

Lucknow Ring Road: 104 km under continuous enforcement

Lucknow, Uttar Pradesh · NHAI

Stellarview deployed Vehicle Speed Detection across 22 gantries on one of NHAI's most advanced enforcement corridors.

Overview

The Lucknow Ring Road is a 104 km high-speed corridor around Lucknow. As part of NHAI's 2023 enforcement policy, Stellarview went live across the corridor's gantry network from May 2026 under a five-year operations arrangement — combining AI Global Shutter cameras with radar-based speed detection.

The challenge

Before this deployment, the corridor depended on manual enforcement that could not keep pace with continuous high-speed traffic.

- Accident-prone stretches with no automated way to flag risk in real time
- Inconsistent seatbelt, lane, and speed compliance across 104 km
- Limited visibility into vehicle volumes, classification, and flow
- An enforcement-to-revenue gap — manual checks could not produce consistent, evidence-backed challans

The solution

Stellarview deployed its Vehicle Speed Detection System (VSDS), integrated with Qualix radar, across 22 fixed gantries — 57 Stellarview Global Shutter cameras spanning the full corridor. Pulse IR enables night enforcement, including in-cabin seatbelt detection.

Impact

Measured results include 90% seatbelt accuracy (24/7), 99.9% vehicle counting accuracy, and Government Certified (NATRAX) speed validation up to 230 km/h. This is the first camera-based enforcement system on the corridor, giving NHAI continuous automated detection where none existed before.

Conclusion

The LRR deployment shows how Global Shutter cameras and radar can deliver court-ready highway enforcement at corridor scale — day and night — without relying on manual patrols.

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