

Ali Mehmood

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● ABOUT ME

- Highly motivated electrical engineering graduate with a deep passion for IoT, industrial automation, and process control systems.
- Strong academic and professional foundation in core electrical engineering disciplines, including power systems, electronics, and electrical machines.
- Hands-on experience designing PLCs, SCADA systems, and automated control solutions for industrial applications with Siemens.
- Passionate about optimizing processes through IoT and digitization.
- Self-motivated engineer with a diligent work ethic.

● WORK EXPERIENCE

05/2023 – 09/2023 Glasgow, United Kingdom

PROJECT INTERN STRATHSDR

- Collaborated with engineers to develop frequency-shifting algorithms for spectrum reuse.
- Conducted extensive research to explore innovative techniques for optimizing spectrum utilization.
- Simulated and tested systems in MATLAB/Simulink to validate improvements in spectrum efficiency.
- Actively participated in testing, evaluating, and refining solutions for engineering applications.

01/2023 – CURRENT Glasgow, United Kingdom

STUDENT REPRESENTATIVE UNIVERSITY OF STRATHCLYDE

- Acting as a bridge between the class and the university administration.
- Organizing events that bring the class together and promote a sense of community.

01/2020 – 01/2021 Karachi, Pakistan

ASSOCIATE DATA PROCESSING ENGINEER GFK ETILIZE

- Worked as a data extraction enthusiast in the production department.
- Developed test benches for quality assurance testing of Electrical Equipment.
- My job role was to make different types of data sheets for various electrical and electronic equipment like PLC, SCADA, DCS, Modbus RTU, and wireless communication systems.

03/2018 – 04/2019 Karachi, Pakistan

PROJECT ASSOCIATE (FINAL YEAR PROJECT) SIEMENS PAKISTAN

- Engineered end-to-end automation solution for a cement plant using Siemens PLCs, SCADA drives, and MODBUS TCP/IP.
- Programmed S7-1500 PLCs using Statement List (STL) and Function Block Diagrams (FBD).
- Built HMI application with alarm handling, trends and KPIs to monitor and control process parameters.
- Implemented advanced algorithms for the analysis of sensor data and system optimization.
- Reduced system downtime by early fault detection using PLC-based data analytics.
- Demonstrated an in-depth understanding of electrification, automation, and data systems.

● DIGITAL SKILLS

Good familiarity with MATLAB, Simulink | Internet of Things (IoT) Knowledge | SIMATIC STEP7 Professional | C (Code Blocks) | Siemens TIA Portal V15 | - PCB Designing on Proteus Altium | Ladder - PLC | SCADA Programming (WinCC, TIA Portal)

● EDUCATION AND TRAINING

09/01/2023 Glasgow, United Kingdom

MSC ELECTRONIC AND ELECTRICAL ENGINEERING University of Strathclyde

Website <https://www.strath.ac.uk/>

09/2015 – 10/2019 Karachi, Pakistan

BACHELOR OF ELECTRICAL ENGINEERING (ELECTRONIC) Ned University of Engineering and Technology

Website <https://www.neduet.edu.pk/> | **Number of credits** Credit hours: 136

● ADDITIONAL INFORMATION

PROJECTS

03/2023 – 05/2023

Internet of Farms – Can technology feed the nation?

- Conducted extensive research into modern technology in various farming industries, focusing on the integration of technology (automated systems and IoT) into agricultural practices to enhance production efficiency and sustainability.
- Integrated machine learning algorithms to predict crop yields and detect disease using historical data

02/2023 – 03/2023

Energy Systems Forecasting (Data Analytics and Artificial Intelligence)

- Explored the use of AI and data analytics for day-ahead load forecasting of energy systems, highlighting the importance of feature selection in improving accuracy.
- Built simulation of the power grid in MATLAB to test model accuracy in predicting load demands.
- Achieved over 90% accuracy by using historical data and weather forecasts as model features.

TRAININGS, WORKSHOPS AND CERTIFICATIONS:

Training Course: INDUSTRIAL AUTOMATION AND PLC

- Worked on various PLC devices such as Honeywell, and Siemens.
- Made projects related to Automation and Real-time monitoring and controlling of industries using IoT.
- Developed, documented, and tested PLC logic and HMI applications for automated systems and packaging machinery.

Workshop: PLC Programming

- Worked on a smart irrigation system prototype with Arduino, Modbus RTU, flow meters, and moisture sensors.
- Completed end-to-end design projects related to SCADA, DCS, and power systems.