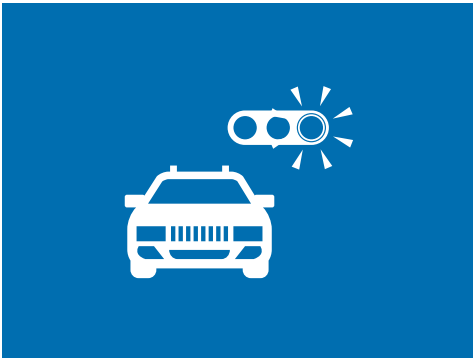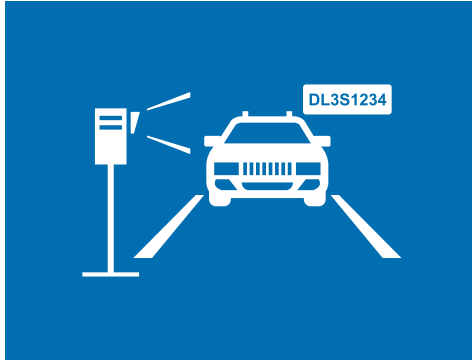# A range of AI & deep learning based Traffic Management Solutions

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TECHNOLOGIES
"Creating a smarter & secure tomorrow"

- AUTOMATIC NUMBER PLATE RECOGNITION
- RED LIGHT VIOLATION DETECTION
- TRIPLE RIDING DETECTION
- SPEED VIOLATION DETECTION
- NO HELMET DETECTION SYSTEM
- WRONG LANE DETECTION SYSTEM

TRAFFIC ENFORCEMENT SOLUTIONS | **TRAFFIC MONITORING SOLUTIONS** | **CITY/BORDER SURVEILLANCE**

Integrated Traffic Management System

Meeting Challenges
Ensuring Security

About Us

Vehant Technologies, pioneer in indigenously developed Physical Security, Surveillance and Traffic Enforcement Solutions, designed and developed its state of the art products and solutions to meet the demand of global standards, features, quality and continuously changing technology. Vehant is the member of KritiKal Group, which was incubated from Indian Institute of Technology (IIT) - Delhi in the year 2002.

Vehant Technologies is the leading manufacturer of Under Vehicle Scanning System (UVSS) in India and catering the requirements of all verticals. Vehant aims to provide comprehensive solutions to its customer, carry out research and explore technologies in the area of security, surveillance and monitoring space.

Vehant manufactures its cutting-edge products and solutions for the real world, based on its deep understanding of global security issues and challenges. Vehant has designed & developed a range of increasingly integrated security and monitoring products to create a complete solution stack tailored to individual requirements.

Indian roots and global approach have enabled us to build world class products, to build a smarter and secure future. For us innovation is the key to success and value creation.

Vision

To become a pioneer technology product company, with globally bench marked products in areas of physical security, surveillance and traffic monitoring space.

Our Manufacturing Unit

We have our own state of the art manufacturing unit with best in class facilities, led by experts to carry out turnkey projects all across globe with customer satisfaction as our utmost priority. We convert challenges into opportunities and product into an experience.

We believe innovation is the key to stay ahead in the market. Since our inception, we have taken huge strides in the field of monitoring-tracking-enforcement technologies. We believe in creating groundbreaking technology solutions which address the global security issues & challenges.

Automated Number Plate Recognition (ANPR)

VehiScan is the state of the art, real time Optical Character Recognition (OCR) based vehicle monitoring system based on Automatic Number Plate Reading (ANPR) for tracking and identification of vehicles. VehiScan analyzes a video stream in real-time from the camera and processes the same analyzed video stream for ANPR function. The processed vehicle license plates are stored in the database and can be verified against number of user-defined criteria. VehiScan can be deployed at Border check-posts, Toll Gates/Booths, Entry/Exit Traffic surveillance, Traffic law enforcement applications & hot-listed/stolen/suspected and barred vehicles as part of city surveillance solution.

