DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

# PROJECTPROPOSAL

## 1. Project Title: - Live Air Quality Monitoring App Using IOT.

## 2. Project Scope: -

The objective of this project is to design, develop, and deploy a real-time air quality monitoring mobile application using IoT technology. The application will provide users with live data on various air quality parameters such as air pollution levels, temperature, humidity, and other relevant metrics. This project aims to empower users to make informed decisions about their surroundings and health by accessing accurate air quality information through a user-friendly mobile app.

The key objectives of this project are as follows:

* Develop a hardware setup using DHT11 sensors to measure temperature and humidity.
* Implement an IoT infrastructure for data transmission from sensors to a central server.
* Create a Flutter mobile application for users to access real-time air quality data.
* Calculate the Air Quality Index (AQI) based on sensor data.
* Provide notifications and alerts to users based on predefined air quality thresholds.
* Ensure system scalability and reliability for continuous monitoring.

## 3. Requirements: -

* Hardware Requirements

1. ESP-32.
2. MQ 135 Sensor.
3. DHT 11 Sensor.
4. MQ 7 Sensor.

* Software Requirements

1. Flutter / Dart.
2. Arduino IDE.
3. Google Firebase.
4. Android Studio.

**STUDENTS DETAILS**

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| **Name** | **UID** | **Signature** |
| Abhishek M Madhusoodanan | 21BCS6748 |  |
| Mohammed Shabeer | 21BCS6001 |  |

**APPROVAL AND AUTHORITY TO PROCEED**

We approve the project as described above, and authorize the team to proceed.

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| **Name** | **Title** | **Signature**  **(With Date)** |
| Ravneet Kaur | Live Air Quality Mentoring APP using IOT. |  |