

भारत सरकार / GOVERNMENT OF INDIA
रेल मंत्रालय / MINISTRY OF RAILWAYS
(रेलवे बोर्ड / RAILWAY BOARD)

No.2025/EnHM/14/01/Air Pravah

New Delhi, 16-04-2025

**General Managers,
All Zonal Railways/PUs**

Sub: Indigenous Air Quality Monitoring System developed by MeitY.

Ref: Secretary/MeitY's D.O. letter no. 26(1)/2020-ESDA dated 09.01.2025.

Secretary/MeitY, vide letter under reference has apprised that an indigenous device/system i.e. Air Quality Monitoring System (Air-Pravah) has been developed for real- time Air Quality Monitoring. It measures pollutants and AQI as per National Ambient Air Quality Standards (NAAQS) and may be helpful in monitoring Air Quality parameters across various Railway Establishments. (The brochure with detailed specification is attached as **Annexure-I**).

2. Aforesaid letter, is enclosed herewith for information and action, as appropriate, please.

DA: As above

Digitally signed by
Ajay Jha
Date: 16-04-2025
18:28:00
Ajay Jha
Director (EnHM)
Railway Board

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एस. कृष्णन, आई.ए.एस.
सचिव
S. Krishnan, I.A.S.
Secretary



इलेक्ट्रॉनिकी और सूचना प्रौद्योगिकी मंत्रालय
भारत सरकार
Ministry of Electronics &
Information Technology (MeitY)
Government of India

DO No.: 26(1)/2020-ESDA
Date: 09.01.2025

Dear Shri Kumar,

Sub: Indigenous Air Quality Monitoring System developed by MeitY.

You may be aware that this Ministry supports research and development in all application areas of Electronics and IT, from Proof-of-Concept to commercialization. Consequently, indigenous technologies and products have been developed under the National Programme on Electronics and ICT Application in Agriculture and Environment (AgriEnIcs) for Food Quality estimation, harvesting automation, Animal health monitoring, Environment, and Water Quality, for pan-India applications.

2. In this regard, MeitY has supported the development of an indigenous device for a real-time Air Quality Monitoring System. The Air Quality Monitoring System (Air-Pravah) measures pollutants and AQI as per National Ambient Air Quality Standards (NAAQS). The system is certified by CSIR-NPL and TUV-India. TEXMIN, a Technology Innovation Hub at IIT Dhanbad has conducted field trials for data validation at mine sites. The technology has been transferred to M/s J.M EnviroLab Pvt. Ltd., Gurugram for commercialization under the brand name of 'Air-Pravah'. The 'Air-Pravah' follows national environmental guidelines, providing efficient, cost-effective baseline data collection for hot-spot identification, ambient air quality data, and compliance monitoring. It has features like quick setup, one-time installation and cloud connectivity, enabling real-time monitoring and proactive decision-making (The brochure with detailed specification is attached as Annexure-I).

3. I request that the relevant agencies under your Ministry/Department be sensitized about the availability of indigenous technology of the 'Air-Pravah' system. Further, while preparing the bidding documents for air quality monitoring systems, it may be ensured that the specifications are prepared in such a manner as to offer a level playing field for the indigenously developed technology. Your efforts in this direction would greatly strengthen the Atmanirbhar Bharat initiative of the Government.

With highest regards,

Yours sincerely,

(S. Krishnan)

Shri Satish Kumar,
Chairman & Chief Executive Officer,
Railway Board, Ministry of Railways,
256-A, Raisina Road, Rajpath Area,
Central Secretariat, New Delhi, 110001



AIMS

Air Quality Monitoring System

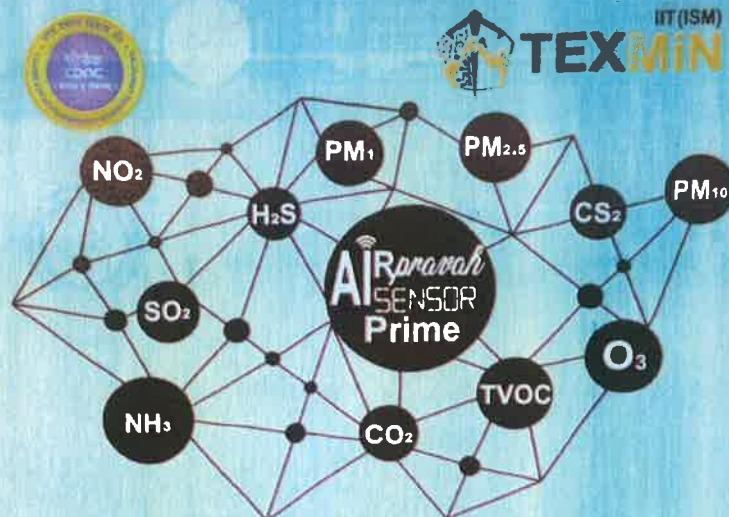
Backed by



इलेक्ट्रॉनिकी एवं
सूचना प्रौद्योगिकी विभाग
MINISTRY OF
ELECTRONICS AND
INFORMATION TECHNOLOGY



TEXMin IIT (ISM)



AI BASED AIR QUALITY MONITORING SYSTEM (AQ-AIMS)

Funded by



Ministry of Electronics and Information Technology (MeitY)
Government of India

Developed by
Centre for Development of Advanced Computing



Tested & Certified by
CSIR NPL (Indian NMI)
IIT (ISM) India B/C



Technology Partner J.M. EnviroLab Pvt. Ltd.

