

# G.Narayanamma Institute of Technology & Science

(For women)

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(An ISO 9001:2015 Certified Institution)

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## DRIVER DROWSINESS DETECTOR AND ALERT SYSTEM

BY

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## ABSTRACT

The majority of accidents happen due to the drowsiness of the driver. So, to prevent these accidents we will build a system using python, OpenCV, etc., which will alert the driver when he feels sleepy. Human face is the primary interaction with the society, a human face communicates identity and emotions regarding our project. Our case is to detect Humans face while driving to avoid accidents. We humans do not require time to perceive if a face is sleepy or in need of rest. In general face detection and recognition is a easy task for humans but not the same for computers and to identify here we using vision to fulfill this task that can automatically detect driver drowsiness in a real-time video stream.

Here we are using image processing, pattern recognition, neural science, computer vision sensors and this has no bounds. Here what we do is to install a sensor in the wind shield and connect the sensor with mobile through Bluetooth so that whenever it recognizes facial expressions and give us a buzz or a beep noise and to off this we have to re-start the engine this also has GPS inbuilt in the app which can guide us to nearest places so that you can rest and this is how it exactly works. This can be used by riders who tend to drive for a longer period of time which has a high prior for such kind of accidents.

## SYSTEM REQUIREMENTS:

### Software Requirements:

Platform	- OpenCV Python
Operating Systems	- Windows 10
IDE	- MATLAB

### Hardware Requirements:

Processor	- Above 1.5GHZ
Hard Disk Capacity	- 10GB
RAM Capacity	- 512MB
Web Cam	