The background of the top half of the page is a nighttime photograph of a busy traffic intersection. Light trails from cars and streetlights create a sense of motion. A red traffic light is visible on the right side. The scene is framed by large, overlapping orange and white circular shapes.

Red Light Violation Detection (RLVD)

Violating the red-light rule is one of the most serious and dangerous violations in the everyday traffic system. Most people get away with it due to either the traffic light not being equipped with an overview camera or absence of visible deterrent measures such as police or automated enforcement equipment. Red Light Violation Detection (RLVD) system aims to provide a safer driving experience, improve compliance with road traffic rules, and smoothen the movement of vehicles along the stop line while reducing accidents and fatalities at intersections.

Overview

EFKON's **Red Light Violation Detection (RLVD) system** is fully automated mass surveillance system identifying vehicles jumping the red light, stopping after the red-light mark, and over the zebra-crossing.

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How the RLVD system works?

RLVD system comprises primarily of an overview camera and an ANPR camera.

- The overview camera continuously monitors the red light after the signal has turned red
- Any vehicle that violates the red-light rule, the entire violation scenario is captured by the overview camera. ANPR camera captures the image of the license plate of the violating vehicle
- Optical Character Recognition (OCR) is performed to read the license plate and identify the violator
- This system is integrated with Vahan database for the automatic generation of E-challan
- Alerts are sent by mail or SMS to the owners of violating vehicles based on a review of photographic/video evidence at the Command Center

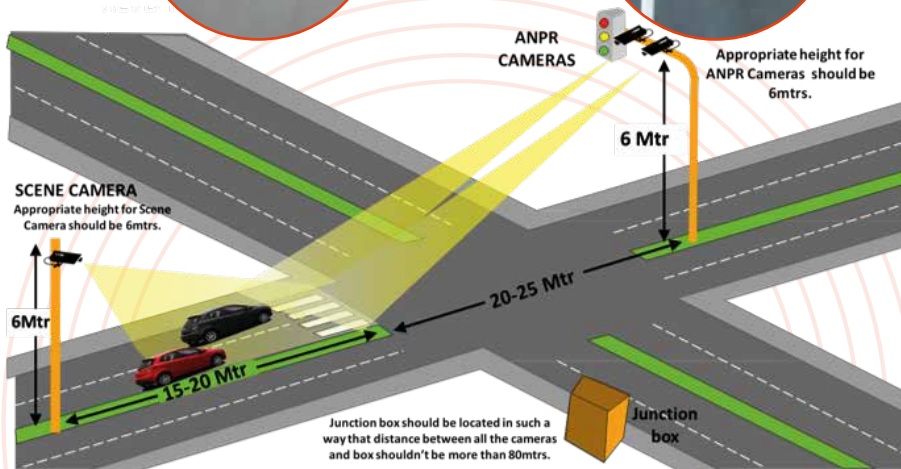
Image from an Overview Camera



Image from an ANPR Camera



Challan Generation



Key Features

- Violation conditions – red-light and stop-line
- Datalog (vehicle image, license plate image, ANPR and Overview video, OCR, color of the plate, start timestamp of red light, timestamp of violation, location, arm ID, lane ID, direction of the vehicle)

Advantage of using EFKON's RLVD system



Red Light Violation
Detection Accuracy ~98%



Easy integration with
third party database,
e.g. VAHAN, etc.



Easy integration with
E-Challan System



High scalability and low maintenance cost



Real-time violation detection

Why EFKON?

18 years of domain
expertise and seasoned
cross-functional teams

Strong presence in the growth
markets (highways and smart
cities)

End-to-end traffic
management system
products

Track record of award-
winning successful project
executions

Our key clients include



EFKON – A Global Leader in Intelligent Traffic Management Systems

EFKON India is a pioneer in bringing innovative products for Intelligent Traffic Management system in India since 2001. It is a wholly-owned subsidiary of STRABAG, a leading infrastructure company with revenue of € 15.67 Billion (2019). EFKON India help clients with end-to-end solutions for:

- Advanced Traffic Management System for Smart Highways and Smart Cities
- Intelligent Revenue Collection and Assurance Systems for Smart Highways and Smart Cities
- Intelligent Transport Management Systems for Logistics and Fleet Operations

For more information, please visit www.efkonindia.com.



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