Eye Blink Detection by Image Processing to Prevent Vehicle Accidents

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Deaths and injuries due to road traffic accidents are extremely high in Sri Lanka. Detecting the drowsiness of the driver is one of the surest ways of measuring driver's fatigue. Driver's drowsiness is one of the major reasons which leads to these mishaps. This research describes 'Real Time Drowsiness Detection System', which could determine the level of drowsiness of the driver. This system considers both the closing of eyes and opening of the eyes. The eye blink of the driver is detected. If the driver's eye remains closed more than a certain period of time, the driver is said to be drowsy and alarm is sounded. Viola Jones Algorithm and Hough transformation algorithm are used for iris detection. Primary attention is given to faster detection and processing of data.

Keywords: Drowsiness, Hough transformation algorithm, Viola Jones algorithm, Eye blink