

SMS Based Automatic Vehicle Accident Information System

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ABSTRACT: In recent years infrastructure has developed tremendously but accordingly the accident rate also increased tremendously. In the existing system only the human sees that the accident has occurred and they will call to the ambulance and the reach of ambulance to the spot is late due to that there is huge loss of human life and for that a solution is brought up by using vibration sensor which senses during the occurrence of accident and using GPS(global positioning system) the latitude and the longitude of the position can be found and using GSM(global system for mobile communication) modem the position of the message can be send to the operating center and the operating center will have the GIS(geographical information system) through which can find the location easily and they can call to the nearby ambulance and they will reach the spot fastly and this all will happens within two minutes by this human life can be saved. If this system is implemented we can save upto sixteen persons every hour because mostly the accident will be small but due to loss of more blood the person will die if the ambulance reach the spot within few minutes of the accident then the person life can be saved easily and the cost of system is also low because nowadays most of the vehicle is fitted with a GPS modem and only we have to get a GSM modem and a controller and so the system will be cost efficient.

KEYWORDS: PIC microcontroller, GSM modem, GPS modem, crash sensor

I. INTRODUCTION

Now a day's infrastructure has developed but the number of accidents are also getting increased even though many accidents are minor but due to lack of first aid and the reach of ambulance to the spot is late so there is a huge number of people are losing the life every day. Twenty people die every hour in road accidents in India -times India reports on 2012. to reduce the number of people losing the life in the proposed system, sending automatic information to the ambulance and the ambulance will reach the spot fastly and can save human life and reduce number of people dying every day. The proposed system is to reduce the death rate of human every day due to accidents by sending automatic SMS to the ambulance and so can save human life. To ensure the safety of the passenger and help the passenger if the accident occurs is the key role plays in our project. The human life is priceless and it's are prime duty to save the human life.

II. EXISTING SYSTEM

III. PROPOSED METHODOLOGY

In the proposed system, if an accident occurs the vibration sensor in the vehicle senses and sends the information to the microcontroller that the accident has occurred and the GPS modem continuously receives the co-ordinates (latitude and longitude) and gives the data to microcontroller and if the signal comes from the sensor then the microcontroller sends the information obtained from the GPS modem through the GSM modem to the operating center and the operating center

analyze the spot and gives information to the nearby ambulance and so the ambulance can reach the accident spot in few minutes and can save the human life.

