



peace of mind[™]

Helping People Get Home Safe

Safe City & Intelligent Mobility India 2024

Our History



ADOR Group - A Legacy Company since 1908

As we move into a new era, we are consistently striving to deliver Peace of Mind™ to our clients by building a progressive customer centric culture that focuses on problem solving, design thinking and simple, yet resilient solutions.



Diversified businesses across manufacturing, welding, engineering, consumer products, software and technology, renewable energy solutions and e-retail

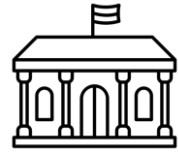
Ador Traffic Overview

At Ador, we prioritize safety and innovation to ensure everyone gets home securely every day. Our advanced technology solutions are tailored to meet specific needs and environments, delivering reliable performance and peace of mind

Sector-Wide
Deployment
Capabilities
across the
globe



Public Roads/
Highways



Municipalities



Factory
Premises



School/Colleg
e Zones



Railways and
Trams



Military
Bases



Residential
Communiti
es



100%
Efficient Installations

2500+
Successful
Installations

200+
Employee Strength

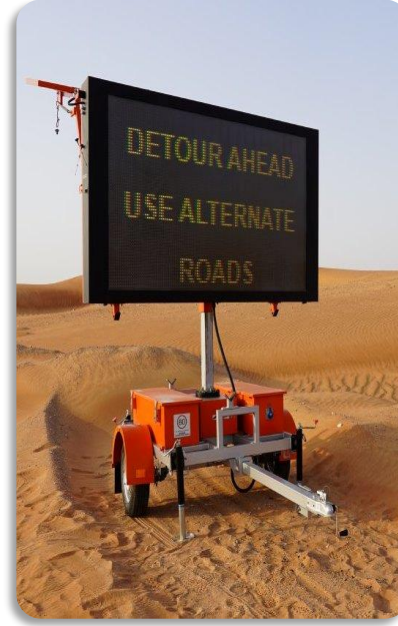
Ador Traffic Portfolio (1/3)



**Speed
Display**



**Speed
Display with
CAMERA**



**Portable Variable
Message Sign**



**Speed
Enforcement**

Ador Traffic Portfolio (2/3)



Arrow Sign Board



Variable Message Sign



Impact Attenuator



Roller Barrier

Ador Traffic Portfolio (3/3)



Truck Mounted Attenuators



Solutions for India's Road Safety



Deploying technology is the way that the ITS sector can
make the most difference



Advanced Use Cases of
Radar Speed detectors + Camera
+ ANPR + AI

AI-Driven Speed Enforcement and Traffic Management Solutions



Wrong Way Driving Offences Detection



Parking/Overstaying on Highways



In-Car Offences: mobile use, no seatbelt



Crash Detection and Automatic Alerts



High-Risk Spot Identification



Habitual Offender Identification

Leveraging AI along with ANPR technology to enhance road safety, and ensure compliance with intelligent and automated enforcement solutions

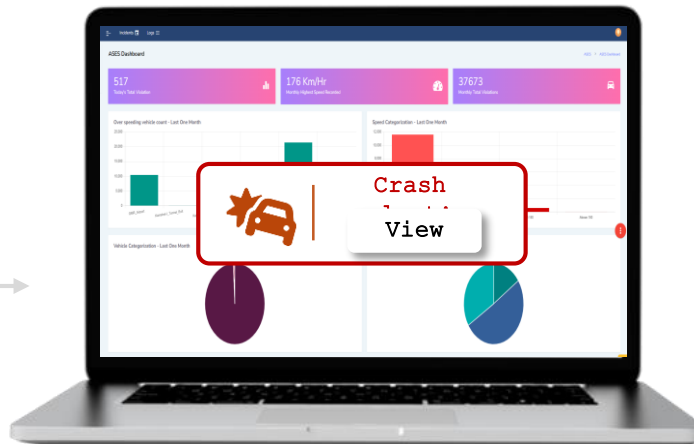
Post-Crash Automated Detection and Emergency Response System



