# IMPLEMENTATION OF DRUNK & DRIVE AND ACCIDENT DETECTION SYSTEM

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**ABSTRACT:** Now a days travelling in a vehicle becomes very normal. So usage of Vehicles rate is higher. And accidents also increased due to drunk & drive and over speed. So to save the human life from the accident lets implement The drunk & drive detector in the vehicles User first access the drunk & driver detector to use the vehicle. If the alcohol level is detected. The engine won't start and in the highways accidents are unnoticeable for that accident detection system is implemented so in case of accident the accident location will send to the nearest patrol and hospitals and also to the selected contact numbers so that it can be easy to identify the accident spot.

**Key words:** Alcohol detection, Accident detection, GSM, Sensor Technology.

## I.INTRODUCTION

The purpose of this project is to develop vehicle accident prevention by method of alcohol detector in an effort to reduce accident cases based on driving under the influence alcohol and automatic accident detection system is used to recognize the location of the accident and easily to reach the location. The alcohol sensor circuit will detect the alcohol depends on human breath and the signal will send data to PIC 16F876A as a controller to other circuit. The result of human breath contains alcohol that has detected from alcohol sensor circuit will display on the LCD 16X2 display. It has a high sensitivity and fast response time sensor providers an analog output based on alcohol concentration. The sensor needs 5V power supply to operate. A piezoelectric sensor is a device that uses the piezoelectric effect, to measure changes in pressure, temperature, strain, or force by converting them to an electrical charge. sensor. Piezo is a Greek word which means 'press' or 'squeeze'. Piezoelectric effect causes the occurrence of electric dipole moments in solids due to the pressure applied to certain solid materials such as piezoelectric crystals, ceramics, bone, DNA, and some proteins that generates electric charge

## II .RELATED WORK

This paper describes about a solution to block a vehicle by sending a SMS, and only a authorized person unlock using security code, and helps the injured person. They used GSM and GPS modem[2] the use of microcontroller based GSM communication helps to recognize the missing vehicle .GSM modem had the authorized user registered details .the intelligent traffic light controller that was introduced saves the waiting time and avoids the traffic load. With an embedded sensor network accident prevention by method of alcohol. technology, the congestion road is detected and managed accordingly with controllers [3]. Alarm device predict the accident vehicle using the algorithm developed. The acceleration sensors and angle sensors module provide the necessary data to the controller. The area of accident is detected using detection algorithm built in the controller[4]. Now days Wireless sensor Network (WSN) has been applied in various domains like weather monitoring, military, home automation , health care monitoring, security and safety etc [1]. The vehicle system is placed inside the vehicle which detects the accident location by means of sending a message. With the

help of GPS and GSM module anywhere in the vehicle is traced. GSM modem used to send an exact location of the vehicle[6]. system is aimed at making vehicle driving safer than before. This is implemented using We have derived the driver's condition in real time connected to such that when the level of alcohol crosses a permissible limit, the vehicle ignition system will turn off and the GPS module will capture the present location of the vehicle. Also the GSM module will automatically send distress message to police or family members. The purpose of this project is to develop vehicle accident prevention by method of alcohol detector in an effort to reduce traffic accident cases based on driving under the influence alcohol. This project is developed by integrating the alcohol sensor with the microcontroller 16F877A. The alcohol sensor used in this project is MQ-2 which to detect the alcohol content in human breath. An ignition system which will produce spark plugs is build up as a prototype to act like the ignition starter over the vehicle's engine. Piezoelectric charge of effect causes the occurs of electric alcohol detected in an accident prevention by method of alcohol detector in reduce effort traffic accident based on the alcohol detected content in human breath started over the vehicle engine locking of accident detection system.

### III.INTRODUCTION GSM

(Global System for Mobile Communications, originally Group special Mobile) is a standard developed by the European Telecommunications Standards Institute (ETSI) to describe the protocols for second GSM networks operate in a number of different carrier frequency ranges (separated into GSM frequency ranges for 2G GSM and UMTS frequency bands for 3G), with most 2G GSM networks operating in the 900 MHz or 1800 MHz bands. Where these bands were already allocated, the 850 MHz and 1900 MHz bands were used instead (for example in Canada and the United States). In rare cases the 400 and 450 MHz frequency bands are assigned in some countries because they were previously used for first-generation systems.

### IV.PROPOSED SYSTEM:

This system comprises the sensors section in a vehicle. This can be implemented to reduce the accident on road ,it can be done through microcontroller by using sensor. the speed of the vehicle can be reduced ,when the input can send to the microcontroller from the sensor .The sensor are

- Alcohol Detection
- Accident Detection

### Alcohol Detection

This project is to develop vehicle accident prevention by method of alcohol detector in an effort to reduce accident cases based on driving under the influence alcohol And automatic accident detection system is used to recognize the location of the accident and easily to reach the location. The alcohol sensor circuit will detect the alcohol depends on human breath and the signal will send data to PIC 16F876A as a controller to other circuit. The result of human breath contains alcohol that has detected from alcohol sensor circuit will display on the LCD 16X2 display. It has a high sensitivity and fast response time sensor providers an analog output based on alcohol concentration. The sensor needs 5V power supply to operate.

