Smart Honking Zone with Speed Detector

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Abstract*: This project has an aim to control the horn volume in cities and also in restricted area as such schools, parks, hospitals, old age homes, college, government offices and in speed limited areas etc. Some peoples are driving vehicles in a high speed and create noise of horn of vehicle. So the police are not able to monitor all those things. Driver does control the speed of vehicle at places. This paper provides a way for how to control the speed of vehicle and control the noise of horn without harming others. This project has an aim to control noise of horn automatically. The speed of any vehicles will be detected using accelerometer if the speed of vehicle is exceed in honking zone then the buzzer can buzz and get alert to driver about . cities and also in restricted area as such schools, parks, hospitals, old age homes, college, government offices and in speed limited areas etc. Nowadays in a fast moving world all the peoples are not have self-control. controls are taken automatically by the use of electronic system. In this project we use GPS for indicating the nearby honking zone. Speed is measured by the help of accelerometer in the vehicle. The controller compares the speed. If it exceeds the limited speed the pizzobuzzer buzz and alerts the driver and controls taken automatically by driver and when vehicle is near at honking zone the switch can automatically decrease the volume of horn if it on. In this way our smart honking zone for smart cities project will be perform.*

Keywords: Java, Admin, Invigilator, Co-ordinator, Web Application.

I. INTRODUCTION

At present accidents are mostly occurs due to rash driving and over speed in road. People do not bother about human lives. The accidents rates are increasing year to year by more vehicles on to ground. The government has taken to many steps to prevent this kind of Things but it not enough. Most of the manufactures has developed a laser based control system but its cost is too high. But it is again a difficulty when human crosses the road it cannot detect properly so we tried to develop a system to control these things in a simple manner. The current speed will be monitored by the separate module or by the use of ultrasonic sensor that also sends information to controller. The controller compares both speed and the driver does not decreases the speed the control transfers automatically but the driver again operate it manually and exceeds the limited speed.Due to increase in vehicle the amount of pollution, that is generated by these vehicles have increased significantly. This has in turn caused disturbances and therefore, in some areas such as in central cities, near hospital, near school etc, honking (operating a horn to generate to generate sound) is prohibited by law or regulation.In general, there are many traffic signs in various areas to notice the drivers not to operate horns. Additionally, or alternatively, local governments issue permanent or temporary regulations the horn operations. However, some drivers ignore such traffic signs or International Journal of Pure and Applied Mathematics Volume 118 No. 20 2018, 695-700 ISSN: 1314-3395 (on-line version) url: http://www.ijpam.eu Special Issue ijpam.eu 695 forget or do not know of such regulations, especially in those areas that they are not familiar with, and thus operate horns in a wrong way against the regulations. The only way by which the driver can honk is that if the driver gets close to the other cars range only then the driver will have full access to honk, if the other car is not nearer to the car of the driver, he will not be able to honk. hall which is hassle free. Because most of the students feel Augean to search their allotted seat, the concept of automatic exam hall seat generation has come up, where even the hall for invigilators, for the invigilation duty is generated. duration provokes changes that may not be so readily reversible. Noise pollution which having only because of speedy vehicle driven is not believed to be a cause of mental illness, but it is assumed to accelerate and intensify the development of latent mental effects on human health because of noise. How that bad effect was reduce

1.1 Problem Statement:

The ever increasing cases of ailments because of speed of vehicle both physical and mental presents the direst need for a sustainable and an economically viable solution. It is the cause of accident and accidental death. The affordability and the efficiency of the solution system have to be optimized. The objective of this system is to present a viable alternative to these problems which also leads to an ecofriendly society. This research work aims to provide a solution in form 1of an embedded module, in which inter vehicular communication is done using GPS signals with proportionate (apposite) range, frequency involved (energy requirement) and cost of equipment. The module also includes the provision of avoidance of accidents occurring because of high speed of vehicle. The smart honking system aims to develop the disincentive measure for unwanted honking. Mostly during the , the high speed will create a lot of noise pollution occurs that causes irritation to the public nearby and people living in residential areas, schools and hospitals, old age homes and government offices. The high speed of vehicle is may be cause of dangerous accidents. This problem can be solved by our system efficiently as accelerometer would be control the speed of vehicle in surroundings. The source car, bikes built up accelerometer in vehicle body which is get the speed of that vehicle if the speed is goes on 40km\h average then the buzzer will be buzz and alert the driver to maintain the speed limit of vehicle in honking zone. The inability of the driver to hear the buzzer is because of the high speed of the car. Integrating with the accelerometer system of the car, vehicle that automatically pauses buzzer system and allows the buzzer to be heard resulting in avoidance of road accidents.

