MUHAMMAD HAMMAD KHALID

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PROFILE

Organized and dedicated professional with experience as a RF Design Engineer. Have attained the Bachelor's of Science in Electrical Engineering (Electronics) from Ghulam Ishaq Khan institute (GIKI).

EXPERIENCE

05-Sep-2022 - 13-May-2023

RF Design Engineer, **DAS Telecom Solutions**

Worked there as RF Design Engineer. Designed In-Building Distributed Antenna Systems of many US commercial high rise buildings, hospitals and warehouses using iBwave. Experienced in cellular, public safety, converge and one cell designs. Well versed in wireless technologies including 5GNR, VHF, UHF, P25 and LTE. Experienced in active, passive and hybrid DAS networks. Excellent knowledge of various OEM's like ADRF, JMA, Cel-Fi, CommScope and Comba. Experienced in generating bill of materials, link budget reports, remote location, cable routing reports and antenna layouts.

28-July-2021 - 01-Sep-2021

Intern, Rawalpindi institute of Cardiology (RIC)

Worked as an intern at power distribution department of RIC. Learned about LT/HT panels, three phase transformers, capacitor banks, feeders, bus couplers, generators synchronization.

EDUCATION

Ghulam Ishaq Khan institute (GIKI), Swabi, Pakistan.
July 2022: Bachelor of Science in Electrical Engineering (Electronics).

KEY SKILLS AND CHARACTERISTICS

- PCB Designing (KiCad, LTspice, Proteus)
- Micro controllers (ESP32, ESP8266, Arduino, PIC18)
- Software (iBwave, AutoCAD, MATLAB/Simulink, LabVIEW, Arduino IDE, VS Code)
- Languages (C/C++, Python, HTML/CSS, Bootstrap, JavaScript including DOM)
- PLC (MicroLogix 1400, RSLogix Environment)
- Wireless technologies (VHF, UHF, P25, 5GNR, LTE)

PROJECTS

- WiFi RC robot with obstacle avoidance
- Remote temperature and humidity monitoring using MQTT (HiveMQ)
- CNC / 2-D Plotter
- Temperature monitoring door system using Arduino
- Mini home automation system using LabVIEW and Arduino
- Line tracking robot

FINAL YEAR PROJECT

The project was IOT based irrigation system implemented on a large scale. ESP8266 operating in access point mode was used as a main micro controller. Four D1 mini each connected to the soil moisture sensor was operated in station mode to wirelessly send data to main ESP8266. DHT11 was used for monitoring temperature and humidity. The data of the sensors was stored on ThingSpeak cloud and also displayed on the self designed web page hosted on ESP8266 using SPIFFS. Solenoid valves connected with four channel relay were used to only water the area where needed. The project was aimed to reduce the water loss and improve the crop growth.