MUHAMMAD RAFAY

MECHATRONICS ENGINEER

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PROFESSIONAL SUMMARY

Aspiring to work in a dynamic environment fostering skill development and academic growth, the goal is to contribute to organizational and personal progress while bridging the gap between theoretical concepts and practical implementation in Mechatronics Engineering.

EDUCATION

2021 - Present | University of Engineering and Technology, Lahore
Bachelor of Science - Mechatronics & Control Engineering | CGPA 3.593/4.0 |

2019 - 2021 | Government College University, Lahore
Intermediate - Fsc Pre Engineering | 1096/1100 |

2017 - 2019 | Govt. Boys High School Baghbanpura, Lahore
Matriculation - Computer Science | 1068/1100 |

RELEVANT PROJECTS

Automatic Gluing Station:

- An industrial Application of electro-pneumatic circuits.
- Logic developed on Festo FluidSim and hardware made using 5 actuators.

Portable Ventilator:

- TIVA Launchpad-controlled motor system for AMBU bag.
- Regulating Breaths Per Minute, I:E ratio, and Tidal Volume via Ball-Screw mechanism

Digital Combinational Lock:

- ICs, 7-segments and push buttons are devised to create a low cost security system.

Sign Language Recognition:

- Object-oriented solution using Mediapipe and OpenCV in Python along with GUI.

Autonomous Robot Navigation:

- Finding Optimum path to a goal avoiding obstacles using Genetic Algorithm in C language.

Push Pull Amplifier Circuit:

- Audio Amplifier using BJTs to amplify the audio through speakers.

CERTIFICATIONS

Workflow Optimization using Apps Script: | July - August 2023 |

- Automated Administrative workflow and streamline data on Google Workspace.

Google IT Support Specialization | July 2023 |

Fundamentals of Digital Marketing | June 2023 |

CORE COMPETENCIES

- MS Office
- AutoCAD/SolidWorks
- MATLAB
- Python & C Programming
- Graphics Designing
- Communication skills
- Compliant
- Leadership
- Project & Time Planning
- A “Can Do” Approach