Suhash M

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Summary

ECE student specializing in IoT and embedded systems. Skilled in microcontrollers, automation, and wireless technologies. Driven to develop reliable and impactful engineering solutions.

Education

Jerusalem College of Engineering — Chennai, India
Bachelor of Engineering in Electronics and Communication Engineering; CGPA: 8.2/10 — *Expected 2026*

Technical Skills

Languages: Python, Embedded C, C++
Embedded/IoT: Thingspeak, Blynk, MQTT, Sensor Networks, basic Cloud Computing
Microcontrollers: Arduino, STM32, Raspberry Pi, ESP32, ARM processors
Tools/IDEs: Arduino IDE, STM32CubeIDE, MATLAB & Simulink, KiCad, Proteus, Git, GitHub
Networking: GSM/GPRS, LoRaWAN, Wi-Fi, Ethernet, IP/TCP fundamentals
OS: Linux (basic)
Soft Skills: Problem-Solving, Teamwork, Communication

Experience

Deep Sea Technology Intern — June 2024 – July 2024
National Institute of Ocean Technology (NIOT) — *Chennai, India*
- Developed microcontroller-based systems for real-time underwater sensor data acquisition.
- Used MATLAB to analyze and visualize marine data for identifying key trends.
- Supported integration of sensor data into an IoT-style monitoring environment.

Network Engineering Intern — Aug 2023 – Sep 2023
Bharat Sanchar Nigam Limited (BSNL) — *India*
- Observed GSM/GPRS and fiber-optic communication systems in live telecom networks.
- Assisted in troubleshooting and maintenance of network infrastructure.
- Studied optical fiber and IP networking concepts for high-speed data transmission.

Embedded Systems Intern (Simulated) — Jan 2023 – Mar 2023
Lion Circuits India — *Remote*
- Worked on simulated firmware development for low-power IoT devices.
- Helped debug I^2C and SPI communication issues in embedded setups.
- Prepared concise technical documentation and project reports.

Projects

Smart Vibration Analyzer | *Arduino, Sensors, Embedded C*
- Designed a real-time vibration monitoring and basic fault detection system using an accelerometer and Arduino Uno.
- Applied simple analytics for early fault detection and predictive maintenance.

Smart Agriculture Monitoring System | *Microcontroller, Blynk, IoT*
- Monitored soil moisture, temperature, and humidity using sensors connected to a microcontroller.
- Used Blynk-based dashboard and remote control for irrigation to improve water usage.

Smart Home Automation System | *Raspberry Pi, MQTT, Automation*
- Implemented Raspberry Pi as a central hub communicating with smart devices via MQTT.
- Configured motion-based and scheduled lighting for energy efficiency and basic security.

Achievements

- IIT PLAS INNOWHA Pre-Finalist: Led a team designing a blockchain-based voting system for secure, transparent elections.
- Smart India Hackathon Pre-Finalist: Contributed to a hardware-focused solution with rapid prototyping and testing.
- Vice President, Technovation Club: Organized workshops and events promoting innovation and peer learning.

Certifications & Languages

Certifications: Certified IoT Developer; Embedded Systems with C and C++; AWS Certified IoT Specialty (Simulated)
Languages: English (Professional), Tamil (Native), Kannada (Native)