

PAVAN GORLI

EMBEDDED ENGINEER

CONTACT

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SKILLS

- Languages: C, Embedded C, Python (Basic)
- Microcontrollers: ESP32, STM32 (CubelIDE), Arduino UNO/Nano,Raspberry pi
- Protocols: RS485 (Modbus RTU), Wi-Fi (MQTT, HTTP)
- Tools & Platforms: Arduino IDE, STM32CubelIDE, VS Code, Node-RED, ThingsBoard, Blynk
- Modules & Sensors: Energy meter, HVAC meter, CO₂, DHT22, PIR, IR, mmWave, Rain, Soil Moisture, Ultrasonic, VC-02 (Voice), Relays, SensorHub.
- Other Skills: Circuit design, PCB soldering, IoT cloud integration.

LANGUAGES

- English (Fluent)
- Telugu



PROFILE

Embedded & IoT Engineer with around 3 years of hands-on experience designing smart automation systems using ESP32, STM32, and Arduino. Specialized in sensor integration, RS485/Mod bus communication, and IoT platforms like Things Board and Node-RED. Delivered multiple real-time monitoring and control systems for smart buildings, energy, and environmental applications in collaboration with industry partners.



WORK EXPERIENCE

AI ERA Private Limited - Embedded Engineer Hyderabad August 2024 -Present

- Working on Smart Energy Meter and HVAC Monitoring projects (ESP32 + STM32).
- Designed and assembled custom PCBs; managed 12V/5V/3.3V power regulation.
- Wrote firmware (in C) to collect data from voltage, CO₂, temperature, and humidity sensors.
- Used Modbus RTU for energy meter interfacing and ThingsBoard for real-time dashboards.
- Integrated VC-02 voice modules, LIDAR, IR, PIR, mmWave, and relay controls.
- Smart Building Energy Monitoring (Platina): Sensor fusion with ESP32 & RS485 for HVAC, CO₂, and power tracking.
- Smart Parking System: IR + ultrasonic sensors; ESP32 real-time alerts via dashboard and buzzers.
- Smart Water System: Tank level automation using soil/rain/ultrasonic sensors and relay motor control.
- IoT Sensor Hub (ANTSS): Multi-sensor integration with cloud-based dashboard.
- Voice-Controlled Home Automation (Mahindra Univ): VC-02 + STM32 hybrid switching system.

Nala Robotics - Embedded Engineer Hyderabad December 2022 -july 2024

- Autonomous Navigation And Task System (ANTs)
- Developed firmware for robotic kitchen automation using STM32 + RS485.
- Debugged and validated real-time thermal and sensor data (CO₂, temp, ultrasonic).
- Designed and soldered ANT (Autonomous Navigation & Task) system PCBs.
- Supported diagnostics, OTA updates, and system testing for robotic deployment.



EDUCATION

Electrical And Electronics Engineering 2018-2022
Aditya institute Of Engineering And Technology,Tekkali