July 2012
O-Level (Science)

1. 5 A*, 3 A, 1 C (IBCC Equivalent Marks: 85 %).

Employment History

Kohinoor Energy Limited **Raiwind, Punjab**
Internship February 2019 - April 2019

The valuable three month learning opportunity enabled me to experience the grand process of electricity generation in KEL furnace oil 124 MW power plant. I observed the Industrial Field operation and maintenance procedures for ABB HSG_1600S12 Synchronous Generators, Modicon 984 PLC System, 132/11 kV Power Transformers and the Transmission Grid.

Lahore University of Management Sciences **Lahore, Punjab**
Research Assistant February 2018 - June 2018

I completed a Research project for research and hardware development of Software Defined Radio Local Oscillator Bank (3 - 3.5 GHz) using the Phase Locked Loop Frequency Synthesizer Integrated Circuits MAX 2871 and HMC 832.

Lahore University of Management Sciences **Lahore, Punjab**
Teaching Assistant September 2017 - December 2017

I performed my duties as a teaching assistant for the course of EE330: Electromagnetic Fields and Waves at my university.

The Citizen Foundation June 2018 - July 2018
Internship

I taught English to Secondary School Children in The TCF School Jhulkey, Lahore for four weeks.

The Rabtt Foundation July 2015 - August 2015

Internship

I visited four schools to distribute pamphlets, and give presentations about the LUMS National Outreach Program Scholarships.

Engineering Projects

1. 1-20 kHz Frequency Modulator and Demodulator Trainer Board Design and PCB Implementation.
2. Pulse Rate Monitoring PCB using PIC18 Microcontroller, infrared transmitter/ detector and LED Display.
3. Pole Balancing Robot using Simulink, Arduino and Pole Angle Sensor.
4. Wireless Remote Controlled Car using PIC18 Microcontrollers, XBee Radio transceiver modules and DC Motors.
5. Direct Digital Synthesizer Cadence OrCAD Simulation for generating arbitrary waveforms using 100 MHz clock.
6. Wireless control of Electrical Motors using Arduino-FreeRTOS, Magnetic Relays and ESP8266 WiFi Module.
7. QT Linux Device Drivers for FriendlyARM Mini 6410 Single-Board Computer.
8. Inverse Isolated SEPIC Converter using PWM generator module, designed Inductor and designed Transformer.
9. Laboratory operation of Three phase Transformer, Synchronous Machine, Induction Machine and DC Machine.
10. Class Trip to Power Transformer Engineering Services Unit (PTESU), WAPDA Foundation Kot Lakhpat Lahore.
11. Won a certificate of appreciation for completing Sony Ericsson Online Training Program.
12. Senior Year Project: Packet Switched Call Center Simulation in Discrete Event Network Simulator (NS-3.26) based on Erlang-X Markov Chain Call Center Model and Real Call Center Results. The simulation incorporated call abandonment, heavy call traffic, call drops, virtual response unit, Agent Skills and different routing schemes (Fastest Server First, Longest Idle First, Skill Based Routing and Lowest Cost Routing). The Results were also compared with a WebRTC based Call Center Node.js Application to study the effects of network congestion, variable propagation delays and transmission speeds on Quality of Service (https://webrtccallapp.herokuapp.com/).

Professional Skills

1. Installation and maintenance of Wiring, Lighting and Electronics. PCB Design, Testing and Debugging.	Competent
2. Circuit Simulation Tools: ETAP, PSIM, LTSpice, PowerWorld, Proteus, LabVIEW, OrCAD and Simulink	Competent
3. Microcontrollers: PIC, Texas Instruments, Analog Devices, Maxim Integrated and Arduino	Competent
4. 3D Modelling and Design Software: Creo Parametric 2.0	Competent
5. Programming Languages: C++ and MATLAB	Intermediate