

Muhammad Danial Tahir

Mechatronics & Control Engineer

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PROFILE

Mechatronics & Control Engineer with expertise in designing and implementing innovative automation solutions and Control systems. Proficient in advanced modeling tools and programming language such as MATLAB, C++, and Python. Committed to continuous learning and collaboration and contribute to cutting-edge projects.

EDUCATION

B.Sc. Mechatronics and Control Engineering
(CGPA 3.245)

University of Engineering and Technology Lahore (UET) 2021– 2025

Relevant Coursework: Instrumentation & Measurement, Robotics, Industrial Automation (PLC), Control Systems, Design of Elements, CAD/CAM, Embedded Systems.

WORK EXPERIENCE

INTERN, Lodhia Gypsum (pvt) Ltd. Hattar, KPK
Jul, 2025 – Aug, 2025

- Electrical and Maintenance Department.
- Gained in-depth exposure to control room panels, power transmission systems and 3-phase motor infrastructure, gaining a detailed understanding of their operation and interconnections.
- Acquired hands-on experience in troubleshooting, servicing, and maintaining electrical systems to ensure continuous and reliable industrial operations.

INTERN, Hyundai Nishat Motor (pvt) Ltd. Faisalabad
Jun, 2024 – Jul, 2024

- Production Engineering & Support (PE&S) Department.
- Acquired practical knowledge of car assembly processes and applied Lean Manufacturing principles to enhance efficiency.

Sales Representative-Tractor Parts Accessories Attock
Jun, 2021 – Jun, 2025

- Managed tractor parts sales and provided tailored recommendations to customers for optimal product selection.
- Managed inventory accurately to ensure timely availability of parts and smooth operations.
- Cultivated strong customer relationships, boosting satisfaction, repeat business, and trust in technical expertise.

CERTIFICATE & AWARDS

Merit Scholarship (HEC): Awarded for securing the highest GPA in session.

Cyber-Savvy: Navigating Linux & Essential Cybersecurity.

SolidWorks Basics: Parametric modeling and 3D design fundamentals.

Project Management Fundamentals (Microsoft Certified)

REFERENCE

References available upon request

SKILLS

MATLAB

Python

C++/C#

Arduino IDE

SolidWorks

PCB Design

Fluid-Sim

Proteus

Simulink

PLC

Embedded Systems

Control Systems

Machine Learning

Project Management

MS Office

Research Analysis

Team Management

ACADEMIC PROJECTS

Design and Implementation of Laser Engraver for Vehicle Identification Number (VIN)

- Designed and implemented a laser engraving machine for VIN marking, which improved precision and efficiency.
- Automated the process to reduce errors and save time compared to manual punching.
- Collaborated with **Hyundai Nishat** to deliver a cost-effective and user-friendly solution.

Home Automation

- Developed IoT-based system using ESP-32, sensors, and Blynk app for remote control of lights, appliances, and security features, improving monitoring and energy efficiency.

Automatic Street Light

- Designed Arduino-based system with LDR and ultrasonic sensors to reduce energy consumption through automation.

Pumpjack Mechanism

- Designed the CAD model of a Pumpjack mechanism and performed stress analysis in SolidWorks to evaluate structural integrity and performance.

Bookshop Management System

- Developed software in C# with GUI and SQL database integration for efficient management.

Walking Gait Analysis of an Injured Person

- Analyzed walking gait using an AI model with Gaussian Naive Bayes in machine learning.

INTEREST

Research on Universe

Technology Innovation