

GANGA MAHESH BAPANAPALLE

BENGALURU | maheshbapanapalli6@gmail.com | +91 7989115186 | linkedin

Profile Summary

Enthusiastic **Embedded Systems Engineer** with strong skills in **Embedded C**, **Microcontrollers (ARM Cortex-M, 8051)** and **Firmware Development**. Proficient in **UART, SPI, I2C, CAN Protocols** and experienced with tools like **Keil IDE, Proteus**, and **Oscilloscope**. Passionate about **Embedded Software Design, Basic RTOS**, and with a focus on quality, efficiency, and reliability.

Education

B.Tech in EEE from Annamacharya Institute of Technology & Sciences , Rajampet Secured 75%	2021 – 2024
Diploma in EEE from YSRR Loyola Polytechnic College , Pulivendula Secured 68%	2018 – 2021

Skills

C, C++ , Embedded C , Linux (Ubuntu), Windows ,ARM Cortex-M LPC2129 MicroController , UART, SPI, I2C, CAN , Keil, Proteus, Flash Magic, Basic Git, Vs Code

Projects

Vehicle Control System Using CAN Protocol

- Designed and implemented real-time communication between multiple ECUs for controlling vehicle subsystems using CAN protocol.
- Developed functionalities to control headlights and indicators via CAN messages; implemented status indication through LED feedback for visualization.
- Gained practical experience with CAN message framing, signal encoding/decoding, and debugging via simulation.
- Tools and Technologies: **Embedded C, CAN Protocol, Proteus Simulation, Keil uVision, LPC2129 Microcontroller**,

Student Record Organizer & User-defined Preprocessor

- Developed a console-based Student Record Management System using data structures like linked lists for dynamic data storage.
- Implemented a user-defined preprocessor tool to automate comment removal, header inclusion, and macro replacement in C source files.
- Tools and Technologies: **C language, GCC**,

Certification

Vector India, Bengaluru — Embedded Systems Certification Program June 2024 – Feb 2025

- Completed an intensive 6-month training focused on **Embedded Systems Design, Microcontroller Programming**, and **Firmware Development**.
- Gained strong proficiency in **Embedded C, C++ , C Programming, Basic RTOS, I2C, SPI, UART**, and **CAN Protocol**.
- Practical exposure to **ARM Cortex-M**, and **Automotive Communication Protocols**; hands-on with **Keil, Proteus**, and **LPC2129uc**.
- Strong understanding of **Embedded Software Development Life Cycle (SDLC)**, **Debugging**, and **Static Code Analysis** using **Linting Tools**.
- Focused modules on **Linux Internals**, **Operating System Concepts**.