Prana Air

Smart Cities

Air Quality Solution For
Smart Cities

Air Quality Solutions is coming........

Prana air : We understand the constant fight against the rising concern of the air pollution. After a series of testing our prototypes and satisfactory customer validation, we offer you an effective range of air quality monitors, sensors, PCBs, masks, purifiers, filters, fresh air machines that improves the quality of the air you breathe.

We are a team of passionate people working towards a common goal of achieving clean and sustainable environment.

Our Clientele

Google

EMAAR

SIEMENS

TAJ

asianpaints

Microsoft

L&T

IGCAR

NEERI

BCG BOSTON CONSULTING GROUP

TATA

RENAULT NISSAN

Mahindra

IIT INDIAN INSTITUTE OF TECHNOLOGY

JW MARRIOTT

GMDA

JUBILANT FOODWORKS

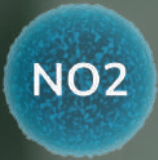CII Confederation of Indian Industry

BANARAS HINDU UNIVERSITY

CSIR

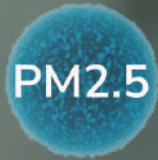# Factor affecting air quality in Smart Cities

Air pollution in smart cities is influenced by various factors, including industrial activities, vehicular emissions, construction projects, and meteorological conditions.
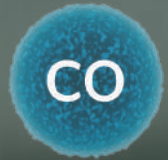
NO2
Nitrogen dioxide

CO2
Carbon dioxide

PM2.5
PM1, 2.5 & 10

SO2
Sulphur Oxides

CO
Carbon monoxide

Health Impact

Cardiovascular problems

Respiratory problems
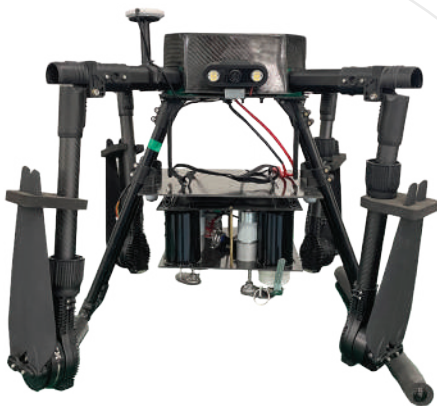
Neurological problems

Cancer

Overview

Ambient Air Quality Solutions For Smart Cities

Prana Air offers comprehensive air quality solutions for smart cities, including air quality monitors, drone monitoring systems, and outdoor air purifiers.

Ambient Air Quality Monitor

Air Quality Drone

Outdoor Air Purifier

Ambient Air quality monitor

Air Quality Monitoring For smart cities is a cutting-edge device designed to measure and assess air quality in real time with the precise data on various air pollutants..

Low-Cost Monitor

Highly Accurate Data

Cloud Data, Dashboards, Apps

Weatherproof Device

Air Quality Paramaters

Temperature

Particulate matter 2.5

Particulate matter 10

Ozone

Humidity

Sulphur Dioxide

Nitrogen Dioxide

Ammonia

Technical Specifications

Product Name	Sensor Type	Range	Resolution	Accuracy
PM10, PM2.5 & PM1	90° Light Scattering	0 to 31000µg/m3	1 µg/m3	0-150 µg/m3 is for ±10% & for 150 µg/m3 onwards is ±15%
Temperature	Digital Sensor	-40 to 70 °C	0.1°C	±5°C
Humidity	Digital Sensor	0 to 100% RH	1% RH	±3% RH
Carbon Dioxide (CO2)	NDIR	1 to 10000ppm	1ppm	±3%
Nitrogen Dioxide (NO2)	Electrochemical	0 to 20ppm	1ppb	±3%
Carbon Monoxide (CO)	Electrochemical	0 to 1000ppm	1ppb	±3%
Sulphur Dioxide (SO2)	Electrochemical	0 to 100ppm	1ppb	±3%
Ozone (O3)	Electrochemical	0 to 20ppm	1ppb	±3%
Nitric Oxide (NO)	Electrochemical	0 to 20ppm	1ppb	±3%
TVOC	MOS	0 to 65ppm	10ppb	±3%
Hydrogen Sulphide (H2S)	Electrochemical	0 to 100ppm	1ppb	±3%
Noise	Noise	30-140dB	1dB	±3%
Methane (CH4)	PID	0 to 20ppm	0.1 %	±3%
Oxygen (O2)	Electrochemical	0 to 30%	1%	±3%