### Accident Detection

According to this project when a vehicle meets with an accident immediately piezoelectric sensor will detect the signal or if a vehicle, and will detects the signal and sends it to pic 16f877a controller. Microcontroller sends the alert message through the GSM MODEM including the location to patrol, emergency or a rescue team. So the emergency can immediate

### V. BLOCK DIAGRAM
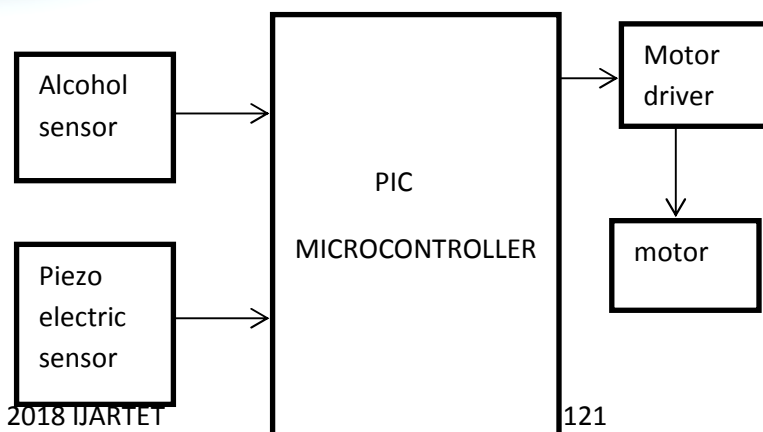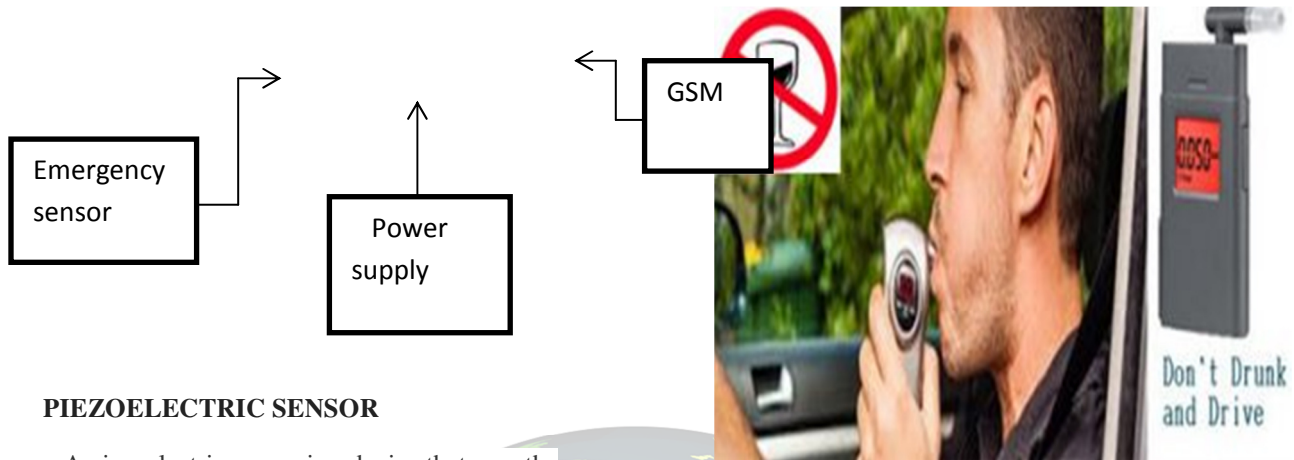
## PIEZOELECTRIC SENSOR

A piezoelectric sensor is a device that uses the piezoelectric effect, to measure changes in pressure, acceleration, temperature, strain, or force by converting them to an electrical charge. The prefix piezo- is Greek for 'press' or ' A sensor that utilizes the piezoelectric effect, to measure changes in acceleration, strain, pressure, and force by converting them into electrical charge is called as a piezoelectric sensor. Piezo is a Greek word which means 'press' or 'squeeze'. Piezoelectric effect causes the occurrence of electric dipole moments in solids due to the pressure applied to certain solid materials such as piezoelectric crystals, ceramics, bone, DNA, and some proteins that generates the piezoelectric. This generated piezoelectricity is proportional to the pressure applied to the solid piezoelectric crystal materials. In this article, we will discuss about one of the most frequently used piezoelectric sensor applications, that is, piezo squeeze'. To generate piezoelectric sensor is the pressure applied to the solid piezoelectric crystal material.

## Alcohol Sensor

Alcohol Sensor is a complete alcohol sensor module for pic microcontroller . It is built with MQ303A semiconductor alcohol sensor. It has good sensitivity and fast response to alcohol. It is suitable for making Breathalyzer. This Grove implements all the necessary circuitry for MQ303A like power conditioning and heat alcohol sensor.

## RESULT AND ANALYS

In this technique the mask which indicates is attached weather the person has drunk or not. If the person has drunk it shows the level in the LCD screen. If not nothing will be displayed.Accident location will be sent to nearest hospital ambulance service, patrol and personal contact numbers The piezoelectric sensor it in the vehicle during the accident. If the person press is safe means the will press vehicle which intimates that the person is safe and if the person is in danger means the cannot press the emergency button which intimates that the person is in danger.

## CONCULSTION

This system is the accident using sends the highway accident locate To emergency vehicle and the automatic vehicle engine locking system through An alcohol detection and accident identification system .The priority of service to the ambulance follows the queuing method of methodology through server communication this ensure the reduced time lag accident spot and hospital.

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