

# DHANUSH S

ELECTRONICS & COMMUNICATION ENGG.

## ABOUT

Embedded firmware engineer focused on STM32 systems, experienced in control firmware, MQTT communication, and hardware-software integration for industrial devices.

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in dhanushscience

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## Work Experience

### Embedded Firmware Intern

VYODA PVT. LTD. Mysuru [Jul 2025 - Dec 2025]

- Developed MQTT-based communication modules for STM32F4 solar pump controllers, enabling telemetry over GSM.

### Freelance Embedded Systems

CRYSTAL SPARROW, Mysuru [2022-2023]

- Developed custom electronics projects and prototypes for academic and industrial clients.

### Entrepreneurial Experience

SPARK TECH, Mysuru [2022-2025]

- Explored early-stage product development, including prototyping and user validation.

## Education

### B.E in Electronics & Communication

Vidyavardhaka College of Engineering | 2022 - 26

CGPA: 8.44 / 10

### Pre-University in PCME

Sadvidya Composite PU College | 2020 - 22

Percentage: 75.0%

### Secondary Education (10th Grade)

Ananthageetha Vidyalaya | 2019 - 20

Percentage: 80.48%

## Roles & Responsibilities

- Chair, IEEE SBC VVCE 2025
- Student member, TiE Mysuru

## Organizational Service

- Conducted a PCB design workshop for 100+ students at IEEE MYS Student Congress.
- Organized SYMBIOT 2024 & 2025 hackathons with 500+ participants.

## Project Experience

### PERCEPT (Patent Published)

Designed a non-invasive system to estimate intraocular pressure using image processing for early glaucoma detection.

### PASSVAULT (MVP)

Built a biometric credential manager using fingerprint authentication for secure storage and automated retrieval of 150+ credentials.

### MODEL ROCKET (Development)

Developed a model rocket with custom PCB and onboard electronics for flight data logging and analysis.

## Intellectual Property

**Patent published:** Portable Non-Invasive Intra ocular Pressure Monitoring Device for Glaucoma Patients, Indian Patent Office, Application No. **202541084047 (Oct 2025)**

## Technical Skills

- Programming:** Embedded C/C++, Bearmetal, Python
- Microcontroller :** STM32F4 (Cortex-M4), ESP32, Arduino, LPC1768 (Cortex-M3)
- Operating Systems & Framework:** FreeRTOS, CMSIS, HAL, Linux (Ubuntu)
- Communication Protocols:** UART, SPI, I2C, MQTT
- Debugging Tools:** Logic Analyzer & Oscilloscope
- Hardware Skills:** PCB & Circuit Designing

## Awards & Achievements

- Winner - Smart India Hackathon (SIH) 2025
- Finalist - Smart India Hackathon (SIH) 2024
- Runner-Up - Hacksprint 5.0
- Finalist - TiE U Pitch Fest Competition 2024
- Best Achiever Award year 2025 & 2026
- Additional podium finishes across multiple national-level hackathon & innovation challenges

More on: [www.linkedin.com/in/dhanushscience/](https://www.linkedin.com/in/dhanushscience/)

## Languages

- English
- Kannada
- Hindi

## Dev Platforms

- STM32Cube
- Arduino IDE
- KiCAD EDA
- Linux
- Figma
- Keil uVision
- Sketchup
- Canva
- VS code

## Interests

- Innovation and building
- Carpentry
- Tinkering