**VehiScan®** - Automated Number Plate Recognition

Key Features

> Detects and reads license plates automatically in real time
> Real time 24x7 city surveillance solution
> The system can process with speed upto 120km/hr
> Does not use any inductive loop sensor/radar for vehicle detection
> Can be used for stolen/suspected/hot-listed/wanted vehicles
> Integrated with other security modules
> System can detect & recognize different dimensions/contrast/color license plate with various fonts & style
> Multiple entry points can be integrated together to a single central console
> Speed limit can be increased with different set of hardware

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Speed Violation Detection System

TrafficMon Speed Violation Detection is the state of the art video based speed violation detection system which determines the vehicular speed by calculating the time between the multiple frames of the vehicle and captures image of the number plate of the violating vehicle. TrafficMon does not use conventional sensors like radars, inductive loop sensors, laser etc. for detecting the speed. The solution comes with the user-friendly Graphical User interface (GUI) for seamless operation.

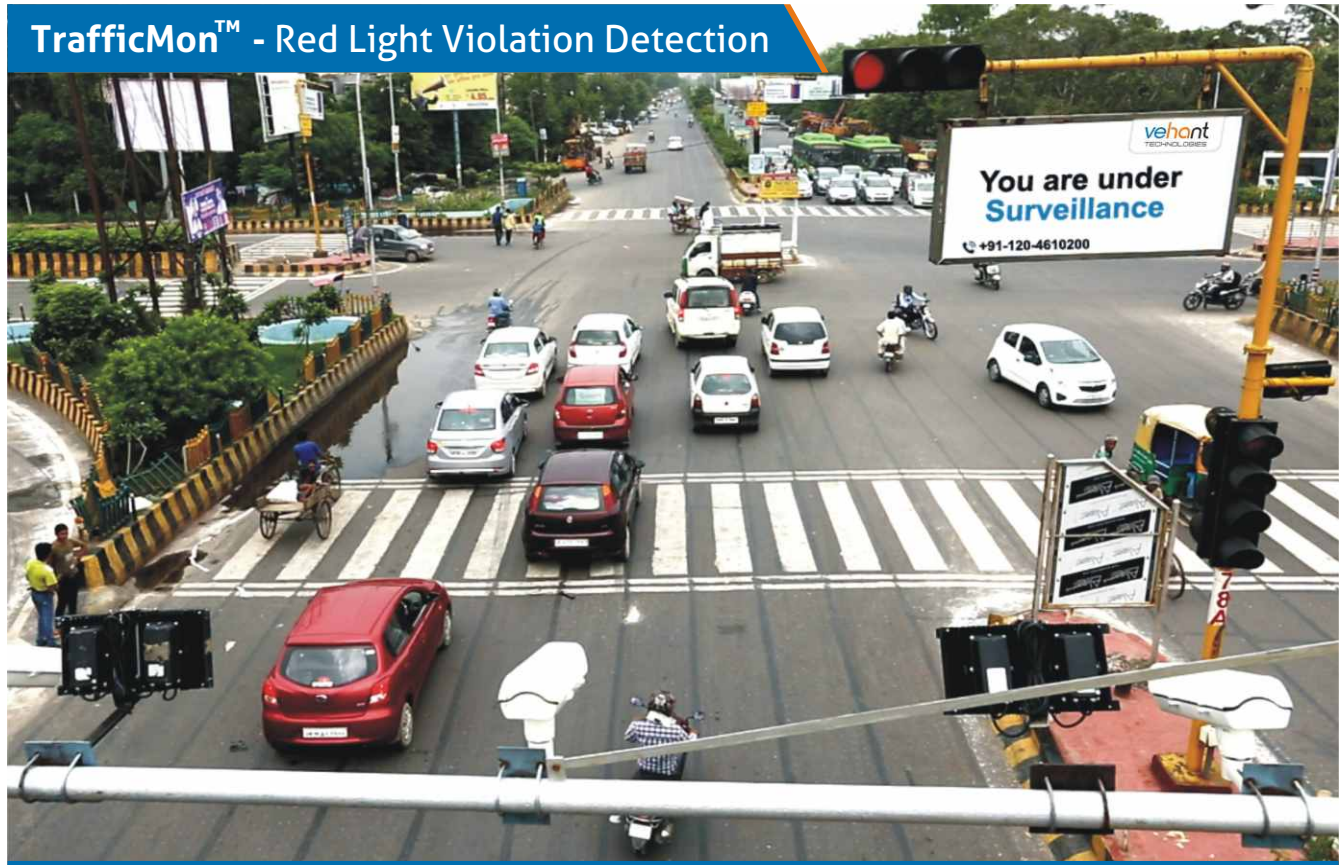## TrafficMon™ - Speed Violation Detection
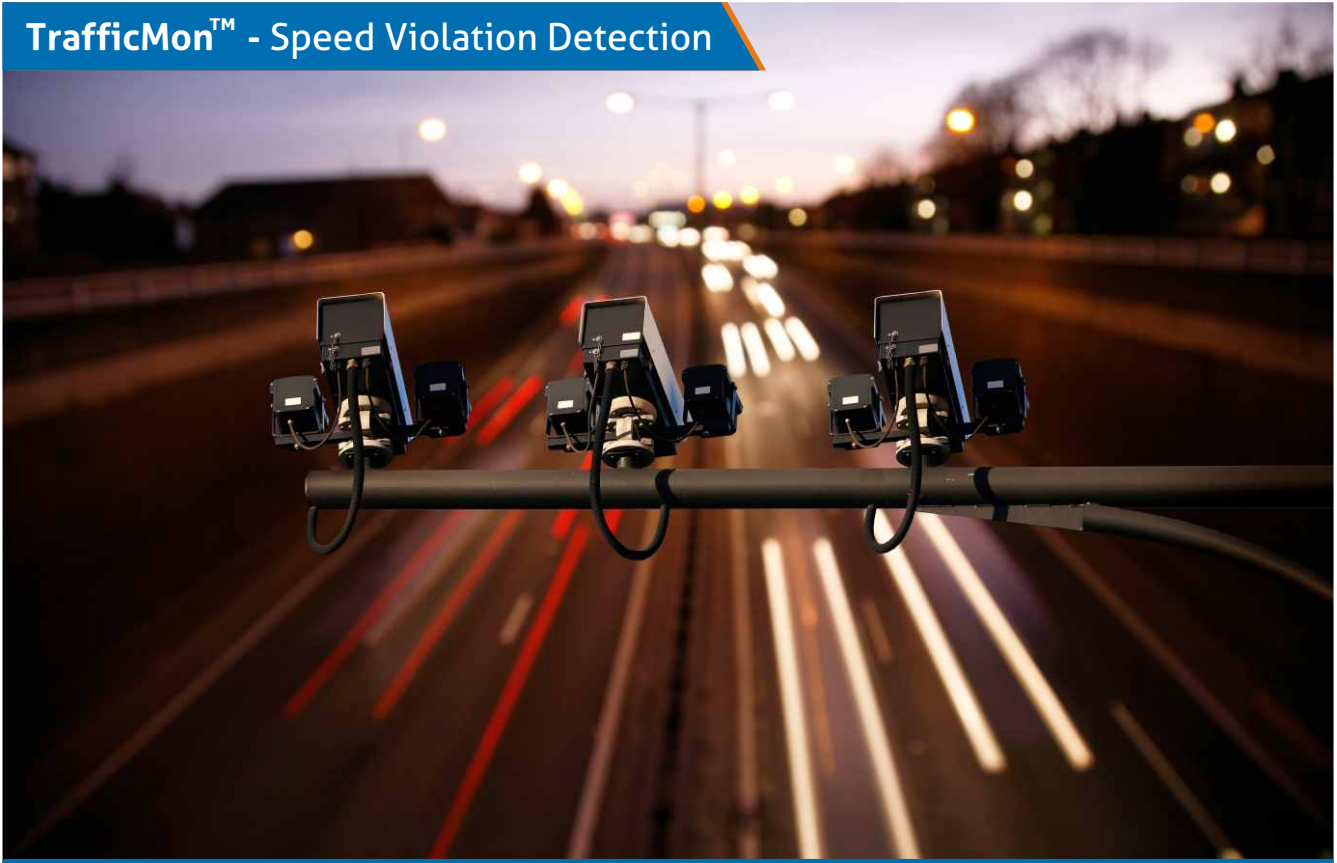
Key Features

