

Client



Location

Varanasi, U.P. (India)

Application

Smart City Monitoring

Problem

Varanasi, one of the oldest cities of the world, is known for its culture and heritage. Every year millions of tourists visit this holy city to find salvation and eternal peace. In fact, the inrush of tourists has increased to such an alarming rate that in 2017 the total no. of tourists that visited Varanasi exceeded the city's population.

This startling influx of tourists has a severe impact on the city's environmental condition and subsequently on the citizens' health. Clearing the Phase-I of Smart City Mission, Varanasi Municipal Corporation needs to develop a smart city plan. The authorities plan to achieve this by improving their waste management system and reducing pollution levels. Thus, the city needed a robust monitoring system to provide data-driven solutions for the city's health improvement.

Oizom Solution

Oizom stepped in to help VMC to provide an end-to-end solution to both their pollution and waste management problems. Oizom installed 50 Polludrone across the city to gather and monitor ambient data. The solution enables monitoring of dust particles (PM2.5, PM10) in the air along with harmful gaseous emissions like CO, CO2, SO2, NO2, O2, and O3. For precise data analysis, Polludrone takes into account the dynamic weather conditions by monitoring parameters like temperature, humidity, ambient noise, light intensity, UV radiations, and rainfall.



The data collected is continuously sent to our Terminal, which is a web application to perform data analysis. The outcome is then shared with the concerned individuals/authorities to take appropriate steps to overcome the problem.



Impact

Installing Polludrone across Varanasi city helped to assess the current pollution level of the city. It may help to detect the pollutants and its source which were causing a detrimental impact on the environment and citizens' health. The effect of the increased tourism can be analyzed quantitatively and qualitatively to establish a contingency plan for tourism and waste generation.

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