Product Specifications

Connectivity Mode	GSM SIM ,RS-485 and Wifi
Data Accessibility	AQI mobile & smart TV app, and web-dashboard
Charger	Micro USB cable
Data Storage	Micro USB cable

Air Quality Drone

Prana Air Drone is an innovative unmanned aerial vehicle (UAV) equipped with advanced sensors and technology to monitor air quality from the skies.

Real-time Monitoring	Very Accurate Method	4K Video Footage	Wide Coverage Area

Air Quality Paramaters

Particulate matter 2.5	Nitrogen Dioxide	Humidity	Carbon Monoixide
Temperature	Ozone	Ammonia	Sulphur Dioxide

Technical Specifications

Product Name	Air Quality Drone
Sensor	PM2.5, PM10, SO2, NO2, CO, O3, NH3, Temp & Humidity
Camera	FPV Camera
Video Resolution	Upto 4K
Blowing continuity test	35 Sec
Battery Endurance	25 min (LiPO 12S)
Cruise Speed	6 m/s
Max Speed	10 m/s
Operational Altitude (AGL)	60m
Working Range	2 km
Wind Resistance	12 m/s
Propulsion Type	Electric
Motors	4 – Brushless DC motor
Propeller	Carbon Fiber
Maximum Take Off Weight	15Kg
Maximum Payload	Up to 2.5 k
Operating Temp	-10 °C to +55°C
Dimension Extended	1400*1300*450 MM

Outdoor AIr Purifier

Prana Air Outdoor Air Purifier is an innovative and robust solution designed to improve air quality in open urban spaces, such as parks, public squares, and busy intersections.

High CADR

Electrostatic Filter

Weatherproof Device

Multiple Filtrations

Product Overview

Fan Speed	12,000 CADR
Filtration Type	Washable Pre-filter, Electostatic Filter, UV, Ironization
Parameters	PM2.5, PM10, Dust, Smoke
Power	3000W
Dimensions	1m 1m 3m

Data insights

Prana Air's air quality monitor and drone offer real-time data collection and aerial monitoring, respectively. They enable comprehensive air quality assessment, aiding in pollution source identification and emergency response. These technologies are vital for improving urban air quality and public health.

Solution Overview

Prana Air offers a range of cutting-edge air quality monitoring solutions designed for smart cities including ambient air quality monitor, drone, LED Displays across the city.

