TEAM ALPHA

Automatic Deceleration System

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Abstract

- Traffic congestion is one of the major concerns in transportation sector. Increasing at a high pace, solutions and suggestions are introduced claiming lighter differences.
- Productive changes in infrastructure of the modes of transport or any other related factors would currently have to develop at higher pace than that of the traffic.
- A focus on controlling system brakes, aided by image recognition and data inheritance.
- The vehicle a attached with a device that controls the system breaks based on the decision made by the image recogniser.

How the problem was identified

- Inspired by the loading icon of Google Chrome (Ubuntu).
- When a random vehicle signals a small sign of deceleration in a group of cars moving in circular motion, the car behind it slows by a small factor, the car behind that slows down with a greater value and this becomes a progression and eventually the car at the very back will be the slowest.
- Translating this scenario to a straight chain of infinite length, the effect is similar.
- This progressive deceleration causes traffic congestion!

Strategy

- Decelerate vehicle after Sign board detection.
- Sign boards are considered as objects.
- Triangle: Hazard , Circle: Notification.
- Deceleration also takes place when Google maps shows speed limit of a particular road.
- At Night, the deceleration is more sensitive to every sign board (Hazard & Notification).
- Easily implemented on gearless vehicles, and method of engine braking is used for manual transmission vehicles.

Benefits

- Less traffic is better than no traffic.
- Gradual deceleration makes sure of efficient fuel usage.
- Less Road Accidents

THANK YOU