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Automatic Speed Control of Car during Hump to Reduce Accidents

Aishwarya.A[1], Dr. Nataraj K R[2]

[1]Mtech VLSI & Embedded System, SJBIT, Bangalore
[2]Head of the Department, ECE, SJB Institute of Technology, Bangalore

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Abstract - Driving emotionally supportive networks help in enhancing the street wellbeing. There are different wellbeing measures out and about like movement signals, sign sheets and protuberances to keep away from conceivable mischances. To control the speeding in engine vehicles on occupied and clumsy territories a gadget is obligatory to maintain a strategic distance from vehicle mischances due to over speeding. Regularly street bumps are laid at benefit street intersections. Hindrances are utilized as a part of areas where low speeds are wanted and sensible. The point of this task is to create programmed vehicle framework that identifies and demonstrates the nearness of street mounds to the driver to maintain a strategic distance from mischances. It additionally distinguishes and decreases the speed of the vehicle in view of the sign board redesign introduce along the street side for security reason. This undertaking likewise introduces the plan and improvement of a programmed car front light exchanging framework. Headlights of vehicles are intrinsic for night driving. These brilliant headlights which help the driver for vision, while driving during the evening, represent an awesome risk to the next street clients coming the other way. The brilliant light of the vehicles causes a distress as a glare to the approaching driver. Generally speaking in night driving, each driver is required to change their headlights from high shaft to low bar once they detect an approaching vehicle inside 150 meters so as to diminish the glare, yet this training is barely clung to. This is one of the real reasons for mishaps amid the night, as the contradicting driver won't have the capacity to see the street plainly because of the brilliance of the approaching vehicle's lights. This programmed front light exchanging framework switches the high bar light to low bar when it detects a vehicle drawing nearer from the other way and changes it back to high pillar when the autos pass each other.

***Key Words*: Headlight, Hump, GSM.**

1. INTRODUCTION

India, the second, most crowded Country in the World; and a quickly developing economy, is known to have an immense system of streets. Streets are the overwhelming methods for transportation in India today. Notwithstanding, a large portion of the streets in India are limited and congested with poor surface quality and street upkeep needs are not attractively met. Regardless of where you are in India, driving is a breath-holding, multi-reflect including, possibly hazardous undertaking. Streets in India, typically have speed breakers; with the goal that the vehicle's speed can be controlled ,to maintain a strategic distance from mischances. In any case, these speed breaker are unevenly disseminated with unevenin India, 2011", by the service of street transport and expressways, an aggregate of 1,42,485 individuals had lost their lives because of lethal street mishaps. Of these, about 1.5 for every penny or almost 2,200 fatalities were because of poor state of streets. To address the previously mentioned issues, a savvy arrangement is required that gathers the data about the seriousness of pothole and bumps and furthermore, causes drivers to drive securely.

The essential of front light is a need in the midst of night travel. A comparable front light which enables the driver for better vision in the midst of night to movement is moreover accountable for various incidents. The driver has the control of the front light which can be changed from high bar (astonishing) to low bar (reduce). In the midst of pitch dull conditions where there are the same wellsprings of light, high bar is used while on each and every other case, low shaft is favored. In a two-way movement, vehicles utilize on the two sides of the road, so when the stunning light from the mist light of a vehicle beginning from the other path falls on a man, it glares him for a particular measure of time, making bewilderment that driver. This uneasiness will realize blazing programmed closing of the driver's eyes. This division of preoccupation is the prime explanation behind some road accidents amid the night. This model reduces this issue by truly trading the marvelous mist light of the vehicle to low shaft thusly when it distinguishes a vehicle at closeness moving closer from the other heading and trading it back after the vehicle passes. The entire working of the dimmer is an electronic equipment course of action which resources and switches the mist light as showed by the required conditions.