By offering a combination of air quality monitoring solutions and outdoor air purification technologies, Prana Air assists smart cities in monitoring, managing, and improving air quality, ultimately creating cleaner and more livable urban environments.
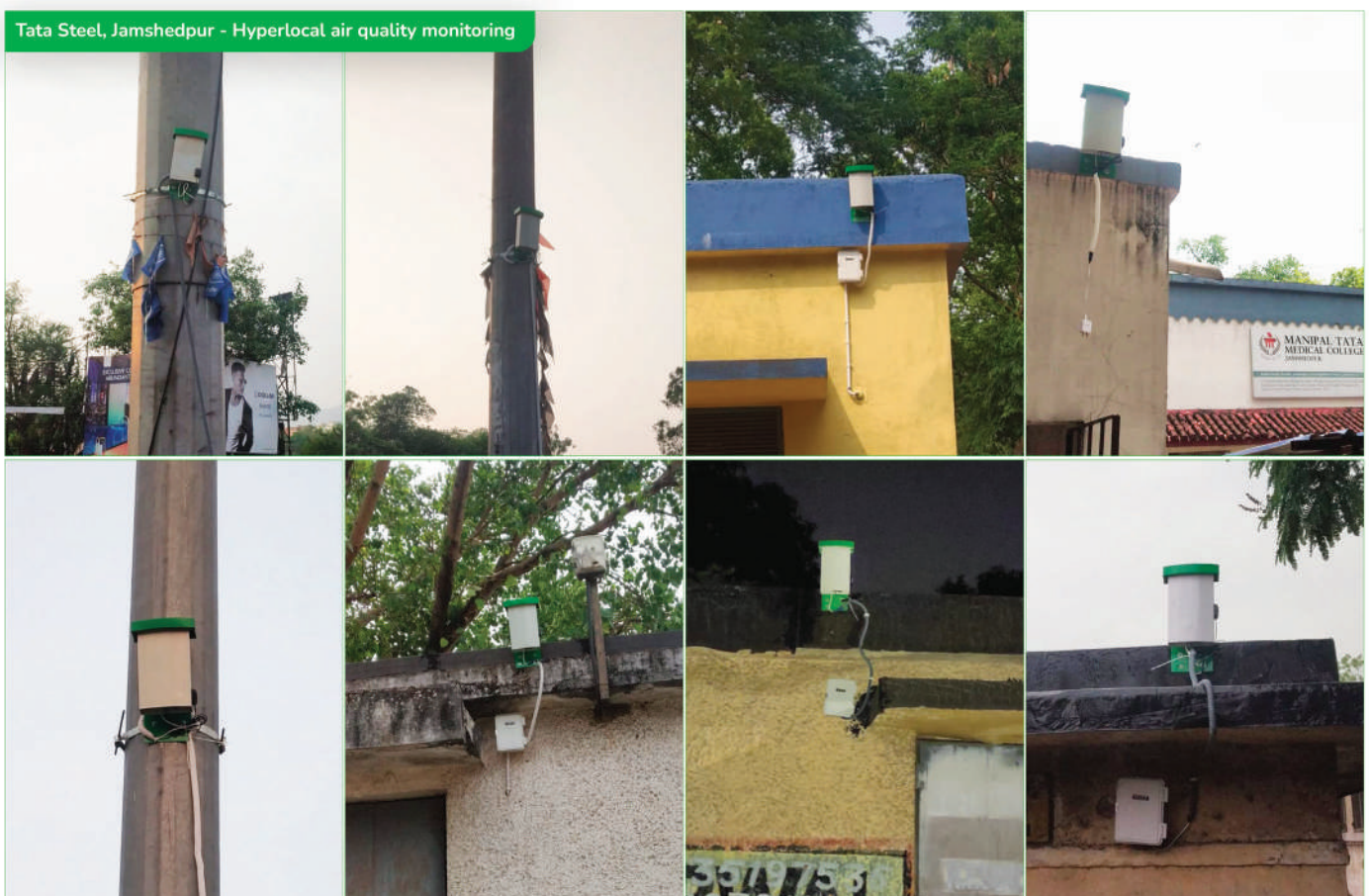
Case Study

Prana Air aids **TATA Steel**, India's 2nd largest steel plant in Hyperlocal Air Quality Monitoring

TATA Steel requirements:

Jamshedpur is home to the 1st private Iron and Steel Company in India and the 6th largest in the world. Jamshedpur covers a total geographical area of 149.32 square kilometers. One-fourth of the city is occupied by the TATA Steel Plant. Therefore, they wanted to monitor the air quality in and around its manufacturing plant. The company wanted to measure the extent of air pollution within the area of Jamshedpur by Hyperlocal air quality monitoring.

Implementation:

In just 15 days, we managed to complete the installation process for TATA Steel's Fuel and Environment Management system. The installation included real-time API integration and a web dashboard. Furthermore, the dashboard enables monitoring of real-time air quality changes as well as tracking historical data.

Tata Steel, Jamshedpur - Hyperlocal air quality monitoring

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