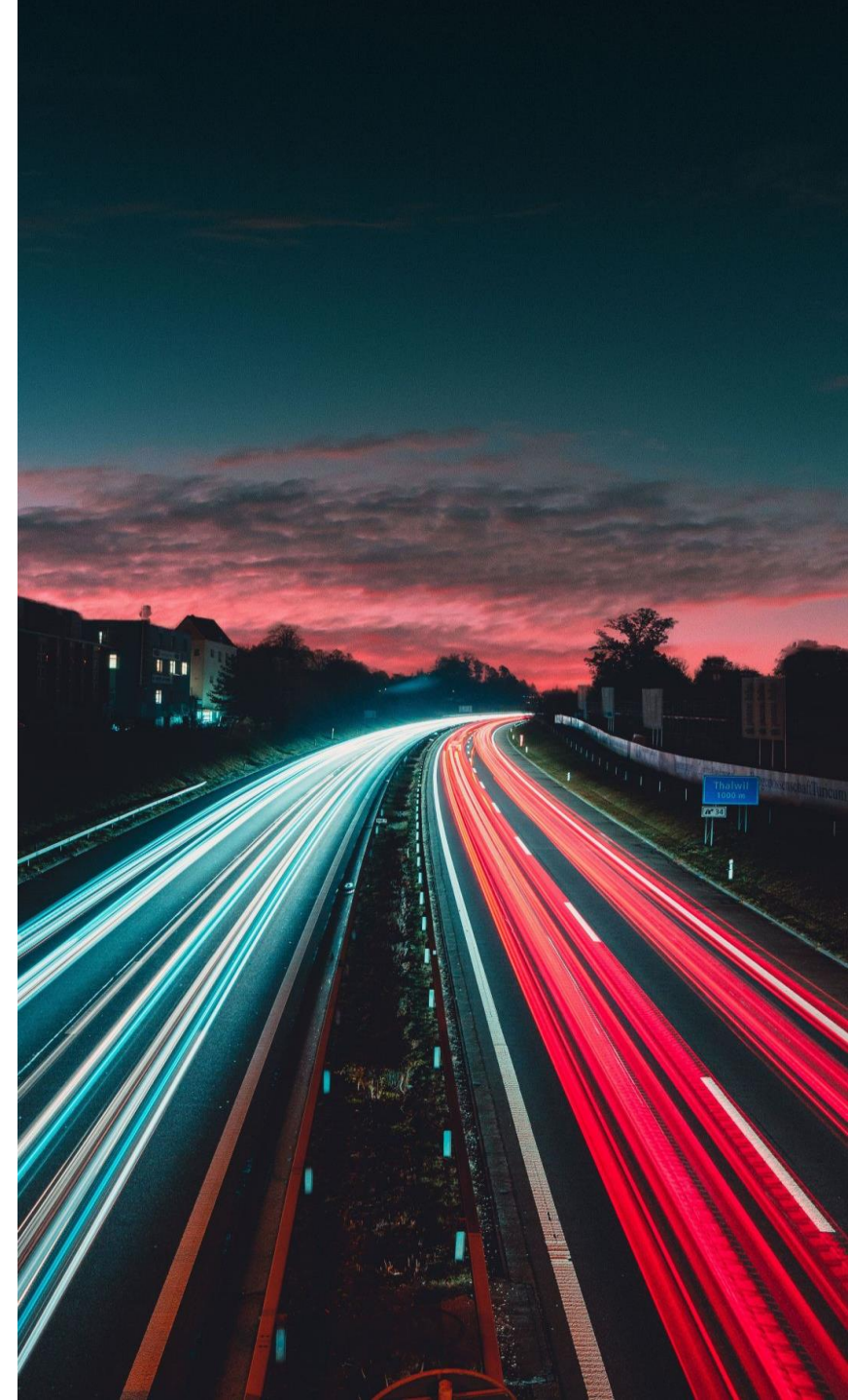
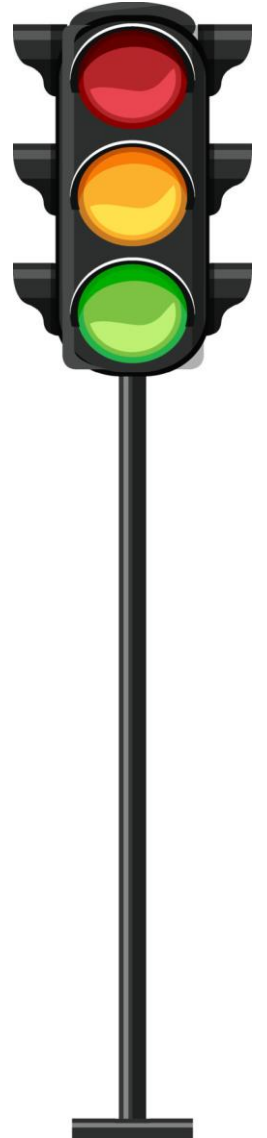
