NANDURI AMARNATH

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Profile

Motivated Electrical & Electronics Engineering student focused on embedded systems, IoT, and power electronics. Seeking internships or research opportunities to apply hardware prototyping and signal processing skills.

RESEARCH INTERESTS

- Embedded System Design and Control
- IoT for Smart Infrastructure
- Sustainable Power and Energy Systems
- AI-based Fault Detection in Electrical Networks

Education

B.E. Electrical & Electronics — KCG College Of Technology, Chennai (Expected 2026)

Semester Exchange (Aug 2025) — Kwangwoon University, Seoul

Technical Skills

Programming: C, C++, Python, MATLAB
Hardware Platforms: Raspberry Pi, ESP32, Arduino
Tools: MATLAB/Simulink, Multisim, Proteus, AutoCAD Electrical
Core Domains: Power Electronics, Smart Grid, VLSI, Signal Process

Non-Technical Skills

Teamwork, Communication, Leadership, Time Management, Problem Solving, Adaptability, Project Management, Analytical Thinking

Projects

AcaDexa v2 — Academic Management Platform — React · Firebase · Tailwind · Node.js — Live: https://aca-dexa-v2.vercel.app

IoT Elephant Redirection System — ESP32 · GPS · Solar — Solar-powered device to prevent elephant–train collisions

Smart Tire Monitoring System — Raspberry Pi · DS18B20 · BMP180 · HX711 — Real-time monitoring & alerts

AI-Based Rail Defect Detection — MATLAB · Acoustic Analysis · ML — Early detection of rail cracks

Adaptive Low Power ALU — ALU with module-level clock gating to reduce dynamic switching activity