

An aerial photograph showing a massive traffic jam on a multi-lane highway in India. The road is completely filled with cars, mostly white and yellow, stretching far into the distance. The scene is captured from a high angle, showing the density of the traffic.

# ₹150,000,000,000

*“THIS IS HOW MUCH TRAFFIC COSTS INDIA EVERY YEAR— AND GOVERNMENTS PAY MOST OF IT.”*



85-168+ HRS/YR  
LOST ON AN AVG  
BY URBAN  
COMMUTERS



14-20 KM/H  
PEAK RUSH HOUR  
SPEEDS

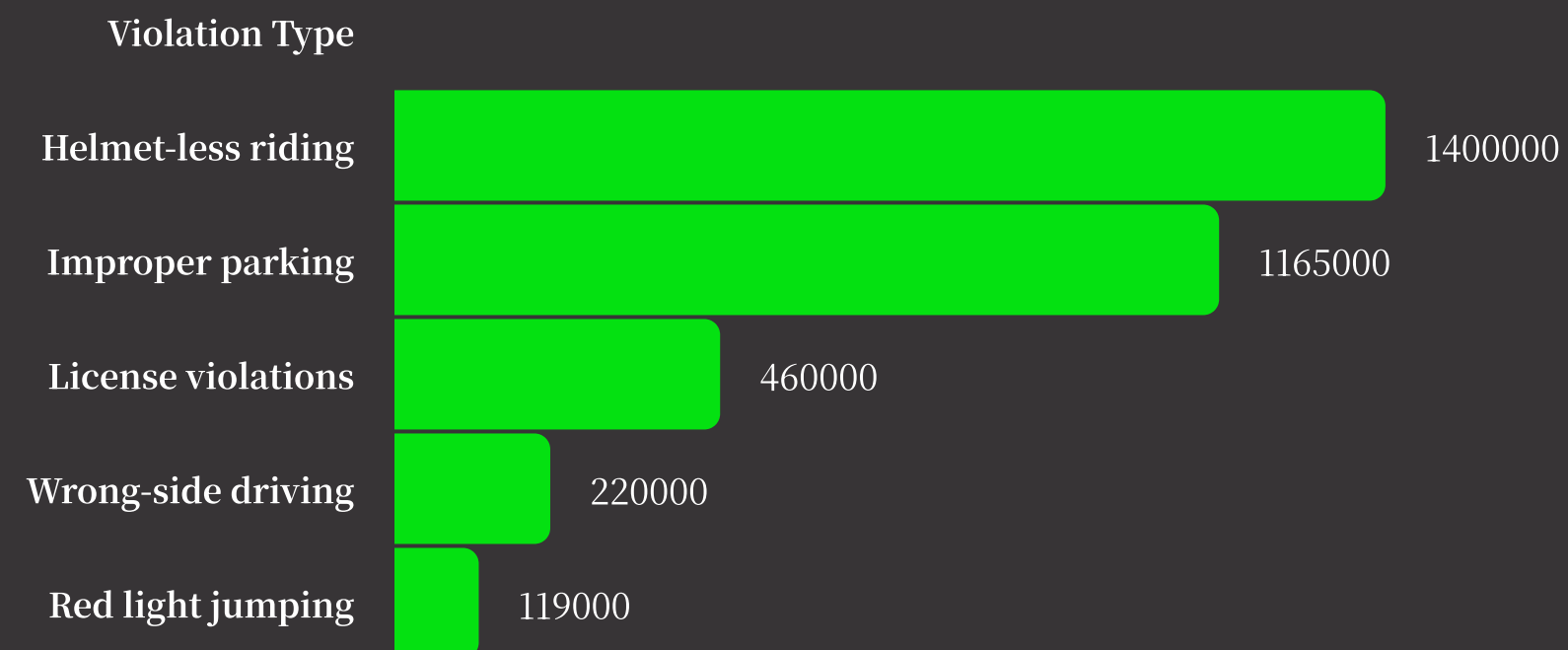


TOP 20  
MOST GLOBALLY  
CONGESTED CITIES

**TRAFFIC  
CONGESTION  
IS NOT  
CAUSED BY  
VOLUME.  
IT IS CAUSED  
BY  
VIOLATIONS**

## TRAFFIC VIOLATIONS

TRAFFIC VIOLATIONS CONTRIBUTE TO MORE TRAFFIC!!!



