### SHASHANK JAIN T M

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# **CAREER SUMMARY**

An Electronics and Communication student seeking to pursue a carrier in the field of embedded systems and design.

### **EDUCATION**

# • Undergraduate (current)

B.E (Electronics and Communication) | BMS College of Engineering, Bangalore | Visvesvaraya Technological University | CGPA 8.48 (5th sem) | Passing Year - 2020.

## • Pre-University

Sarvodaya PU College, Horpet Tumkur | NCERT (PCME) | Aggregate 97.52% | Year - 2016.

### • 10th SSLC

Maruthi Vidya Kendra | State Board | Aggregate 95.52% | Year - 2014.

### **PROJECTS**

## 1. Maze solver robot with Flood fill Algorithm

- Implemented using Atmega 328 Microcontroller, 8 IR array sensor for line detection. It has two parts dryrun and path tracing:
- (a) In dry it covers all the nodes and get the status of each and every node.
- (b) After dryrun the algorithm is applied and path tracing starts.

## 2. Gesture Controlled Robot

- It has two parts transmitter(hand) and reciever(Bot):
- (a) A sensor accelrometer is used in transmitter and based on X and Y value from the sensor direction command is transmitted to bot part.
- (b) The data received from the transmitter is passed to the controller and command is written to the accuators(motors).

#### 3. Obstacle avoider bot

A simple bot that can sense the obstacle in its way and change the direction:

# 4. MINI projects

- 1. Smart Parking system using Logic gates in multisim software and its hardware is implemted.
- 2. Laser locking intruder system for border security.
- 3. Portable Function Generator using MULTISIM simulation software.

## **INTERNSHIP** experience

### • TATA POWER SED Private limited

—Worked on Electromagnetic Interference and Compatability (EMI and EMC).

## TECHNICAL SKILLS

### • Programming Languages

-Proficient: Embedded C

-Intermediate: Python, 8051 Assembly language, MATLAB, Verilog, html and Css



### • Hardware Knowledge

Nuvoton 8051 microcontroller, Arduino, Atmega 2560, NodeMCU ESP8266, RF and bluetooth modules.

## • Software Knowledge

Xilinx Vivado, Cadence Virtuoso, Matlab and simulink, Multisim, Atmel studio, Arduino.

#### Co-curricular activities

- 1. 1st Prize | National Level Robotics Championship 2018, IIT Kharagpur | Maze solver robot...
- 2. **Workshop on App controlled bot** | Conducted workshop on wireless controlled bot by bluetooth communication | BMS College of Engineering.
- 3. 1st Prize | FURY ROAD V2 | Phase shift 2016, BMSCE Banglore | Bluetooth controlled car.
- 4. Robotics competition | Perfect Machine | Participated in 2016 NITK Surathkal.

#### Extra curricular activities

- **Department Volunteer** | Phase Shift 2017 | National Level Annual Tech Symposium | BMS College of Engineering.
- EC Department coordinator | Phase Shift 2018 | National Level Annual Tech Symposium | BMS College of Engineering
- Event coordinator for obstacle cycling at UTSAV 2018 | BMSCE Cultural Event.
- Mountannieering club coordinator at UTSAV 2019 | BMSCE Cultural Event | conducted events like rock climbing, rappeling, obstacle cycling, jummaring, zipline.
- Terrestrial camp by GETHNAA | A GOVT of Karnataka organization | Completed basic terrestrial camp held in badami.