Dharshan M

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Location : Chennai, Tamil Nadu

EDUCATION

Vellore Institute of Technology
Chennai, TamilNadu
Bachelor of Technology in Mechatronics and Automation; CGPA: 8.67
Sept. 2021 – July. 2025

Sunbeam CBSE School
Vellore, TamilNadu
XII: 80.2%
Mar 2021

EXPERIENCE

Hindustan Aeronautics Limited, ARDC DIVISION
Bangalore, Karnataka
Project Intern
Sept 2023

- Gained comprehensive exposure to various aircraft departments, acquiring theoretical knowledge of their operations.
- Learned and utilized software tools essential for aircraft design and engineering processes.
- Visited manufacturing departments and hangars to observe the aircraft production process.

Atom Robotics
Chennai, Tamilnadu
Electrical Technician
Jan 2022 -April 2024

- Played a key role in the development of an autonomous drone utilizing the Robot Operating System (ROS).
- Designed and implemented electrical systems for the drone, ensuring seamless integration with onboard sensors and flight control systems.
- Conducted testing and troubleshooting of electrical components to optimize drone performance and reliability.

PROJECTS

AUTONOMOUS DRONE USING ROS || ROS || RASPBERRY PI || PIXHAWK
Oct 2022
Personal Project

- As part of Atom Robotics, I contributed to the development of an autonomous drone using ROS.
- My role involved handling the electrical systems, integrating various sensors and flight control components and collaborating closely with a multidisciplinary team to ensure the project's success.

BRAKE PAD WEAR DETECTION USING DYNAMIC VIBRATIONAL
Jan - April 2025
Final year project

- Designed a brake pad in SolidWorks and simulated dynamic vibrations in ANSYS using modal and transient structural analysis.
- Extracted vibration data for multiple element sizes and developed a machine learning model to predict wear patterns with high accuracy.

AUTONOMOUS SEED SOWING BOT FOR MULTIPLE SEEDS
April 2024
Personal Project

- Developed an autonomous agro bot for seed sowing with servo-controlled soil moisture sensing and encoder-based distance measurement.
- The bot checks soil moisture levels and activates a water pump when needed, ensuring optimal conditions for planting.
- It autonomously performs seed sowing and watering tasks, enhancing precision in agriculture.

SKILLS

- **Languages**: Python, Java

- **Coursework**: Machine Learning, Artificial Intelligence, ROS2, Mechatronics System Design,Control Systems, Sensors, Automotive Electronics, Industrial Robotics, Industry 4.0& IIot

- **Softwares**: Altium PCB Designer, SOLIDWORKS, AUTOCAD FUSION 360, MATLAB, ARDUINO.