

# MUHAMMAD SHAMAAS

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## Education

### **MS Electrical Engineering (Power Engineering)**

University of Engineering and Technology , Lahore  
Enrolled 07/2021

### **BS Electrical Engineering (Power Engineering)**

Lahore University of Management Sciences, Lahore  
Graduated 07/2018

### **A-Level (Pre-Engineering)**

Beaconhouse College Gulberg Campus, Lahore  
Graduated 07/2014

### **O-Level (Science)**

Beaconhouse School System Garden Town Campus, Lahore  
Graduated 07/2012

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## Employment History

### **660kV Pakistan Matiari-Lahore HVDC Transmission Line Company (PMLTC)**

Site Engineer for HVDC Converter Station , Lahore, Pakistan  
03/2020 - Present

Complete daily operation and maintenance tasks of HVDC Valve Hall, Converter Transformers, 660kV DC Switchyard and 500kV AC Switchyard. Coordinate between Converter Station Chinese Management and National Power Control Center Islamabad for DC Power Dispatch.

### **GLISTAR Research Group, University of Lahore**

Research and Development Engineer  
02/2020 - 09/2020

- Development and Testing of Brushless DC Motor Driver and Controller for Electric Rickshaw Project.

### **Pacetech Solutions**

Digital marketer  
07/2019 - 02/2020

- Digital advertising of Desktops, Laptops and Mobiles for generation of leads.

### **Kohinoor Energy Limited Thermal Power Plant**

Intern  
02/2019 - 04/2019

- Learned about the field operation and maintenance procedures for ABB HSG\_1600S12 synchronous generators, Modicon 984 PLC, 132/11 kV power transformers and the transmission grid.

## Lahore University of Management Sciences

Research Assistant  
02/2018 - 06/2018

- Debugging of Software Defined Radio Local Oscillator Bank (3 - 3.5 GHz) by programming the Phase Locked Loop frequency synthesizers MAX 2871 and HMC 832.

## Lahore University of Management Sciences

Teaching Assistant  
09/2017 - 12/2017

- Reinforcement of lessons, checking of assignments and invigilation of exams for the course E330: Electromagnetic Fields and Waves.

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### Projects

- English Teacher Internship in The Citizen Foundation School, Jhulkey, Lahore. (June 2018 - July 2018)
- Educational visit to WAPDA Foundation Power Transformer Engineering Services Unit (PTESU), Kot Lakhpat Lahore. (May 2018)
- Sony Ericsson Online Training Program. (September 2016 - December 2016)
- Education Ambassador Internship in The Rabtt Foundation. (July 2015 - August 2015)
- Senior year project: Call center simulation in Discrete Event Network Simulator NS-3.26 based on Markov Chain models. The results were compared with a LAN based VoIP call center built to study the effects of network congestion, variable propagation delays and transmission speeds on quality of service. (<https://electricall.herokuapp.com/>)

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### Technical Experience

- Engineering Softwares: LabVIEW, PSIM, LTspice, ETAP, Cadence Design Systems, Simulink, PowerWorld, Proteus, Creo Parametric.
- Microcontrollers: Analog Devices, Maxim Integrated, Microchip Technology, Arduino.
- Programming Languages: Assembly Language, C++, MATLAB, Simulink, JavaScript, PostgreSQL, Modelica, Haskell, Mathcad.

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### Engineering Skills

- Installation and maintenance of Wiring, DC/ AC Machines and Electronic Devices.
- Analysis and Simulation of Power Systems, Electronics and Drives.
- Interfacing and Control of Embedded Systems.
- Design and Simulation of Renewable Energy Systems.

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### Certifications

#### Pakistan Engineering Council

- Registered Engineer (PEC No. ELECT/70924)

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### Publications

M. Shamaas, A. Saqib, A. Rehman, S. Irfan, Millimeter wave gyromagnetic resonance of saturated magnetic transmission line, IEEE Transactions on Magnetics, 2021