Installed system detects the crash

Seamlessly connecting crash detection systems to emergency services for immediate response and improved survival rates

Use case driven by Automation



Instant Automated Alerts to Traffic Authority with accurate location and live feed



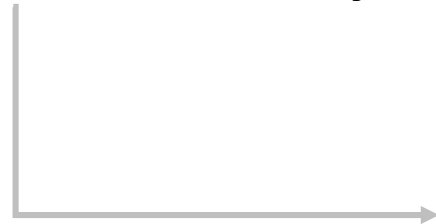
Automated alert is also sent to the nearest hospital, which then dispatches an ambulance

Real-time Traffic Pattern Analysis and Management

An AI-powered solution will automatically update Variable Message Sign boards and speed limits in real-time based on traffic density or crash detection, through the smart integration of multiple systems leading to automated traffic management



Continuously monitor traffic density



Real-time update to Variable Message Sign boards based on Traffic density or crash

Automatic Speed limit reduced

Traffic ahead at Kamshet Tunnel expect delays



Update the speed limit in real-time based on incidents detection

Leveraging Predictive Analytics for Dynamic Speed Regulation on highways



- Predictive Analytics will enable the system to predict traffic volumes and identify the peak hours
- System will dynamically implement variable speed limits based on predicted traffic density
- During peak hours, the speed limit would be reduced to improve safety and reduce the risk of accidents
- Conversely, during off-peak hours, the speed limit can be increased to enhance traffic flow and reduce travel times

MULTI-FUNCTION ENFORCEMENT SOLUTION

Ador has successfully developed, manufactured, and operated a solution for a full-scale enforcement program targeting the causes of 2 in 3 road deaths



