IOT Enabled Air Pollution Monitoring and Awareness Creation System

Abstract:-

The air pollution rates now a days are drastically increasing in all the developed and the developing countries which requires a more portable and cost effective solution. The proposed system includes the design for monitoring air pollution and creating awareness among the public. This paper aims at using IOT along with cloud to make the services real time and faster. The proposed system is installed in a particular locality where there is acute air pollution. The level of each hazardous pollutant is monitored at periodic intervals. The Air Quality Index (AQI) for the observed pollutants is determined and awareness is created among the public through an android app which displays the level of each observed pollutant and also the air quality index in that particular location. Thus the quality of air in that area can be understood by the public by viewing the concentration of the gases in both numerical and graphical format. Further this system is to be extended in future by allowing the public to register themselves in an app which pushes weekly or monthly air quality report through message which reaches the user as a notification that is more comfortable in access.
Block diagram :-

CO SENSOR
PAI SENSOR
NO2 SENSOR
SMOKE Sensor
HUMIDITY Sensor

POWER SUPPLY 5V

ETHERNET SHIELD

THINGSPEAK CLOUD

ANDROID APPLICATION