Vehicle mischance is one of the significant issues in all finished the world. In spite of numerous mindfulness battles, these issues continues expanding step by step, because of a few reasons, for example, intoxicated and drive, over speeding, riding without adequate rest et cetera. Indeed in spite of the fact that diverse vehicle producers have taken a few measures in enhancing the wellbeing of the vehicle this issue has a tendency to stay because of the previously mentioned reasons. Because of the postponement in the therapeutic help the death rates is at the abnormal state, this causes financial what's more, social weights to individuals who are included. Great and the security measures are exceptionally costly and furthermore it is hard to execute so it is wanted to actualize in four wheelers utilizing black box.

1.1 PROPOSED MODEL

Before In this approach we have proposed a system for car surveillance and driver assistance, where in which the car

itself will initimate the concerned person about the accidents by sending the short message like hump detected over speed

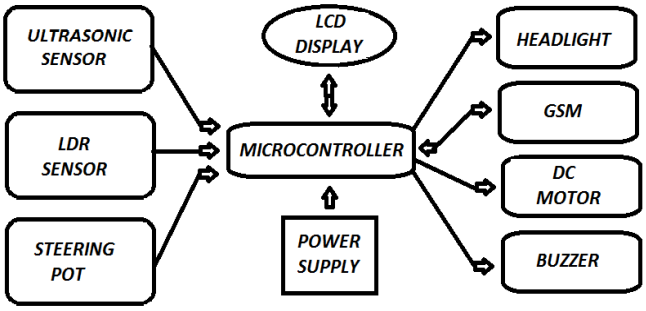

Fig -1: System architecture for hump detection and steering monitoring

2. HARDWARE IMPLEMENTATION

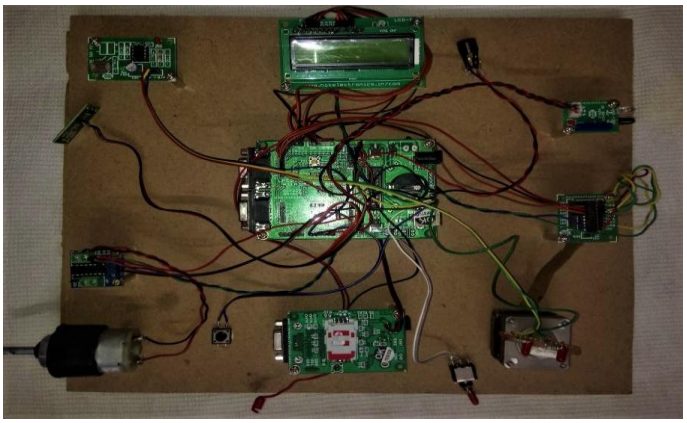

Fig- 2: Hardware Implementation of system

Here in the proposed system we built a blackbox, which has different sensors along with global system for mobile communication. when the hump is detected the automatic control of speed is done and the headlight is rotated according to the steering. when the opposite approaching light beem is noted then the headlight of the car is automatically dimmed and the buzeris on to alert the driver in case if the driver is in sleeping mode. And the messages is being sent through GSM. Thisproposed method in system helps to prevent accident.

3. RESULTS

Fig -3: Hump is detected when obstacle is found.

Ultrasonic sensor is used to detect the road hump which emits and reflects the rays.

Fig -4: Steering light is rotated left and automatic headlight is dimed

Vehical steering light is moved according to the steering rotation using steering pot.

Fig -5: Steering light is rotated right and automatic headlight is dimed

Light detecting unit is used to detect the road which produces high beam light when the opposite vehical is detected the beam of light is controlled and the light is diverted to road. These applications are used to reduce the driver work and make the vehical/transport technology more smarter.

4. CONCLUSION

This method will automatically switches the headlights of the vehicles from high beam light, to low beam light: during night time whenever any vehicle approaches opposite in the same lane and it prevents glaring effect which is caused due to high light beam during night time and also it detects and indicates the presence of road humps to the driver to avoid accidents.

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