AQI: Definition and Significance

Sustiknow Advisory
In pursuit of sustainable citizenship
My Sustainable World

An **Air Quality Index (AQI)** is a number used by government agencies to communicate to the public how polluted the air currently is or how polluted it is forecast to become.

Image Source: Newspaper Snippets

Need for Measurement of AQI:

Air Quality Index (AQI) is a crucial tool for assessing and monitoring the quality of air in a particular area. This is important for several reasons:

- **Public Health:** Protects vulnerable groups (elderly, children, those with respiratory illnesses).

- **Environmental Impact:** Monitors ecosystem health, identifies pollution hotspots.

- **Economic Impact:** Reduces healthcare costs, improves productivity.

- **Policy Formulation:** Guides government policy for air quality improvement.

- **Public Awareness:** Educates the public about air pollution, encourages eco-friendly practices.

Proposed Solution: Measurement Device
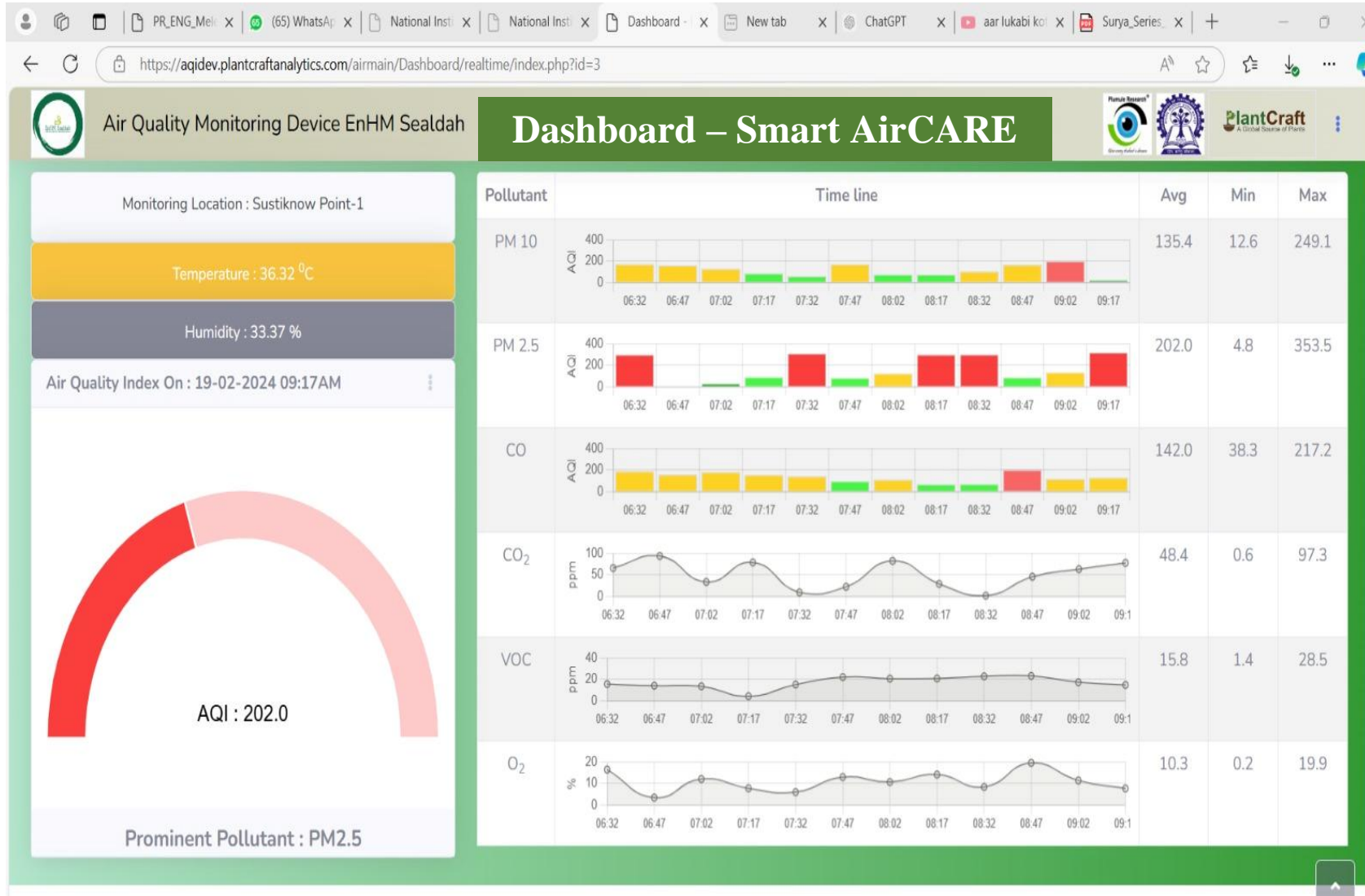

Smart AirCARE

Developed by IIT Kharagpur & ScholarLab Foundation

Our USPs

- Precision Sensors developed by IIT Kharagpur

- Real-time display of vital parameters

- Cloud-based Dashboard

