

BELLI DIVYA

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Objective:

To obtain a challenging position as an Embedded Systems Engineer where I can apply my academic knowledge of micro-controllers, C programming, and real-time systems. My aim to contribute to innovative hardware-software integration projects, while continuously learning and growing within a team that values technical excellence and real-world problem-solving.

Summary:

A passionate and detail-oriented Embedded Systems enthusiast with a strong foundation in C programming, micro-controllers (like STM32), and real-time systems. Familiar with interfacing peripherals such as UART, SPI, I2C, and hands-on with basic hardware debugging and circuit analysis. Skilled in using tools like Keil5, STM32CubeIDE, and basic Linux commands. Eager to apply academic knowledge to real-world projects and contribute to innovative embedded solutions. Committed to continuous learning in areas like Embedded, Linux, and IoT development. Ready to take on challenges and grow as a reliable and resourceful embedded engineer.

Skills:

- Programming in C, Embedded C, Git, GNU Debugging, Shell Scripting, LSP.
- Hands-on experience with UART, SPI, and I2C, protocol testing.
- Worked with STM32 Micro Controller based on ARM Cortex, ESP8266.
- Hardware embedded solutions and validated hardware-software interfaces.

Certifications & Training:

- Certified Embedded Systems Training - KERNEL MASTERS

Education:

- B.Tech in EEE – Vaagdevi Engineering College, Warangal | 2020 - 2023
- Diploma in EEE - Govt. Polytechnic College, Yadagirigutta | 2017 - 2020

Projects:

- Title: IoT-Based Smart Weather Monitoring System
Objective: To read temperature using LM35 Temperature sensor and upload it to a web server using ESP8266 Wi-Fi module and STM32. In case of network failure then send temperature with the timestamp to EEPROM.
Hardware: STM32F401RBT6, ESP8266, ADC, UART, I2C, LCD, EEPROM, RTC.
Software: Keil uVision5, STM32CubeIDE, Tera Term, ST-Link (SWD)
Description: Reads temperature and time data via LM35 and DS1307 (I2C), displays on LCD, and transmits data to a server using ESP8266 over UART. Includes periodic delays and ADC signal processing.

Roles and Responsibilities:

- Studied and interpreted STM32F401RBT6 datasheets and peripheral registers.
- Configured ADC channels to sample temperature from LM35 sensor.
- Interfaced DS1307 RTC module over I2C to get real-time timestamp.
- Interfaced 16x2 LCD using GPIO in 4-bit mode.
- Implemented UART communication between STM32 and ESP8266 for data transmission.
- Programmed in Embedded C and configured peripherals using STM32CubeMX.
- Debugged and verified data integrity using Tera Term and logic analyzer.
- Managed periodic task scheduling using simple delay loops and timer concepts.