# MAMONA FIAZ

## **Mechatronics&Control Engineer**

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#### **OBJECTIVE:**

To pursue a highly rewarding career, seeking for a job in challenging and healthy work environment where I can utilize my knowledge for industrial growth.

## **ACADEMICS:**

B.Sc. Mechatronics&Control Engineering: University of Engineering & Technology, Lahore	CGPA 3.26/4.0	2014-2018
F.Sc. Pre-Engineering: Punjab College, Lahore(Lahore board)	Percentage 89%	2011-2014
Matriculation: Fatima Girls High School, Lahore (Lahore Board)	Percentage 91%	2009-2011

#### **PROFESSIONAL EXPERIENCE:**

#### **Packages Limited**

#### 2.5 months Internship, 2018

Internship include designing technical manuals of printing machines (Lemanic 82 and Rivera ) in Business unit folding carton section. Documentation related electrical ,mechanical and electronics knowledge related to machines was prepared .

#### **PROJECTS:**

FINAL YEAR PROJECT: Modeling and control of quadcopter with indoor Simultaneous Localization and Mapping (SLAM).

- ✓ **Final Year Project Brief:** Mathematical Modeling of Quadcopter, Design of PID controller in 6 DOF for stabilizing and linear control with dynamic equations, implementation of Kalman filter for state estimating and filtering
- ✓ **Simulation:** Linear control at 6 DOF ,trajectory control of Quadcopter, Quadcopter navigation in unknown environment (simulation environment was designed in MATLAB)
- ✓ Hardware: Real hardware was developed by implementing PID controller using Arduino in 3DOF
- ✓ **SLAM**: 2D SLAM with Rplidar with help of hector SLAM package in ROS (Linux)
- ✓ SEMESTER PROJECTS:
- ✓ Railway crack detection system (Instrumentation and Measurement)
- Daily production and labor efficiency record system using PLC (Industrial Automation)
- ✓ Fan speed control system using Arduino (Embedded System)
- ✓ Speech recognition system (Digital Signal Processing)
- ✓ Soft wheel robot (Robotics)
- ✓ Digital Clock using ICs (Digital Logic Design)
- ✓ Modeling and control of inverted pendulum (Control System)
- Designing of Fork lifter machine in solid works (Solid Works)

#### **CO-CURRICULAR ACTIVITIES:**

✓ Member of Mechatronics Club at Uet Lahore.

### **COMPUTER PROFICIENCY:**

- ✓ AutoCAD, Solid Works, ISIS Proteus, ARIES
- ✓ MATLAB, C++ (Code Block), Arduino Board, Mplab, Rasberry pi ,Linux
- ✓ MS Office (Word, Excel, PowerPoint)

## **KEY SKILLS AND ABILITIES:**

- ✓ Develops strong and innovative solutions to complex problems by identifying the root causes of issues and takes personal responsibility for making decisions and following these through.
- Displays exceptional interpersonal skills through the ability to gain the trust and respect of others.
- ✓ Ability to work in global environment and focus quality and result orientation.
- ✓ Adapts and promotes change easily but will change decisions where immediate benefit is not apparent.

#### **INTERESTS:**

Research, Hands on experience for Technical work, Designing of Systems, control system Projects