Distraction

+



Seatbelt

+



Point Speed

+



Average Speed

+



Unregistered

Challenges for ANPR – India

Standardised Indian number plate as per national regulations



ANPR –



ANPR –



ANPR –



ANPR –



ehicles are



ANPR –



distance are



SPEED ENFORCEMENT TECH –

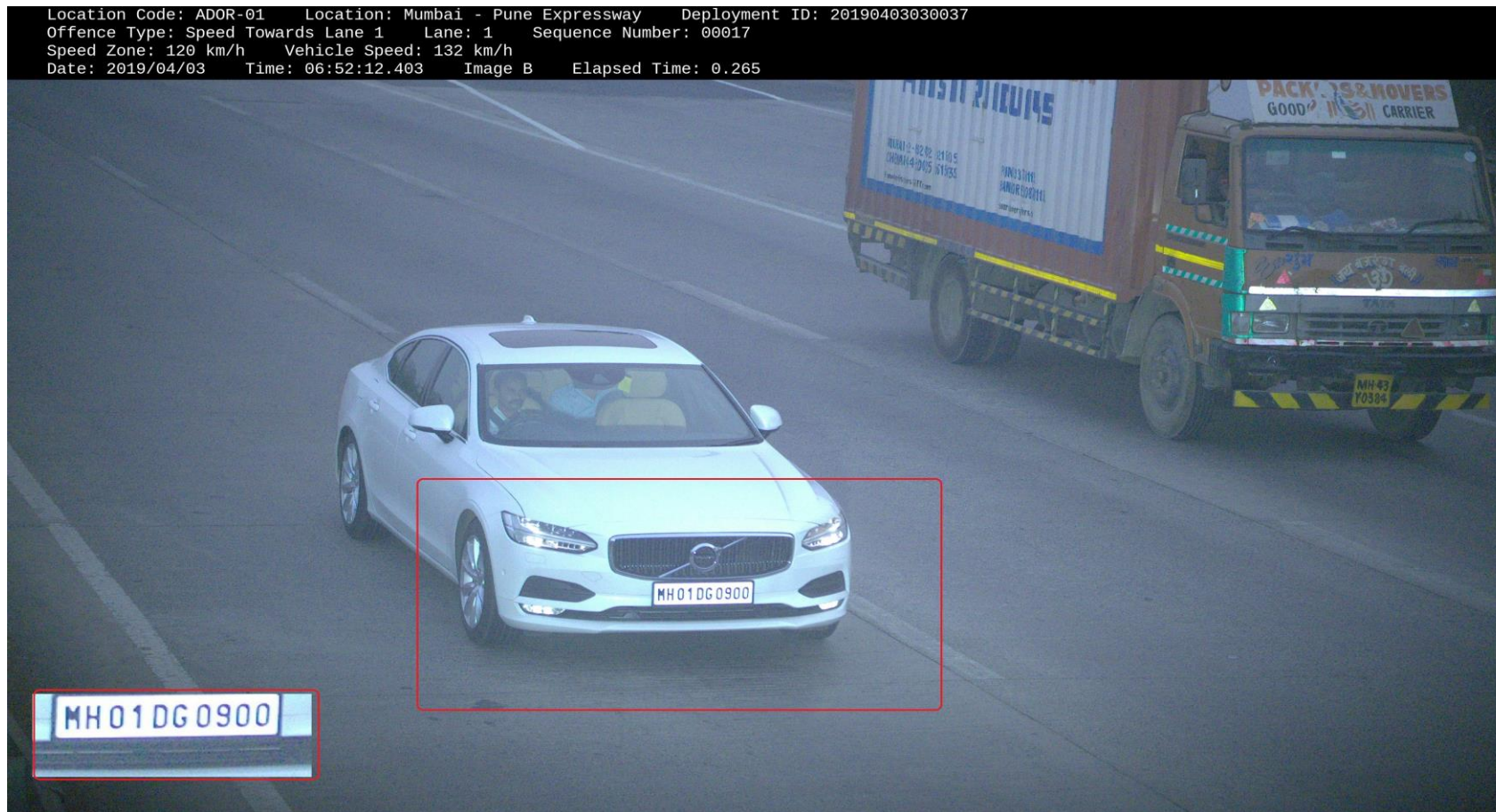
Commuter & police force confidence in the technology implemented is necessary

- Enforcement must be consistent
- Infringement evidence must stand up in court
- Penalties must be punitive
- System benefits must outweigh costs
- System complexity must be kept to minimal to allow for early success

Typical Infringement Evidence

- * 2 ultra high definition pictures per infringement which can be simultaneous for both directions
- * Date and time stamp information
- * Location stamp
- * Speed zone and actual speed for multiple vehicles in same frame
- * Vehicle direction & classification
- * Picture can be blown up to very large size to read number plates due to high def format

Day Time
Capture



Typical Infringement Evidence

* Mumbai Pune Expressway 128kmph @ night

Night Time
128kmph

Location Code: ADOR-01 Location: Mumbai - Pune Expressway Deployment ID: 20190315030038
Offence Type: Speed Towards Lane 1 Lane: 1 Sequence Number: 00222
Speed Zone: 120 km/h Vehicle Speed: 128 km/h
Date: 2019/03/16 Time: 01:35:35.734 Image B Elapsed Time: 0.271