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II. METHODOLOGY

When the vehicle enters in the normal area it speed does not decrease and it goes normally no action is performed. When the vehicle enters into the restricted areas that means it enters into the speed limiting. Whenever it enters the transmitter module just send an information that contains how much speed a vehicle can go inside the speed limited region. Then the signal or information is received by the receiver and the signal acquired from the speed meter is also given to the controller. The signal is basically analog in nature that will be converted into digital so only the micro controller able to process the signal. The signal from the transmitter and the Accelerometer is compared by the controller.in this there are two case first, the current speed is less than the transmitted speed the vehicle goes normally no action is required. Second, the information from the speed meter is greater than the transmitted speed by the transmitter module the controller waits for few second whether the driver reduce the speed to the below value if the driver reduce the speed means reduce the speed according to it. The speed denotes that at which time the vehicle cross that area. Then the fine or penalty amount is collected by the nearest tollgate or the check post. After that at the end of the speed limit area there is an another transmitter that contains an stop information means the control releases by the controller to driver

The changes that we have made to the proposed system is that the horn won't work unless a vehicle is close enough or else simply the horn won't work. By this way we can avoid all the noise pollution and give a noise free environment, this project ensures that there will be less noise generated by horn and we can avoid the unnecessary honking where it is not at all required. Noise pollution causes a harmful impact on human and animal life. The existing system is a patent registered is of way by which vehicle cannot honk unless they are in some location of the city. Our proposed circuit also decides the frequency to which the driver can honk and if the vehicle is near the honking intensity decreases and if the vehicle is little far the honking intensity increases (only in honking range.

2.1 Objective:

- The system should ensure smooth and efficient conduct of theory exams. It should facilitate the scheduling of exams, allocation of exam halls, and management of invigilators.
- To ensure a fair and unbiased allotment of exam halls to students.
- To minimize conflicts and overcrowding in exam halls.
- To effectively manage and utilize available resources such as exam halls and seating capacities.
- To streamline the process of allotting exam halls and reduce administrative overhead.
- To ensure that students are allocated exam halls that are suitable and conducive to conducting examinations.
- To minimize the chances of cheating and malpractice during examinations by appropriately assigning students to exam halls
- To provide a convenient and hassle-free experience for both students and exam administrators.
- To maintain transparency and accountability in the allotment process, ensuring that it is conducted in line with institutional policies and guidelines.
- To efficiently handle any last-minute changes or adjustments in the allocation of exam halls.

III. LITERATURE SURVEY

"Many researchers have contributed to this field. Various combinations of existing technologies have been used.

Each year, there are thousands of highway deaths and decade of thousands of serious injuries due to"Run-Off-Road" accidents. Everything from easy driver inattentiveness, to fatigue, unfeelingness, to drunk driving, is accountable. Simple sensors can be fitted inside vehicles implant with various features like, automatic crash notification, vehicle security, speed control which can give motivation to an efficient road safety system. The features that are proposed during this work are: Automatic collision notification that gives alerting to the victim's relative, Red light control makes sure vehicle doesn't break signal, speed control alters speed indistinct zones, Horn control prohibit honking in horn prevented zone, Vehicle security is used to prevent theft.[1]

Due to the fast increasing vehicle population in the recent years has resulted in considerable increase in the traffic on roads, causing forbidding noise pollution and also making the task of vehicle monitoring cumbersome for the civil force. This paper suggest an idea to design an on board equipment SHARP which apply soundless horn, a mechanism for vehicles to reduce the traffic noise and a remote watcher to aid the civil force in observing the vehicles remotely with enhanced hit ratio of black listed vehicles. The proposed idea integrates the technologies of image processing and inters vehicular communication for its execution. The designed on board equipment is targeted for four wheelers and a typical SHARP system is formed of –a camera, processor, DSRC transceiver, GPS device and an LCD display.[2]

Automatic detection of potholes is a human security basedproject. This techniquegives cost effective solution for detection of potholes on the road and indicate the road maintenance authority for maintenance. Microcontroller pick up the placement of that pothole by using GPS which GPS locations are send with help of GSM. The GSM at the server part grab that locations and show pothole or hump on the map of that area. We have taken keen interest in building this project to enhance the safety of human race and to fulfill low maintenance. This technique supply cost effective solution for detection of potholes and humps on the road and indicate the road financing authority for maintenance. The distance sensor senses the potholes as well as humps which is given to microcontroller. Microcontroller get the location of that pothole or hump by using GPS and that GPS locations are broad cast with help of GSM. The GSM at the server part takes that placement and indicate pothole or hump on the map of that area.[3]

