Client

Quantela
Transforming cities through technology innovation

Location

Neemrana, Alwar

Application

Highway Toll Automation

Problem / Purpose

Improvement in transportation systems has manifold advantages such as better lifestyle, increased social mobility and incredible growth in trading of manufactured goods and services.

As the ease of transportation increases, so does the amount of vehicles on the roads/highways. Which ultimately results in a higher rate of vehicle congestion and even high amount of Air Pollution from vehicular emission.

The average trip speed on many Indian city roads is less than 20 kilometres per hour; a 10-kilometer trip can take 30 minutes, or more. At such speeds, vehicles in India emit air pollutants 4 to 8 times more than they would with less traffic congestion; Indian vehicles also consume a lot more carbon footprint fuel per trip, than they would if the traffic congestion was less.

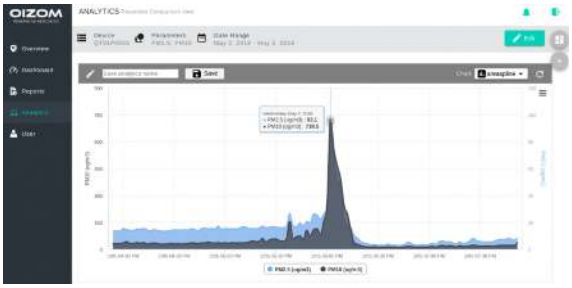
Oizom Solution

It is vital to tackle and devise the preventative measures in terms of Environmental Condition around the busiest toll booth in the western region of India. Oizom with Cisco partner company Quantela, installed the Polludrone Environmental Monitor at Shahjahanpur Toll Plaza, Neemrana, Alwar to display the effectiveness of Automated Toll Booth on the Air Quality.

Oizom deployed a comprehensive solution to monitor Air Quality and Weather Conditions on Alwar Highway for vehicular emission monitoring and preventive maintenance of the roads. This Environmental Data helps in reducing accidents due to poor visibility. Integrating the real-time environment data on the VMDs on highways enables the passengers to drive more safely. The solution installed near Electronic Toll Collection booth also indicates a significant reduction in the amount of vehicular emissions simply by keeping the traffic moving smoothly and avoiding heavy traffic congestion, deceleration and acceleration effects.

Impact

Just a month after the deployment of Polludrone at Alwar, a severe dust storm created havoc across the cities of Bharatpur, Alwar and Dholpur districts in Rajasthan. More than 30 were killed and over 100 were injured besides a large scale of destruction.
The spike in the PM10 (Dust Particles) was recorded through our Polludrone on the day of the deadly event. Warnings and alerts could be sent to authorities when the first spike was detected.



This shows the need for Continuous Environmental Monitoring at nation-wide scale for better health of all the citizens and our planet.

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