

# Case Study: Intelligent Traffic Management System (ITMS) Mohali S.A.S. Nagar, Punjab

## Introduction

The Punjab Police Housing Corporation Limited, in collaboration with the Senior Superintendent of Police, S.A.S. Nagar, Punjab, embarked on a mission to modernize Mohali's traffic ecosystem through the implementation of an Intelligent Traffic Management System (ITMS). This project aimed to address the city's growing traffic challenges while contributing to Smart City initiatives. With the integration of advanced surveillance, real-time monitoring, and enforcement solutions, the ITMS project is set to enhance road safety, reduce congestion, and provide timely traffic information to the public.

## Problem Statement

Mohali, like many rapidly urbanizing cities, facing issues related to increase in traffic inflow like:

- Regular traffic congestion at key locations.
- Frequent traffic violations and lack of crowd management.
- Lack of real-time monitoring delays authorities reaction time and weakens enforcement.
- Ineffective peak-hour coordination increases commute times and public frustration.

The city needed an Integrated, secure & ever-evolving AI based solution improving the overall commuting experience & elevate enforcement system.



**Artificial Intelligence  
Platform**



Hon. CM Bhagwant Singh Mann inaugurated Phase-I

Fig.1 Intelligent Traffic Management System (ITMS) – Mohali S.A.S. Nagar, Punjab

## Solution: Smart Traffic Monitoring & Enforcement

Vehant’s Okean® AI Video Platform delivers unified surveillance through integrated AI-based video analytics, SteriEye® (VMS), and TrafficMon® for traffic monitoring & enforcement.

- OKEAN® AI Video Analytics with **200+** licenses of each use cases



Wrong Way Detection



Triple Riding Solution



Wrong Parking Detection



No Helmet Detection

- OKEAN® AI Video Analytics with **100+** Licenses of each use cases



Crowd Count



Loitering Detection

- OKEAN® TrafficMon® with **200+** ANPR camera licenses, along with **50+** licenses for Red Light Violation and **15+** licenses for Speed Violation Detection
- OKEAN® Sterieye® with **400+** cameras for view & record live city surveillance and access to historical video footage.
- Integrates with e-Challan and Vahan NIC
- ARAI- tested and certified system for accurate traffic enforcement
- OKEAN® 360° Business Intelligence Dashboard & centralized interface

## Impact

- OKEAN® TrafficMon® AI Traffic Solution enables faster vehicle identification and better enforcement across installed locations.
- Real-time ANPR and vehicle classification allow law enforcement to detect stolen or wanted vehicles across multiple locations, enhancing public safety and supporting criminal investigations.
- OKEAN® SteriEye® provides centralized viewing and recording of live feeds from 400+ cameras, allowing the police to monitor key intersections and take swift action.
- Custom dashboards, searchable violation history, and report generation help authorities analyze traffic behavior trends and plan interventions more effectively.

The system currently generated 5,000 to 6,000 challans per day (as per March 2025, Directorate of Information & Public Relation, Punjab), significantly improving enforcement and traffic compliance. Its transparent, evidence-based process has enhanced public trust while promoting safer driving behavior. The system’s real-time detection supports faster emergency response, smoother traffic flow, and improved pedestrian safety. Following the successful completion of Phase 1, the Punjab Government has initiated Phase 2 to expand surveillance coverage across more locations, further strengthening Mohali’s intelligent traffic management network.

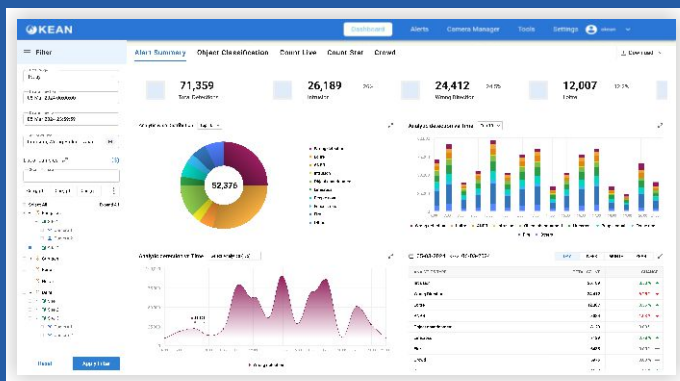


Fig.2 OKEAN Dashboard

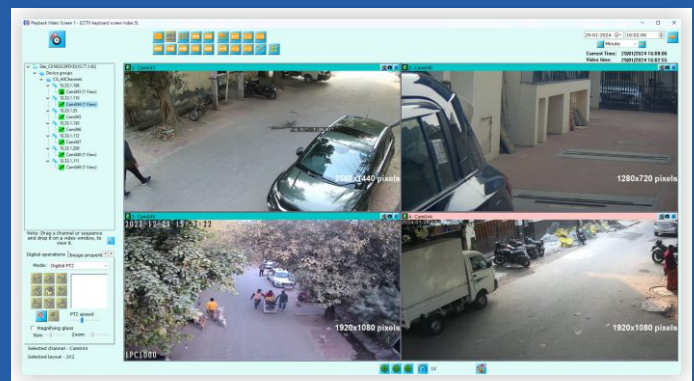


Fig.3 SteriEye VMS Dashboard