> Video based speed violation detection system
> The system determines the instantaneous speed by calculating the time between multiple frames of the vehicle
> Can give the average speed of the vehicle between the two reference points
> System can be used for hot-listed/stolen and wanted vehicles
> Reads upto 120 km/hr of speed with high accuracy
> Does not use any inductive loop sensor/radar
> User friendly Graphical User Interface (GUI)
> Speed limit can be increased with different set of hardware

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Red Light Violation Detection System (RLVD)

TrafficMon RLVD is the best in class video based Red Light Violation Detection system comprising of overview camera and the ANPR camera. Overview camera shows the entire violation scenario and ANPR camera captures the image of the number plate of the violating vehicle. The system takes input from a traffic light and starts capturing red light violation as soon as traffic signal turns red. It does not require lane disciplined traffic for violation detection. TrafficMon RLVD comes with the state of the art, user-friendly Graphical User Interface (GUI) for seamless operation.

TrafficMon™ - Red Light Violation Detection

Key Features

> Video based Red Light Violation Detection system
> Does not use any inductive loop sensors/radar
> Takes input from traffic light and starts capturing red light violationas soon as traffic signal turns red
> Includes ANPR camera(s) and an Overview camera
> Violation evidence capturing module
> Does not require lane disciplined traffic for detection
> User friendly Graphical User Interface (GUI)
> Automated 24X7 operation
> Speed limit can be increased with different set of hardware

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No Helmet Detection System

TrafficMon - No Helmet Detection System is the state of the art video based automated No-Helmet Detection System for two-wheelers. The system has real-time vehicle license plates recognition which marks violation as **"No-Helmet Detection"** when rider and pillion on two-wheeler does not wear helmet and is detected by the ANPR cameras coming in its field of view. It can analyze, in real time, a video stream from camera or media storage. Recognized vehicle license plates and violations are stored into a database and can be verified against a number of user-defined criteria.

TrafficMon™ - No Helmet Detection

Key Features

> Video based system
> Does not use any inductive loop sensor/radar
> Can distinguish Cap, Construction Helmet, Safety Helmet and Turban from Helmet
> Can be used as either separate system or as an add-on module with existing hardware setup of ANPR/RLVD/SVD system etc.
> Can be used for stolen/suspected/hot-listed/wanted vehicles
> System is made to work extensively in 24x7 environment
> Can be integrated with other security module
> User friendly GUI

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Triple Riding Detection System

TrafficMon - Triple Riding Detection System is the state of the art video based automated Triple Riding Detection System for two-wheelers. It uses ANPR cameras, for detection of the violation. The system has real-time vehicle license plates recognition which marks violation as **"Triple Riding Detection"** when more than two people is riding the two-wheeler which is detected by the ANPR cameras coming in its field of view. It can analyze, in real time, a video stream from camera or media storage. Recognized vehicle license plates and violations are stored into a database and can be verified against a number of user-defined criteria.


