LOGESH S

18/05/2004

About Me

- Dedicated EEE student passionate about electric mobility, motor control systems, and battery management.
- Skilled in real-time embedded systems and power electronics, seeking an internship to contribute to cutting-edge sustainable technologies.

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IN LinkedIn

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EDUCATION

Bachelor of Electrical and Electronics Engineering at V.S.B. Engineering College | 2022–2026.

Cheran Matriculation Higher Secondary School | Completed in 2022

RESEARCH AND DEVELOPMENT INITIATIVES

- Explored the replacement of Switched Reluctance Motors (SRM) with BLDC motors, along with battery charging using photovoltaic cells during stable and running conditions.
- Proposed the implementation of SRMs in compressors and discussed the feasibility with expert jury members and industry professionals.

GITHUB

Github name: codidiot-user
Link: Codidiot-user

CERTIFICATIONS

Hindi Language:

- Pariskha: Passed with Distinction
- Prathamic: Passed with First Class
- Madhyama: Passed with First Class (Papers 1 & 2)
- Rashtrabhasha: Passed with Second Class (Papers 1 & 2)

Others:

- Python Programming Certification
- Mind Mapping Techniques
- Java Completion Certification

SKILLS

- **Languages:** Python (Requests, BS4, Streamlit, numpy, pandas), Embedded C, Arduino
- **Tools:** Arduino IDE
- **Hardware:** Arduino, Relay Modules, IGBT, Sensors (IR, Vibration, Ultrasonic)
- **Concepts:** Motor Control (SRM/BLDC), Battery Management Systems, IoT
- **Soft Skills:** Public speaking, Team collaboration, Documentation

ACHIEVEMENTS

- Shortlisted as one of 13 teams (out of 250 initial applicants) in the MSME IDEA HACKATHON for 2024 for a project on “PV-based Electric Vehicle using Sensor-less SR Motor”.
- Secured 11th position out of 40 teams in Anvenshana National level Engineering Project Expo 2023 for a project on “ATOM” which aimed to perform multi-functions in a single Robot .
- Developed web applications using Python and Streamlit.

AREA OF INTEREST

- Switched Reluctance Motor
- AIML

HARDWARE PROJECTS

1. Scrolling LED Display:

- **Project Overview:**

Designed and implemented a scrolling LED display system that shows custom text messages in a continuous loop.

- **Technologies Used:**

Arduino, LEDs, Shift Registers, C/C++

- **Key Contributions:**

- Handled digital input/output pins to control each LED in sequence.
- Built the entire setup and tested message visibility from various angles.

2. Multi-function Robots:

- **Project Overview:**

Developed a robot that can work in both autonomous and manual modes, capable of real-time obstacle detection and human following.

- **Technologies Used:**

Arduino, DC Motors, Motor Driver ICs, IR Sensors, Ultrasonic Sensors, Bluetooth Module, C/C++

- **Key Contributions:**

- Programmed line-following, edge-detection, and obstacle-avoidance functions.
- Enabled remote control using Bluetooth for manual navigation.
- Integrated all modes in one robot to perform multiple tasks based on user input.

3. Automatic Battery Switching in EV:

- **Project Overview:**

- Created a dual battery switching system for electric vehicles, allowing seamless transition between batteries to ensure continuous power and better energy usage.

- **Technologies Used:**

- Microcontroller, Relay Modules, Voltage Sensors, Embedded C/C++

- **Key Contributions:**

- Designed the logic to monitor voltage levels and automatically switch to the backup battery when the primary falls below 30%.
- Successfully built and tested the circuit using relay modules.
- Improved runtime reliability by avoiding full drain of any single battery.
- Reduced the need for manual switching and enabled solar-based auto-charging for the idle battery.
- EV Battery Switching Demo

SOFTWARE PROJECTS

- **Project: QuantWeb.Ai**

Description: Designed an AI chatbot model using Python and Streamlit achieving up to a 17% increase in model processing speed.

Link: QuantWeb AI

- **Project: QuantWeb Background Remover.**

Description: Designed using only Python and Streamlit achieving 99% background removal accuracy on images.

Link: BackGround Remover

- **Project: QuantWeb Pro Scraper.**

Description: Built a full-stack data extraction tool using Streamlit and Pandas, automating table and image collection from dynamic sites to improve data gathering speed and efficiency.

Link: Pro Scraper

LANGUAGE

- Tamil (Native)
- English (Fluent)