- Color Code Indicator on Health Impact

- Recommends mitigation plan

- Touchscreen and WIFI enabled

- Fast USB charging

- Comprehensive service and warranty

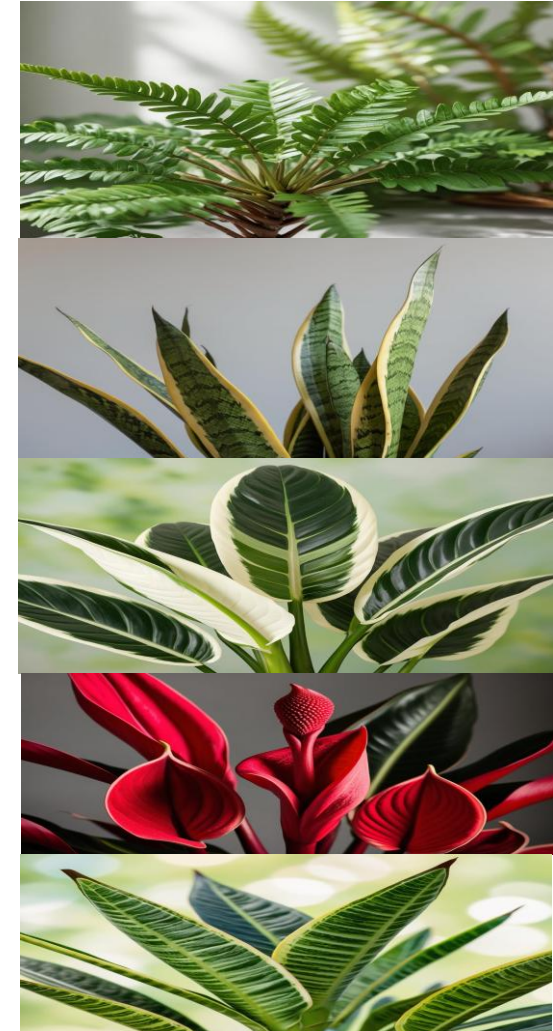# Proposed Solution: Dashboard

Features

- High quality sensors
- Intelligent Device
- WiFi enabled
- Smart Dashboard
- Rechargeable Battery
- Warranty

Description – Smart AirCARE

Measured parameters: O2, CO2, HCHO, LPG, PM2.5, PM10, Humidity and Temp.

Proposed Solution: Plantation

Name of Trees	CO2 Reduction Potential
Bird's Nest Fern – Asplenium Nidus	0.047 ppm/m^3 per pot per day
Snake Plant – Sansevieria Trifasciata	0.49 ppm/m^3 per pot per day
Dumb Cane - Dieffenbachia	0.057 ppm/m^3 per pot per day
Anthurium – Anthurium Andraenum	0.005 ppm/m^3 per pot per day
Arrowhead Plant – Syngonium podophyllum	0.005 ppm/m^3 per pot per day

Leadership Team

Rabin Roy, IIT Kharagpur
Chief Executive Officer
20 years (Solar, Entrepreneurships & Research)

Anjan Ghosh, IIT Kharagpur
Director
40 years (Manufacturing, Solar & Research)

Debashis Mukhopadhyay
Director
50 years (Power Generation and Power Project Execution)

Avijit Jana, IIT Kharagpur
Director
25 years (AI, ML, Business Analytics)