

#### **Education**

# University of Engineering and Technology, Lahore B.Sc. Mechatronics Engineering, Robotics, Automation. GPA3.2

Thesis: Humanoid Fashion Robot (Upper Limb for Ahmed Jamal Textile Mills)

## Superior Group of Colleges (Haji Pura Campus)

FSc. Pre-engineering, Math, Chemistry, Physics. Marks 922/1100

## **Creative School System Cantt Road**

Science Group, Math, Chemistry, Physics, Computer. Marks 1029/1100

## Experience

Pakistan Oilfields Limited (POL) Internee

- Observed advanced techniques for oil exploration, advanced pumps working in oil production, automatic controlled boilers, and rig analysis using radiations and ultrasound waves.
- Got hands-on experience in using various sensors and devices like coupler alignment tools, earthing tools, PLC systems, and inverters for synchronous motors. Practiced safety protocols.

#### **Prosperity Weaving Mills Limited**

Internee

Sheikhupura, Pakistan 01 Jun 2023 – 30 Jun 2023

- Learned to operate control panels in power generation, route power channels, manage solar plant, synchronization of power and improve power factor.
- Learned hands-on experience in repairing loom machines, PLC programming, warping machine controls.
- Worked on atlas-Copco compressors and chillers management for the plant.
- Learned the importance of teamwork, attention to detail, and effective problem-solving in management.

## **Projects**

## Humanoid Fashion Robot of 4 DOF (Upper Limb for Ahmed Jamal Textile Mills) (Final Year Project) Group Leader 15 May 2023 – 17 May 2024

- Designed mechanical model and performed analysis.
- Designed a prototype for the proposed solution.
- Implemented the control on 4 motors.
- Give the pre-defined information/curve and control for that trajectory.
- Implemented the approved solution at the industry site.

## Energy harvesting from sidewalks and roads through piezoelectric

15 Jan 2021 – 15 Apr 2021

- Implemented a way to harvest mechanical energy for cars or people movement in the form of electricity using piezoelectric
- The aim is to provide a sustainable source of energy and a way to minimize energy wastage
- Implemented proximity sensors for streetlights switching to save electricity and energy being harvested is saved in batteries

Lahore, Pakistan Sep 2020 – May 2024

Sialkot, Pakistan Jan 2017 – May 2019

Sialkot, Pakistan Jan 2015 – May 2017

Rawalpindi, Pakistan

15 Aug 2023 – 11 Sep 2023

Self-balancing ball system using a PID controller		
•	Designed Integrated ultrasonic conserver for foodback control system	15 Jan 2023 – 5 May 2023
•	Applied PID controller for balancing ball on the beam	
•	Adjusted the PID value for shifting set point so that the ball gets balanced on the ce	enter of the beam
Agricultu	re Automation system	
U		10 Jan 2022 – 15 Feb 2022
•	Designing and implementation of the DH22 sensor and also display the results on the	he LCD.
•	Applied the mechanical concepts on the project.	
•	Also control the project from the app using ESP-32 (WROOM)	
Dual Avia Salar Tracker		
Dual Axis	Solar Tracker	1 Oct 2021 – 1 Dec 2021
•	Designing and implementation methodology of dual axis solar tracker	
•	Luse LDRS and motor and control the project according the position of the sun.	
•	Programed using Arduino IDF	
Amplification system		
		5 Mar 2022 – 1 Apr 2022
•	Designing and implementation of Electronics.	
•	Applied the Electronic concepts on the project.	
•	Control using MOSFIT, transistors and capacitors.	
Electrical Clock with RGB		
		25 Mar 2020 – 5 May 2020
•	Designing and implementation Electrical concepts.	
•	Applied Electronics and programing skills to make an algorithm.	
•	Also applied the ADC to convert it in digital data.	
Pneumat	ically Operated Press Machine	
		15 Jan 2023 – 15 May 2023
•	Designing and implementation of Hydraulic and Pneumatic concepts.	
•	Also use the motion Sensor for controlling purpose.	
•	Then use the large Cylinder and a flat press head for working purpose.	
<u>Leade</u>	rship & Activities	
IEEE Head of the Management Department.		01 Sep 2023 – 1 May 2024
Mechatronics and Control Engineering Society		
Humar Also Le	n Resources Head. Ind My Final Year Project with is an industrial project.	01 Sep 2023 – 17 May 2024

# **Skills & Interests**

Technical: Fusion 360, AutoCad, SolidWorks, Proteus, Multisim, MATLAB, Ansys, PLCProgramming, Python, C/C++/C#, IOT Automation, Arduino, MPLab X, Image J, Inkspace.
Language: Urdu (Native), English.
Interests: Automation projects, Swimming, Shooting, Cricket, Football, Badminton, and digital gaming.