DRIVER ALERTNESS DETECTION

As per RTI, 60% of the road accidents occurring in these days are caused by driver fatigue. We are providing the solution in form of an application that detects the drowsiness of the driver by detecting their eye blink status and alerts the driver by various methods depending upon the time his eyes are closed starting from 3.50 seconds.

FEATURES

- Facial feature detection
- Eye closure detection
- Various customized mode of dismissal of alarm.
- Vehicles stops moving if no response got by user.
- Water spray upon inaction by user
- Dismissal by clicking picture of registered place(eg: car number plate)
- IR sensors enable night-time face and eye detection
- Vibrator can be enabled to alert the user.
- Mild electric shock upon inaction by user.
- Automatic brake application upon total inaction by the user
- Fire sensors enable to detect a unfortunate accident.
- GPS enabled sends vehicle location to the relatives, medical facilities and police.

ABOUT THE APPLICATION

- This app is a real-time application which can be used to detect the fatigue or drowsiness in driving conditions both in daytime as well as night time owning to IR sensors and alert the driver whenever drowsiness is detected by various customized techniques(inducing physical movement, mild electric shock ,loud buzzer, vibration etc.)
- The application is able to predict the behavior of the driver by measuring the visual measurements in the driving conditions in a feasible model which can be used by all types of commercial and personal vehicles.
- If the app is not dismissed by the user's action upon detection of certain level of drowsiness, the system will be followed by a brief automatic application of the braking system.
- In case of accident detection, this GPS enabled app sends location to the customized contacts and the police.

