# **Muhammad Nashit Quddus**

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# **Electrical Engineer**

### **EDUCATION**

# **COMSATS University Islamabad, Sahiwal Campus**

Sahiwal, Pakistan 2016 - 2020

# Bachelor of Science in Electrical Engineering

Courses: Microprocessors and Microcontrollers, Electrical Circuit Analysis, Digital Signals and Systems,
Control Systems, Data Communication and Computer Networks, Power Electronic, Electrical Measurements and Instrumentation, Electrical Machines

• Cumulative GPA: 3.01/4.0

### **EXPERIENCE**

# WAPDA Hydel Power Plant Tarbela (4880 MW)

Tarbela, Pakistan Jan 2021 – March 2021

# Electrical Engineer Intern

Maintenance of 500KV switch yard including different types of circuit breakers.

- First-hand experience with auto transformers and 160MVA power transformers stepping up voltages from 17.3KV to 500KV.
- Learned about the generators of different units generating 13.8KV and 17.3KV at rated speeds.
- Learned about different relays and other safety equipment used in the safety of a unit such as differential relays and governor system.

## WAPDA Hydel Power Plant Chashma (184 MW)

Mianwali, Pakistan July 2019 – Sept 2019

### Electrical Engineering Intern

• Firsthand work experience in line maintenance and learning of controls and machines of the power plant.

Learned about the working of a transformer and basic power distribution systems.

### **PROJECTS**

### **Autonomous Fire Brigade Robot (Final Year Project)**

- A self-operating robot which is capable of detecting fire using a camera via image processing techniques and then is able to move towards the fire to extinguish it.
- Sensors help the robot to increase its efficiency and to keep it from a safe distance with the help of humidity and temperature sensing.
- Raspberry Pi was used to implement the Python based program to make the robot operational.

## **Modelling and Designing of a Quadrotor using Simulink**

• Model the equations of Quadrotor in Simulink environment, then design the controller and fly it.

## **Line Following Robot**

• Implementation of PID controller on an Arduino to make a line follower robot.

### **Self-Balancing Robot**

- MPU6050 and Arduino were used to design the robot.
- The robot was able to move back to its original straight vertical position if disturbed without falling.

### **Autonomous Solar Tracking System**

 Used a PIC microcontroller to control a stepper motor in accordance with the LDR sensors data mounted on all the edges of a solar panel

## **Bluetooth controlled Home Appliances**

Development of a prototype system to control home appliances using a HC-05 Bluetooth module and relays

Auto Cad

**Proteus** 

### **TECHNICAL SKILLS**

Arduino

• MATLAB • Packet Tracer • Assembly • Simulink

LaTex

Python
LTSpice

Interests: Embedded Systems, Power distribution and generation and Electric Machines.