# "IoT Based Air Pollution Monitoring System"

*A Thesis Submitted*

In partial Fulfilment of the Requirement for the Degree of

**Bachelor of Technology**

In

**ELECTRONICS AND COMMUNICATION ENGINEERING**

By

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# CERTIFICATE

Certified that ***Shweta Singh(2016041079), Anand Mohan Gupta(2016041106), Smita Madhur(2016041047) and Sri Prakash Nayak (2016041099)*** have carried out the project work presented in this report entitled *"**IOT BASED AIR POLLUTION MONITORING SYSTEM**"* for the award of **Bachelor of Technology** in Electronics and Communication Engineering from **Madan Mohan Malaviya University of Technology (formerly Madan Mohan Malaviya Engineering College), Gorakhpur (UP)** under my supervision and guidance. The report embodies result of original work and study carried out by students themselves and the contents of the report do not form the basis for the award of any other degree to the candidate or to anybody.

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# CANDIDATE'S DECLARATION

We declare that this written submission represents our work and ideas in our own words and where others ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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# APPROVAL SHEET

This project report entitled *"**IOT BASED AIR POLLUTION MONITORING SYSTEM**"* by ***Shweta Singh(2016041079), Anand Mohan Gupta(2016041106), Smita Madhur(2016041047) and Sri Prakash Nayak(2016041099)*** is approved for the degree of **Bachelor of Technology** in Electronics and Communication Engineering.

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# ACKNOWLEDGEMENT

It is matter of great pleasure and satisfaction for me to present this dissertation work entitled " **IOT *BASED AIR POLLUTION MONITORING SYSTEM***", as a part of curriculum for award of "Bachelor of Technology" from Madan Mohan Malaviya University of Technology, Gorakhpur (U.P.) India.

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# ABSTRACT

Where pollution has become a major problem around the world, air pollution is the most dangerous, shocking and severe pollution among other pollutions e.g. water pollution, soil pollution, noise pollution, light pollution, thermal pollution etc. Air pollution is the major cause of diseases like asthma, cancer, bronchitis, birth defects and immune system like diseases. This system implements the combination of server, gas sensors (CO2, CO, LPG, and CH4) to sense the air quality of the environment and shows the real condition of air. Solving the draw backs of existing air quality sensors this device can be used to monitor various gasses at a time. The most demanding thing would be this system will give the real time data and will show the quality of the air based on the standard air quality. The system will give the user the indication of the air quality and based on given parameters it will let the user know how much the environmental air is polluted or safe. This system will do everything on behalf of human in such a way that for a smart city when people will have less time for spending and there will be more industry and air will be more polluted this device will let people know how safe the air is. The goal is to make the system as reasonable as possible so that people from every society background can use this and if some research organization wants to do further research then if some nominal amount of money is invested then it would be a great solution to install a weather station thus air quality monitoring system.

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