

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, Keil µVision, VS Code, Arduino IDE, Xilinx

Hardware: Embedded Systems, ARM, STM32F407 Discover Board, JTAG and SWD, RTOS, Communication interfaces like I2C, SPI, UART, RS232, RS422, MIL STD 1553, USB, Wi-Fi, Socket Programming UDP and TCP, microcontrollers and microprocessors, IoT, Basics of Raspberry Pi, Arduino UNO.

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 HYDERABAD (Ministry of Defense)

January 2025 – Present

Hyderabad, India

- * Development of software related to the subsystems of the missile.
- * 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

Microcontroller Embedded C Programming | Issuer: FastBit Embedded Brain Academy

- Awarded a certificate for outstanding performance during the Course and I have learned Embedded C programming with STM32Discovery Board.

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.