Connected Cars

The future of mobility

Problem

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.

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

Drivers recive a notification on their phones.

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

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

Solution

Using an algorithm to predict traffic flow using the density of the cars and flucuate 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

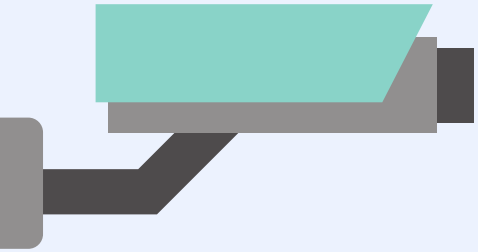
Model detects Potholes

Sends log data

Smartphone camera gets video feed of user

Analyzes face in real time

Alerts the driver if drowsiness is detected



Value Proposition

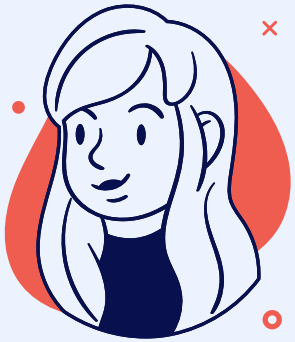
Extracting greater values from existing technologies

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.

Technologies Used

- 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

The Team



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