**TRAFFIC  
&  
CONGESTION**



**TRAFFIC  
VIOLATIONS**

***OVER 70% OF URBAN CONGESTION BEGINS WITH TRAFFIC VIOLATIONS***



# SOLUTION - FLOWIQ

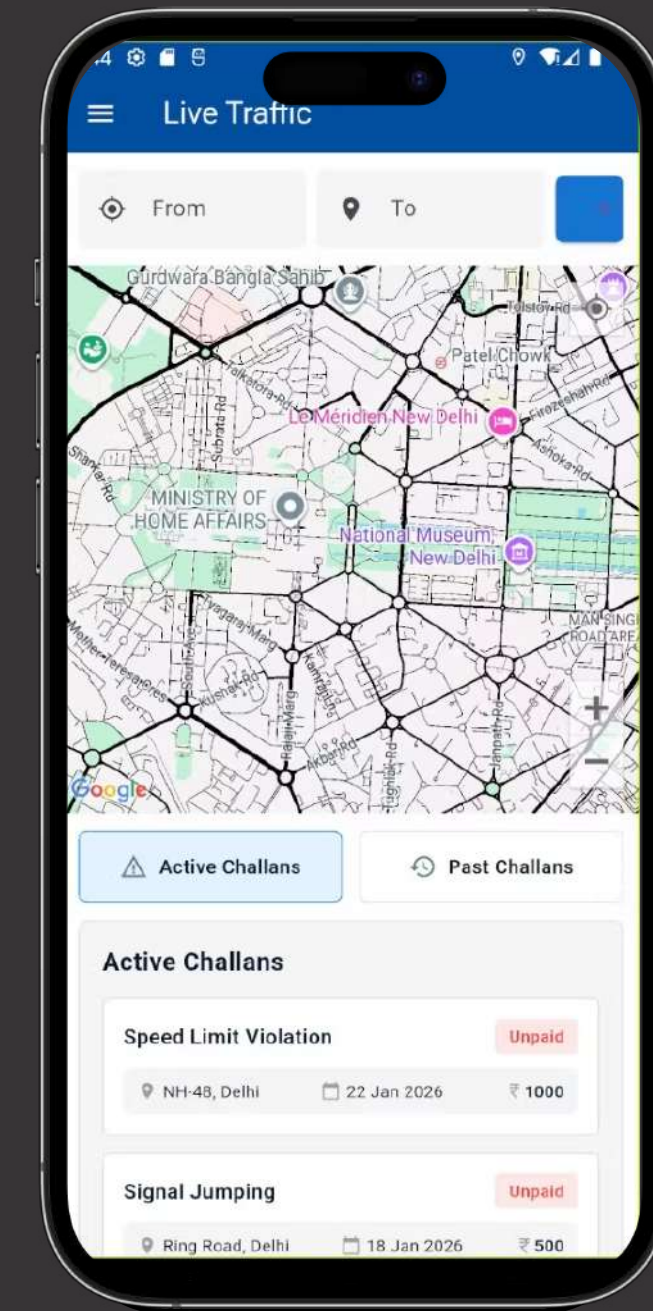
## Admin Dashboard

Full control. Live data. Instant action



## User Application

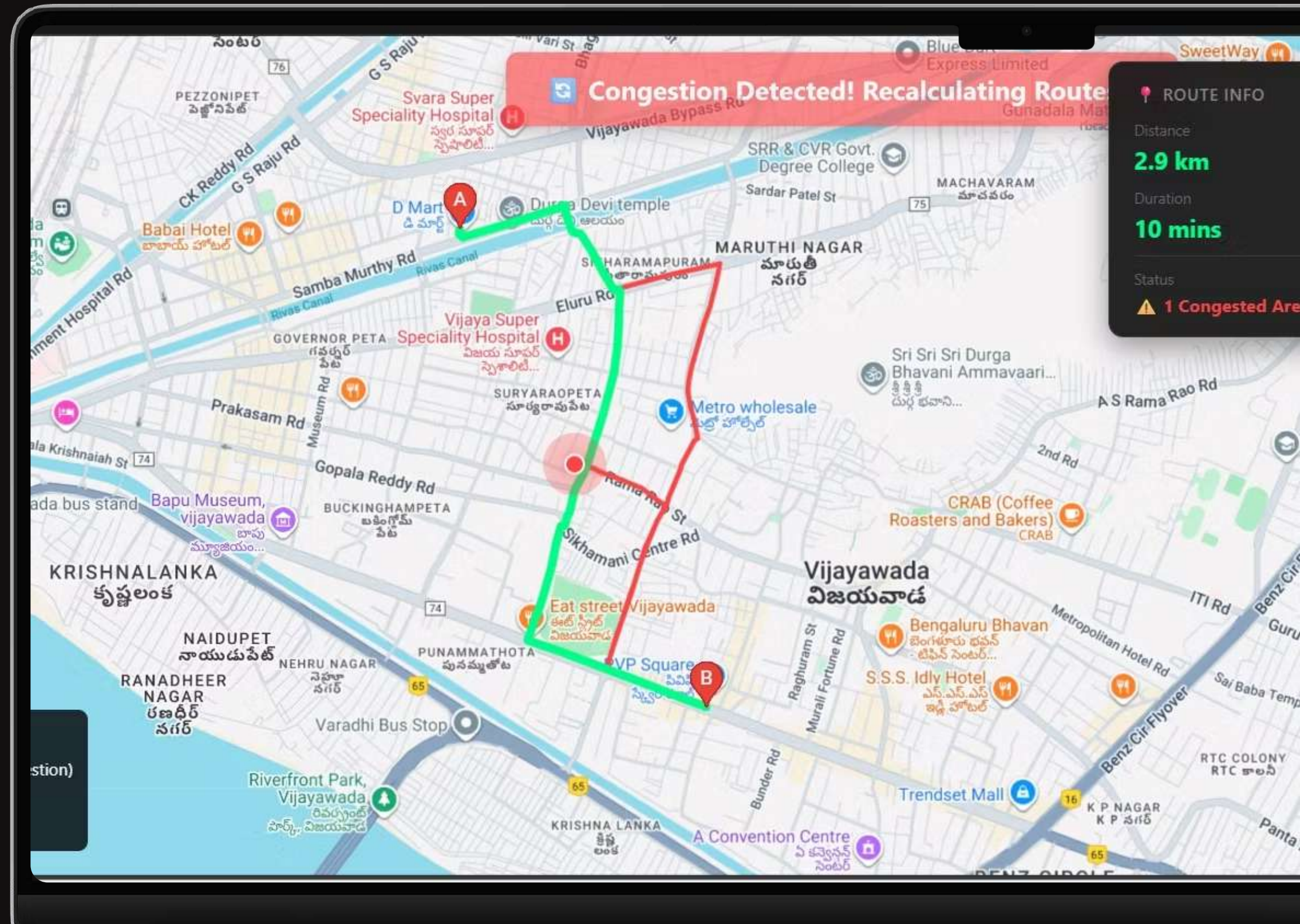
Fastest routes. Pay Fines easily





# Live Congestion & Diversion Management for Traffic Authorities

This interface enables traffic authorities to detect congestion, accidents, construction zones, and roadblocks in real time. Using live density and CCTV data, the system automatically identifies bottlenecks, recommends alternate routes, and supports instant signal adjustments and field coordination to restore traffic flow efficiently.





# Features

01

## **MULTI-CAMERA TRAFFIC PERCEPTION SYSTEM**

Processes live CCTV feeds using YOLOv8 and SORT to detect, classify, and track vehicles across intersections with millisecond-level latency

02

## **AI-BASED TRAFFIC SIGNAL CONTROLLER**

Dynamically adjusts green phases using live density, queue length, and historical patterns to minimize congestion and idle time.

03

## **AUTOMATED VIOLATION – DRIVEN ENFORCEMENT ENGINE**

Detects wrong-way driving, signal jumping, and lane violations, extracts license plates, and generates challans automatically.

04

## **CITY-SCALE TRAFFIC ANALYTICS SYSTEM**

Combines real-time data with predictive models to forecast congestion, recommend diversions, and support long-term infrastructure planning.

