

Drivers Fatigue Level Prediction Using Facial, and Head Behavior Information

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Abstract: *With driver fatigue continues to cause serious and deadly car and motorcycles accidents, The need for automatically recognizing driver fatigue and alerting the drivers is apparent. Although various Approaches that explore physiological and physical factors to classify driver fatigue have been developed. The overall accuracy, recognition speed, distraction in the driving process and the cost of these systems still need to be improved. In this paper, we present a low-cost driver Fatigue level prediction framework (DFLP) For detecting driver fatigue in its earliest stages. DFL predicts driver fatigue based on eyes, mouth, and head Behaviour cues using a non- physical contact sensor input (infrared dradiation)(IR) camera .DFL P classifies the level of drowsiness and attributes the level of altering accordingly. To validate the proposed fatigue prediction framework, we conducted the experiment using real dataset sunder night and day Illumination conditions. The results of the experiment show that the proposed approach can predict the level of driver's fatigue with 93.3% overall accuracy. The solution proposed in this paper, not only reduces the number of drivers fatigue-related accidents but also addressed an area of sufficient interest for transportation, psychology and public health expert sand readers as well as automakers to developan in-vehicle fatigue prediction system..*

Keywords: Driver Fatigue.

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