

## **ABSTRACT**

### **TITLE : AUTO DRIVING TEMPERATURE AND HUMIDITY SENSING ROBOT USING ARDUINO**

This mini-project delves into the development of an auto-driving temperature and humidity sensing robot using Arduino technology, incorporating DHT11 and IR sensors. Motivated by the demand for autonomous environmental monitoring, the project employs embedded C programming to integrate these sensors with the Arduino micro-controller. The DHT11 sensor facilitates real-time data collection of temperature and humidity, while IR sensors contribute to obstacle detection for navigation. The embedded C programming ensures efficient communication between the sensors and the Arduino, enabling the robot to autonomously maneuver while gathering environmental data. Key results showcase successful sensor integration, obstacle avoidance, and reliable data acquisition. In conclusion, this project not only demonstrates the practical implementation of embedded C programming for sensor interfacing but also underscores the versatility of Arduino-based robots for effective environmental monitoring and navigation tasks.

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