# MUHAMMAD IBTISAM ABID

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#### INTRODUCTION

I am an Electrical Engineer. My CGPA is 2.96. I am interested to work for this company and to enhance my skills. My areas of expertise are in Electronics as it is my mainstream. Furthermore, I have proficiency in programming languages such as C, C++, MATLAB. Python and worked in HDL (Verilog). To enhance my skill set I have also worked over freelancing sites, and social media group and successfully completed many tasks and major semester projects.

## **EDUCATION**

Bachelor's in electrical engineering Comsats University Islamabad, Islamabad (Sept. 2017 – June 2021) **CGPA**: 2.96/4.00

- Major Electives: Real Time Embedded Systems, Digital System Design, Industrial Electronics, VLSI, Power Electronics, Artificial Intelligence.
- Major Courses: Microprocessor System and Interference, Principles of communication systems, Electromagnetic Theory, Digital Signal Processing, Electrical Machines
- Final Year Project: "Stair Climbing Wheelchair based on esp32 (joystick and cloud based)".

Higher Secondary School Certificate (HSSC) Global College, Rawalpindi (Mar. 2015 – Feb 2017) **Percentage Marks**%2□

• Major Subjects: Math, Physics, Chemistry

Secondary School Certificate (SSC) Fauji Foundation Model School, Islamabad (Mar. 2013 – Feb 2015) Percentage **Marks**: 7%

## **PROJECTS**

#### ⇒ Final Year Project

• Stair Climbing Wheelchair

Aiding a person in their mobility, People's such as aged persons, a person who is physically weak or any other disability due to birth or it may be an accidental cause. Making it difficult in their movements, also almost impossible to move from one floor to other, making them dependent over others. Therefore, this is very resourceful for those who have lost their mobility. The main purpose of this project is to assist those people who are disabled/handicapped and are unable to reach places which they cannot without the help of any other person.

- ❖ Enabling the wheelchair to climb the stairs as on the run it stabilizes itself.
- ❖ Android Developed application to control the Chair using mobile phone.
- Cloud based network to get live time view of camera module.

⇒ Home automation using ESP-32

(Nov. 2020-Dec. 2020)

This project is esp 32 based project reason of using the esp module is the Wi-Fi module is available built in. This project handles main power control, Water tank management system, Soil moisturizer monitoring, Door lock and unlock and methane gas leakage Alert on mobile.

⇒ Density based traffic signal based over Arduino UNO

(Dec. 2018-Dec. 2018)

This project was based on Arduino Uno having sensors and led for traffic signals for all the cases I have developed the program to control the traffic.

If two roads have traffic, the signals will shuffle between then other will remain red.

#### > V2G and G2V based over MATLAB and Simulink

(Nov 2020-Nov 2020)

This project was based on Simulink and is a model of the batteries pack of an electric car that charges from the grid and can discharge to give power to the grid, so the components used are the bidirectional dc-dc converter, rectifier, inverter, and transformer.

## ⇒ Arduino Nano based LFR (Line follower Robot)

(Dec. 2019-Jan. 2020)

This project was built on Arduino using Arduino IDE and if follows the black line of the circular track while beeps on the strips on the track and after completing its 3 rotations goes into the inner loop and then stops at the center area at the end of the inner loop components used are Arduino, IR sensors motor controller, motors and color sensor used to detect color to decide the number of rotations of external loop.

⇒ 3-Phase and single-Phase UPS system based over Simulink and PSpice

(Nov 2020-Nov 2020)

This project was based on Simulink and is a UPS system that gives backup when there is any fault in the source the components used are grid, transformers step-up and step-down, rectifier, inverter, and filters for smoothing.

## **TECHNICAL SKILLS**

- Languages: MATLAB, Verilog, Arduino IDE(C), Python, DEV-C++ (C/C++)
- Simulation Tools: Lt-Spice, Multisim, PSpice, i-Triology, PS Cad, Proteus, ORCAD, LOGISIM

#### **HOBBIES**

Cricket, Freelancing, Poetry