DISTRACTED DRIVING

Hyderabad - ORR

**Speed + Mobile
Phone Use**

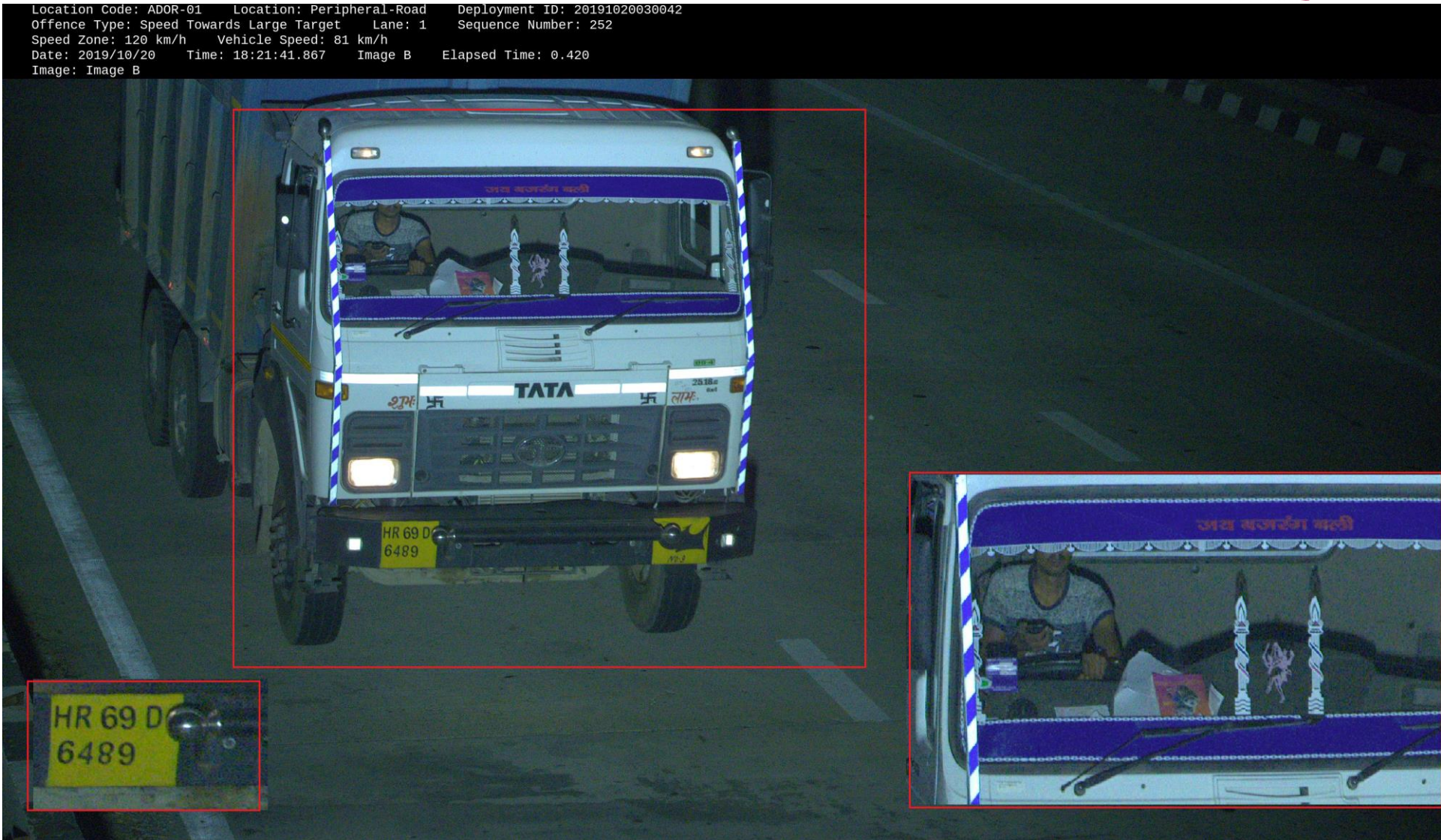
Location Code: ADOR-01 Location: ORR-Hyderabad Deployment ID: 20190831030034
Offence Type: Speed Towards Lane 2 Small Target Lane: 2 Sequence Number: 457
Speed Zone: 100 km/h Vehicle Speed: 114 km/h
Date: 2019/08/31 Time: 19:48:51.326 Image A Elapsed Time: 0.000
Image: Image A



