



Press Release:

## **NHAI to Introduce AI Powered Dashcam Monitoring System for National Highway Operations & Management**

*Specialized dashboard cameras mounted on Route Patrol Vehicles (RPVs) to conduct weekly surveys on the National Highway stretches*

**New Delhi, 20<sup>th</sup> March 2026:** Taking a significant step towards transforming Operations & Management of National Highways, NHAI will deploy advanced AI Powered Dashcam Analytics Services (DAS) on around 40,000 km of the National Highway network. This initiative leverages Artificial Intelligence (AI) and Machine Learning (ML) to enhance use of high-tech, data-driven Operations & Maintenance (O&M) for the National Highways and Expressways across the country.

The project aims to enhance remote tracking and road condition assessments using high-resolution imagery and video data. Specialized dashboard cameras will be mounted on Route Patrol Vehicles (RPVs) to conduct weekly surveys on all the stretches comprehensively. Advanced AI/ML trained models shall be deployed for identification of over 30 types of defects and anomalies automatically.

The major focus will be on Pavement condition which includes detection of potholes, rutting, and severe cracking. The adopted method will also cover Road Furniture incorporating Real-time identification of damaged or faded lane markings, crash barriers and non-functional streetlights. Special focus will be on Safety & Encroachments through monitoring for illegal median openings, unauthorized signboards, and illegal parking or encroachments.

To further enhance road safety, at least one weekly survey will also be conducted during nighttime in a month for performance evaluation of road signages, pavement markings, road studs and highway lighting. Other critical maintenance issues like water stagnation, missing drainage covers, vegetation growth and condition of bus bays shall also be covered.

For effective monitoring of the reports, five zones have been strategically created across the country to ensure systematic data monitoring. A specialized IT platform featuring dedicated modules for data management, AI analytics and interactive visualization dashboards shall be developed dedicatedly for this purpose. The solution also allows for side-by-side comparisons of road conditions over time, enabling NHAI to precisely track maintenance progress and repair efficiently. The AI generated results shall also be integrated to central NHAI Data Lake platform for seamless monitoring and ensuring timely rectification of defects.

The initiative marks a significant step towards technology-driven and efficient Operations & Management of National Highways. Leveraging AI powered dashcam monitoring will enable timely maintenance, improve road safety and enhance overall user experience across the National Highway network.

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