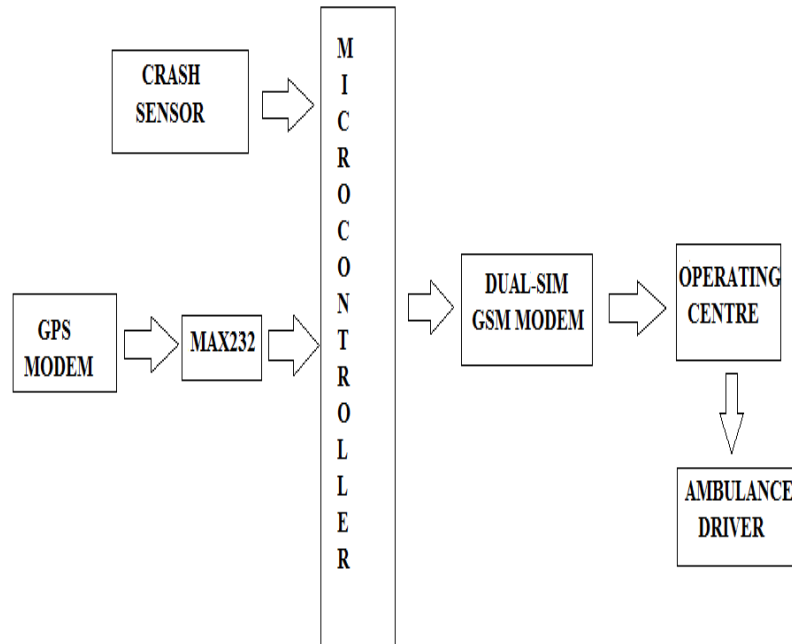


Fig 1 block diagram of proposed system

IV. PROTEUS DESIGN OF THE SYSTEM

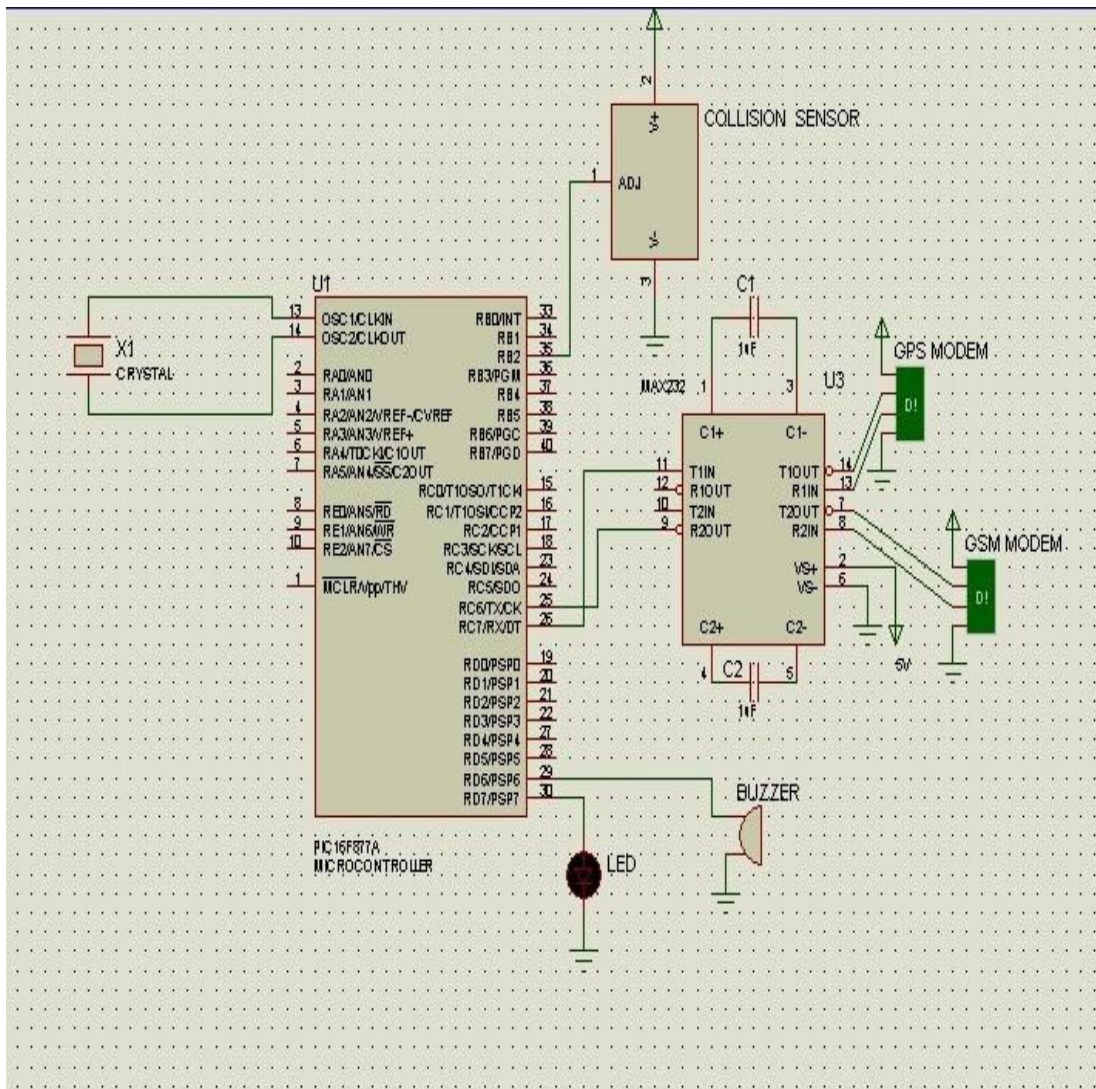


Fig 2 Design of the Overall System

v. BRIEF WORKING

The project consist of vibration sensor, GSM modem, GPS modem, relay, microcontroller. In this the vibration sensor senses when the accident occurs and it actuates the relay, in this the common is given by supply and when the sensor is sensed the signal from the sensor is given to the op-amp in which its amplified and then it's given to the ULN driver and from it is given to the relay as a ground , if the sensor senses then the signal is send to the controller through the relay and the latitude & longitude from the GPS modem is received to the controller and if the controller gets the signal from the vibration sensor then it sends the latitude and longitude to the operating center through the GSM modem and the operating center consist of GIS in which if type the latitude and longitude it will give the correct location and then call to the nearer ambulance and they can reach the accident spot fastly and so can save the human life.

