

BANUPRIYA.S

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PROFILE

Electronics and Communication Engineering graduate with a strong foundation in embedded systems. Proficient in Embedded C programming and STM32 microcontroller development. Hands-on experience in both hardware and software project implementation. A collaborative and motivated fresher with strong problem-solving skills. Eager to begin a career as an Embedded Engineer and contribute to organizational success.

TECHNICAL SKILLS

- **Programming Language:** C, C++, Embedded C
- **Electronics:** Basic electronic components, PCB design (basic)
- **Microcontrollers:** STM32 Cortex M4, PIC16F877A, 8051
- **Communication Protocols:** UART, I2C, SPI
- **Software & Tools:** STM32CubeIDE (Baremetal & HAL), MPLAB, Keil, Proteus, Altium

EDUCATION

- | | |
|---|-----------|
| B.E - Electronics and communication Engineering. | 2020-2024 |
| • M.A.M School of Engineering, Siruganur, Trichy | |
| • CGPA - 8.55 | |
| Higher Secondary Certificate (HSC) | 2018-2020 |
| • Government Higher Secondary school, Ranjankudi | |
| • Percentage: 60% | |
| Secondary School Leaving Certificate (SSLC) | 2018 |
| • Government Higher Secondary school, Ranjankudi | |
| • Percentage: 70% | |

PROJECTS

Passenger Safety Alert Using Eye Blink Sensor

- I designed and implemented a driver safety system to monitor drowsiness using an **IR eye blink sensor**. The sensor was integrated with a microcontroller to detect abnormal blink patterns indicating driver fatigue.
- I developed **real-time signal processing and control using Embedded C** to ensure accurate and fast detection. Additionally, **buzzer and GSM modules** were implemented to provide audible alerts and send **emergency notifications** during drowsiness detection.

AES Encrypted UART Communication between STM32 Microcontrollers

- Designed and implemented **AES-encrypted UART communication** between **STM32** microcontrollers to ensure secure and efficient data transfer.
- Developed, **tested, and validated embedded firmware using Embedded C** for reliable, real-time, and encrypted serial communication with high data integrity.

INTERNSHIP

Shri vaari Electrical Pvt Ltd

- Hands-on experience in electrical **LT panel designing** at Shrivarri Electricals, including schematic preparation, component selection, and layout design.