AQ-AIMS

REVOLUTIONIZING AIR QUALITY MONITORING

India's Game-Changer for Affordable, AI-Powered Air Quality Monitoring

- **Next-Gen technology:** AI-powered AQ-AIMS by C-DAC, India, advances air quality monitoring. Aligns with "Make in India" and "Digital India" initiatives.
- **Government-backed Innovation:** Funded by MeitY under "AngiEnlcs" program.
- **Rigorously Tested:** Validation by TEXMiN (IIT (ISM) Dhanbad) ensures accuracy.
- **Made in India, Affordable:** Manufactured by JMELPL at a fraction of traditional costs. TEXMiN handles sales on GeM portal.
- **Unmatched Endorsement:** Only Government of India endorsed air quality system under "Make in India".



Developed by the Centre for Development of Advanced Computing (C-DAC), Kolkata, Government of India, a premier government research institute, AQ-AIMS represents a leap forward in Indian environmental technology.

The instrument is also tested & Certified By CSIR-NPL (Indian NMI), TUV, India & CE, all certification is taken by CDAC, Kolkata.

AQ-AIMS

UNRIVALED ANALYTICAL CAPABILITIES

AQ-AIMS analyses real-time air quality pollutants with Air Quality Index (AQI) in adherence to National Ambient Air Quality Standards (NAAQS) with precision across 18 critical air quality parameters, setting a new industry standard.

NEW
PRODUCT



The product has been named as "Air-pravah". The AQ-AIMS, designed to measure a spectrum of pollutants and calculate the Air Quality Index (AQI) in compliance with National Ambient Air Quality Norms as per CPCB, MoEFCC, stands as a testament to our commitment to technological innovation.



AQ-AIMS

Air Quality Parameters Measured



Gases

- CO (Carbon Monoxide)
- CO₂ (Carbon Dioxide)
- NO₂ (Nitrogen Dioxide)
- SO₂ (Sulfur Dioxide)
- NH₃ (Ammonia)
- VOC (Volatile Organic Compounds)
- HCl (Hydrogen Chloride)
- H₂S (Hydrogen Sulfide)
- CS₂ (Carbon Disulfide)
- Cl₂ (Chlorine)
- O₃ (Ozone)



Particulate Matter

- PM_{1.0} (Particulate Matter less than 1.0 micrometers)
- PM_{2.5} (Particulate Matter less than 2.5 micrometers)
- PM₁₀ (Particulate Matter less than 10 micrometers)



Others

- Noise
- Luminosity
- Temperature
- Humidity

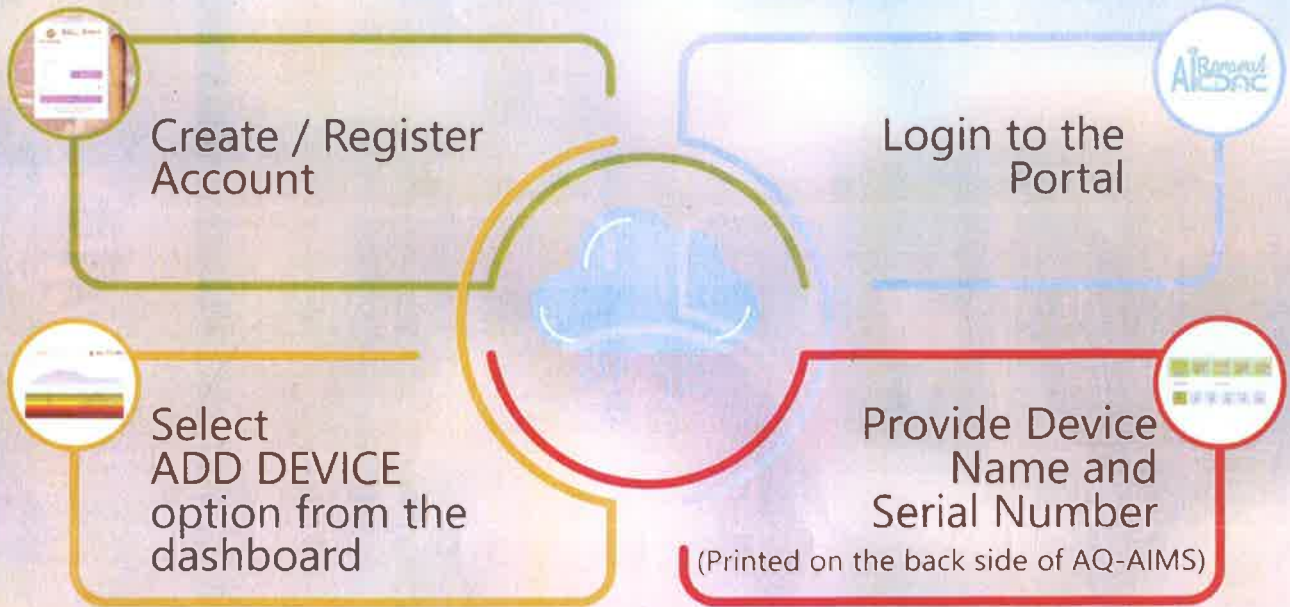
AQ-AIMS

UNMATCHED ENDORSEMENT

Only Government of India endorsed
air quality system under "Make in India"



Streamlined Air Pravah Application: Creating a Meaningful Connection Between Users and the Data Collected by "Air Pravah CDAC"



Open Mobile Application



Open web portal
<https://aqionline.in/login>



Technology Partner



J.M. EnviroLab Pvt. Ltd.
Regd. Address: 424, Ground Floor,
Udyog Vihar, Phase-IV, Gurugram,
Haryana - 122 015



**LIVE GREEN, BREATHE EASY:
A SUSTAINABLE FUTURE FOR ALL**

Sold at:



GeM
Government
e Marketplace

<https://gem.gov.in>

