DRIVER DROWSINESS DETECTION FOR ACCIDENT PREVENTION

A PROJECT REPORT

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ABSTRACT

Driver drowsiness is a critical issue contributing to road accidents globally. This paper presents a driver drowsiness detection system employing machine learning, specifically the Haar Cascade algorithm, in conjunction with a web camera for real-time monitoring.

The system detects facial features, particularly the eyes and mouth, using the Haar Cascade classifier to determine the driver's state. By analyzing factors such as eye closure duration and head position, the system identifies signs of drowsiness. A trained model based on Haar features is deployed to classify these features as indicative of drowsiness or alertness. The system continuously processes the webcam feed, promptly alerting the driver upon detecting signs of drowsiness through visual or auditory cues.

Experimental results demonstrate the efficacy of the proposed system in accurately identifying drowsiness, thereby offering a potential solution to mitigate road accidents caused by driver fatigue.