B.M.S. COLLEGE OF ENGINEERING

(Autonomous Institute, Affiliated to VTU)
Bull Temple Road, Basavanagudi, Bengaluru - 560019

A Capstone Project Report on

"Air Pollution Monitoring, Forecasting and Controlling System"

Submitted in partial fulfilment of the requirements for the award of degree

BACHELOR OF ENGINEERING

IN

INFORMATION SCIENCE AND ENGINEERING

By

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2022-2023

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C E R T I F I C A T E

This is to certify that the project entitled "**Air Pollution Monitoring, Forecasting and Controlling System**" is a bona-fide work carried out by **Prateek M Gummaraju (1BM19IS117), Ruchi Aggarwal (1BM19IS133)** and **Samartha S (1BM19IS219)** in partial fulfilment for the award of degree of Bachelor of Engineering in **Information Science and Engineering** from **Visvesvaraya Technological University, Belgaum** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessments have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Prof. Pallavi B	**Dr. Jayarekha P**	**Dr. S. Muralidhara**
Assistant Professor	Professor and HOD	Principal

Examiners

Name of the Examiner   **Signature of the Examiner**

1.

2.

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ABSTRACT

Air pollution is the presence of compounds in the atmosphere that are hazardous to human beings and the health of other living organisms, or that can impair climate and materials. Chemical compounds such as carbon monoxide, ozone, nitrogen dioxide etc, are common air pollutants and they lower the quality of air.

In many industrial and urban areas today, maintaining and monitoring air quality has become a top priority. Numerous elements, such as time, location, and uncertain variables have an impact on air quality. Due to the rising levels of air pollution, there is a great need to implement effective air quality monitoring systems that gather data on the concentration of various air pollutants and provide not only the current assessments of the level of pollution, but also predict the level of pollution in the near future. In addition to this, we find it essential to compare the pollution levels with the recommended limit given by organizations such as the World Health Organisation (WHO) and consequently provide measures to prevent the same.

With this project we aim to successfully demonstrate the possibility of a low cost, IOT based system built using Arduino and various sensors that not only monitors the current air quality, but also has the ability to forecast the future predictions and also provide suggestions on how to control the pollution and protect human beings from the harmful pollutants. We also plan to send alerts on Twitter and other platforms when the air pollution of a certain area becomes very bad.