

Muhammad Hamza Khan

An aspiring fresh Mechatronics Engineer with a zest for putting my technical skills to improve my society.



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Rawalpindi, Pakistan

26 March, 1997

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EDUCATION

Bachelor of Mechatronics Engineering

Air University, Islamabad

2014 – 2018

CGPA: 3.19 / 4, 79.75%

FSc, Pre-Engineering

The Peace College Nowshera

2012 – 2014

Marks: 877/1100, 79.7%

Matriculation

The Peace School Nowshera

2010 – 2012

Marks: 887/1050, 84.4%

INTERNSHIPS

Heavy Mechanical Complex

Mechanical and Electrical Workshop

06/2017 – 07/2017

Taxila, Punjab

Task

- 4 weeks of internship in different mechanical departments and shops of leading engineering goods manufacturing enterprise in Pakistan.

Pakistan Aeronautical Complex

Aircraft Manufacturing Factory

07/2017 – 08/2017

Kamra, Punjab

Task

- 2 weeks of internship at Aircraft Manufacturing Factory PAC Kamra, Learned about the designing and production of a part on 3-axis and 5-axis CNC Milling Machine.

SIEMENS Pakistan

Peshawar Airport

08/2017 – 09/2017

Peshawar, KPK

Task

- 4 Weeks of internship in electrical and automation project.

LANGUAGES

Urdu



English



Pashto



PERSONAL ABILITIES

Organized Planner

Social Service

Activist

Take Initiative

Deadline Meeting

INTERESTS

Music

Traveling

E-Gaming

Movies

ACHIEVEMENTS

Proved Master Theory (2018)

Successfully proved masters theory on the control of Sit to Stand Mechanism of an Assistive Device for Paraplegics

Winner Research Poster Competition at Robo Mela (2017)

First Prize at Cultural Night AU (2017)

Gold Medal at Cultural Night Air University, Sports week 2017

PROJECTS

Feedback Control of Sit to Stand Mechanism of an Assistive Device for Paraplegics (01/2017 – Present)

- Final Year Project
- Research and Development Project
- The project consist of two part
- 1. Feedback Control of position and velocity Sit to stand mechanism which provides the transformation of position from sit to stand and vice versa for the paraplegic patients. The device aims for rehabilitation purpose.
- Realtime feedback control was also done through Hardware in Loop Simulation.
- 2. The mobile platform to provide maneuverability to move around in some space.

Autonomous Robot (09/2016 – 01/2017)

- Robot which could plan its path using Long range IR sensors and detected color patches using color sensor to perform desired task.

Line Tracking Robot (01/2016 – 05/2016)

- The line following robot follows a line on its given path using IR Sensors and obstacle detection.

Four Way Time Adaptive Traffic Signal Control System (09/2017 – 01/2018)

- The main aim of this project is to control the system manually or automatic and show its result on LCD .
- These include VHDL for modeling and uploading the VHDL design code on FPGA kit for verification of design.
- Implementation is based on real location "SHAHEEN CHOWK" Islamabad

TOOLS

MATLAB

Control System Designing and Simulation

Arduino

open-source electronics platform based on easy-to-use hardware and software

Proteus

Printed Circuit Designing and Simulation

Quartus

Verilog HDL -Hardware Descriptive Language

RS Logix 500 Starter (Programmable Logic Controller)

Ladder logic programming package used for Programmable Logic Controller (PLC) programming for Industrial Automation

SolidWorks

3D Modeling, Engineering Drawing

MS Office

Report Writing, Presentations

Eclipse , DEV C++

Programming in C++ Language