World Academy of Science, Engineering and Technology
International Journal of Urban and Civil Engineering
Vol:13, No:06, 2019

Prevention of Road Accidents by Computerized Drowsiness Detection System

Authors : Ujjal Chattaraj, P. C. Dasbebartta, S. Bhuyan

Abstract : This paper aims to propose a method to detect the action of the driver's eyes, using the concept of face detection. There are three major key contributing methods which can rapidly process the framework of the facial image and hence produce results which further can program the reactions of the vehicles as pre-programmed for the traffic safety. This paper compares and analyses the methods on the basis of their reaction time and their ability to deal with fluctuating images of the driver. The program used in this study is simple and efficient, built using the AdaBoost learning algorithm. Through this program, the system would be able to discard background regions and focus on the face-like regions. The results are analyzed on a common computer which makes it feasible for the end users. The application domain of this experiment is quite wide, such as detection of drowsiness or influence of alcohols in drivers or detection for the case of identification.

Keywords : AdaBoost learning algorithm, face detection, framework, traffic safety
Conference Title : ICCUE 2019 : International Conference on Civil and Urban Engineering
Conference Location : Paris, France
Conference Dates : June 25-26, 2019