DISTRACTED DRIVING

Delhi Eastern Peripheral

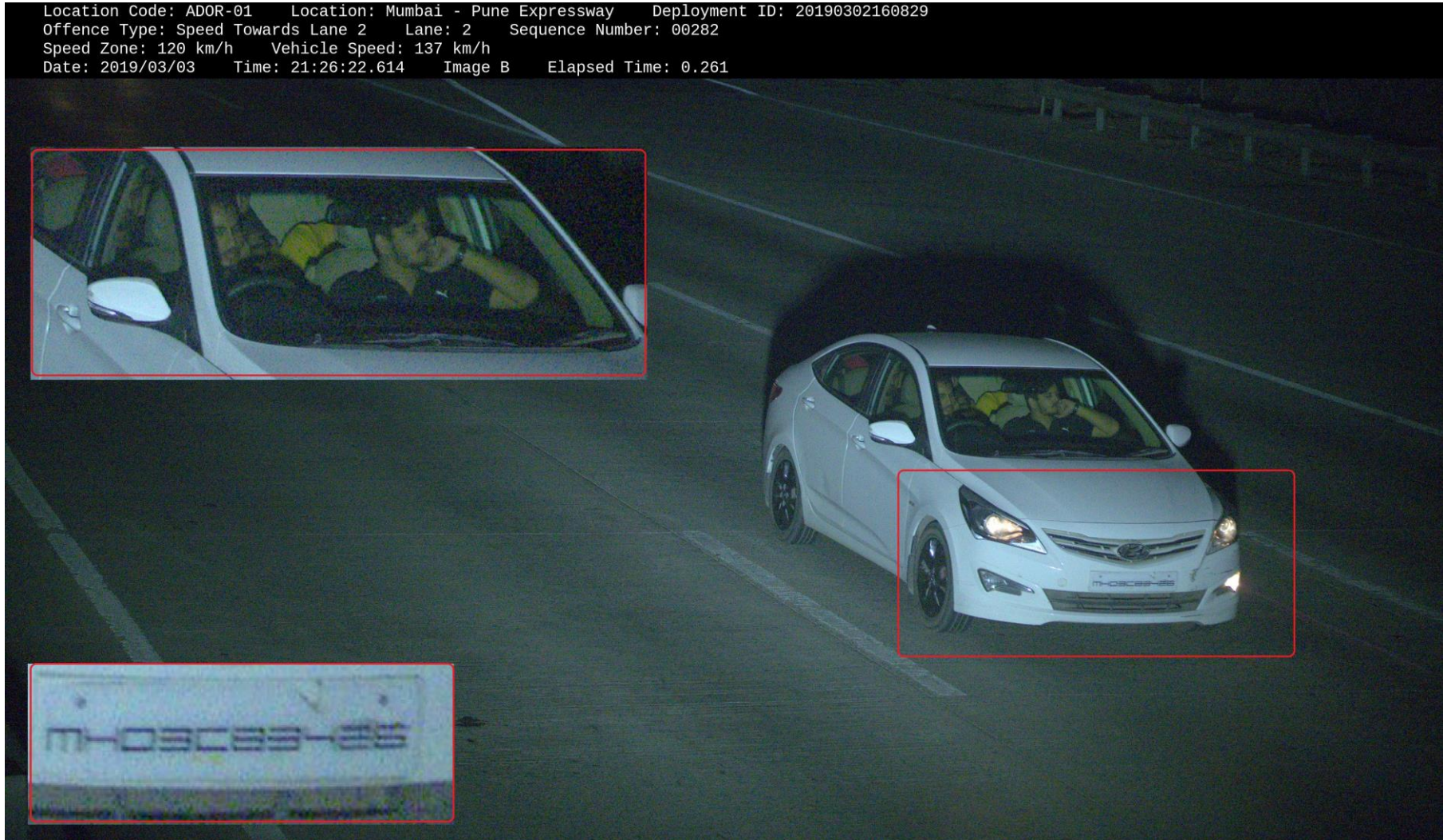
**Speed + Mobile
Phone + Lane**



SEAT BELT ENFORCEMENT

* Mumbai Pune Expressway

Speed +
No Seat Belt





**Connected Vehicle to
Everything (CV2X)
Communication**

Enhancing Transportation with Connected Vehicle-to-Everything (CV2X)

Communication

CV2X is the idea to connect and exchange information between multiple devices involved in transportation with the goal to improve safety and enhance traffic flow.



