

Mohammed Saad Hashmi

7 Bina Nagar Vasna Road, Vadodara 390015

in hashmis79 saadhashmi.netlify hashmis104@gmail.com hashmis79 +91 9925936955

EDUCATION

Veermata Jijabai Technological Institute

B-tech Mechanical Engineering CGPA: 8.59/10

Mumbai, India

Expected Graduation: June 2023

EXPERIENCE

Robert Bosch Center for Cyber-Physical Systems, IISC Bangalore

Research Intern

Bangalore, India

Dec 2021 - Present

- Designed the foot of a quadruped and later 3D Printed the part(made of **TPU**).
- Tested the response of the foot when in contact with the ground using a **Force Sensing Resistance (FSR)**
- Designed the **Heat Sink** for the BLDC Encoders to avoid overheating of the circuits.

PROJECTS

Delta PSP - Pick and Place Bot

SolidWorks

github.com/Delta2021

May 2021 - July 2021

- Assisted in the successful designing and in the construction of a fully scale gantry bot for the purpose of sorting parcels in a limited Time frame.
- Standardized all the parts for manufacturing, suggested some major design changes for ease in construction.

Micromouse

ROS, Gazebo, Python

github.com/Micromouse

Dec 2020 - Dec 2020

- Built a **ROS** based autonomous Control system for a Maze Solving Differential Drive bot Simulated in Gazebo.
- Successfully implemented **DFS** algorithm to solve the maze.

Vitarana Drone - Disaster Management

ROS, Gazebo, Python, OpenCV

github.com/E-Yantra_Tasks

Oct 2020 - Feb 2021

- Successfully implemented an autonomous **ROS** based Autonomous Control System on a UAV(Quadrotor) simulated in Gazebo. Under the All India Eyantra Robotics Challenge.
- Implemented Nested PID Control for controlling the position of the drone
- Used HAAR Cascades in **OpenCV** for Detection of Landing markers and implemented **Obstacle avoidance and Path planning**.

Moodylyser

Python, Keras, OpenCV, Git

github.com/Moodylyser

May 2020 - June 2020

- Aim of this project is to predict emotions of a person by analysing a live videofeed of a person.
- We detected and processed the face of a person using **OpenCV**.
- We built an **CNN** Model using **Keras** which predicted the emotions of a person by detecting the different features of a person's face.

POSITION OF RESPONSIBILITY

Society of Robotics and Automation

Mechanical Head

Mumbai, India

June 2021 - Present

- Co - conducted many workshops like Wall-E (Self balancing bot) and Mario(3-DOF Manipulator) for over 200 Freshmen.
- Contributed in the code for 3-DOF Manipulator in **ROS- Gazebo** for the Mario Workshop.
- Taught the basics of various topics like **CAD, Forward Kinematics, Pneumatics** to over 100 Freshmen

ACHIEVEMENTS

- Were in the **Top 20 Teams** nationally, for All India E-yantra Robotics Challenge.
- Were in the **Top 18 Teams** nationally, in Micro-Mouse Challenge organized by IIT Bombay.

Skills

- Programming Languages** : Python, C , C++
- OS** : Windows, Linux, ROS, Gazebo
- Softwares** : CoppeliaSim, Git, Github
- CAD Modelling** - Solidworks, Fusion360, Voxel
- Languages** - English, Hindi