KARANAM GNANESH CHOWDARY

Electrical | Electronics | Web Dev | IoT | Entrepreneurship

CONTACT

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Location: VNIT Nagpur, Maharashtra

EDUCATION

B.Tech EEE

VNIT Nagpur

2023-2027 | CGPA: 6.69

Class XII

NarayanaJr.College, Hyderabad

2023 | 89.2%

Class X

Narayana School, Hyderabad

2021 | 10.0 CGPA

SKILLS

Frontend

HTML5 - CSS3 - JS - React.js - Figma

Backend / IoT

Flask - Python

Embedded

C - ESP32 - RPi 5 - UART - 8051

Tools

Git - VS Code

Other

MATLAB - Multisim

LANGUAGES

- Telugu - Hindi - English

EXTRACURRICULAR

- Shadow Play - Cult Night, VNIT
- FIDE Chess Tournament Volunteer
- Poster Making
- Chess | Badminton | Kabaddi

VNIT EEE undergrad who builds end-to-end web and IoT systems - from ESP32 firmware to React dashboards. Three production websites are live at VNIT. Currently leading a patent-expecting autonomous lake-cleaning robot with a real-time Flask dashboard for motor control and live sensor telemetry.

WEB & FULL-STACK PROJECTS

Tesla Club VNIT - Official Website

Oct 2024 - Present | HTML - CSS - React.js

- Designed the full UI/UX - layout, colour palette, and responsive grid; includes an auto-scrolling news slider and gallery with light/dark mode, used daily by faculty and students.

EEE Department Website - VNIT Nagpur

Jul - Oct 2024 | HTML - CSS - JavaScript - React.js

- Official department website; managed content structure and delivered a fully responsive frontend.

Interactive Chess Platform

- Full legal-move generator with check, checkmate, and stalemate detection - built with zero external libraries; two-player local game with move highlighting and turn management.

IOT & HARDWARE PROJECTS

UBM - Autonomous Lake Cleaning System [Patent Expected]

Oct 2025 - Present | RPi 5 - ESP32 - ESC - Flask - OpenCV - GPS

- IMAGE-PROCESSING -BASED AUTOMATIC DEBRIS COLLECTION - THE MODULE IS 10-15 TIMES LIGHTER THAN
- OpenCV pipeline on RPi 5 identifies debris in real time; ESP32 handles motor PWM and sensor polling, reducing control latency.
- Full IoT sensor suite - GPS, compass, voltage sensors, INA sensors and ultrasonic - streamed over a UART JSON bridge at 115,200 baud.
- Flask dashboard for live telemetry, remote motor/servo control, autonomous scan mode and manual over write

DGT Chess Board

Mar 2026 - Present | ESP32 - Reed Switches - Resistor-Ladder Matrix

- 64 reed switches in a resistor-ladder matrix detect piece positions; ESP32 decodes multiplexed states and streams live board data for digital display.

Electric Fence Intrusion Detection - SIH

Sep - Dec 2025 | Fault Detection - Schematic Design

- Designed fault-detection circuitry for unauthorised fence tampering; led the full schematic design and Pitched for Smart India Hackathon and Qualified round 1.

LEADERSHIP

Project Head - Tesla Club, VNIT *Aug 2025-Present*

- Leading hardware Projects and IoT builds; pitched for CBDE funding.

Technical Secretary - EEE Dept. Council *Aug 2024-May 2025*

- Managed all the Technical events of department website and designed department website

Design Head - Chess Club (Blitzkrieg) *Jul 2025-Present*

- I am part of chess club council 25-27, I make 25+ posters for each event and responsible for all the events we conduct