This application is for detecting defects on the road, such as potholes as well as speed bumps, and it automatically extracts the video section and the image of the parallel road segment containing the defect. Upon such critical hazard detection, the applying instantly informs nearby users about the deed. A good detection rate of speed bumps is achieved in the performed tests, while the asset of automatic image extraction based on the multimodal approach is also demonstrated.[4]

In this paper, a stereo vision build pothole detection system is proposed. Using the disparity map produced from an efficient disparity calculation algorithm, potholes is also recognized by their distance from the fitted quadratic paved surface. The system generates the size, volume and position of a system that utilizes mobile phone accelerometer to

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detect and locate potholes. It records the vibration of. Machine vision based techniques for automatic pothole detection have also been proposed, which only need a camera as input. However, existing view pointedly on the texture of the road surface, resulting in low accuracy. Mis-detections are mainly due to variation of lightingconditions.[5]

Nowadays we all use Google maps and its uses for negotiate during travelling, but these applications are not so friendly to tell you any roads condition or its complexity. This paper narrates the ghat complexity and pothole detection of roads. It has been considered that the mobile sensors play an the GPS system of during traveling. This information can be helpful to user at the time if there are multiple routes and for destination and he can choose one of the finest and shortest routes.[6]

In this paper, they proposed a heterogeneous online/offline sign encryption scheme. It allows the sensor node in the IBC to send a message to an

- Lack of storage space
- Prone to damage
- Inefficient document transportation
- Supply costs
- Poor environmental credentials
- Limited collaboration
- Editing problems

Architecture Diagram
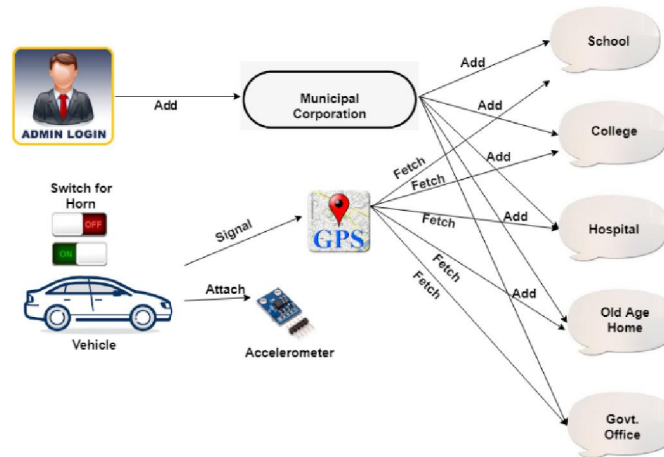
Smart honking zone for smart cities system the system architecture is define as follows:

Admin:

Admin can add the municipal corporation and view the honking zones which are included by the municipal corporation on GPS. He also view and delete the of municipal corporation and also view all details and data of others which is included by the municipal corporation.

Municipal Corporation:

In our system the municipal corporation can add the honking zones like hospital, school, college, old age home and government offices in cities as a honking zone with their longitude, latitude, Name, Type, and other description and decide the speed level of the vehicle which is travel from near the honking zone.

System:

In this web application when any car or vehicle goes from any honking zone the accelerometer can track the current speed limit of that vehicle. This accelerometer can built in the vehicle which is note the speed of vehicle during honking zone which is declare and saved on GPS by municipal corporation, if the detected speed of vehicle is greater than the speed which is allowed in honking area then the pizzobuzzer will buzz and get alert to driver to drive slowly in honking

zone area. It also check the horn of vehicle if it on then the in-built switch press action will automatically decrease the noise level of the horn and keep safe and noise pollution free drive

IV. CONCLUSION

In our proposed system, The accidents that are caused due to loud music inside the vehicle, which inhibits the ability of the driver to alert mitigate by this system. In this paper we developed a new design to control the speed of the vehicle. In normal driving mode, we can expect other vehicles interfering nearby and possibly blocking or attenuating RF signals. In this aspect, we are going to use GPS location for restricted areas. Noise pollution seems to be a general problem, but when seen through global perspective it is a major issue. When honking unnecessarily is reduced it results in a peaceful environment and less stress for the daily travelers. Travelling is a part of day to day life for every human, so when noise due to unnecessary honking is eliminated humans will be able to sleep, concentrate and improvise their memory efficiently. Therefore, with this initiative overall stress is reduced and a peaceful journey will begin.

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