

**ADVANCE VEHICLE COLLISION DETECTION IDENTIFICATION
BY AN INTELLIGENT SYSTEM****K.Sunkaiah¹, K.Sudhakar², H.Devanna³**

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ABSTRACT:

It is one of the applications used in the real time scenario where there is a lot of advancement in the system with respect to the strategy of the deployment in the application plays a major role followed by the well effective analysis takes place that is a several number of the test beds have been conducted in the application deployment of the motorcycle in which major concern for the accident prone region is a major concern respectively. Here the above system is manipulated in the form of the software and it is installed on the vehicle of the motor bike seat in a well oriented fashion in which there is a accuracy in the system where there is a detection of the accidents in a well oriented fashion respectively. Here the software is user friendly followed by the compact oriented fashion by which there is a ease of use is a major concern respectively. Here the algorithm is designed based on the threshold based fashion in which there is a well accurate manner of the detection of the speed of the motorcycle where there is a well accurate determination of the accident prone area followed by the fall region in a well oriented fashion respectively. Here in the analysis the design of the system consists of the component of the co operative phenomena in which oriented with respect to the unit of the micro controller followed by the accelerometer, Device of the GPS followed by the module of the GSM in a well efficient fashion respectively. Here the system is designed in which there is a well efficient transmission of the data in the form of the message by the help of the GPS phenomena in which to the nearest hospital and also the ambulance followed by the family due to the family where by the help of the

network related to the strategy of the GSM plays a major concern and the transmission of the data in a reliable fashion respectively. Simulations have been conducted on the present method and a lot of analysis takes place on the huge number of the dataset in a well efficient manner where there is an improvement in the performance followed by the outcome in a well effective fashion respectively.

Keywords: Accelerometer of MEMS, GSM, GPS, Thresholding, Micro controller unit respectively.

1. INTRODUCTION

There is a lot of analysis takes place on the present scenario and also the aspects of the concern related to the accident prone conditions due to the ill behaviour of the drivers is a major challenge respectively. Here this is one of the key aspect and frustrating the users in many of the countries related to the accidents in which many of them are prone to the disability followed by the death [2]. Here due to the problem oriented scenario there is a huge poverty in the system which is related to the financial followed by the economic aspects respectively [1]. Therefore in the present scenario there is a implementation of the research oriented analysis takes place in the system with respect to the detection of the incidents oriented with respect to the prone of the accident is a major concern respectively.

BLOCK DIAGRAM

Vehicle Section:

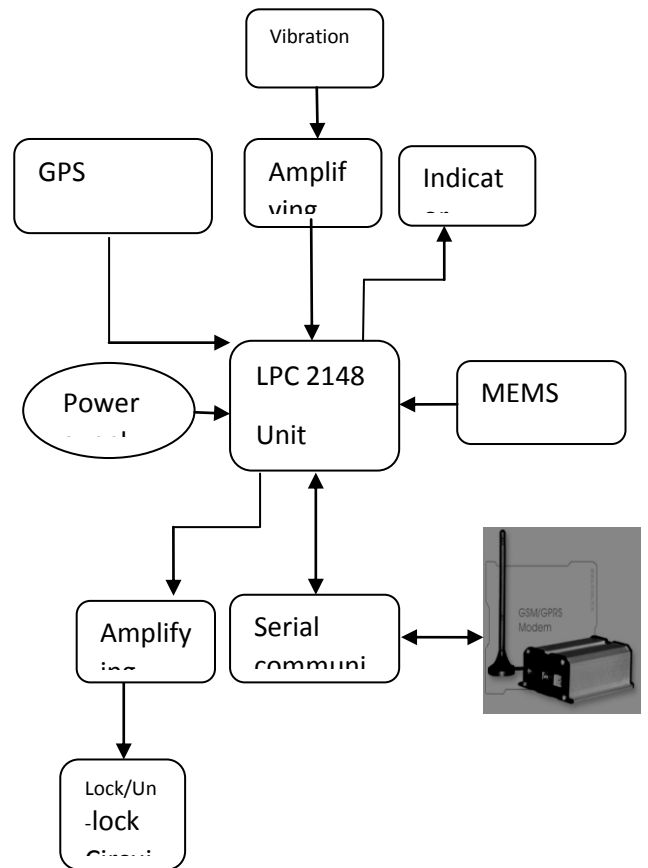


Fig 1: Shows the block diagram of the present method respectively

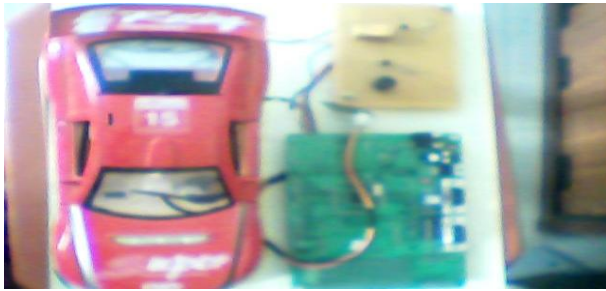


Fig: kit demonstration

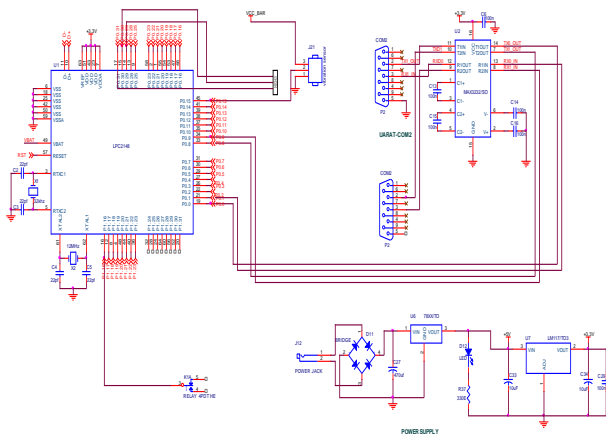


Fig 2: schematic diagram



Fig 3: GSM

SMS Commands:

