

NIHAL KUMANALI

Electronics & Communication Engineer

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PROFILE SUMMARY

Motivated ECE graduate with a strong foundation in embedded systems, IoT, and automation. Proficient in C, Python, MATLAB, and Arduino with hands-on project experience in robotics and security systems. Recognized for innovative solutions and award-winning project implementations. Quick learner, team player, and committed to continuous technical growth.

TECHNICAL SKILLS

- **Languages:** C, Python, MATLAB
- **Embedded & Tools:** Arduino IDE, Proteus, IoT Analysis, VLSI Fundamentals
- **Software:** MATLAB, Arduino IDE, Proteus, MS Office
- **Soft Skills:** Communication, Teamwork, Problem Solving, Punctuality

PROJECTS

Advanced Fire Fighting Robot with AI & ML

Technologies: Python, Arduino, YOLO/SSD, GSM, GPS, Robotic Arm

- Autonomous robot for fire detection and extinguishing.
- Integrated AI vision, live video streaming, GPS tracking, GSM alert, and dual extinguishing system.

Fire Fighting Robot with SMS/Call Alerts

Technologies: Arduino, GSM Module

- Designed a robot to detect fire and notify users via SMS and phone calls.
- Secured 3rd prize at HIT Nidasoshi Mini Project Exhibition.

Laser Alarm Security System using LDR

- Built a simple, effective laser and LDR-based security system.
- Won 1st prize at Hobby Project Exhibition.

EDUCATION

B.E. – Electronics & Communication Engineering

Hirasugar Institute of Technology, Nidasoshi | VTU Belagavi | 2021–2025

CGPA: 8.20

PUC – Science (PCMB)

KLE G.I. Bagewadi College, Nippani | Karnataka state Board | 2019-2021 | 69.66%

SSLC

Nutan Marathi Vidyalay, Nippani | Karnataka state Board | 2018-2019 | 77.44%

CERTIFIED TRAINING & INTERNSHIPS

Intern – AIOT & Entrepreneurship | [Link](#)

Robosap Innovation Pvt. Ltd., Nippani (Oct–Nov 2023)

- Built IoT-based systems and understood business modules of AIOT solutions.

Intern – VLSI Design & Testing | [Link](#)

Rooman Technologies (Online)

- 780-hour certified program with NSQF Level 5 certification by Wadhvani Foundation.

Inter/Intra Institutional Internship | [Link](#)

HIT ECE Department (Oct 2022)

- Hands-on experience with sensors and embedded system integration.

WORKSHOPS ATTENDED

PCB Design – Electrosal Hi-Tech Pvt. Ltd. | [Link](#)

OpenVINO Toolkit by Intel (Online) | [Link](#)

IoT using Raspberry Pi – Robosap Innovation Pvt. Ltd. | [Link](#)

HONORS & AWARDS

Crowned Champion at HIT Nidasoshi's Hobby Project Exhibition for an innovative laser-based security system

Secured 3rd Place in the Mini Project Exhibition with a smart firefighting robot featuring SMS and call alerts. | [Link](#)

Showcased AI-driven fire-fighting innovation as an active participant at *Mini Anveshana 2024*. | [Link](#)