OJMAS
Offa Journal of Multidisciplinary and Advanced Studies
P-ISSN: 3121-7468
E-ISSN: 3156-5182

DROWSY DRIVER DETECTION USING HEAD POSTURE: A DEEP LEARNING APPROACH

Author: Nurudeen A. Iromini

Published: -

Issue: Issue 1

Volume: Volume No 1

Abstract

Road accidents due to driver drowsiness are one of the major issues, leading to many deaths and injuries globally. Drowsiness affects a driver's alertness, reaction time, and decision-making, which often resulting into serious accidents. Current methods for detecting drowsiness, like self-reporting or physiological sensors, are not practical or reliable for everyday use. There is a need for a non-intrusive, real-time monitoring system to identify drowsiness before accidents happen. A new system was introduced in this study which uses DLIB’s facial landmark predictor for head posture and a ResNet-50 classifier to identify drowsy drivers accurately by assessing facial features like head tilt and eye closure, proving effective in different lighting and angles. Experimental result showed accuracy of 90%, precision of 0.88, recall of 0.88 and Fl-score of 0.88

Keywords

resnet50, drowsy, Cnn, accidents, driver, Opencv