

Automatic Spike Signal System using RFID Technology

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ABSTRACT

Traffic jam is a big issue in developing country. There are a number of systems which exist to control the traffic as there is always possibility to break the signal, the work of traffic police increase. This project used to reduce the work load of traffic police and also to people follow traffic rule strictly in order to avoid accident.

Keyword – Spike , RFID ,Traffic signal

Introduction

Traffic signal is signaling devices for vehicle placed at road intersections to control flow of traffic. Before invention of traffic police, traffic controlled by traffic police. The first traffic light was non-electric operated on gas-lit in 9th December 1868 installed outside the house of parliament to control the traffic in bridge street. In 1912, first electric traffic light was developed. As reported in the findings of an eight year study conducted by the National Highway Traffic Safety administration (NHSTA). There were on average of 1578 fatalities each year resulting from two-vehicle traffic crashes at intersections controlled by traffic signal. Approximately 51% of those fatal crashes were caused by drivers who run red lights approximately 29% were caused by drivers who failed to yield the right – of-way at traffic signals. The paper presents automatic spikes signal system for traffic signal. Now a days the conventional traffic signal is static which provide fixed delay time for red, green, yellow signal to control the traffic. As there is possibility to break the signal, traffic rules will not be obeyed

The normal function of traffic signal requires sophisticated control and co-ordinations to ensure that traffic moves as smoothly and that pedestrians are protected when they cross the roads. The normal function of traffic signal requires sophisticated control and co-ordinations to ensure that traffic moves as smoothly and that pedestrians are protected when they cross the roads

Literature survey

Density, speed and flow are the three critical parameter for road traffic analysis. the

author lingangoudu,pyinti raju and anusuya patil proposed the system 'Automatic intelligence traffic control' The proposed system concentrated on 2 factor 1 st is ambulance or extremely

priority vehicle arrive at signal during red light then its corresponding signal become green and all others are red using RFID. According to density of vehicle on the road traffic light delay time updated. The author arwa abdel mohensen ahmed khan, abdelrasoul jubar alzubaid proposed a system 'smart traffic controller based on microcontroller'. In proposed system if number of vehicle increases the timing of signal increases for that uses IR sensor and also detect extremely priority vehicle such as ambulance and move lane free pass to the vehicle.

The author Shubhada P. Mane, Sachin Wankhede, Rohini Kadam, Poonam Kauthale, Aditya Mahakulkar proposed the system 'An Intelligent Traffic Light Controlling System'. The proposed system based on image processing. According to information of images signal time are updated.

The author Dinesh Rotake, Prof. Swapnil Karmore proposed the system 'Intelligent

Traffic Signal Control System Using Embedded System'. In proposed system IR sensor are used to detect emergency vehicle. When emergency vehicle come on signal then IR sensor detect the vehicle and open the divider gate to pass the vehicle and for other vehicle that will be red signal.

The author Nikhil, Manish Agrawal, Subhash Ajina proposed traffic signal preemption using global positioning systematic. In proposed system GPS system. is used for the ambulance detection. Ambulance send signal to web server, webserver determines speed position of ambulance and according to that send signal to corresponding traffic signal where ambulance.

The author Mohammed ehasan safi proposed a 'Smart Traffic Light Control Based On Microcontroller'. The proposed model consist of 2 modes manual and automode. In manual mode traffic light control work on user choice. Therefore problem arrive for emergency vehicle can be solved. In auto mode ultrasonic sensor is used. By using this sensor determines the density of vehicle on the road. The

The author Prof.R.U.Yawle,Kiran.K.Modak,Parmeshwar.S.Shivshette,Snehal.S.Vha proposed the system 'Smart Traffic Control System'. In this system time is divided into number of vehicles. Traffic control pass the emergency vehicle such as ambulance and also detect the stolen vehicles.

The author Saiba P A, Afeefa M U, Aruna T S, Clincy Jose, Radhika V M proposed the system 'Density Based Traffic Signal System using PIC Microcontroller'. In this system 3 sensors are placed on each road. The distance between sensor is based on the nature of traffic. Sensor interface with PIC microcontroller, based on that microcontroller detect traffic and dynamically setup the time delay of signal.

The IEEE paper author Anurag Kanungo, Ayush Sharma, Chetan Singla proposed system 'Smart Traffic Lights Switching and Traffic Density Calculation Using Video Processing'. This proposed system uses the live video feed from cameras at traffic junction for real time traffic density calculation using video and image processing.

It Also Focussed On The Algorithm for switching the traffic light according to vehicle density on road.

CONCLUSIONS

The disadvantage of conventional system has that it controls only traffic flow but there is no real time system to obeyed traffic rules strictly, so that peoples always break the signal. Hence we need such system to avoid the breaking of signal and follows traffic rule strictly

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