V2X encompasses multiple communication technologies:

1. **Vehicle to Vehicle (V2V)** – Direct communication between vehicles allowing them to share data such as position and speed as well as possible dangers detected by the vehicle’s sensors. This would help to prevent accidents and to improve traffic flow
2. **Vehicle to Infrastructure (V2I)** - Communication between vehicle and roadside infrastructure (traffic lights, road signs, weather sensors, etc.)
3. **Vehicle to Pedestrian (V2P)** – Communication between vehicles and pedestrians’ personal devices, such as a cellphone, and alert them or vice versa
4. **Vehicle to Network (V2N)** – Communication between vehicles and external networks to access real-time data such as traffic analysis, weather, parking locations, etc.



Benefits of Seamlessly integrated ecosystem for Road Safety

- **Enhanced Safety**
 - Communication with pedestrians, vehicles, and emergency services reduces accidents and improves response times
- **Traffic Efficiency**
 - Real-time updates on traffic signals and parking optimize flow and reduce congestion
- **Improved Connectivity**
 - Integration with home automation, EV charging, and weather updates enhances convenience and driving experience
- **Regulatory Compliance**
 - Real-time speed limit and variable message signs keep drivers informed and compliant



Case Studies

Successful Implementation of the Intelligent Enforcement Management System (IEMS) for Odisha State Transport Authority

#relentlesslyreliable





Main Dashboard

Maps

SVD

VMS

VIDES

Dashboard

Reports

ANPR Logs

Incidents

Incidents Logs

CCTV

IMS

MET

Authentication



Image Name

ADOR_202407110856510000_Image.jpg

Location Name

Khusalyapur_RHS

Record ID

363288

Lane Number

0

Registration Number

OD13S3329

Vehicle Category

LMV

Vehicle Type

Car

Number Plate Type

NA

Save and Next

Save

Download Image

Delete

No **Helmet**

07-11-2024 Thu 14:07:59

id:60357 vehicles 0.79

id:60358 helmet 0.52

id:60359 no_helmet 0.68



Image Name

ADOR_202407110838310000_Image.jpg

Location Name

Khusalyapur_RHS

Record ID

363271

Lane Number

0

Registration Number

OR04K2871

Vehicle Category

LMV

Vehicle Type

Car

Number Plate Type

NA

Save and Next

Save

Download Image

Delete

No **Helmet**



Main Dashboard

Maps

SVD

VMS

VIDES

CCTV

IMS

MET

Authentication

Location : Khusalyapur_LHS DateTime : 2024-07-11 15:04:20 Image : Image B
Speed Limit : 80 Km/Hr Vehicle Speed : 92 Km/Hr
Vehicle Type : HCV Lane Number : 1

