

Prajval Hemant Vaskar

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EDUCATION

Clemson University

Master of Science in Automotive Engineering

Fall 2019 – Spring 2021

Greenville, SC

Savitribai Pune Phule University

Bachelor of Engineering in Mechanical Engineering

August 2015 – July 2018

Pune, India

COURSEWORK (Fall 19)

Automotive System: An Integrated Overview

Automotive Electronics Integration

Robotics Mobility and Manipulation

Vehicle Design/Manufacture Project Management

COURSEWORK (Spring 20)

Autonomous Driving Technologies

Autonomy: Science and Systems

Machine Perception & Intelligence

Selected Topics: Motion Planning

EXPERIENCE

Vyankatesh Fabriccrafts PVT LTD

Assistant Design Engineer

June 2019(3month)

Nashik, India

- 3 Month Internship
- Specification of pressure vessel according to ASME and pharmaceutical norms

PROJECT

Fall 19 AuE 8350 Final Projects

Arduino Uno 3 and HC - SR04 ultrasonic sensors are used.

Oct 2019 – Nov2019

Greenville, SC

Sensing and Signal Processing (Kalman filter is used in every setup)

- Signal Processing for One Ultrasonic Sensor
- Sensor fusion of Two Ultrasonic Sensors
- Ultrasound based Localization

Adaptive Cruise Control and Autonomous Lank keeping of RC vehicle

- Vehicle calibration is done as per manual given by RC manufacturer.
- Implementation of PID control for smooth and better handling.

Undergraduate Final Year Project

Design Development and Manufacturing of Automatic Coil

July 2017 – May 2018

Pune, India

Winding Machine

- Used Arduino to obtain automatic motion of armature coil and bobbin
- Develop Market Research skills
- Automation using Arduino nano and motor driver board A4988

- Design and analysis of all components

Team Arihant (Motorsport Club)

January 2017 - October 2018
Pune, India

Collegiate level motorsport club

- Designed a virtual All-terrain Vehicle (Quadbike)
- Winner of Quad-Torc 2017 and runner up of Quad-Torc 2018
- Winner of QBDC 2017 and runner up of QBDC 2018
- Designed steering and suspension in the year 2017-2018
- Designed optimized wheel assembly in the year 2017-2018
- Steering and suspension head for the year 2017-2018
- Technical head for the year 2017-2018
- Fabricator in the year 2016-2017

Slope Box Car project

February 2017(20 days)
Pune, India

- Manufacturing of slope car with wooden body
- With steering and braking system

Diploma Final Year Project

July 2014-April 2015
Pune, India

Pneumatic Sheet Metal Cutting with Automatic Feeding

- Sheet metal cutting operated by a pneumatic cylinder
- For start-stop of sheet limit, switches were used
- 5/2 solenoid DCV used
- Calculation of cutting force required and market research

PUBLICATIONS

- 'Design and Development of Three Link suspension for a Quad-Bike', IRJET 2018.
- 'Tripod Steering for better maneuverability of a Quad-Bike', IRJET 2017.
- 'Design and Development of Open Differential for Quad-Bike', IRJET 2018.
- 'Design and development of Automatic Coil Winding Machine', IRJET 2018.

EXTRACURRICULAR ACTIVITIES

- Winner of Intercollegiate level Auto-IQ 2017 held at Sinhgad Academy of Engineering
- Participated in Nirmal Wari Seva Sahayog in 2016 which was a workshop for cleanliness, personal hygiene, and education for devotees conducting an annual pilgrimage.

SOFTWARE / LANGUAGES KNOWN

- PTC Creo
- Ansys 16.0
- Lotus Shark
- AutoCAD 2D
- MATLAB and Simulink
- Siemens NX Modelling
- Python
- ROS (Beginner)
- OpenCV (Beginner)
- Machine learning (Beginner)
- Microsoft Office