Phase 1: problem definition and Design Thinking

Air pollution is a growing issue these days. It is necessary to monitor air quality and keep it under control for a better future and healthy living for all. Here we propose an air quality as well as sound pollution monitoring system that allows us to monitor and check live air quality in particular areas through IOT. System uses air sensors to sense presence of harmful gases/compounds in the air and constantly transmit this data to microcontroller. Also system keeps measuring sound level and reports it to the online server over IOT. The sensors interact with microcontroller which processes this data and transmits it over internet. This allows authorities to monitor air pollution in different areas and take action against it. This project gives a proposal for addressing the issue of indoor air quality us

Problem Statement:

Air pollution is one of environmental issues that cannot be ignored. Inhaling pollutants for a long time cause

damages in human health. Traditional air quality monitoring methods, such as building air quality monitoring stations, are typically expensive. This project is suitable for air quality monitoring in real time.Design a tool which will sense quality of air and display it in the form of percentage,Sense how much carbon mono-oxide(CO) is present in air and display in the form of percentage,Sense the temperature and display it in degree Celsius.

Design thinking:

An IOT Based solution could immediately resolve the above issues,

- To deploy an IOT device which Buzzers when Air Quality Index Reaches its Maximum value
- Need to Identify the right digital air quality monitoring sensors
- To Identify the concentration of Pollutants in Air
- To Identify the Pollution Hotspots
- To find the Reason behind the Air pollution in particular area
- Comparison between the present and previous readings of digital sensor for detailed report

- Graphical representation of concentration of the pollutants that varies with Time
- Finally to identify the safety measures to be taken to avoid adverse effects on human health

Conclusion:

In conclusion, an IoT-based air pollution monitoring system is a revolutionary solution that can provide accurate and real-time data about the air quality in a particular area.