SAI GANESH GUNIGANTI

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Education

Ekashila Public School, SSC	CGPA: 9.2 2015- 16
Narayana junior college, MPC	CGPA: 9.0
BV Raju Institute of Technology, ECE	CGPA: 6.54 2018 – 22
Dayananda Sagar University, Embedded Systems	SGPA: 8.4 2024 – 26

Technical Skills

Programming Languages: C, Embedded C

Software/Tools: Keil, Arduino IDE, STM32cube IDE, Free-RTOS, MATLAB, LTspice

Protocols: UART, I2C, SPI, CAN, TCP/IP

Sensors: Temperature, Pulseoximeter (MAX30102), Ultrasonic, AD8232, GPS, GSM, LDR,

Humidity, Soil Moisture, PZEM-004T power sensor

Microcontroller and Boards: 8051, Stm32f407vgtx, Arduino UNO, Raspberry-pi

Others: Linux, Computer Networking, Operating systems, VHDL, ESP32, Manufacturing

SMT, Electronics

Certification: MATLAB - Onramp, Simulink, Stateflow

Experience:

INTERNSHIP – Capgemini, Network Engineer 2022 - 23

RF Engineer – Exicomm Technologies 2023 – 24

Projects

- 1. A safety device built using Arduino, GPS tracker, and GSM module that gets activated in emergencies to trace and transmit the victim's location.
- 2. An RFID-based system using the LPC2148 microcontroller, which reads information through radio frequency signals for identification and tracking purposes.
- 3. A greenhouse environment monitoring system using Arduino Uno and sensors like temperature & humidity, soil moisture, and lux sensors to maintain controlled climatic conditions for efficient plant growth.
- 4. Designed a PID controller in MATLAB for real-time temperature control using simulation for accurate temperature management
- 5. Implemented a health monitoring device using Arduino and the MAX30102 sensor module for continuous measurement of pulse rate and blood oxygen saturation (SpO2).