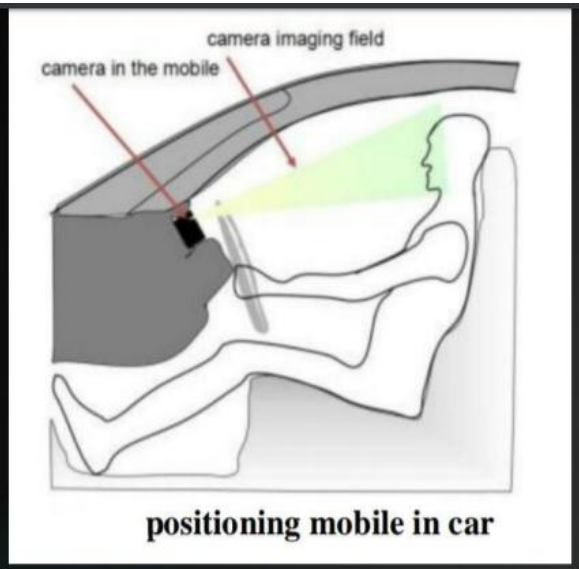

Fig-1

Fig-1: Positioning of mobile in car

Fig-2 :Use case diagram

Fig-3: Process flow

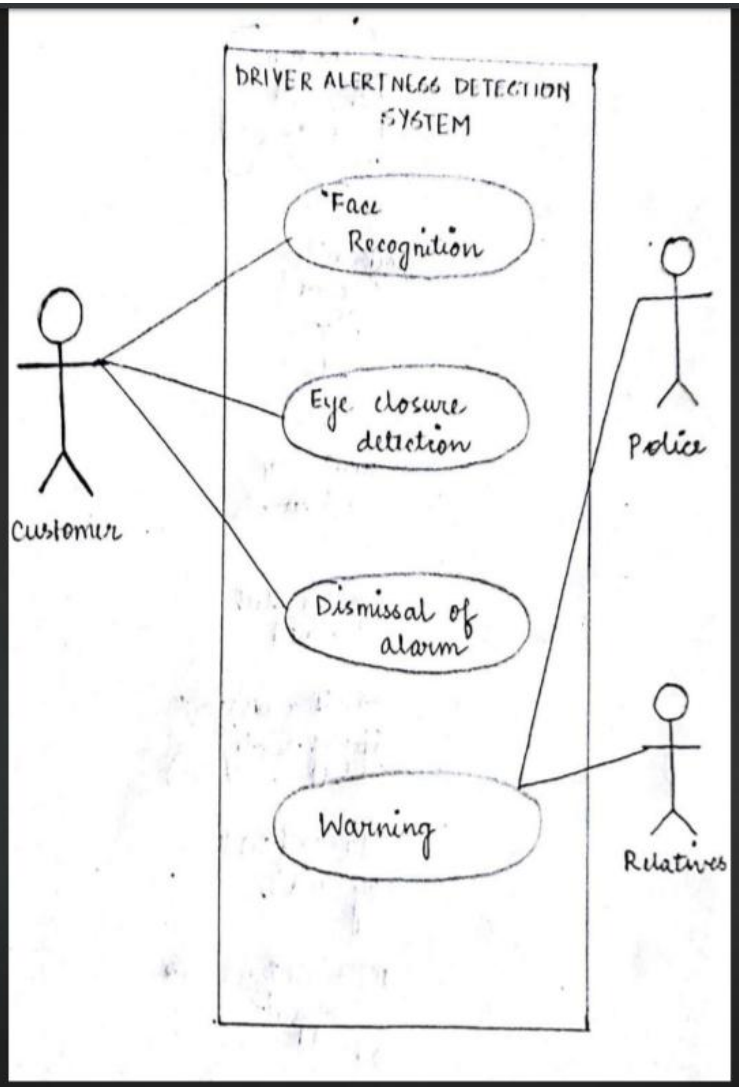

Fig-2

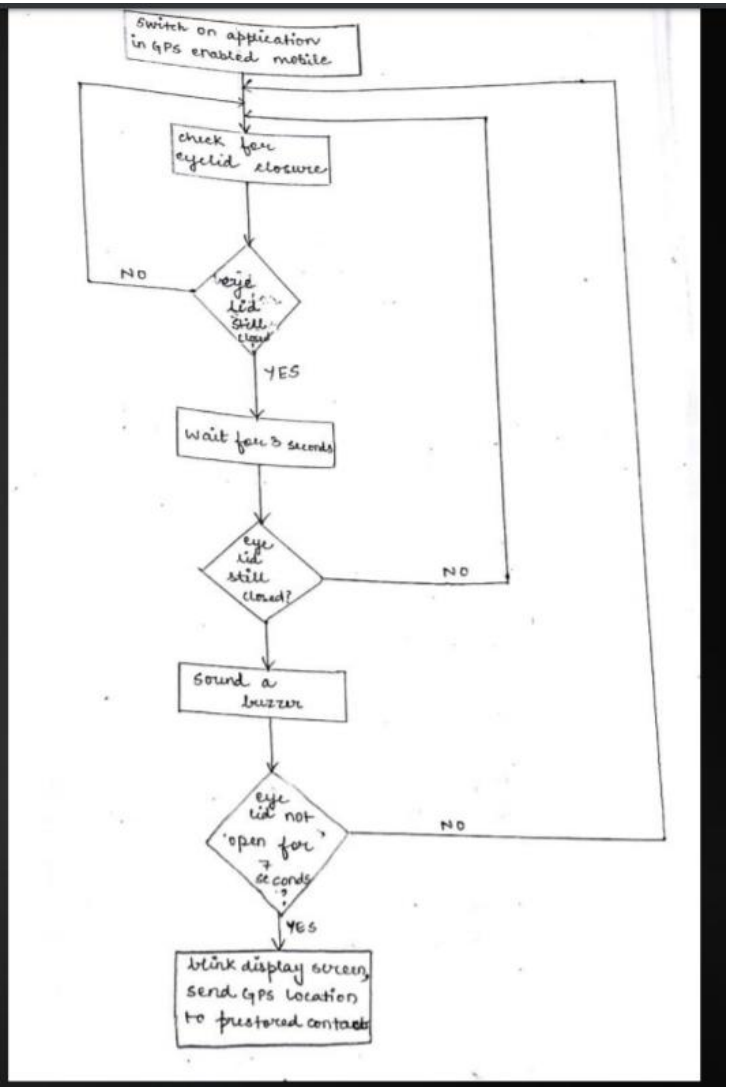

Fig-3