

Client

The local council in Sydney metropolitan

Location

Sydney, Australia

Application

Urban Air Quality Monitoring

Problem

Sydney is a vibrant capital and the largest city in Australia located on Australia's eastern coast. A clean and healthy atmosphere is one of the most crucial features of any smart city. To do so, precise air quality monitoring is essential.

Sydney being the most populous city of Australia faces many harsh conditions which affect the air quality. Extreme weather creates unique obstacles for air quality monitoring.

Monitoring of various urban air quality parameters is very difficult in such conditions. Most monitors struggle to provide accurate measurements of air quality. Which affects beings in various ways.

It is critical to invest in accurate monitoring systems capable of giving high-quality data even in difficult situations in order to acquire reliable and relevant air quality data.

Oizom Solution

Oizom deployed its device – Dustroid Smart – to measure the ambient dust particles in Sydney. Dustroid Smart measures all the PM parameters like PM₁, PM_{2.5}, PM₁₀, PM₁₀₀, Temperature, and Humidity. The Dustroid Smart is technologically equipped to offer higher accuracy with features, humidity correction for Particulate monitoring, Auto device firmware updates, and an Anti-static inlet to avoid loss of particulate during sampling and remote calibration capabilities.

Oizom installed 4 systems across the council area which monitors PM₁₀ and PM_{2.5} values to understand possible exceedances and background level. Also, the day and night data collected were compared and studies. As a result, it provided the authorities with the data, which gave them a complete understanding of the effects of industrial activities on urban air quality. The real-time data measured by the device is analyzed over the cloud, which provides actionable insights to authorities.



Impact

Installing Dustroid Smart enabled authorities to understand the effects of industrial activity on the urban air quality of the metropolitan. Reliable and accurate data availability allows authorities to take data-driven action and to develop pollution mitigation strategies. The real-time urban air quality data monitoring also helps citizens by taking precautions to decrease their exposure to pollution.

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