**MOHAN PRASATH S**

**Embedded Software Engineer**

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**INTERNSHIPS**

**REAL TIME EMBEDDED CONTROLLERS - VACT TECHNOLOGIES** DEC 2023

* Implemented a comprehensive training program at VACT Technology, enhancing team members' understanding of embedded technology and controllers, resulting in increased efficiency and improved project outcomes.
* During this internship, I learned about STM32 microcontrollers.
* I engaged myself in a fresh learning environment and received extensive training on electronic systems. Applying conceptual understanding to realistic circumstances provides significant insight into real-world electrical applications.
* Developed expertise in dealing with microcontrollers through supervised training and hands-on projects.

**PLC PROGRAMMING** JUN 2023

* Engaged in an extensive internship course focusing on PLCs, or programmable logic controllers, to obtain practical expertise in the field of industrial automation.
* Collaborated with proficient engineers and manufacturing experts to gain insight into the basic principles of PLC and debugging.
* Proficient in scripting languages like as ladder-based logic and organized written content, with practical knowledge having industry-standard PLC software as well as hardware architectures.

**PROJECTS**

**DEVELOPING THE SAFETY FEATURES IN VEHICLE USING STM32** JAN 2024

* Created a real-time automotive safety program to improve functionality and user interfaces application in 2-person team.
* Engineered and deployed infrared sensors to detect doors and windows status, integrated a potentiometer for precise indoor temperature monitoring, and power window control systems for seamless operation.
* It shown expertise in system design and integrating sensors. The Automated systems are used to improve overall car safety.
* Enhanced driving safety by automatically sensing temperature and switch on the air conditioning and notifying the user if the door has been locked or opened. The STM32 controllers are employed for all of this functionality.

**MULTIMODE INTELLIGENT ADAPTIVE SMART E-VEHICLE** AUG 2023

(Awarded SLIVER CATEGORY organized TN Startup -2023 and Forge innovation & ventures.)

* Designed and implanted speed controlling and accident monitoring application in 3-person team using C. Accidents are becoming more likely among those aged 16 to 27.
* To address this problem while emphasizing safety to reduce adolescent driver accidents, we built a speed control system that uses RFID technology
* In addition, we've incorporated a completely automated braking system that can detect obstacles early on, providing smooth and effective braking. Furthermore, we set up an application for wirelessly securing & locking the vehicle

**SUN TRACKING SOLAR PANEL BASED ON INTENSITY** MAY 2022

* Our work focuses on the creation of a sophisticated sun tracking solar panel system that uses a servo motor for precise operation. The device constantly adjusts the alignment of solar panels based on the Sun's position, maximizing energy absorption and increase efficiency up to 32 percentage
* With dual-axis capabilities, tilt angles can be adjusted to ensure maximum sun exposure all day long. In terms of green energy technology, the dual-axis sun monitoring solar panel setup is a huge advancement.

**EDUCATION**

**Sri Eshwar College of Engineering** Coimbatore, TN

Bachelor of Engineering Expected May 2025

Major in Electrical and Electronics; Honors in Embedded System and Automation (Present)

Cumulative GPA: 8.45/10

Relevant Coursework: Circuit Theory, Power Electronics, Microcontroller & Microprocessor, Embedded System - ATMEL, ARM

**ADDITIONAL**

**Technical Skills:** C, Data Structures, Embedded C, Ladder logic, Proficient in MATLAB, STM32

**Protocols:** USART, I2C, SPI

**Software Known:** MATLAB, PROTEUS, STM32CUBEIDE, KEIL, GX WORKS 2

**Languages:** Fluent in English, Tamil

**Certifications & Training:** MATLAB Onramp ([MathWorks](https://matlabacademy.mathworks.com/progress/share/report.html?id=d3519774-52b0-4548-9af2-a0a76df7dbdc&)), Mastering Data Structures & Algorithms using C and C++ ([Udemy](https://www.udemy.com/certificate/UC-e45bbe22-2385-4d4d-86f6-80b587c100f6/)), Introduction to Programming with MATLAB ([Coursera](https://coursera.org/verify/3NCVAFB4E83G))

**Awards:** ELITE inIntroduction to INTERNET OF THINGS ([NPTEL](https://drive.google.com/file/d/1lQXQdNeka_jDw4YIqLp_WEuY8LsYfqGr/view?usp=drive_link)), Won mini project expo-2023 out of 300+ participants