### **HEMANTH V**

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#### **SUMMARY**

Electronics & Communication Engineer specialised in Embedded Systems and EV electronics. Skilled in PCB design, microcontroller programming, MATLAB/Simulink and communication protocols. Strong in control systems and hardware testing, with a passion for developing innovative EV and IoT solutions.

#### **EXPERIENCE** 07/2025- 10/2025

VisionAstraa EV Academy Currently undergoing practical training on Electric Vehicle architecture, powertrain & battery pack systems at VisionAstraa EV Academy (under RV Engineering). Working on teardown & assembly of BLDC motors, controllers and lithium-ion battery modules. Learning EV diagnostics, CAN communication & charging infrastructure concepts through hands-on sessions. Participating in live mini-projects to understand real-world EV design and performance challenges.

#### **PROJECT**

### IV BAG MONITORING USING BLYNK in IOT

01/2023 - 04/2023

- Designed to enhance patient care by tracking fluid levels in real-time
- Implemented an IoT-based alert system using Blynk to notify healthcare providers when fluid levels reach critical thresholds, ensuring timely intervention.

# Intelligent Vertical Glass Cleaning Robot (Final Year Project) 02/2025- 06/2025

- Developed a vacuum suction-based glass-cleaning robot using ESP8266 microcontroller for automation.
- Integrated high-torque motors for vertical surface movement and Bluetooth-based control for remote operation.
- Designed to spray water and wipe glass surfaces, improving efficiency and reducing manual effort.

#### **Online Land Registration System**

GITHUB-https://hemanthv83.github.io/land25/ 02/2025- 06/2025

- Developed a web-based Online Land Registration System using HTML, CSS, and JavaScript.
- Implemented Aadhaar-based authentication, real-time biometric verification, and digital signature functionality for secure transactions.



#### **SKILLS**

Programming Languages: C, Python

Embedded Systems: Arduino, ESP8266/ESP32, STM32 (basic)

EV Technology: Powertrain basics, BMS fundamentals, DC-DC & inverter basics, Motor control (BLDC/PMSM) Core Electronics: Circuit design, PCB design/testing, Sensor interfacing.

Web Development: HTML, CSS, JavaScript

Tools: Git/GitHub, MATLAB (basic), VS Code, MS Word

#### **CERTIFICATES**

Industrial Internet of Things (IIoT) and Industry 4.0 – NPTEL (64%)

Cloud Introduction - IBM

DevOps & Cloud Computing Workshop (2024)

MATLAB Onramp

#### INTERNSHIP 07/2024- 12/2024

### PLC Design Training – NSIC (National Small Industries Corporation)

- Completed hands-on training on Programmable Logic Controller (PLC) Design at NSIC Technical Services Centre.
- Gained in-depth knowledge of PLC architecture, ladder logic programming and industrial automation applications.
- Worked practically on Siemens & Allen-Bradley PLCs for interfacing sensors and actuators, designing and troubleshooting control circuits, and developing mini industrial automation projects.

#### **EDUCATION**

## **Bachelor of Engineering (B.E) – Electronics and Communication Engineering**

Velammal Institute of Technology

Completed: 2025 Thiruvallur, Tamil Nadu
CGPA 7.61

#### **ACHIVEMENT**

Selected for the 'Naan Mudhalvan Niral Thirivizha' event, showcasing innovation in digital land registration.