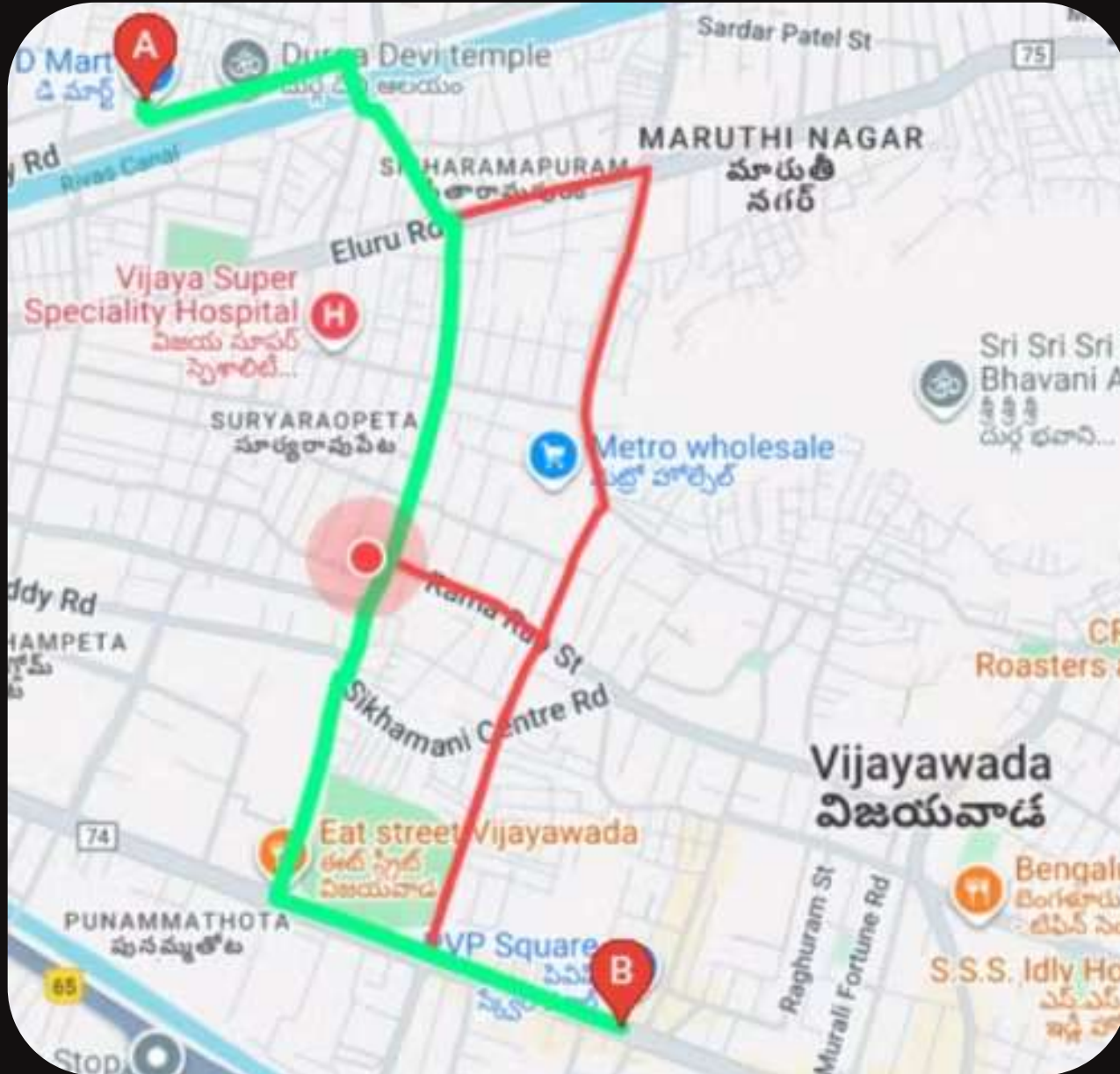
# Benefits

## **For Government:**

*₹20,000+ crore saved annually through reduced congestion, automated enforcement, and lower operational costs.”*

## **For Citizens:**

*Up to 250+ hours saved per year per commuter, with lower fuel costs and safer daily travel.*



**95%** Decisions powered by real-time traffic data

**LIVE TRAFFIC  
COMMAND CENTER**

**CONGESTION  
HEATMAP**

**AUTOMATED FINES  
ENFORCEMENT  
SYSTEM**



**14+** Major Algorithms/models being run simulteniously



# Building Since Forever! - Team Veda-Bytes



**ADITI  
SHARMA**



**SURYA  
PRATIK**



**ABHINAV  
PENTANI**

**SHANMUKESH  
BONALA**