

Construction site monitoring with Cambrian Engineering Corporation, Singapore

Our Client

Cambrian Engineering Corporation Pte. Ltd. is an established company in Singapore. They specialize in geotechnical engineering, geophysical surveys, ground-penetrating radar survey, utility survey, trial trenching, and specialist applications. Meanwhile, Cambrian Engineering Corporation's client is Chan & Chan Engineering Pte. Ltd. (CCE). They are a civil engineering and building contractor in Singapore. They provide civil engineering, building, marine works, and construction services.



The Challenge

The project was the renovation of a primary school in Singapore. Chan & Chan was the main contractor for this project. However, during the construction work, hazardous dust covers the air. This was one of the main issues in the project that needed to be tackled. This dust is harmful to the construction workers, people living close to the site, and children.

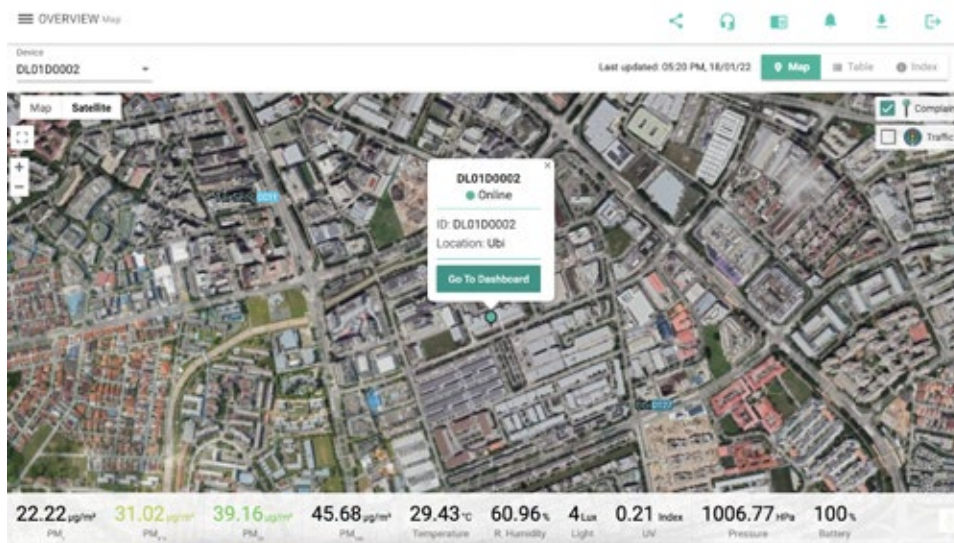
Thus, the Singapore authority requested Chan & Chan to monitor the dust before the renovation. The measures taken by the main contractor were to use the mist cannon to control and suppress the dust. However, they did not have precise, real-time data. Therefore, they were not sure if the method was good enough to control the dust.

Installation Details

One Dustroid unit was installed at the construction site.

The Solution

Oizom's Dustroid unit was installed at the construction site. This is the perfect solution to measure the concentration of dust particles in the air, like PM1, PM2.5, PM10, and PM100. It would also generate precise, real-time data. Dustroid uses the light scattering method to monitor the air. It diffracts through the air sample collected in the equipment. The intensity of the beam scattered from the particles provides particle size distribution and concentration. The baseline data generated helps in planning and executing the Environment Management Plan (EMP). It helps in comparing the dust concentration in the air pre, mid/during, and post-construction activities.



The Result

The dust was monitored for 5 months throughout the renovation process. With the accurate, real-time dust monitoring from Dustroid, the client and the authority (HDB) were able to monitor and assess the condition of the construction site smoothly. Additionally, they generated precise data, without the need to go to the site. Ultimately, the data from the Dustroid drove the authorities to take the proper action to tackle the issue and develop solutions towards controlling the pollution.

Oizom is an environmental IoT company offering data-driven environmental solutions for better decision making. With our sensor-based hardware, we monitor various environmental parameters like air quality, noise, odour, radiation, weather conditions, etc. Our data analytics platform derives many actionable insights for authorities, communities, and industries. Oizom strives to play an essential role in a sustainable future through smart environmental solutions and data science.