TrafficMon™ - Triple Riding Detection
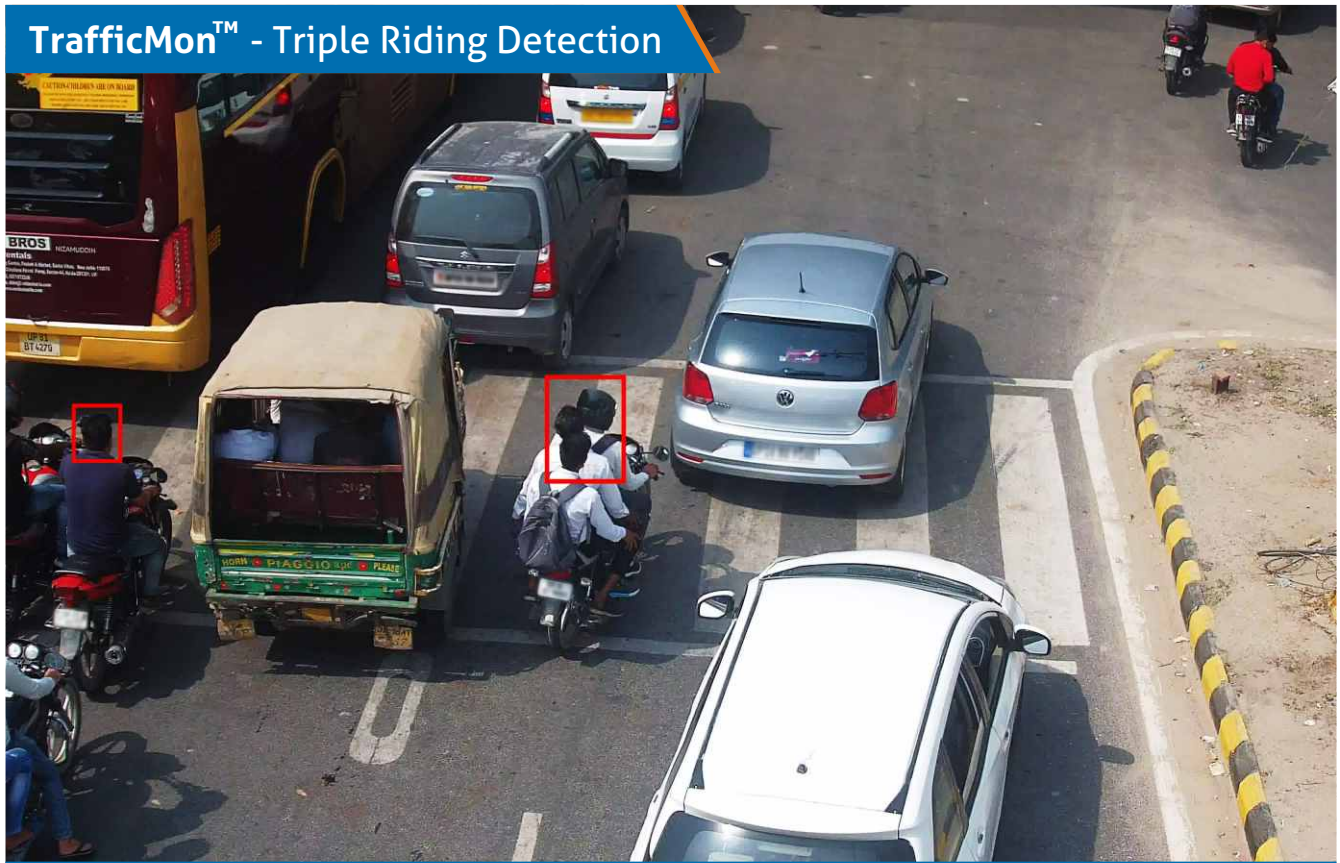
Key Features

> Video based system
> Does not use any inductive loop sensor/radar
> Marks Triple riding violation when more than two people is riding the two-wheeler
> Can be used as either separate system or as an add-on module with existing hardware setup of ANPR/RLVD/SVD system etc.
> Can be used for stolen/suspected/hot-listed/wanted vehicles
> System is made to work extensively in 24x7 environment
> Can be integrated with other security module
> User friendly GUI