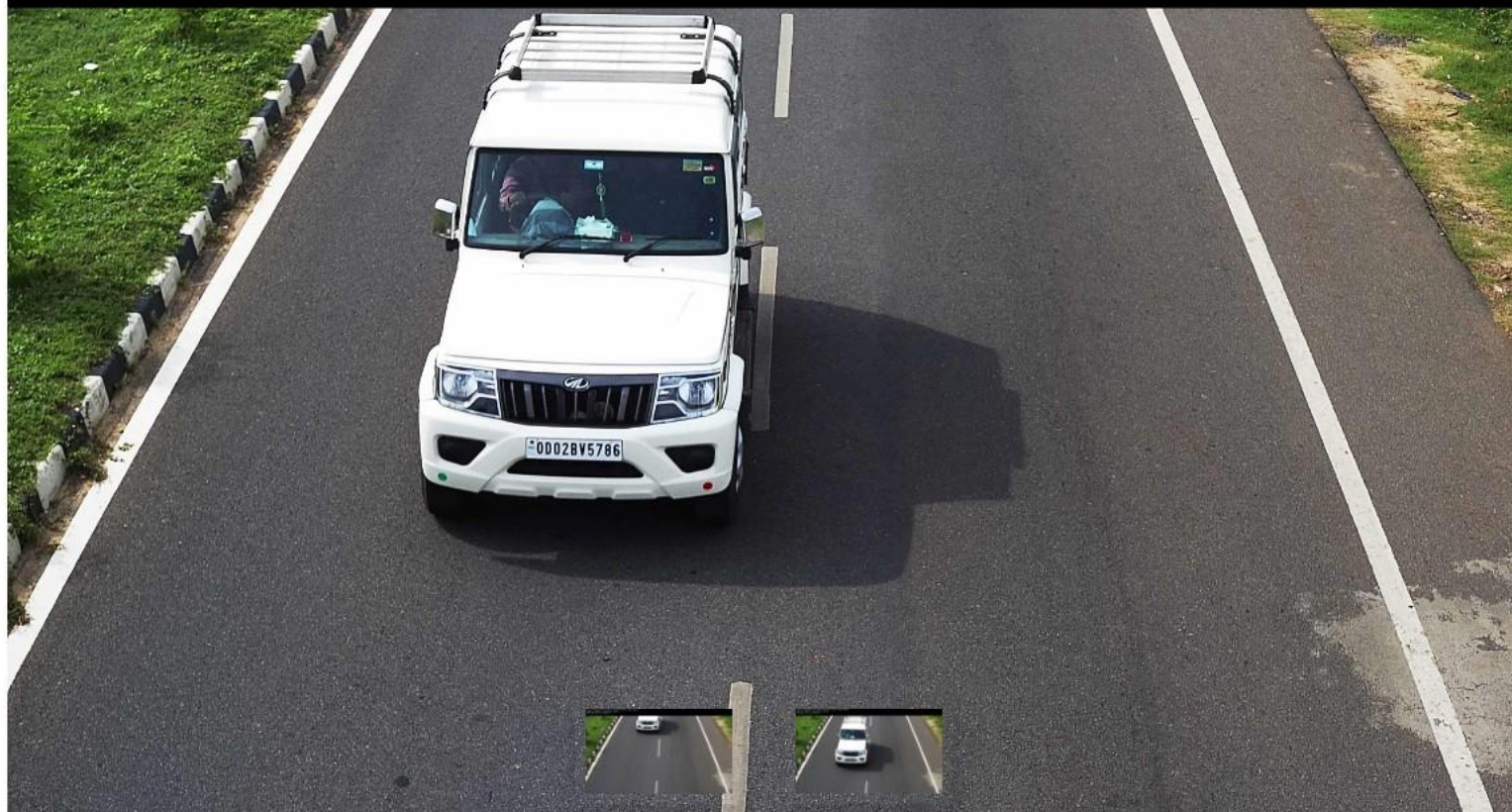


Image Name

ADOR_202407111504200563_ImageA.jpeg

Record ID

356698

Lane Number

1

Violation Speed

92

Registration Number

OD02BV5786

Vehicle Category

HCV

Vehicle Type

Car

Number Plate Type

NA

Save and Next

Save

Download Image

Delete

Previous

1

2

3

4

5

...

19

Next

Over speeding



- Main Dashboard
- Maps
- SVD
- VMS
- VIDES
- CCTV
- IMS
- MET
- Authentication

Location : Khusalyapur_LHS DateTime : 2024-07-11 15:15:23 Image : Image B
Speed Limit : 80 Km/Hr Vehicle Speed : 86 Km/Hr
Vehicle Type : LMV Lane Number : 2

