

Monitoring air quality for the largest Steel Manufacturing Industry, TATA Steel

Our Client

TATA Steel is one of the world's leading Steel producing industries with its presence in hundreds of countries. It ranked as the World's No.1 Steel company in Dow Jones Sustainability Index 2018. It has a revenue of US\$32 billion in 2022, with its extensive presence in steel-related industries as well as the Stock Market. It currently has over 65,000 employees based across the globe. It also owns a number of steel plants across India, and the Jamshedpur steel plant is one of the largest of its manufacturing units.



The Challenge

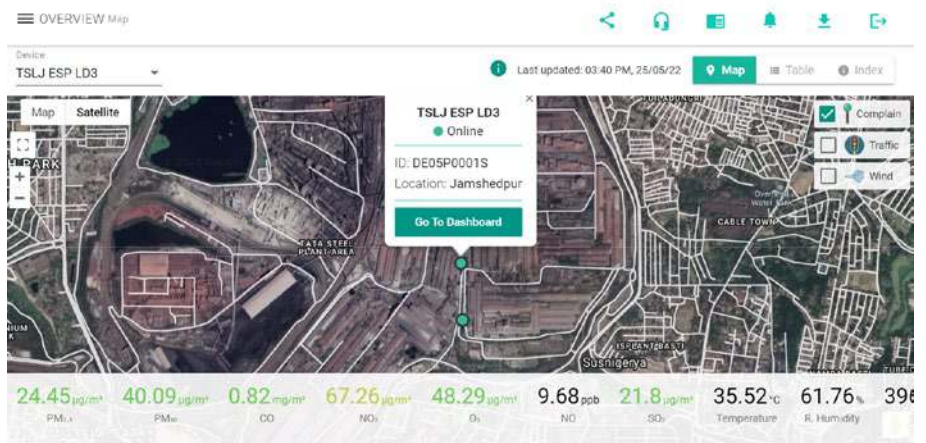
In a manufacturing unit of a steel plant, it is common to observe a huge amount of suspended Particulate matter in the air because of constant casting, rolling, and processing. Since Tata Steel's Jamshedpur manufacturing unit is situated close to the nearby villages, it was important for the company to monitor the levels of PM2.5, PM 10, SO2, and other gaseous pollutants. It was also in their interest that pollution be mitigated for meeting the regulation as per the CPCB guidelines. For achieving such, they needed an Air Quality monitoring system that could accurately detect the various pollution levels, and subsequently, automate the process of purifying it. They also wanted to ensure the locals of clean air, and that toxic gases and particulate matter suspension were limited from the Steel Plants.

The Solution

Oizom with Devic Earth offered Polludrone Smart to the TATA Steel Jamshedpur unit to monitor the dust and toxic gaseous emitting from the plant to the surrounding city. It can be customized to detect and monitor the wind speed and wind direction so that TATA steel can keep track of the direction of the dust and harmful gases. Polludrone also comes equipped with Data analysing and Visualization software - Envizom. It keeps track of the historical data and trends of the air pollutants. Polludrone can also automate the purification system by switching it on/off when such air quality rises beyond a pre-defined threshold limit.

Installation Details

Polludrone Smart has been installed in the TATA Steel manufacturing unit in Jamshedpur, Maharashtra.



The Result

The TATA Steel Jamshedpur is now capable of real-time monitoring the levels of PM ESP LD3 and gaseous levels and the direction from which it is originating around the steel plants. Oizom's smart, robust and accurate air quality monitoring system has assisted the company in reassuring the residents of the nearby city of safe breathing conditions. With threshold-based alerts, Polludrone equipped with Relay, triggers the Devic Earth's Pure Skies purifying system to switch ON or OFF based on the air quality detected. Polludrone's integration with Devic Earth's air purifying system has enabled TATA Steel in reducing its pollution levels as per the CPCB guidelines.

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“We have tested air quality monitors from across South Asia, Europe and the US. Our best pick for Outdoor Air quality monitor is Oizom” - Mr. Srikanth Sola, Devic Earth

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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.