
Remote Monitoring For Traffic Control System Using Arm

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ABSTRACT: *Generally in our society transportation plays important role, but all the cities in the world are facing common problem that is traffic congestion. The main intent of this traffic congestion is that pedestrian locate the difficulty to cross the roads. Basically pedestrian junction is controlled by the traffic police. But here due to lack of distribution for on road pedestrian crossing the speed of accidents become very high. Present pedestrian uses the eminent path to cross the roads in the same way the ancient people find difficult to use this system. To help the ancient people a new idea is existed. In this we can give supply for on road pedestrian while crossing in high density traffic areas by using ARM. It not only give supply but also reduce the rate of accidents. So, this can be implemented by adding an additional time delay to the traffic signal where pedestrian is crossing in all directions. Here we use two limitations in this system one is to track the vehicle and next one is to clear the traffic for emergency vehicles.*

I. INTRODUCTION

Generally, traffic control system is a transportation system which permits the traffic signals. There are some devices used in traffic control system which controls the traffic signals like signs, markers. These devices are placed along the roads.

Basically, the traffic control system is an external employment but the entire process

involved in employment is risky. So safety apparatus are required in the process of traffic control system. For example in some cases TC will become very tired and he used to forget to watch the traffic. At this time a safety apparatus should be there to overcome this issue. If safety apparatus is not there then drivers will disrupt their route and also will not pay attention to the rules. As discussed earlier that in present generation transportation plays important role and also number of road users also increased. But there is no limited infrastructure provided by the resources of traffic control system. That's why the traffic congestion become major problem all over the world.

Now let us examine the structure of full area, in this area number of vehicles like personal transport, public transport and emergency vehicles have to wait at the signals of intersection points. Coming to the existed system, it consists of timers. The main purpose of timer is that which set the condition at regular intervals of time. But in emergency condition this timer takes more time (i. e) wastage of time will be there. Not only timer but also RFID traffic control system is used. The main intent of this RFID traffic control system is to clear the signal for emergency vehicles. But the main disadvantage of this RFID traffic control system is that it increase the waiting time when reader sense the signal during vehicle is crossing. So to conquer this

drawbacks in the existing system some of the replacements are done. First ARM is used and next emergency vehicles RFID system is replaced with the RF transmitter and receiver. In the same way different timings are taken when hiker is crossing. Now if hiker breaks the rules of traffic then automatically the vehicle number is captured by using camera and that number goes to the control station by using embedded technology. So this is the efficient method to stop the accidents.

II. PROPOSED SYSTEM

The below figure (1) shows the block diagram of proposed system. In this system they are switches, remote, ARM, wireless communication transmitter, wireless communication receiver, power supply, junction. The main intent of this proposed system is to clear the traffic whenever emergency cases are occurred on the roads. The proposed system is divided in to two parts mainly one is transmitter part and receiver part. Let us first discuss about the transmitter part which is shown in below figure(1). The main intent of the transmitter part is to transmit information by using remote in case of emergency conditions. First there will be four switches which are attached to the remote. Now whenever the ambulance struck in the traffic the switch one is activated and then micro controller receives an sign and transmits the information to the receiver to change the junction level. This can be located by using antenna. This is about the operation involved in the transmitter part.

Coming to the receiver part, the block diagram is shown in below figure (2). Now in this the receiver receives a message through ARM

when emergency is needed. Actually, there are four junctions in the receiver part which travels with a time of five minutes delay of junction. In such a case if the emergency occurred in the junction one. Then the arm which is in the receiver part receives this information from the transmitter part and give notification to the junction 1 instead of giving notification to the junction 4. So now the present time which is going on will stops and releases the junction which is in emergency.

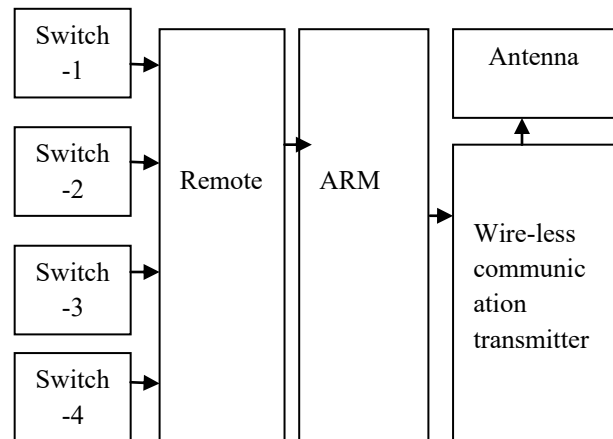


FIG. 1. TRANSMITTER BLOCK DIAGRAM

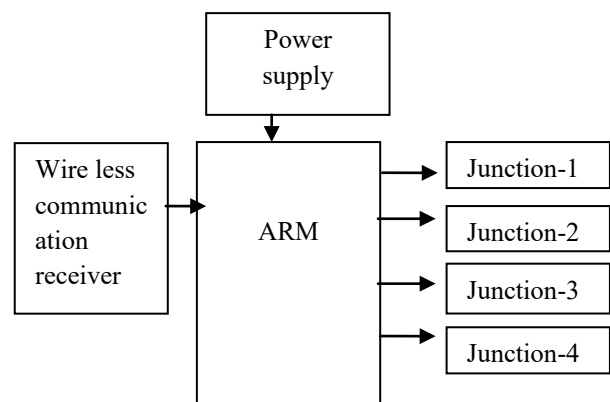
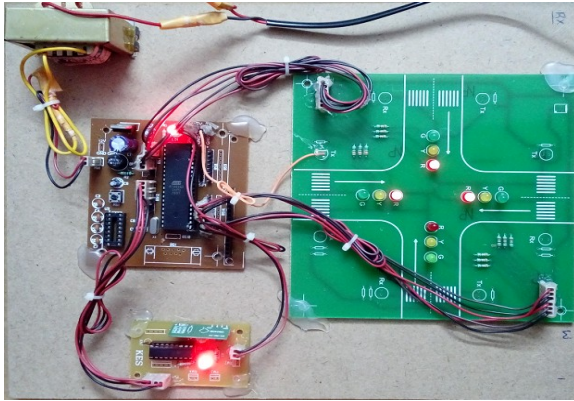


FIG. 2. RECEIVER BLOCK DIAGRAM

Here for the junction 1 the emergency has occurred so automatically junction1 get releases the time. By this we can save time as well as

the victims who are in need. This is the entire operation involved in the receiver part. The below figure (2) shows the block diagram of receiver part.

III. RESULT



IV. CONCLUSION

The main intent of this proposed system is to control the traffic system by using embedded technology. The entire operation depends up on the ARM. ARM acts as a controller and sends an notification to traffic control system whenever the emergency is needed. By using this we can avoid accidents as well as solve the traffic problems at the time of emergency conditions. As discussed earlier that traffic congestion is the major problem, but by using proposed system the traffic congestion problem is avoided. So in real time applications this proposed system is most widely used.

V. REFERENCES

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