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Wrong Lane Detection System

TrafficMon - Wrong Way Driving Detection System is the state of the art video based automated Wrong Way Driving Detection System for vehicles. It uses ANPR cameras, for detection of the violation. The ANPR Camera detect and identify the vehicles plying on the wrong lane. The system looks on a lane with a pre-defined direction of motion of the vehicles and as soon as a vehicle is found to be moving in its opposite direction, the system marks violation as **"Wrong Way Driving Detection"**. It can analyze, in real time, a video stream from camera or media storage. Recognized vehicle license plates and violations are stored into a database and can be verified against a number of user-defined criteria.
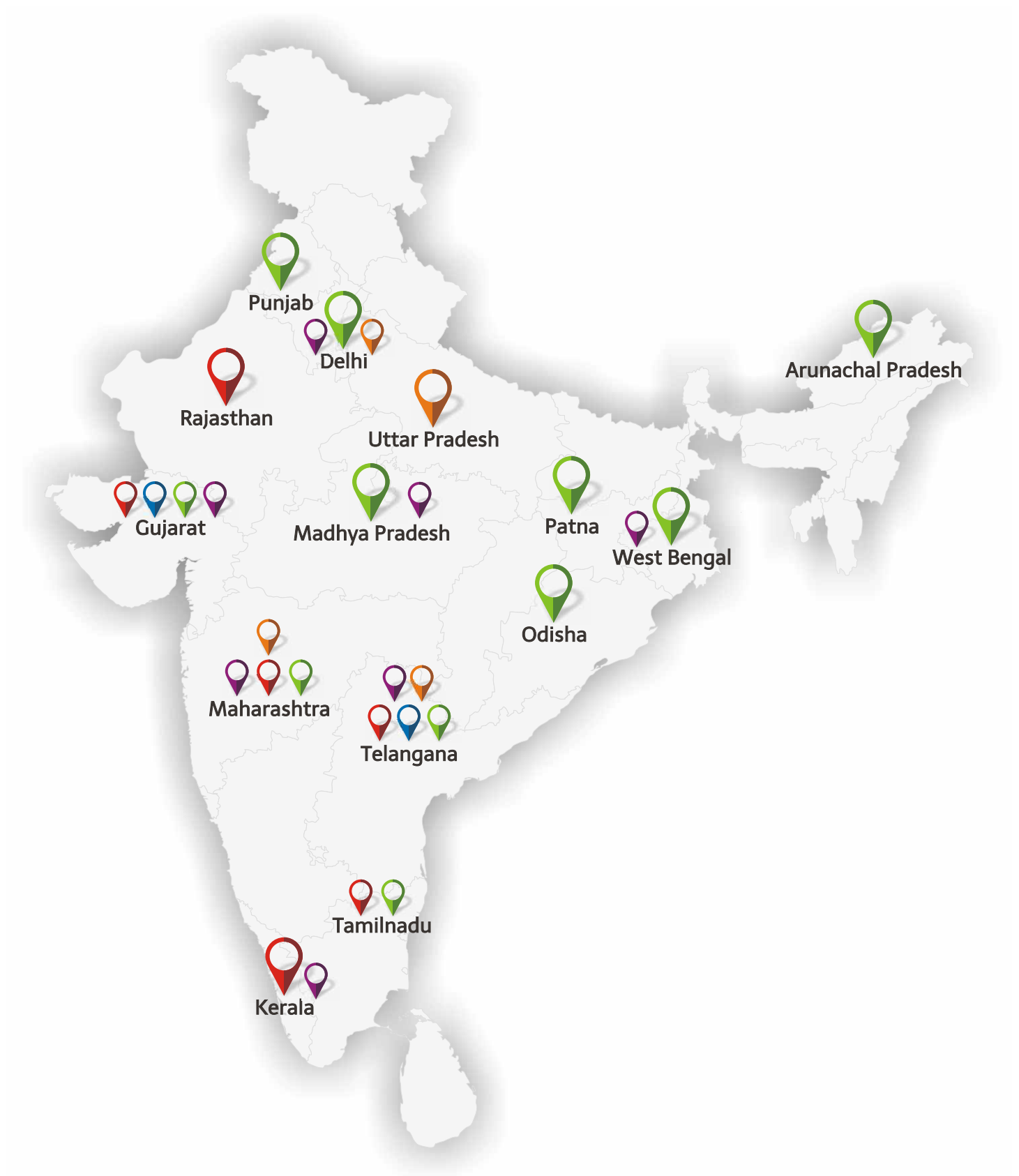

