VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELAGAVI

A PROJECT REPORT ON

" IoT Based Air Pollution Monitoring System"

Submitted in partial fulfillment for the award of Degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE & ENGINEERING

By

AKSHATA HEGDE	4AL17CS004
ANVITHA POOJARY	4AL17CS008
ANVITHA U	4AL17CS009
ASHWINI	4AL17CS017

Under the Guidance of

Dr. Mohideen Badhusha S

Senior Professor

ALVA'S
Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MOODBIDRI-574225, KARNATAKA

2020 – 21

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MIJAR, MOODBIDRI D.K. -574225, KARNATAKA

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the project entitled " **IoT Based Air Pollution Monitoring System**" has been successfully completed by

AKSHATA HEGDE	4AL17CS004
ANVITHA POOJARY	4AL17CS008
ANVITHA U	4AL17CS009
ASHWINI	4AL17CS017

the bonafide students of **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2020–21. It is certified that all corrections/suggestions indicated for Internal Assessment 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.

Dr. Mohideen Badhusha S **Project Guide**	Dr. Manjunath Kotari **Head of the department**	Dr. Peter Fernandes **Principal**

Alva's Institute of Engineering & Technology
Mijar, MOODBIDRI 574 225, D.K.

External Viva

Name of the Examiners	Signature with Date
1.	
2.	

ABSTRACT

Internet of Things (IoT) refers to a system of interrelated, internet-connected objects that are able to collect and transfer data over a wireless network without human intervention. Air pollution is increasing exponentially and has become an alarming issue for the current generation. Though there exist some air pollution monitoring systems in the literature, they are not dynamic but expensive. Therefore an improved air monitoring systems with dynamic response and less cost is the need of the hour. The parameters such as responsiveness and cost effectiveness are improved in the proposed work to address the problems in the existing air pollution monitoring systems. A proposed model called Improved Air Pollution Monitoring System using IoT (IAPMS) is developed with Alert warning Algorithm (AWA). The proposed model IAPMS consists of MQ135 sensors, Arduino IDE, Wi-Fi Module and a node module with AWA algorithm. The MQ135 sensors detect the quality of air and forward the sensed data to Arduino IDE round the clock. The Arduino IDE transmits the data to the cloud via the Wi-Fi module. The trigger is actuated by the proposed Alert Warning Algorithm (AWA) using Arduino IDE in this work. The alarming sign is determined by the AWA. A web front-end is developed so that users can view and access relevant air quality data from the cloud for data visualization. The parameters such as dynamic responsiveness and cost effectiveness get improved and fetch better performance in the proposed model compared to the existing models.