VASISHT M K

Electronics & Communication Graduate

ABOUT ME

Energetic Electronics & Communication graduate with hands-on expertise in Embedded C/C++, Python, MATLAB, PCB design, ESP32/Raspberry Pi prototyping and YOLO-based image processing. Demonstrated ability to eliminate manual inefficiencies and drive efficiency improvements. Proven leader in hackathons and sports—poised to deliver high-impact IoT and embedded solutions.

WORK EXPERIENCE

Fresher -Seeking Embedded Systems and IoT roles incorporating best practices

CONTACT

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Mathrukripa, Thalayi P.O.,
Templegate, Kerala, India

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DOB : 08/03/2003

TECHNICAL TOOLS & SOFTWARE

- C, C++, Python, HTML, MATLAB, OpenCV-YOLO, Git, MQTT, CorelDRAW, Adobe Photoshop

HARDWARE & CONCEPTUAL SKILLS

- ESP32, Arduino, Raspberry Pi, ARM Cortex, PCB Design/Schematic (DipTrace), SMD soldering, Oscilloscope, Multimeter, Logic Analyzer, Wireless Protocols (Wi-Fi, BLE), Sensors/Actuators, Power Management, Signal Processing, Agile/SDLC

SKILLS

- Embedded C/C++, Python, MATLAB
- OpenCV-YOLO Image Processing
- ESP32, Arduino, Raspberry Pi, ARM Cortex
- PCB Design & Schematic (DipTrace)
- IoT Protocols: MQTT, Wi-Fi, BLE
- Agile SDLC, Signal Processing
- Oscilloscope & Multimeter Troubleshooting
- Rapid Prototyping & Hardware Debugging
- Team Leadership & Hackathon Mentoring

LANGUAGES

- English (Fluent)
- Hindi (Fluent)
- Malayalam (Native)
- Tamil (Proficient)

EDUCATION

B.TECH, ELECTRONICS & COMMUNICATION ENGINEERING **2021 - 2025**
Govt Engineering College Kozhikode, Kerala

SENIOR SECONDARY (XII) – COMPUTER SCIENCE **2021**
Ramavilasam HSS Thalassery

SECONDARY (X) – CBSE **2019**
Amrita Vidyalayam Thalassery

KEY PROJECTS

ECOSENSE AUTOMATION| FINAL YEAR **2024–25**

- Designed ESP32 + Raspberry Pi + YOLO–based IoT system to fully automate classroom attendance—eliminating 100% manual entry.
- Developed firmware optimizing simulated power usage by 30%.
- Led a 4-member team in schematic capture, two-layer PCB layout (DipTrace) and hardware validation using oscilloscope and multimeter.

FLOOD MONITORING & ALERTING SYSTEM , MINI PROJECT **2023**

- Implemented ESP32 with ultrasonic sensors and GSM/MQTT reporting achieving ±2 cm accuracy.
- Developed Python/Flask web dashboard sending SMS, email and push alerts for real-time campus safety monitoring.

LEADERSHIP & EXTRACURRICULARS

- **Captain**, College Table Tennis Team — Zone F Champions 2024; detailed leadership and competitive performance.
- Bronze, **Kerala State Taekwondo Championship** — showcased discipline and resilience.
- **IEEE Member** — organized two 24-hr hardware hackathons; mentored 20+ peers on PCB design and SMD soldering best practices.