

Arman Hanif

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Location: Bhopal, India

EDUCATION

- **Vellore Institute of Technology (VIT)** Bhopal, India
Bachelor of Technology - Electronics and Communication Engineering; CGPA: 8.38 Graduate: 2027

TECHNICAL SKILLS

- **Languages:** C/C++, Python, Java, MATLAB
- **Hardware:** ESP32, Raspberry Pi, Arduino, AD8232 Sensor, Embedded Systems, Sensor Integration
- **Domains:** Embedded Systems, Digital Electronics, Signal Processing, VLSI Fundamentals
- **Tools:** VS Code, Git, MATLAB, Simulink, Arduino IDE, LTspice (basic)
- **Soft Skills:** Problem-Solving, Team Collaboration, Adaptability, Technical Documentation, Communication

PROJECTS

- **EV Battery Thermal Management System** *Sept 2024 – Nov 2024*
 - Developed an ESP32-based embedded monitoring system for electric vehicle battery safety.
 - Implemented Embedded C firmware for temperature and smoke sensor interfacing using ADC.
 - Designed real-time threshold comparison and fault-detection logic for safety-critical operation.
 - Optimized system response for low-latency alerts and reliable hardware performance.
- **ECG Signal Acquisition and Heart Abnormality Analysis** *Feb 2025 - Apr 2025*
 - Built a real-time ECG acquisition system using AD8232 analog front-end and ESP32.
 - Configured continuous ADC sampling and applied digital filtering to suppress baseline wander and power-line interference.
 - Extracted time-domain ECG features for heart abnormality analysis.
 - Evaluated abnormal ECG patterns using supervised machine learning models.
 - Verified signal integrity and feature consistency using MATLAB-based analysis.

CERTIFICATIONS

- **Advanced Signal Processing:** MathWorks (March 2025) *Digital signal processing, filter design, spectral analysis, time-frequency analysis.*
- **NPTEL Online Certification: Introduction to Internet of Things:** IIT Kharagpur (April 2025) *Embedded sensing, IoT architectures, sensor networks, industrial IoT.*
- **Applied Machine Learning in Python:** University of Michigan (Coursera, Sept 2025) *Supervised learning, feature extraction, signal-based data analysis.*
- **Google IT Support Certificate:** Google Career Certificates (Feb 2026) *Linux fundamentals, operating systems, networking basics, troubleshooting.*