**Drivers Drowsiness Detection**

**Introduction**

Since a lot of road accidents happen due to carelessness of driver. One of the reason is drowsiness of driver. So to alert the driver I have designed a drowsiness detector using OpenCV, dlib and python.

**Setting up the camera**

We can use any sort of high resolution camera for better picture quality. We can stick it up to the dash of a vehicle and connect it with a laptop.

**Algorithm**

1. First we shall switch on the camera to record stream of faces.

2. If we find any face we shall apply facial landmark detection and extract the eye region.

3. After that is done we shall calculate EAR(eye aspect ratio) to determine if eyes are closed.

4. If we find that eyes are closed for a sufficiently long time we will sound an alarm to wake up the driver.

**Our drowsiness detector hinged on two important computer vision techniques**:

1. Facial landmark detection

2. Eye aspect ratio

Go to below link for source code:

<https://github.com/naman238/Python>