

RANJITH GODUGU

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EDUCATION

Vaagdevi College of Engineering

Electronics and Communication Engineering - CGPA - 7.56

November 2020 – June 2024

Warangal, India

SR Junior College

MPC - Percentage - 90%

June 2018 – March 2020

Warangal, India

ZPPSS Madikonda

10th Standard - CGPA - 7.8

June 2017 – April 2018

Warangal, India

TECHNICAL SKILLS

Languages: C Language, C++ and Embedded C

Developer Tools: STM32CubeIDE, VS Code, Arduino IDE, Xilinx ISE

Hardware: Embedded Systems, Communication interfaces like I2C, SPI, UART, RS232, RS422, MIL STD 1553, Socket Programming UDP and TCP, Architecture of 8051 microcontroller and 8086 microprocessor, IoT, Basics of Raspberry Pi

Operating Systems: Windows, Red Hat Enterprise Linux (RHEL)

PROJECTS

Driver Sleep Alertness system | Arduino, EyeBlink Sensor

- Developed an Arduino-based driver sleep alertness system can help prevent accidents by detecting drowsiness and alerting the driver.
- Eye blink sensor: Monitors the driver's eye blink rate and sounds an alarm if the driver's eyes are closed for too long.
- Infrared LED: It works based on the technology of Infrared LED. It contains an Infrared transmitter and Receiver LED which is used to detect the eye blink.

LPG Gas Leakage Detector | Arduino, MQ-2 Sensor

- Developed an innovative gas leakage detection system utilizing Arduino and MQ-2 gas sensors to identify and alert users of potential LEP (Liquefied Petroleum Gas) leaks in residential and industrial environments.
- Using an MQ2 gas sensor along with an RGB LED to keep an eye on gas levels continuously. When the gas levels go beyond a certain limit, It will sound an alarm using a buzzer, and the RGB LED will turn red to show it is dangerous. If the gas levels are safe, below the set limit, the system stays quiet, and the LED shows a green light, indicating it's safe.
- Enabled continuous monitoring to improve safety in domestic and industrial spaces.

Temperature Based Fan Controller | Arduino, LM35 Temperature Sensor

- In this project, we developed a temperature-based fan controller using Arduino Uno. The system monitors the ambient temperature using a temperature sensor (LM35) and, on the basis of the reading, adjusts the speed of the fan accordingly.
- The fan's speed increases as the temperature rises, providing an automated cooling solution for maintaining a comfortable environment.

INTERNSHIP

Graduate Apprentice

Organization: DRDO RCI HYDERABAD (Ministry of Defense)

January 2025 – Present

Hyderabad, India

- * Development of software related to the subsystems of the missiles.
- * Verifying the code with the help of the hardware, working closely with the QA team to ensure the working of the subsystems of the missile.

CERTIFICATIONS

Implementation of Circuits on Silicon Board | Issuer: Naviaca Communications Pvt. Ltd

- Awarded a certificate for outstanding performance during the Implementation of Circuits on Silicon Board, the workshop provided hands-on experience in designing, fabricating, and testing of Electronic Circuits on Silicon Boards.