TrafficMon™ - Wrong Lane Detection
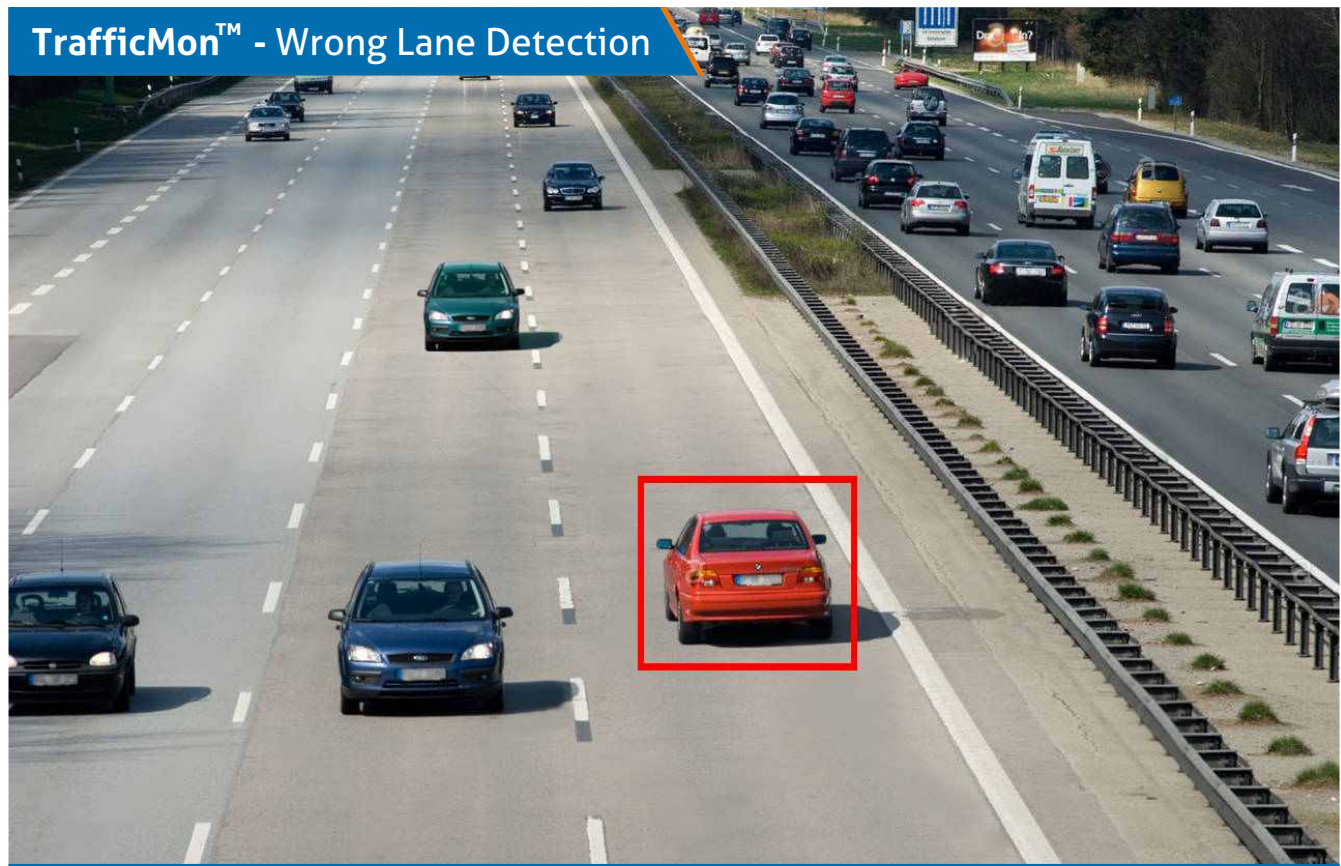
Key Features

> Video based system
> Does not use any inductive loop sensor/radar
> Marks Wrong Way Driving Detection violation when vehicle is found to be moving in opposite direction to the pre-defined direction of motion
> Can be used as either separate system or as an add-on module with existing hardware setup of ANPR/RLVD/SVD system etc.
> Can be used for stolen/suspected/hot-listed/wanted vehicles
> System is made to work extensively in 24x7 environment
> Can be integrated with other security module
> User friendly GUI

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Smart City – Installations across India

Punjab

Delhi

Rajasthan

Uttar Pradesh

Arunachal Pradesh

Gujarat

Madhya Pradesh

Patna

West Bengal

Odisha

Maharashtra

Telangana

Tamilnadu

Kerala

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