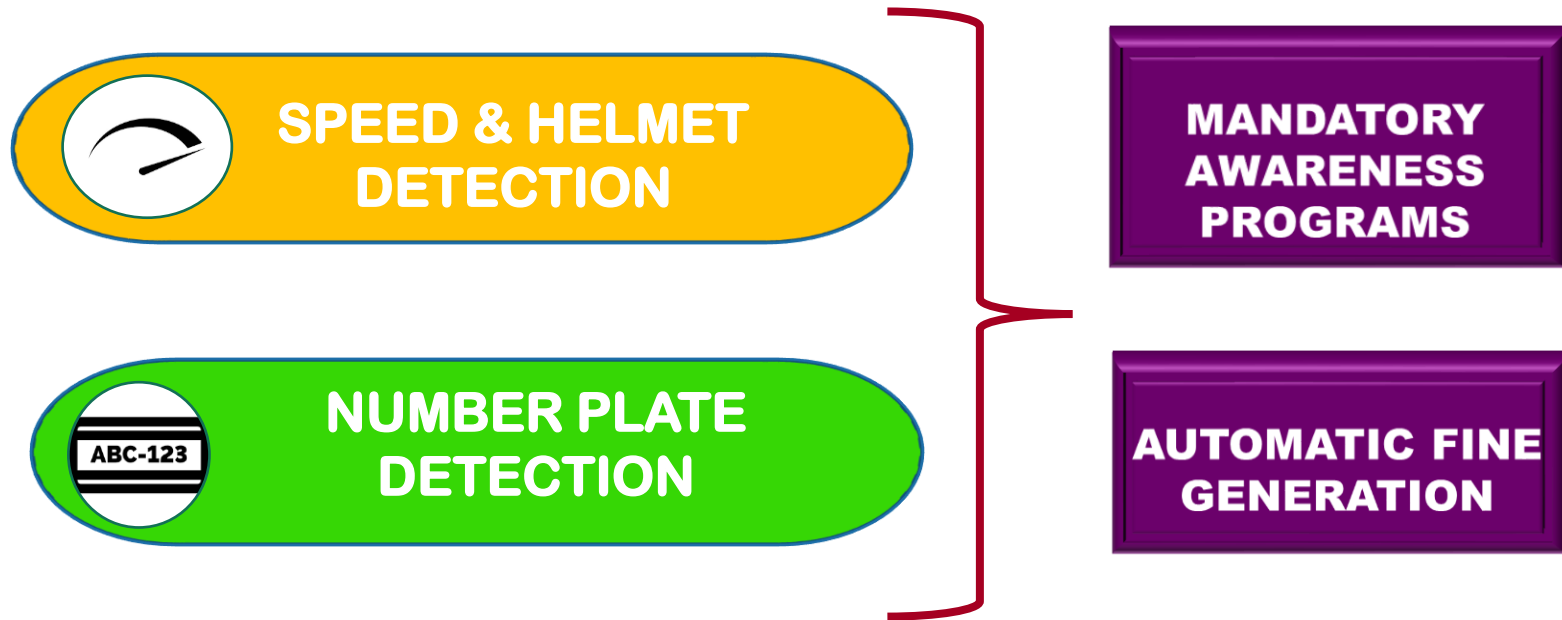