vi. PHOTOGRAPHIC VIEW

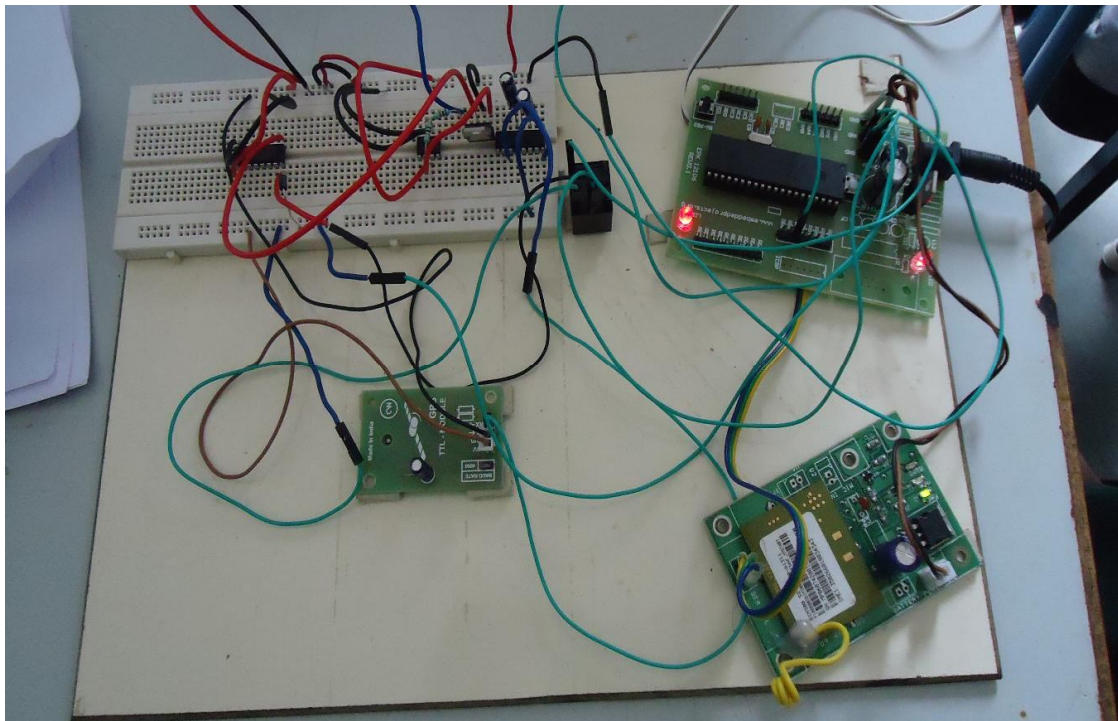


Fig 3 Electrical Circuit Diagram

VII. CONCLUSION

Thus the proposed system provides a solution for the vehicle accident information, if a vehicle gets accident, then the global positioning system (GPS) modem gathers the latitude, longitude of the accident zone and sends to the operating center through global system for mobile communication (GSM) modem. So the operating center will receive the SMS within few seconds after the accident occurs and the operating center consists of geographical information system (GIS) which gives current position of the accident and then the operating center will call to the nearby ambulance and gives the intimation and so the human life can be saved.

VIII. FUTURE SCOPE

The project can be further extended by using the compact GSM modem and GPS modem so the system will become compact and the SMS can be send through SOS(save our soul) software. In future, it can be done to resend the SMS if the SMS is not delivered to the operating center so the delivery of the message can be known.

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