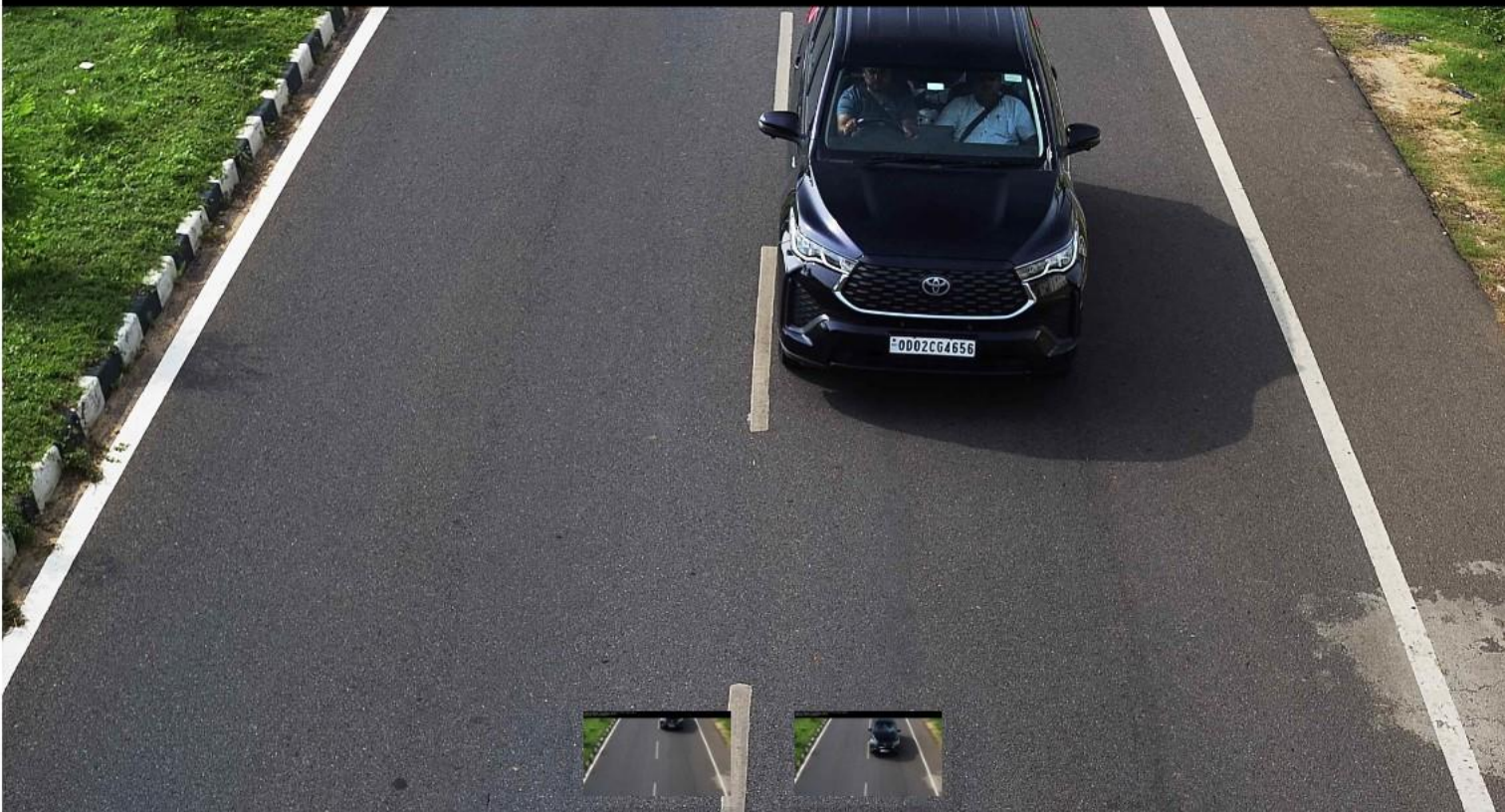


Image Name
ADOR_202407111515233738_ImageA.jpeg

Record ID
356712

Lane Number
2

Violation Speed
86

Registration Number
OD02CG4656

Vehicle Category
LMV

Vehicle Type
Car

Number Plate Type
NA

[Save and Next](#) [Save](#)

[Download Image](#) [Delete](#)

189 ADOR_202407111505397816_ImageA.jpeg 1 90 80 LMV Not Verified OD02AG0989

Over speeding



peace of mind™

Helping People Get Home Safe

Thank you.