

# SOUJANYA AVADHANI M D

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## CAREER OBJECTIVE:

To work with an organisation where I can effectively utilize and contribute my skills and ideas towards the organisation's goals and develop my career.

## EDUCATION:

Qualification	Year of completion	Institution	University	Percentage of marks
B.E. (Electronics and Communication)	2020 (pursuing)	R.V. College of Engineering	Autonomous -Affiliated to VTU	9.72 (CGPA - 3 semesters)
P.U.C.	2016	Vidya Mandir Independent P.U. College	Karnataka State Board	98.16%
S.S.L.C.	2014	Sri Vidya Mandir Education Society	KSEEB	98.72%

## **PROJECTS:**

### **1. Planter Bot (December, 2017 to March, 2018):**

This project was undertaken as a part of E-Yantra Robotics Competition - 2017, IIT Bombay.

#### **Project Objective:**

- (a) To traverse different zones in the given arena with the help of image processing.
- (b) To overlay the corresponding 'seedling images' on 'plantation background' image depending on the number of 'colour markers' detected.

#### **Roles and Responsibilities:**

Contributed to building the chassis and algorithm of the project.

#### **Challenges:**

- (a) Image Processing
- (b) Shadow and Glare Removal
- (c) Path and Zone Differentiation
- (d) Switching algorithms for following black and white paths
- (e) Image Overlay

### **2. Greenhouse Monitoring System(September, 2017 to November, 2017):**

This project was undertaken for self-study during third semester.

#### **Project Objective:**

- (a) To monitor a greenhouse remotely with the aid of IoT technology.
- (b) To automatically regulate the temperature, humidity, soil moisture conditions within the greenhouse.

#### **Roles and Responsibilities:**

Contributed to algorithm and code of the project. Also designed a prototype of the greenhouse.

#### **Challenges:**

- (a) Interfacing a LCD Display to Raspberry-Pi
- (b) Interfacing the temperature - humidity sensor, ldr and soil moisture sensors
- (c) Effectively reading the input data from the sensors
- (d) uploading the read values to a local cloud

- (e) setting thresholds to switch on the regulatory systems

## **Grid Solver Bot(May, 2017 to June, 2017):**

This project was undertaken to exhibit during Srushti Exhibition - 2017.

### **Project Objective:**

To build a robot which traverses to a partical location upon specifying the x,y co-ordinates of the location.

### **Roles and Responsibilities:**

Contributed to algorithm amd code of the project.

### **Challenges:**

- (a) To interface IR sensors to arduino
- (b) To write efficient path traversing and direction alignment algorithm to take the shortest path to reach the specified location
- (c) To make the bot bluetooth controlled

## **TRAINING AND INTERNSHIP:**

- Trained in building a line follower using Arduino at Astra Genesis 101 workshop, RVCE.
- 1 month working experience on Raspberry pi, at technical club Astra, RVCE.
- Trained in image processing using Open CV Python, at E-Yantra, IIT - Bombay.

## **TECHNICAL SKILLS:**

- Programming language : C, Python
- Platforms : Windows, Linux
- Boards : Arduino, Raspberry pi