# SafeRide: Enforcing Road Safety with AI

Developing SafeRide, an AI-driven system aimed at enforcing traffic rules.



# Project Overview



# Implementation Details

- **Vehicle Detection:** Computer vision techniques were utilized to continuously monitor the road and detect passing vehicles accurately.
- **Violation Detection:** Overspeed, helmet, and license plate detection algorithms were employed to identify violations swiftly. To achieve accurate overspeed detection, we implemented dynamic speed limit boards. These boards dynamically set the speed limit based on traffic conditions, allowing us to swiftly identify vehicles exceeding the designated speed threshold.
- **Violation Flagging and Notification:** Detected violations were flagged, details recorded, and authorities and vehicle owners were promptly notified via SMS or email.
- **AI Voice Announcement for Violations:** An AI-powered voice system was implemented to announce vehicle numbers violating traffic rules, advising drivers to slow down or adhere to regulations in real-time.
- **Mandatory Awareness Program:** It automatically sent invitations, including photos of the violation, to flagged vehicle owners, ensuring they were informed about road safety and traffic rules through mandatory online awareness programs.
- **Fine Payment System:** A secure online platform was developed for fine payment, integrated with Stripe or PayPal, and vehicle owners were notified of fines for secure online transactions.

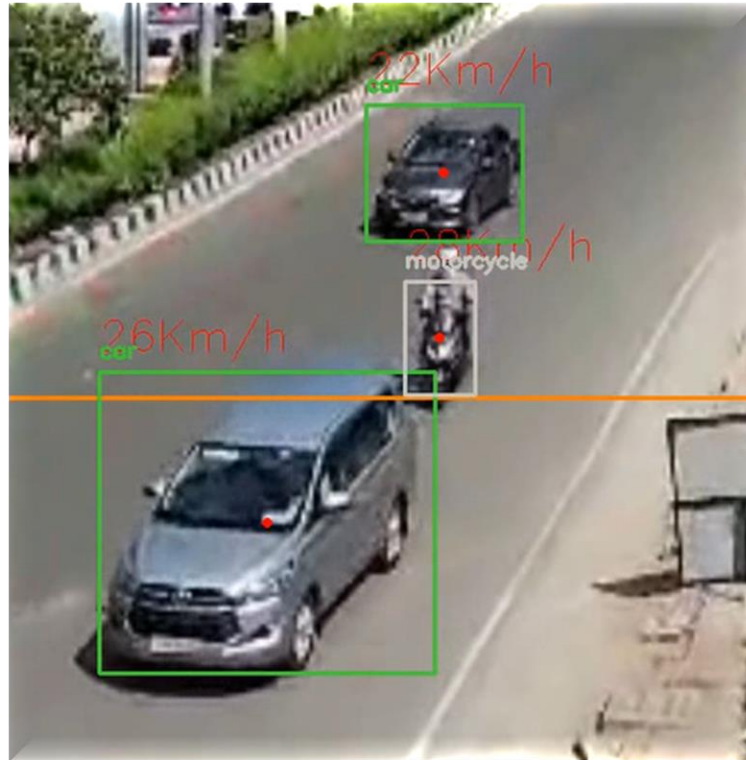






# Live Demonstrations

## 1 Traffic Violation Detection



WPS Office speed.csv

Menu Home Insert Page

Calibri 11 A<sup>+</sup> A<sup>-</sup>

B I U A B A A

G8 fx

	A	B	C	D	E
1	DATE	VEHICLE ID	SPEED	OVERSPEED	
2	01-07-2023 04:40	1	40	NO	
3	01-07-2023 04:40	2	45	NO	
4	01-07-2023 04:40	3	35	NO	
5	01-07-2023 04:40	4	65	YES	
6	01-07-2023 04:40	5	75	YES	
7	01-07-2023 04:45	6	34	NO	
8	01-07-2023 04:45	7	56	YES	
9	01-07-2023 04:45	8	24	NO	
10	01-07-2023 04:45	9	56	YES	
11	01-07-2023 04:45	10	76	YES	
12	01-07-2023 04:45	11	43	NO	
13	01-07-2023 04:45	12	35	NO	
14	01-07-2023 04:45	13	78	YES	
15	01-07-2023 04:45	14	35	NO	
16	01-07-2023 04:45	15	76	YES	
17	01-07-2023 04:45	16	32	NO	
18	01-07-2023 04:45	17	86	YES	
19	01-07-2023 04:46	18	45	NO	
20	01-07-2023 04:46	19	34	NO	





# Live Demonstrations

## 1 Traffic Violation Detection – Number Plate Detection





# Live Demonstrations

## 2 AI-Analyzed Dynamic Speed Limits - Traffic Volume



WPS Office vehicledata.csv

Menu Home Insert Page Layout Formula

Paste Copy Format Painter

Calibri 11

D17

	A	B	C	D	E	F
1	Date	TOTAL	car	truck	bus	motorcycle
2	07-07-2023 08:49	20	11	2	3	4
3	07-07-2023 08:50	21	15	2	3	1
4	07-07-2023 08:51	30	20	3	3	4
