THE NATIONAL INSTITUTE OF ENGINEERING, Mysore

(An Autonomous institution, affiliated to VTU)

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

_A.Y. 2021-22_

PROJECT SYNOPSIS

Subject/ Sub. Code: Major Project Phase – 1 / IS7C04   Semester: 7   A / B

Batch No: B6   **Date: 28-10-2021**

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Project Title (Final only): Prediction and Monitoring of Air pollutants using IoT

Broad Area: Internet of Things

Type (Application, Model, Design, Prototype): Prototype

Objective: Predicting PM2.5 levels by Gathering Weather Information using different Sensors.

Brief description: Urbanization, industrialization, and regional economic integration have developed rapidly in World in recent years. Air pollution has attracted more and more attention. Air pollution is composed of harmful gases and particulate matter. However, PM2.5 is the main particulate matter in air pollution. Therefore, how to predict PM2.5 accurately and effectively has become a concern of experts and scholars.

We will be collecting data using sensors like Temperature Sensors, Humidity Sensors, Pressure Sensors, Gas Sensors. Gas sensors will give different concentration of gases in the atmosphere which will ultimately predict Pm2.5 level. Getting Information about PM2.5 level can be Useful to give different respiratory diseases. Temperature, Humidity and Pressure Sensors will give the weather information of the particular area.

Software requirements:

Operating System: Windows 7 or above / Linux / Mac

Software: proteus 8

Programming Language: Python, Sketch

Hardware Requirements:

Hard Disk: 8 GB or more

Ram: 4 GB RAM and above

Processor: Intel i5 and above

Microcontroller: Arduino Uno

Processor Speed: 1.5 GHz or higher

Sensors: PMS5003, MQ 135, MQ 7, MQ 131, MQ 137, DHT 11, BMP 180, Jumper Wires, Resistors

Guide	Co-Guide
Name: Ms. Shwetha G.N	**Name:** Mr. Rajesh N
Designation: Assistant Professor	**Designation:** Assistant Professor
Signature	**Signature**

Remarks (if any):

Signature of Guide/Co-Guide

Note: