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RESEARCH ON VECHICULAR TECHNOLOGY REAL TIME HUMAN FACE AND MONITORING AND PREDICTION OF DRIVER DROWSINESS

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ABSTRACT

Drowsy driver warning system is to reduce the accidents and road crashes. Drivers sleep deprivation important factor for the increasing number of the accidents and vehicle crashes on today's roads. Driver warning system can form the basis of the system to possibly reduce the accidents related to driver's drowsiness. In this system by placing the camera inside the car, we can monitor the face of the driver and look for the eye-movements which indicate that the driver is no longer in condition to drive. In such a case, a warning signal is generated. We also determine the eyes are open or close, so the Real-time driver drowsiness system alerts users when they are falling asleep. Whereas the complete system is implemented on image processing which uses a user's eye blink rate and average blink duration to detect drowsiness.

Keywords:Alarm circuit, Camera, Driver circuit, Image Processor, Microcontroller.

I.INTRODUCTION

The innovations in the automobile industry over the last hundred years have made our vehicles more powerful, easier to drive and control safer more energy efficient, and more environmentally friendly. Majority of the accidents caused today by cars are mainly due to the driver fatigue. Driving for a long period of time causes excessive fatigue and tiredness which in turn makes the driver sleepy or loose awareness. With the rapid increase in the number of accidents seems to be increasing day to day. Therefore a need arises to design a system that keeps the driver focused on the road.

II.HEADINGS

1.Problem solved by our project

The innovations in the automobile industry over the last hundred years have made our vehicles more powerful, easier to drive and control safer more energy efficient, and more environmentally friendly. Majority of the accidents caused today by cars are mainly due to the driver fatigue. Driving for a long period of time causes excessive fatigue and tiredness which in turn makes the driver sleepy or loose awareness. With the rapid increase in the number of accidents seems to be increasing day to day. Therefore a need arises to design a system that keeps the driver focused on the road.

2.Impact of our solution

In recent days government takes more awareness to avoid accidents but cannot prevent. So by using this project it will be very useful to avoid accident completely.

3.Existing technology related to our project

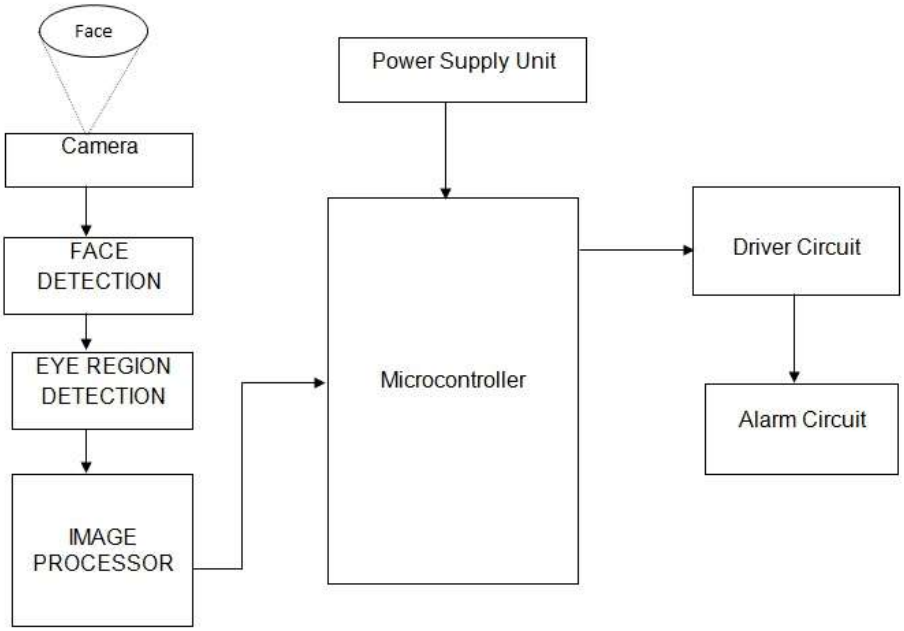
There are many forms of ADAS [Advanced driver-assistance systems] available; some features are built into cars or are available as an add-on package. Also, there are aftermarket solutions available. ADAS relies on inputs from multiple data sources, including automotive imaging, Light Detection and Ranging [LiDAR], radar, image processing, computer vision, and in-car networking .

4.Technical innovation

In imaging science, image processing is processing of images using mathematical operations by using any form of signal processing for which the input is an image, a series of images or a video, such as a photograph or video frame; the output of image processing may be either an image or a set of characteristics or parameters related to the image.

III.FIGURES AND TABLES

BlockDiagram



IV.CONCLUSION

By developing our project, we can get revenue from customers, distributors and accessory manufacturers. Our business model is "DRIVER DROWSINESS ALERTING SYSTEM", in which the text input is given to Image processing and embedded systems through CCD camera to monitoring drivers continuously to prevent accidents Benefits of our project are reduction of accidents and also save human life. This will be an innovative project for long distance travelling and goods delivery.

V.ACKNOWLEDGEMENTS:

An acknowledgement section may be presented after the conclusion, if desired.

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