5	07-07-2023 08:52	38	21	5	5	7
6	07-07-2023 08:53	43	25	5	5	8
7	07-07-2023 08:54	47	25	5	7	10
8	07-07-2023 08:55	53	28	5	8	12
9	07-07-2023 08:56	56	30	5	8	13
10	07-07-2023 08:57	65	39	5	8	13
11	07-07-2023 08:58	71	42	6	10	13
12	07-07-2023 08:59	79	47	6	11	15
13	07-07-2023 09:00	83	50	7	11	15
14						
15						
16						

@Tidel Park , Chennai



# Live Demonstrations


## 3 Mandatory Awareness Program Interface

### SafeRide's Mandatory Awareness Program


An initiative dedicated to educating flagged vehicle owners on road safety and traffic rules.

[Learn More](#)[Get Started](#)


### Contact Us



**Call Us**  
(123) 456-7890



**Email Us**  
info@saferrideawarenesshub.co  
m



**Visit Us**  
123 SafeRide Ave, Chennai, India

### Informative Content Hub

#### Educational Videos

Curate a collection of engaging videos covering various aspects of road safety and traffic regulations.

#### Informative Articles

Provide in-depth articles to educate on road safety and ensure a diverse range of educational materials.

#### Interactive Quizzes

Create interactive quizzes to test understanding of road safety and traffic regulations.



### Our Mission and Goals

#### 1 Increase Road Safety Awareness

Empower individuals and communities through awareness.

#### 2 Promote Responsible Driving Behavior

Promoting safe driving habits, including seat belt and helmet usage, minimizing distractions, and adhering to speed limits.

#### 3 Empower Community Engagement

Facilitate connections, discussions, and collaborative efforts among users to promote road safety initiatives, fostering a collective sense of responsibility within communities.

# Impact Assessment

## 1 Reduction in Road Accidents

Proactive violation detection contributes to a decrease in accidents and fatalities.

## 2 Traffic Flow Improvement

The implementation of adaptive speed limits and adjustments in traffic signal timings result in improved traffic flow and congestion management.

## 3 Enhanced Awareness

Mandatory programs promote responsible driving and increase awareness.

# Potential Impact

- ❑ **Real-time Detection:** Utilizes advanced computer vision to detect violations and notify authorities instantly.
- ❑ **Personalized Education:** Tailored educational programs and fine notifications enhance driver awareness and promote compliance.
- ❑ **Payment Integration:** Offers a secure online platform for fine payment, ensuring convenience and transparency.
- ❑ **Adaptive Speed Limits:** Dynamically adjusts speed limits based on traffic volume, optimizing safety measures.
- ❑ **AI-driven Voice Alerts:** AI-powered voice system delivers real-time alerts to drivers, promoting immediate adherence to traffic regulations.