

Sleep Detection System for Driver

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Abstract: India is a fast paced developing country in world. The number of vehicles in the country has increased over the last decade as the population rises. Though road networks have improved, the increased vehicle population has also increased safety concerns. It is a very popular quote that "Our health is more important than wealth." Road safety is a major public health concern, and attention needs to pay for road safety measures. Drowsiness while driving causing vehicle accidents is one of major issue for which we need to pay attention towards it. Drowsiness caused by fatigue driving is becoming more common thing this days. Our project is primarily concerned with road accidents that occur when people are sleepy or half asleep or drowsy while driving The project employs an infrared sensor to determine whether a person is drowsy or not based on whether their eyes are closed or open. When the driver's eyes are closed for more than 3 seconds, then it detects driver as sleepy and alerts the driver via alarming sound like beep sound or "The driver is sleepy" voice. Accidents can occur as a result of lack of concentration, which is controlled and prevented by the alarm. The main goal of this purposed design project is to detect sleepiness of drivers in order to prevent major accidents and improve highway safety. Here in our design, we have used Arduino nano technology to detecting driver drowsiness/sleepiness. All of this is done with help goggle where system is fitted in order to work. The goal is to make drivers safer and reduce the fatalities caused by drowsy driving.

Keywords: Sleep, Drowsiness, Arduino, Accident, Vehicle, Driver

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