

JKK MUNIRAJAH COLLEGE OF TECHNOLOGY



DEPARTENMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

IBM PROJECT' INTERNET OF THINGS
PHASE-1

AIR QUALITY MONITORING

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Project Definition and planning

- ★ Once pollutants are emitted into the air, they are influenced by weather conditions. Weather all around the world is extremely variable. Only studying air pollution is not adequate to estimate air quality. Also, air pollution is very complicated in terms of pollutants and their effects on buildings and roads.
- ★ This is where air quality monitoring comes into the picture. We can utilize air emissions monitoring to measure the types and concentrations of pollutants, enabling us to further analyze and interpret the data. We can use this information to take actions based on trends.

Air Quality Monitoring or Testing Procedure

- ★ BEFORE STARTING AIR MONITORING OR AIR TESTING ON-SITE THERE IS SOME BACKGROUND INFORMATION REQUIRED OF THE SOURCES/EMISSIONS, HEALTH AND DEMOGRAPHIC INFORMATION, METEOROLOGICAL DATA, TOPOGRAPHICAL INFORMATION AND PREVIOUS AIR QUALITY MONITORING INFORMATION. IT HELPS TO DECIDE WHETHER TO INCREASE OR DECREASE MONITORING LOCATIONS BASED ON PREVIOUS READINGS.
- ★ AIR QUALITY TESTING AND MONITORING ARE DONE IN AREAS WHERE POLLUTION PROBLEM EXISTS AND IT IS EXPECTED E.G. COMPANIES PREMISES, INDUSTRIAL AREA, TRAFFIC INTERSECTION.

Types of Air Pollution Monitoring & Testing

IT CAN BE DIVIDED INTO THREE PARTS:

- AMBIENT AIR QUALITY MONITORING & TESTING
- INDOOR AIR QUALITY MONITORING & TESTING
- STACK EMISSION MONITORING & TESTING

THERE IS ALSO INDUSTRIAL AIR QUALITY TESTING AVAILABLE WHICH INCLUDES AMBIENT AND INDOOR AIR QUALITY MONITORING FOR INDUSTRIAL PREMISES.

Air Quality Assessment

AIR QUALITY IMPACT ASSESSMENT IS AN METHOD TO MEASURE THE RELATIVE CONCENTRATION OF ATMOSPHERIC POLLUTANTS AT GIVEN TIME AND LOCATION. AN AIR QUALITY SPECIALIST CONDUCTS AIR QUALITY ASSESSMENT TO MEASURE VARIOUS PARAMETERS SUCH AS HUMIDITY, TEMPERATURE, NOISE, LIGHTING, ETC. EMPLOYERS CAN CONDUCT AIR QUALITY ASSESSMENT IN OFFICE PREMISES FOR THE HEALTH OF THEIR EMPLOYEES

Monitoring and Maintenance

AIR QUALITY MONITORING REFERS TO CONTINUOUS MEASUREMENT OF SPECIFIC AIR POLLUTANTS ALSO KNOWN AS “CRITERIA AIR POLLUTANTS”. OBTAINED AIR POLLUTION DATA TOGETHER WITH NATURAL BACKGROUND/TRACE GAS MONITORING AND STATIONARY SOURCE EMISSION MONITORING HELPS TO DEFINE WHAT KIND OF AIR POLLUTION PEOPLE ARE EXPOSED TO.

Documentation and Reporting



Project Definition and planning **Air Quality Monitoring or Testing Procedure**

Types of Air Pollution Monitoring & Testing **Air Quality Assessment**