

# **IOT BASED SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY**

## **ABSTRACT:**

Transportation plays a key role in the development of an area, but it happens only when the transportation is safe, rapid, comfortable and economy. A road is considered safe when only a few, or no accidents occurs. Road and its surroundings, road users and vehicles are the elements contributing to road accidents, Pedestrians, bicyclists and two-wheeler motorized riders are the vulnerable road users. Their loss of human life due to accidents is to be avoided. The intensity of the deaths area unit additional roads. Within the mountain roads there will be slim roads with tight curves. In such case the driving force of the vehicles cannot see vehicles coming back from alternative aspect. Literature review will be done for the safe movement of the Road safety audit and will check the merits and demerits of the technique used previously.

## **OBJECTIVE:**

- To improve quality of Power Remote Sensing
- To improve Continuity of offer
- Real time observance
- Monitoring Multiple Transformers Sitting in Associate workspace is feasible
- It will ready to notice the Faults thanks to Over Current, Over Voltage, magnified Temperature at Real time
- This style of observance protects electrical device and overall system therefore System therefore system dependability and stability will increase

## **LITERATURE SURVEY:**

### **ROAD ACCIDENTS (NCRB-2015)**

Naveen, Traffic Accidents were reported during the year 2015 was 4,64,674 throughout India. Most of road accidents were due to over

speeding accounting for 43.7% of total accidents which caused 60,969 deaths and 2,12,815 persons injured.

#### CYBERAD TRAFFIC POLICE (2017)

Naveen, Data from official website about Nehru Outer Ring Road reveals some guidelines like, the maximum speed on Lane 1 and Lane 2 of the ORR will be 120km per hour and minimum speed will be 80km per hour. Faster moving vehicles should move in Right Lanes (Lane 1 and 2). Slow-moving vehicles should move in left lanes (Lane 3 and 4). Heavy vehicles should move in Lane 3 or Lane only. No Zig-Zag movement between the lanes is permitted.

#### KAILAS SHINDE, PRANJAL SHINDE (2019)

Arduino based mostly vehicle accident detection system was planned as associate approach towards avoiding road accidents. During this planned model Arduino, GSM, GPS, LCD, vibration sensors were used. During this system vibration sensing element is employed as associate input system is analysed by the Arduino and once the sensing element exceeds the conventional or threshold acceptable actions start going down because it can direct the GSM to send message from the user mobile to authority as they will send immediate facilitate to the accident victims. Next approach was created by chance system exploitation inaudible sensing element. Inaudible sensors were used alongside controller and Arduino to stop the accident from occurring. Buzzers and lamps area unit placed on each the aspect of the roads alongside controller and inaudible sensors.

#### ARUN S BAGIETAL (IOSRJMCE) ISSN:2278-1684)

Their study had identified accident prone areas on the road from FIR, it studied the effect of roadway geometrics and traffic condition on the road stretch and development of statistical relationship between accident rates and numerous factors causing accidents. The accident data form as prescribed by IRC has been prepared to collect the necessary information such as date, time, location, whether the

accident was fatal, vehicle damage and injured. These are entered in the First Information Report (F.I.R) and details are recorded in case diaries.

## **CONCLUSION:**

By application of this smart accident prevention system, the number of accidents occurring in curves of hills have not only decrease but also providing signal information to vehicle driver which are coming from opposite side, hence it alerting us. This is innovative approach where we have also countered to count the number of vehicles progressing from the opposite side. The proposed system user's magnetic sensor nodes to collect real-time vehicle information. Whereas the proposed system does not expect any smart equipped devices with the driver of the car or within the car such as sensors, GPS, Wi-Fi, etc...and which makes this model unique. The traffic administration can send priority messages to the citizens, hence, the traffic congestion due to accidents or any unusual incidents can be avoided

## **REFERENCE:**

1. Road Accident (NCRB-2015)
2. Cybrid Traffic Police (2017)
3. World Health Organisation, "Global status report on road safety 2015"
4. Wegman, "The future of road safety: A worldwide perspective, "IATSS Research".
5. L Sumi, V. Ranga, An IoT-VANET-based traffic management system for emergency vehicles in a smart city, *Advances in Intelligent Systems and Computing* 708(2) (2018) 23-31, <https://doi.org/10.1007/978-981-10-8636-6-3>.