→AT+CIMI

Note: scan IMSI

→AT+CMGS="'+919701601276'"

→AT+CMGR=1

→AT+CMGD=1,4

Note: Delete it Note: Message

Global system for mobile communication (GSM) is a globally accepted standard for digital cellular Communication. GSM is the name of standardization Group established in 1982 to create a common European mobile telephone standard that would formulate specifications for a pan-European mobile cellular radio system operating at 900 MHz. A GSM modem is a wireless modem that works with a GSM wireless network. A wireless modem behaves like a dial-up modem. The main difference between them is that a dial-up modem sends and receives data through a fixed telephone line while a wireless modem sends and receives data through radio waves. The working of GSM modem is based on commands, the commands always start with AT (means Attention) and finish with a <CR> character. For example, the dialing command is ATD<number>; ATD3314629080; here the dialing command ends with semicolon. The AT commands are given to the GSM modem with the help of PC or controller. The GSM modem is serially interfaced with the controller with the help of MAX 232.

2. METHODOLOGY

Here the present method completely overcomes the drawbacks of the several previous methods in a well efficient manner [6]. In this paper a method is designed with a well effective framework oriented strategy in which there is an improvement in the performance followed by the outcome of the entire system in a well respective fashion. Here the implementation aspect of the present method is shown in the above figure in the form of the block diagram and is explained in the elaborative fashion respectively [4][5]. There is a huge challenge for the present method where it is supposed to accurately analyze the problems of the several previous methods in a well efficient manner and also used for the theoretical aspect oriented analysis in a representative fashion respectively [3]. Here we finally conclude that the present design oriented mechanism is effective and efficient in terms of the improvement in the system based aspect respectively.

GPS MODULE

The Global Positioning System (GPS) comprises three segments:

- ❖ The space segment (all functional satellites)

- ❖ The control segment (all ground stations involved in the monitoring of the system master control station, Monitor stations, and ground control stations)
- ❖ The user segment (all civil and military GPS users).

GPS Was developed by the U.S. Department of Defense (DOD) and can be used both by civilians and military Personnel. The civil signal SPS (Standard Positioning Service) can be used freely by the general public, whilst the Military signal PPS (Precise Positioning Service) can only used by authorized government agencies. The first Satellite was placed in orbit on 22nd February 1978, and there are currently 28 operational satellites orbiting the Earth at a height of 20,180 km on 6 different orbital planes. Their orbits are inclined at 55° to the equator, ensuring that at least 4 satellites are in radio communication with any point on the planet.

During the development of the GPS system, particular emphasis was placed on the following three aspects:



Fig 6: GPS module

- a) It had to provide users with the capability of determining position, speed and time, whether in motion at rest.
- b) It had to have a continuous, global, 3-dimensional positioning capability with a high degree of accuracy, Irrespective of the weather.
- c) It had to offer potential for civilian use

System accuracy had been intentionally degraded up until May 2000 for political and tactical reasons by the U.S. Department of Defense (DOD), the satellite operators. It was shut down in May 2000, but it can be started up again, if necessary, either on a global or regional basis.

3. EXPECTED RESULTS

A comparative analysis is made between the present method to that of the several previous methods is shown in the

below figure in the form of the graphical representation and explains in a brief elaborative fashion respectively. A lot of analysis is made on the present method and the huge number of the simulations have been conducted on the large number of the data sets in a well oriented fashion respectively. There is a huge challenge for the present method where it is supposed to improve the performance of the system followed by the overall system based analysis with respect to the outcome of the entire system respectively. Here we finally conclude that the present method is effective and efficient in terms of the performance based strategy in a well efficient manner respectively.

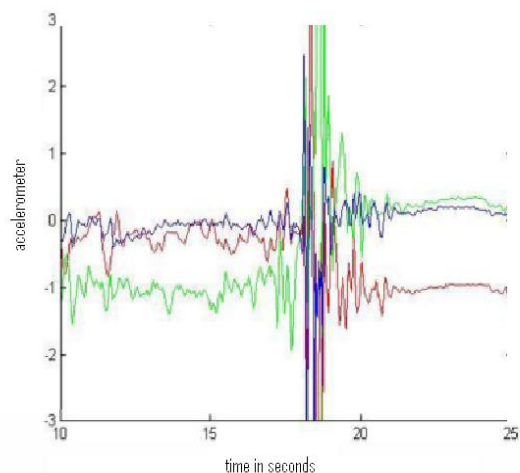


Fig 7: Shows the graphical representation of the present method respectively

4. CONCLUSION

Here a new technique is designed with a well effective framework where there is a lot of analysis takes place on the huge number of the data set in a well oriented fashion where there is an improvement in the performance followed by the outcome in a well respective fashion. Here an effective monitoring of the tracking of the GPS based strategy plays a major role in its implementation with respect to the well efficient analysis of the MEMS oriented phenomena in which by the help of the black box in the wireless oriented aspect and is one of the innovative technique used for the implementation plays a major role respectively. Here the above system is well efficient in its representation related to the accident detection by the signal of the accelerometer is a major concern oriented with the effective algorithm of the threshold with the speed of the GPS based motor cycle crashing of the posture respectively. Here the message is sent via the network of the GSM phenomena after the accurate detection of the accident prone condition plays a major role in the transmission of the message in the well oriented fashion respectively. Here we finally conclude that the present method is well efficient in the accurate tracking

based detection of the accident prone region respectively.

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