<IOT Based Air Quality Measuring And Purifying System >

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Abstract: This project aims to create an innovative IoT-based air pollution monitoring and purifying system that can be connected to the internet and a web server for easy and remote access. This project aims to highlight the importance of monitoring air quality and taking measures to improve it for better health and well-being.

Individual contribution and findings: My contribution in this project was to build an air quality measuring system.For this I will need an ESP32 development board, MQ135 gas sensor, and an LCD display. I Connected the VCC and GND pins of the MQ135 and LCD to the corresponding pins on the ESP32. After this I connected the OUT pin of the MQ135 to an analog input pin on the ESP32 then I connected system with the SDA and SCL pins of the LCD to the corresponding pins on the ESP32. Power the system using a USB cable or batteries. With appropriate code, the sensor data from the MQ135 and display it on the LCD, providing real-time air quality measurements.

The ESP32, acting as the main controller, is responsible for interfacing with the MQ135 sensor. It reads the analog output of the sensor, which corresponds to the air quality measurement, using one of its analog input pins. The ESP32 then processes this data to obtain the relevant air quality information.

The LCD display is used to provide a visual output of the air quality measurements. It is connected to the ESP32 via the I2C protocol, using the SDA and SCL pins. The ESP32 sends the air quality data to the LCD, which displays it in a user-friendly format.

Individual contribution to project report preparation: My contribution in making the report was experiment and tests. In this part I made all the required circuit ,diagram and charts . I also

played a key role in setting up the model and designing its work flow.I also wrote about the necessary simulations that were done during this project.

Individual contribution for project presentation and demonstration: In project demonstration and presentation my part is to explain about the project requirements, circuit diagram and pin configuration of esp32.

Full Signature of Supervisor/s: Full signature of the student:

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