

DRIVER DROWSINESS DETECTION SYSTEM

A PROJECT REPORT

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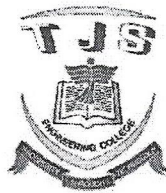
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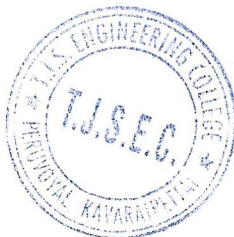
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BONAFIDE CERTIFICATE

Certificate that this project report “DRIVER DROWSINESS DETECTION SYSTEM” is the bonafide work of the following students.

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ABSTRACT

The main idea behind this project is to develop a nonintrusive system which can detect fatigue of human and can issue a timely warning. Drivers who do not take regular breaks when driving long distances run a high risk of becoming drowsy a state which they often fail to recognize early enough. According to the expert's studies show that around one quarter of all serious motorway accidents are attributable to sleepy drivers in need of a rest, meaning that drowsiness causes more accidents than drink-driving. This system will monitor the driver eyes using a camera and by developing an algorithm we can detect symptoms of driver fatigue early enough to avoid the person sleeping. So, this project will be helpful in detecting driver fatigue in advance and will give warning output in form of alarm and popups.

Moreover, the warning will be deactivated manually rather than automatically. For this purpose, a deactivation dialog will be generated which will contain some simple mathematical operation which when answered correctly will dismiss the warning. Moreover, if driver feels drowsy there is possibility of incorrect response to the dialog. We can judge this by plotting a graph in time domain. If all the three input variables show a possibility of fatigue at one moment, then a warning signal is given in form of text and sound. This will directly give an indication of drowsiness/fatigue which can be further used as record of driver performance.

Keywords- Drowsiness, Supervised Learning, Unsupervised Learning, Machine Learning.




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