Developing a Driver Alert and Alarm System for High Quality Driving Supports

Yamashita, Rei-Jo
Shigun Research Institute Corporation
Ibaraki, Japan
ryama@shigun.co.jp

Yamashita, Hiroki
Shigun Systems Co. Ltd.
Ibaraki, Japan
hyama@shigun.co.jp

Yao, Hsiu-Hsen
Dept. of Computer Science and Engineering
Yuan-Ze University
Taoyuan, Taiwan
csyao2015@gmail.com

Chi, Lo
Dept. of Computer Science and Engineering
Yuan-Ze University
Taiwan, Taoyuan
camelray0923@gmail.com

***Abstract*—Prevention and vigilance plays a key role in preventing threatening risks and potential dangers when one is driving. In other to achieve the goal of averting danger when driving, people need valid and up to date information about: driving behavior, driving environment and vehicle status. There are a lot of factors that needs to be considered in order to keep a driver safe. Drunk driving, blind spots, bad driving habits, fatigue driving, and vehicle status are all factors that needs to be taken into account if safety is to be improved. Driving comfortability greatly depends on vehicle's status and driver's behavior. To evaluate the comfort level for a particular ride, we developed a number of formulas for evaluating various variable like vibration which has their base from the ISO. Rules for detecting these factors like fatigue driving, blind spot collision, etc., were set in this study, each of which has a threshold that shouldn't be exceeded. In this paper, we introduce an in-car monitoring system for driving safety and provide alert and alarm functions using Android device connected to the car's on-board diagnostics system(OBD-II) and the in-car module.**

Keywords: **In-Car Monitoring System, Driving Safety, On-Board Diagnostics System, Driver Alert, Alarm System**

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