



VINESH V

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➤ Profile Summary

Tech-driven ECE undergrad with Minor in Machine Learning focusing in digital VLSI design, Signal Processing, embedded systems, and automation. Contributed to Sourajala(IEEE-funded). Developed educational recommender system. Building IoT-based water monitoring and Cleaning system. Passionate about digital system design, FPGA prototyping, and leveraging technology to solve real-world challenges.

➤ Work Experience

Graduate Engineering Trainee – Internship, 02/06/2025-27/06/2025

Indian Telephone Industries Ltd., Palakkad (For VSSC-ISRO Projects)

Responsible for assisting in the qualification and validation of space-grade electronic systems for VSSC, ensuring accuracy, reliability, and adherence to aerospace standards.

- Conducted four-wire resistance measurements to test continuity, POR, and isolation in Data Acquisition Units (DAU).
- Supported professionals during burn-in cycles, temperature cycling, and serialization processes of mission-critical components.
- Observed and documented electrical testing of PSBT and DC-DC converters, including ripple, spike, and thermal performance.
- Worked within ESD-protected environments and logged validated data in structured Excel/Word formats for official reporting.
- Gained exposure to SMT automation and job file handling, including Fuji SMD line operations and reflow oven zone configuration.
- Participated in PCB testing using the Seica V8 Flying Probe system: captured board images, marked pin placements, and reviewed diode/continuity checks.

➤ Education

| Course Name | Year of Completion | Institute/Board Name | CGPA/Percentage |
|---|--------------------|---|--|
| Bachelor of Technology in Electronics & Communication | 2026 | NSS College of Engineering Palakkad, Kerala | 8.68 out of 10 (Till 5 th Semester) |
| 12 th | 2022 | Kerala State Board | 99% |
| 10 th | 2020 | Kerala State Board | 95% |

➤ Positions of Responsibility

Treasurer – ELACSTA (May 2025 - Present)

- Managed financial records, budgets, and fund allocations for all club activities
- Oversaw event budgeting, expense tracking, and reimbursement processes
- Ensured compliance with institutional financial policies and reporting standards

Secretary – IEEE SIGHT (Feb 2025 - Present)

- Organized events, managed meetings, and documented minutes and action items.
- Facilitated communication between members and stakeholders.
- Supported projects while ensuring compliance with IEEE guidelines.

➤ Projects

IoT Enabled Water Monitoring and Cleaning System – 04/2025

- Designed an IoT-based system to automate water level monitoring and cleaning using sensors and microcontrollers.
- Integrated Blynk for real-time remote monitoring and control, ensuring optimal water levels and quality.
- Tools/Components:
ESP32, Ultrasonic Sensor (HC-SR04), TDS Sensor, LCD Display, Turbidity Sensor, Relay Module, Motor, Pump, Jumper Wires, Power Supply, Arduino IDE, Blynk App, Wi-Fi Connectivity.

Sourajala (IEEE Funded – \$5,292 | SB NSSCE) – 12/2024

- Developed a sustainable water management system to provide drinkable water to a community of 18 families.
- Integrated solar panels for power generation and installed street lights for enhanced infrastructure.
- Tools/Components:
Solar Panels, DC Switch, Digital Meter, Submersible Motor, Water Tank, HDPE Pipes, Tank Connectors, Saddles, Pipe Joints, Concrete Rings, Cement, Metal Rods, Sand, Welding Equipment, Wiring, Clamps, Soldering Kit, LED Street Lights, Shovels, Drills, Measuring Tape, Safety Gear.

Education Recommendation System (Activity Project) – 12/2024

- Predicted top 5 career paths based on subject scores using a Random Forest classification mode.
- Designed a Flask-based backend and implemented a user-friendly web interface for result display.
- Tools/Components:
Python, Flask, Random Forest, Pandas, Scikit-Learn, Colab Notebook, HTML, CSS, VS Code, Pickle.

➤ Workshops & Competitions

- Metaverse, Workshop by **National Institute of Technology Calicut, 10/2022**
- Microcontroller Based Embedded System Design (Including IoT), Workshop by IEEE IES SB NSSCE, **10/2024**
- Autonomous Cars, Workshop by **National Institute of Technology Calicut, 02/2025**

➤ Certifications

- Deep Learning, **NPTEL(IITKGP), 03/2025**
- Internet of Things 101, **Infosys, 02/2025**
- Essential Mathematics for ML, **NPTEL(IITR), 11/2024**

➤ Achievements

- **3rd place - FOSSEra 4.0 24 Hr-Hackathon** - FOSSNSS in collaboration with Hackfiesta v4.0–**03/2025**
 - Developed a mobile app(**Vidyut**) to notify students about the various opportunities like internships, scholarships, etc.
- **1st Place – Hack A Prob 24-Hour Hackathon** – ISTE NSSCE –**03/2025**
 - Developed an end-to-end mobile application for **disaster management(Sahaya)**, enabling real-time reporting, rescue coordination, and resource tracking.

➤ Area of Interest

- VLSI & Signal Processing
- Embedded Systems & Artificial Intelligence/Machine Learning

➤ Community Work

- Led an LED manufacturing workshop at Govt. Children's Home, Muttikulangara, guiding 14 participants in assembling functional LED bulbs. (**03/2025 | Robocamp Jr. - IEEE**)

➤ Hobbies & Extra-Curricular Activities

- Gaming
- Music