

## Client



## Location

Multiple cities in India.

## Application

Urban Monitoring.

## Problem

Urban air quality has been rapidly deteriorating due to increased vehicular activities, industries, and construction activities. The presence of much more sensitive locations such as schools, hospitals, residential areas makes it crucial to monitor air pollution.

A network of ambient air quality monitors is required to measure the urban air pollution. To increase the monitoring capacity using reference grade stations (CAAQMS) is not an economically feasible solution.

An initiative of BSNL was to install affordable sensor based ambient air quality monitors at 40 different locations in India. To create such a monitoring network across the country with varying weather and climate, robust low-cost sensor-based systems were required.

## Oizom Solution

Flexsol, a major smart pole manufacturing company, has deployed 40 smart poles across India for air quality monitoring. The company collaborated with BSNL and Nokia for this project to create a general awareness about ambient air pollution. Oizom partnered with Flexsol and provided Polludrone at 40 different locations including Delhi, Jaipur, Gwalior, Bangalore, Kakinada, Shillong, etc for ambient air monitoring. The locations selected were the offices of BSNL.

Polludrone accurately measured the concentration of multiple gaseous and particulate pollutants. The diverse locations across the country meant varying climate and weather conditions, which affect the air quality and device's performance. However, Oizom's Polludrone consistently provided accurate real-time results even in extreme weather conditions.

Moreover, temperature and humidity were also measured at all the locations. The data was then shared with the authorities and displayed through screens, notifying the employees and citizens about current air quality.



## Impact

The data shared through the display screens notified the employees and citizens about the current air quality. In the case of some cities, air quality monitoring was conducted for the first time through Oizom's Polludrone. The project also served as a proof of concept to increase the scalability and deploy more such devices in the future.

### Oizom Instruments Pvt. Ltd.