“SMART AIR MONITOR FOR DETECTING POLLUTANTS EMITTED FROM VEHICLES USING INTERNET OF THINGS (IOT)”

Abstract
The present invention discloses the smart air monitor for detecting pollutants emitted from vehicles using Internet of Things (IoT). The number of sensors and cameras are installed at various places of particular area. Cameras and sensors senses data and send to cloud server. Cloud server compare new data to store old data. And resulted data sent to display screen.

Description :

FIELD OF THE INVENTION
The present invention discloses the method or system for smart air monitor for detecting pollutants emitting from vehicles for particular area using internet of things (IoT).

BACKGROUND OF THE INVENTION
Environmental pollution is the contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected.
Environmental pollution is a serious problem which is particularly acute in urban areas. Most of this pollution is produced by exhaust emissions from motor vehicles and other combustion engines and discharge from variety of sources like industries and factories. Government set standard for regulating the allowable amounts of certain pollutants from such sources. In many geographic areas, periodic inspections are required in order to ensure that concerned entities like motor vehicles, industries and factories meet these standards. The ability to measure pollutants during a realistic operating period, monitoring and indexing is a growing need in light of recent efforts to regulate and decrease the level of various types of pollutions. Currently, the system which detect pollution level is not that much reliable. Because some points affect that, such as, harsh environment, nitrogen level, oxygen level and water vapour exposures. The present invention provides solution to above all problems. The system or method for smart air monitor for detecting pollutant emitting from vehicles using Internet of Things (IoT). The Internet of Things (IoT) is a network of connected devices embedded with electronic devices, software, sensors, actuators, and so on which enable these objects to collect and exchange data. As the name suggest, it is smart air monitor for detecting pollutants from vehicles for particular area with the help of Internet of Things (IoT).

OBJECTS OF THE INVENTION
The main object of the invention is that, the smart air monitor for detecting pollutants emitting from vehicles using internet of things (IoT).Another object of the invention is that, number of sensors are used. Another object of the invention is that, to provide low-cost real-time monitoring and measuring system for various pollutant levels. Other object of the invention is that, includes various chemical and biological units.

SUMMARY OF THE INVENTION
The present invention discloses the system or method for smart air monitor for detecting pollutants emitting from vehicles using Internet of Things (IoT). The number of sensors and cameras are installed in particular area. The sensors with particular time of interval sense the weather data (such as temperature, humidity, any dangerous gas, oxygen, carbon dioxide etc). The cameras take images of climate to see visibility or fog in air. Sensors and cameras send data to cloud server with the help of Wi-Fi modem. Then at server it compares old value to new send value. And carried out result of level of pollutants emitting from vehicle. The system is used Internet of Things (IoT) technology. And send the resulted data into display screen. The whole process is carried out in a particular area.

BRIEF DESCRIPTION OF DRAWINGS

Fig 1 shows flowchart of the method and computer program for this invention.

DETAILED DESCRIPTION OF INVENTION

The present invention discloses the system or method for smart air monitor for detecting pollutants emitting from vehicles by using Internet of Things (IoT). Internet of Things (IoT) has many applications depending on the physical devices that are connected and one of them is Smart air monitor. Smart air monitor has been made capable of detecting pollutants emitting from vehicles.
The smart air monitor for detecting pollutants emitting from vehicles by using Internet of Things (IoT) is comprising of:
Any smart electronic dedicated display screen â€“ displaying the resultant information regarding emitting pollutants
Any electronic computing device â€“ has smart air monitor application
Sensors â€“ Sense weather information as well as presence of different gases in climate for particular area
Cameras â€“ capture images of particular area for detecting any fog or polluted air Wi-Fi modem â€“ for connectivity between sensor, cameras, display screen to cloud server. The smart air monitor using Internet of Things (IoT) can work as following:

Step 1) The smart air monitor application is installed to electronic device.
Step 2) The number of sensors and cameras are installed for particular area.
Step 3) The Wi-Fi modem for connectivity between electronic device and sensors/ cameras is installed.
Step 4) With regular interval of time sensor sense weather data and sent to cloud server.
Step 5) The cameras capture images of surrounding and send images to cloud server using wi-fi modem.
Step 6) Cloud server compare new data to recorded old data.
Step 7) Cloud server find out which pollutants get increased in air.
Step 8) Send resulted data to display screen.

This is the basic model of Smart air monitor. And scope of smart air monitor is not limited to this only.
The sensors which are installed at various places of particular area senses weather information at interval of time. And send data to cloud server using Internet of Things (IoT). The cameras are installed at various places of particular area capture images of surrounding and send data to cloud server at interval of time using Internet of Things (IoT).The cloud server compares the new data to old recorded data. And carried out result of which pollutants are more than standard. Wi-Fi modem is used for connectivity between sensors, cameras, display screen and cloud server. The electronic device has smart air monitor application installed. The cloud server sends resulted data to display screen. This is the basic arrangements. The system can send alert/SMS to electronic device regarding pollutants emitting for particular area. By knowing the level of pollutants in air, the solution to it can be done with effect. The present invention doesn’t scope here only. Many more features can be added to make air monitor smarter.

CLAIMS

1 wherein, the cameras capturing the images of surrounding.
3) The system claimed in claim 1 wherein, the sensor sense weather data and level of various gases in climate.
4) The system claimed in claim 1 wherein, sensor data and images are sent to cloud server.
5) The system claimed in claim 1 wherein, cloud server compares new value to recorded value.
6) The system claimed in claim 1 wherein, cloud server sends resulted data to display screen.