Project Topic

Driver Drowsiness Dectection

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Client: UAE Client

This project describes a real-time system for monitoring driver vigilance. This project is based on Eye Aspect Ratio (EAR), yawning detection and detect drowsiness by comparing its instantaneous value with a previously configured value.We propose a generalised approach using Convolution Neural Networks (CNN), Suport Vector Machine (SVM) and Hidden Markov Model (HMM) in this project. Our project tracks the driver's eyes and feeds it into a pre-trained that predicts the state of the eye. Once the prediction is obtained, we would be able to detect if the driver is drowsy or not. The main components of our system include a camera, for real time image acquisition, a processor for running algorithms to process the acquired image and an alarm to warn the driver when the symptoms are detected in order to avoid potential accidents.