

LOKESH ILLA

lokeshilla.28@gmail.com | 9963439007 | <https://www.linkedin.com/in/lokesh-illa-14985a246>

PROFILE

To secure a challenging position in a reputable organization that will expand my learnings, knowledge, and skills which I acquired till now.

SKILLS

Languages: C, Python, SQL.

Advanced Embedded Systems:

- Experienced on Embedded C.
- Experienced on NXP LPC11C24 Microcontroller (ARM Cortex M0 32-bit Processor).
- Experienced on I2C, SPI, UART, CAN protocols.
- Knowledge on Linux System Programming (File Operation, Process Management, Memory Management, Posix Threads, Thread Synchronisation, Inter Process Communication).
- Knowledge on AUTOSAR (Application Software, MCAL layer, ECU Abstraction layer).

RTOS: Knowledge on FreeRTOS.

Tools: Keil uVision4, Flash Magic, Ceedling.

Professional: Self-Motivated, Team Player, Positive Thinking, Adaptive.

PROFESSIONAL EXPERIENCE

Embedded Software Engineer @Elegant Embedded Solutions Pvt Ltd: May 2024 - Present

Weighbridge Automation:

The project Weighbridge Automation is mainly used to monitor the Weight of the load with vehicle. When the vehicle was close to the Entry Sensor, the RF-ID Reader read the RF-ID number and check the vehicle is valid or not, if the vehicle is valid then the Boom Barrier is open then the vehicle is entered to the weighbridge for checking the weight of the load.

Microcontroller: NXP LPC11C24, STM32103C8T6.

Software Used: C Programming, Software, Keil uVision4.

Roles & Responsibilities:

- Implement the code to achieve the functionality.
- Implementation hysteresis technique for Weighbridge Automation.
- Testing the functionality in Hardware.
- Perform the Software Unit Testing.

Embedded Software Engineer Trainee @TeamBits Hyderabad: Jan 2024 – May 2024

Battery Health Monitoring (BHM):

The project Battery Health Monitoring is mainly used to monitor the battery voltage and maintain the proper charging to the battery. In this project we use ADC technique to monitor the battery voltage to charge the battery properly. In this project we use LPC11C24 Microcontroller, RGB & LCD to display the battery voltage and battery state to the user.

Microcontroller: NXP LPC11C24.

Software Used: C Programming, Keil uVision4.

Roles & Responsibilities:

- Implement the code to achieve the functionality.
- Implementation hysteresis technique for Battery Health Monitoring.
- Testing the functionality in Hardware.
- Perform the Software Unit Testing.

Temperature Data Logger (TDL):

This project is mainly for monitoring the machine temperature and store in the EEROM using I2C protocol. The user can read the temperature data from commands (UART), when the temperature is exceeded desired threshold, the microcontroller will disconnect the power supply to the motor. In this project we use LPC11C24 to perform this operation.

Microcontroller: NXP LPC11C24.

Software Used: C Programming, Keil uVision4.

Roles & Responsibilities:

- Implement the code to achieve the functionality.
- Implementation hysteresis technique for Sensor Data Logging.
- Testing the functionality in Hardware.
- Perform the Software Unit Testing.

Voltage Threshold Setting (VTS):

This project is mainly for monitoring the supply voltage and checks if this voltage is in between the requirements. If it is in the requirements the specific Buzzer Sound and LED will operate.

Microcontroller: NXP LPC11C24.

Software Used: C Programming, Keil uVision4.

Roles & Responsibilities:

- Implement the code to achieve the functionality.
- Implementation hysteresis technique for Voltage Threshold Setting.
- Testing the functionality in Hardware.
- Perform the Software Unit Testing.

Clock Alarm Setup:

This project is mainly for setting the Clock and Alarm by using Ukeys. If the Clock matches to the Alarm Time then the Buzzer will ON for one minute after that the Buzzer will OFF and display the output in the LCD display.

Microcontroller: NXP LPC11C24.

Software Used: C Programming, Keil uVision4.

Roles & Responsibilities:

- Implement the code to achieve the functionality
- Implementation hysteresis technique for Clock Alarm Setup.
- Testing the functionality in Hardware.
- Perform the Software Unit Testing.

B. Tech FINAL YEAR PROJECT

Design of CAM cell from SRAM using HDL Memristor logic synthesizer:

In this project, we implemented the CAM cell from SRAM with the help memristor technology. Developed CAM cell utilizing SRAM principles with HDL Memristor and LT Spice Software. The conclusion of the project is less power consumption compared to existing technology like Pass and CMOS technology.

Software Used: LT Spice.

Roles & Responsibilities:

- Implement the circuit diagram to achieve the functionality.
- Reduce the power consumption for SRAM and CAM.

INTERNSHIPS

Artificial Intelligence & Machine Learning from Technical HUB:

May 2023 – July 2023

I worked as an intern at Technical Hub, located in Aditya Engineering Colleges, Surampalem. As a part of this internship, I learnt and worked on Machine Learning Algorithms to predict the future outcomes. As a part of this Internship I completed a mini project on Flower Identification using ML algorithm. When a new input was applied to the algorithm, it gives the output (Flower Name) based on previous training data.

Software Used: Anaconda, Spyder, Python Programming.

Roles & Responsibilities:

- Data Collection and Preprocessing.
- Model Selection and Training.
- Model Evaluation and Optimization.
- Deployment and implementation.

CERTIFICATES

Python Programming – **HackerRank**.

Artificial Intelligence & Machine Learning – **Technical Hub Pvt Ltd**.

SQL – **Geekster**.

EDUCATION

Aditya College of Engineering & Technology – Surampalem

Bachelors of Technology - 2024

Electronics and Communication Engineering with 7.65 CGPA.

B.V.C.I.T.S – Amalapuram

Diploma - 2021

Electronics and Communication Engineering with 75%.

Sri Sai High School – Muramalla

SSC with 10 CGPA – 2018