Fatigue Monitoring Detection System

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Abstract: *The main idea behind this project is to develop a unobtrusive system which can detect fatigue of any 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 road accidents than drnk-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 from sleeping. So, this project will be helpful in detecting driver fatigue in advance and will give warning output in form of alarm and pop-ups. Moreover, the warning will be deactivated manually rather than automatically. For this purpose, a de-activation dialog will be generated which will contain some simple mathematical operation which when answered correctly will dismiss the warning. Moresssover, 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 off fatigue at one moment, then a Warning signal is given in form of sound. This will directly give an indication of drowsiness/fatigue which can be further used as record of driver performance.*

Keywords: Driver drowsiness, Eye detection, Blink pattern, Driver position angle

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