



Connected Cars

The future of mobility

Priority to Emergency Vehicles

- According to Times of India, 1,46,133 were killed in road accidents and 30% of them were due traffic delays.
- According to mygov.in, 25.8% of deaths could be avoided if there were no traffic delays.

This tells us that traffic is a major concern in general and also very dangerous for emergency vehicles.

Problem



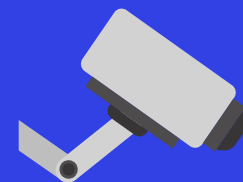
Solution



Communicate to cars ahead about approaching ambulance & to clear out the right most lane.



The driver first enters the destination to get the best possible route.



The CCTV network of the route gets active and starts to collect data.



The vehicles are inspected



Our image processing algorithm now processes this videos and looks for numberplates.



Using R.T.O. database, phone numbers are extracted from the number plate values.

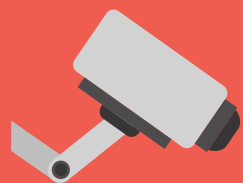


Drivers receive a notification on their phones.



Solution

Using an algorithm to predict traffic flow using the density of the cars and fluctuate traffic lights accordingly.



The CCTV network of the route gets active and starts to collect video.



Count the density of cars for 15 minutes



Switch the traffic light counter for the next 15 minutes



Solution

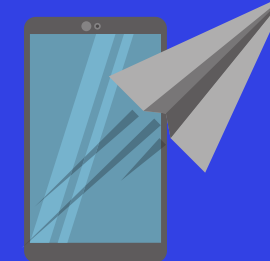
Detecting bad road condition (Potholes) and drowsiness detection for better and safe driving



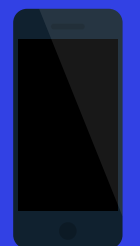
Smartphone camera
gets video feed from
road



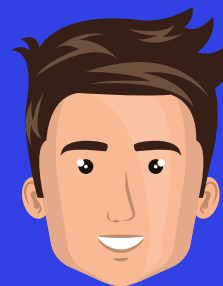
Model detects
Potholes



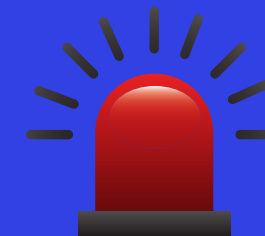
Sends log data



Smartphone camera
gets video feed of
user

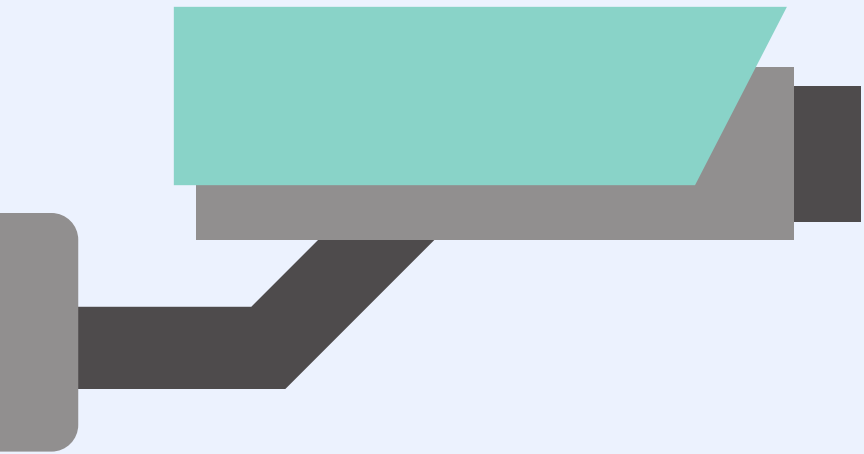


Analyzes face
in real time



Alerts the driver if
drowsiness is
detected





Value Proposition

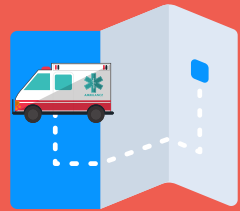
Extracting greater values from existing technologies

Our solution works on the existing technologies present i.e CCTVs on traffic lights and elsewhere in the city, we are only extracting more information from them for a better and safe road.

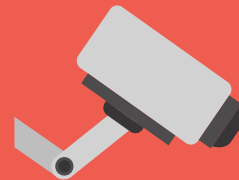


How it Works

1.



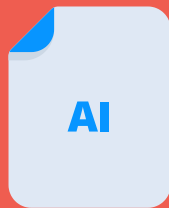
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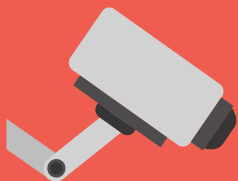


Using R.T.O. database, phone numbers are extracted from the number plate values.



Drivers receive a notification on their phones.

2.



The CCTV network of the route gets active and starts to collect video.



Count the density of cars for 15 minutes



Switch the traffic light counter for the next 15 minutes



Android App for ambulance location input

Number plate recognizer API for getting number plate from live video

Way2Sms API for informing users to notify them

Firebase for database management

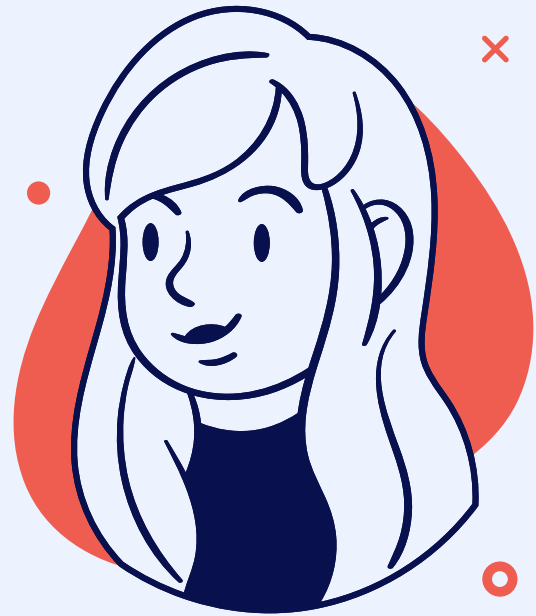
OpenCV vehicle counting method for density calculation

Yolov2 for Pothole detection

Technologies Used



The Team



Akshita Mehta



Naman Bansal



Arjun Mohnot



Swapnil Panwala