

# Web Based Accident Reporting and Tracking System

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**Abstract-** One of the buzzwords in the Technology is Internet of Things (IoT). The future of Technology is Internet of Things, which will transform the real world objects into intelligent virtual objects. The IoT aims to blend everything in our world under a common infrastructure, giving us not only control of things, but also keeping us well informed of the state of the things in real life. In this research, an effort has been made to minimize the the accident on national highway, in this study, various sensor and monitoring device are used to determine the accidental area on national highway, and provide medical services as fast as possible at accidental area, the monitoring device help in finding the accident area as fast as possible by minimize the search area, efforts to improve safety on existing multi-lane highways have been directed toward better signalling, driver education, and highway accident rescue system. Design of superhighways is based on studies not only of materials and construction techniques but also of driver characteristics.

**Index Terms-** IOT, Internet, Network, Tracking System

## I. INTRODUCTION

Highway accidents are undesired events that lead to injury or death. The core concept of highway safety accidents is to reduce all types of injuries with the help of IoT. The number of highway accidents increases day by day and reasons arise due to fog and extreme condition. If the new driver is driving who don't know more about traffic rule and driving also then there is a chance of increasing road accidents on highway.

The main cause of accidents and crashes are due to fog. Some of the common behaviour of humans which results in an accident- Over Speeding, Drunken Driving, Red light Jumping, etc. if the road user has behaved very poorly then penalties are required to improve their behaviour. The government is concerned about road safety. Here are a few reasons which helped to reduce the number of Road Accidents by the Speed Detection Device. The device measures the speed at which a vehicle is travelling.

If the person is travelling in the cab and he/she feels something phishing for such a situation, a third mode is introduced which is a cab mode. This mode works when the user shakes the mobile phone and the shake will be detected. Road accidents cannot be stopped despite providing the best possible roads, but we can improve the safety of the road and minimize accidents. The government should have to take action regarding improve highway safety , high-speed limit and non-use of alcohol. Improper design of the road also the cause of road accidents. Death of 1.3 million people happens every year [9]

## II. EXISTING TECHNOLOGIES

The main aim of this project is we have to analyze different methods to avoid accidents on national highway, Design, simulate and analyze the new technologies on wireless

connectivity for safety on national highways. Also we have to do communication with internal and external environments supporting the interactions between vehicle and sensor, vehicle and vehicle, vehicle and Infrastructure.

### Advantages

#### 1) Reduces loss of life & property

It is very dangerous and also harmful to communicate through mobile phones while driving on national highway. With the help of this project it will be easy and safe to communicate from one vehicle to another without accessing any cellular device hence this will reduce loss of life & property.

#### 2) Get road condition prior

It is impossible to know how the highway conditions of the route will turn out. With the help of our project we can get updates of road conditions prior to the journey.

#### 3) Easy to Communicate

With the help of Raspberry-pi as communication device we can communicate easily for V2V and V2I communication.

#### 4) Efficient and Saves Time and Money

The parameters to be sensed across this network infrastructure, provides new technological opportunities for more accuracy and efficiency of the real world into computer-based systems, this will reduce human intervention and saves time and money this will give better life.

### Disadvantage

The existing sensor based systems are able to detect only those vehicles that are within the employed sensors measurement ranges. In bad weather condition, the detection becomes impossible or the accuracy drops significantly Technology Takes Control of Life, Also there is possibility of compatibility and complexity of IoT

### Applications

This system is used for V2V Communication as well as for V2I communication, to exchange messages wirelessly and display safety messages on servers or LCD, by using sensors distance is measured between vehicles and for automatic braking system.

Nearly everyone depends on their cell phone for checking social media, making calls, and sending text messages. When people are traveling or running errands, their phone is going with them. Unfortunately, many people use their phones while they're driving and cause car accidents that can injure or kill people. Any time the driver is distracted with a cell phone in hand, they're driving dangerously and are risking other lives on the road as well as their own. Holding a phone to talk means that one hand is off the wheel, which greatly reduces the driver's control of the vehicle. They won't be able to maneuver safely or quickly if an emergency happens.

Using a phone also means the driver's eyes and focus are now on completing a task with the phone instead of the

road. Taking eyes off the road for a while can have horrible consequences, especially when one is traveling at high speeds on highways. If someone needs to brake, avoid, or use their horn to alert another driver about something, they may not have enough time because they weren't paying attention. The use of mobile phones while driving took 2,138 lives last year on the roads every day, according to data released by the transport ministry. So, we have developed different modes so that the user while using vehicles may be safe while driving, traveling in the cab and even for the parent so that they can track their child.

#### Working-

1. Import SQLite Database package.
2. Implement SQLiteOpenHelper to the java class.
3. Add the table to the database with the needed attributes – username, password, name, phone number.
4. Adding and deletion in the table is done by `sqliteDatabase.execSQL ()` function.
5. During login the values are checked using function `getReadableDatabase ()`.
6. The user is registered or not is check using the cursor which checks the count.

### III. PROPOSED MODEL

#### A. Security and Other Issues

When it is told “the application uses an algorithm that works on finding most probable outcome.” everyone at first focus on the word “probable” which means may be or should be and which can be guarantee up to 98%, 99% but not 100% accurate diagnosis, and start thinking then how is this project viable.

The answer to this question has more than one aspect which will be explained individually:-

Firstly: When a doctor diagnoses a disease based on symptoms explained to him, he do it merely by making assumptions based on his experience. That's what highly trained self learning and continuously neural nets with a very large datasets will do when deployed in our project.

Secondly: When the software will be unable to diagnose based on available dataset and explained symptoms, it will go back for more interrogation, and will ask question different from previously asked questions and take as input a new set of inputs.

Thirdly: The system will re-interrogate the user again only once and even after that if it feels that it is not able to diagnose the disease correctly it will quit the process of diagnosis and will refer for the diagnosis to the doctor connected to the system with its very lightweight and fast backend which will charge genuinely as his fees from the user for diagnosis. And this case of external diagnosis will also be used by the neural nets for its self improvement.

So in no case it will misguide the users and make false or wrong diagnosis. Yes will not be wrong to state that like most of the neural nets it will take some time to learn. But with every successful case it will continuously improve.

Fourthly: There is no doctor in this world capable of diagnosing/treating every single disease known, and not is this project even, the range of diseases the software will deal with will be limited up to a certain no. of diseases, just like scope of a ENT doctor is limited to ear, nose, throat, cardiologist treats only heart diseases, etc. In the same way the scope of this project will be limited to certain ENT diseases, skin diseases and infections for making it not too versatile but very specific and accurate.

#### B. Other Features

Some of the other features of the project apart from diagnosis are:

- Smart voice interrogation system, for easy connectivity with the user.
- Powerful image classification system for uploading images of skin and external infections to be diagnosed by the software.
- A detailed prescription in printable format as per the diagnosis.
- A smart UPI payment interface
- A simple to use application interface.

### IV. CONCLUSION

With the use of concept of IOT we have implemented this smart system for the highway security. In this project we use various sensors like ultrasonic sensor that detects various type of accidents, to avoid these accident a novel idea is proposed for monitoring the accident over the national highways. With the help of wireless communication message a message will be sent to another vehicle, Infrastructure (Home, hospital, police station or quick response team) to inform about the accident and also displayed on server display. Thus here by we conclude that our proposed system remove all the drawbacks of existing system used in national highway and enhanced with the IoT system for V2V and V2I system. So it makes the national highway system very smart thus we named it as “NATIONAL HIGHWAY SECURITY using IoT”

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