

Rashtrapati Bhavan's Eco-Friendly Makeover with Automated Dust Suppression System

Oizom's dust monitoring technology helped Lechler develop an innovative solution to control dust emissions from the construction site of the Parliament of India, reduce pollution levels in surrounding areas and save resources.



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India



Dustroid

Our Client

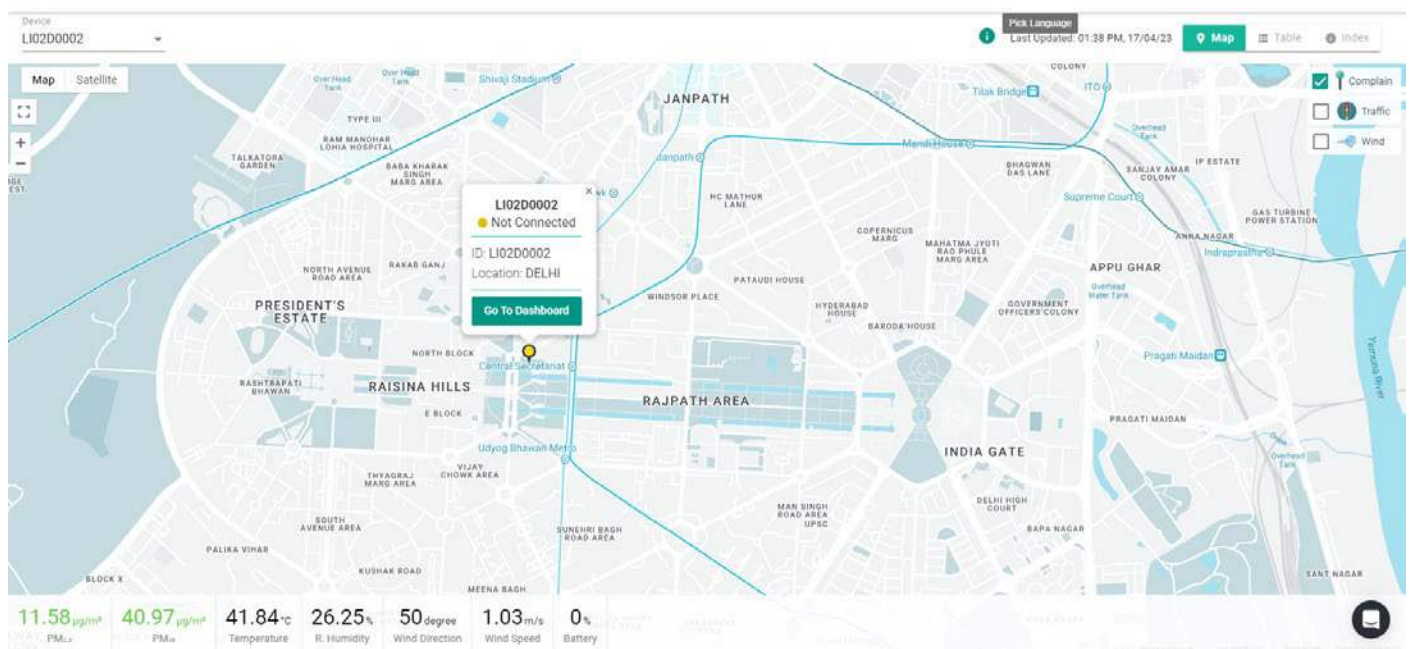
Rashtrapati Bhavan, the official residence of the President of India, is an architectural marvel situated in the heart of New Delhi. Designed by British architect Sir Edwin Lutyens, this grand structure was completed in 1929, reflecting a blend of Mughal and European architectural styles. With 340 rooms, 2.5 kilometres of vast corridors, 190 acres of sprawling gardens, and a magnificent Durbar Hall that serves as the backdrop for important national events. Currently, a massive new parliament building is under construction in the Delhi NCR region, leading to considerable dust production that impacts the surrounding community and exacerbates environmental concerns. To mitigate this issue, dust suppression system expert Lechler was enlisted to integrate their system with Oizom's dust monitoring technology.

The Challenge

The main challenge was controlling dust emissions from the new parliament building's construction activities. The Delhi NCR location exacerbated the problem due to pre-existing high pollution levels. Moreover, the use of continuous water sprinklers in the construction area resulted in the wastage of water and electricity. Therefore, integrating Lechler's dust suppression systems with air quality monitors for automation became essential to activate water sprinkling only when dust levels were elevated. Consequently, this approach conserved resources like water and electricity while effectively addressing dust-related issues.

The Solution

Leveraging their extensive experience in dust suppression systems, Lechler developed an innovative solution using Oizom's dust monitoring technology. The system automatically detects dust levels and activates the suppression system if levels surpass the predetermined limit. Lechler installed five Dustroid systems at the Rashtrapati Bhavan construction site and integrated their own system with multiple suppression units along the perimeter. This ensured that the suppression system activated whenever dust levels exceeded the threshold, effectively reducing construction-generated dust. They were successfully able to meet government compliance requirements for this high-profile project and not only demonstrated the effectiveness of their innovative solution but also established a positive precedent for future government construction endeavours.



The Result

The integration of Oizom's dust monitoring system and Lechler's suppression system led to a significant reduction in dust emissions from Rashtrapati Bhavan's construction site. This not only decreased pollution levels in surrounding areas but also minimized complaints resulting from construction-generated dust. The automated system enabled the suppression system to activate as soon as dust levels crossed the limit, providing a convenient and environmentally-friendly solution. Ultimately, the successful implementation of this dust suppression system contributed to more sustainable and eco-friendly construction practices at the Rashtrapati Bhavan site. As a symbol of India's democratic ethos and the continuity of its rich cultural heritage, Rashtrapati Bhavan stands as a testament to the nation's history, diversity, and progress.