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shivaraj

**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 9.42 (5th sem) | Passing Year - 2020.
- **Pre-University**
Vijaya Bifr PU College, R V road Bangalore | NCERT (PCME) | Aggregate 89.16% | Year - 2016.
- **10th SSLC**
Bangalore Higher Secondary School, R V road Bangalore | State Board | Aggregate 88.64% | 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. **Two wheel Balance Bot**
— A DMP (Digital Motion Processing) algorithm by InvenSense is used for MPU6050 sensor to get the . Controller used Atmega 328.
3. **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).
4. **MINI projects**
 1. Smart Parking system using Logic gates.
 2. 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, Python, Verilog
 - Intermediate:** 8051 Assembly language, Java, MATLAB

- **Hardware Knowledge**

Nuvoton 8051 microcontroller, Arduino, Atmega 2560, ARM7, Cortex M3, NodeMCU ESP8266, RF and bluetooth modules.

- **Software Knowledge**

Xilinx Vivado, Cadence Virtuoso, TensorFlow, Matlab and simulink, Multisim, ROS kinetic, 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. **Robotics competition** | Perfect Machine | Participated in 2016 NITK Surathkal
4. **Huawei Scholarship Award** | For scoring top in ECE department | BMSCE

Extra curricular activities

- **Department Volunteer** | Phase Shift 2017 and 2018 | National Level Annual Tech Symposium | BMS College of Engineering
- **Volunteer at Polg Run** | Held on 2nd october 2018 at Bangalore
- **Publicity Manager at UTSAV 2017** | BMSCE Cultural Event