MODULE REGARDING TRAFFIC CONGESTION: TRAFFICESPY

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Abstract

Traffic congestion has become a serious issue. The increase in the number of vehicles lead to the increase in the traffic as a result the city is usually affected with the traffic congestion. This may lead to a long period of wait in a particular place which would be highly frustrating. The situation may even worse when we need to attend some events meetings as it would kill our time. Hence this project helps us at knowing about the traffic conditions beforehand this generally acts like a trafficespy.

I. Introduction

In current world we are leading a busy life; problems like traffic can be really annoying. It would be helpful to know whether there is any traffic congestion in a particular location beforehand . For this purpose the proposed system is been implemented. It is based on Radio Frequency deals with counting the vehicle direction wise.

[1] This technique will consist of two IR sensors separated by specific distance fixed at a hump.

[2] When the first vehicle crosses the first hump the sensor at this hump will increment the count. When the same vehicle crosses the second hump the Vehicle count at the second hump will be incremented and count will be decremented in the previous counter

[3] If the first sensor senses some vehicles and the second sensor doesn't sense any vehicle for a particular time then it assumes that there is traffic congestion.

[4] Advantage of trafficespy is that people could be informed about the traffic jam on their way and also RTO don't have to maintain the vehicle count manually by making some employees to sit and count the vehicle.

II. Literature Survey

Day by day there is increase in the number of vehicles which also lead to increase in the traffic. The situation which affects all the people around world is traffic jam. Traffic has become a major problem across the globe. It also lead to wastage of money, fuel, time since half of our time will be spent sitting inside the vehicle. The people find really difficult when they are expected to reach the destination on time specially students, employees etc. Increase in the traffic might also lead to more accidents. There are people whose introduce various solutions for traffic congestion.

But In Existing system no sensor is present in the road. To count the vehicle RTO has to keep some laborers and make note of each vehicle pass by. Nowadays laborers are very expensive and no guarantee that they count each and every vehicle which pass.Not only it affects financially but also cost's a life in case of emergency.

Objectives of Trafficespy :

- Helps in managing the time.
- Helps in planning the journey accordingly.
- Gives us information on the traffic.
- Useful to control and manage the activities of traffic.
- Helps RTO to get the count of vehicles.
- Avoids manual methods.

III. Implementation
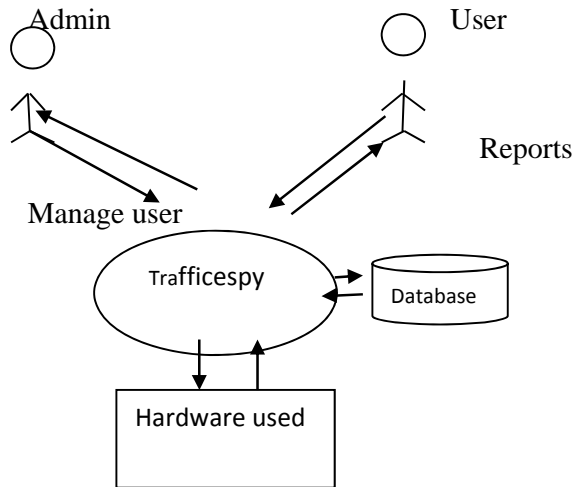
This project holds Admin and the User. Admin basically manages the information of user it can be owner details, vehicles details all the necessary details are collected and stored in database. There is also a hardware used it will consist of two IR sensors separated by specific distance fixed at a hump. When the first vehicle crosses the first hump the sensor at this hump will increment the count. When the same vehicle crosses the second hump the vehicle count at the second hump will be incremented and count will be decremented in the previous counter. If the first sensor senses some vehicles and the second sensor doesn't sense any vehicle for a particular time then it assumes that there is a traffic jam. This technique Advantage of trafficespy is that people could be informed about the traffic jam on their way so that they can take some alternative route instead wait and get stuck in congestion.

IV. Proposed System

The proposed system overcomes all the drawbacks mentioned. It helps us in knowing the traffic condition hence the people can plan their journey accordingly. Hence this project helps us at knowing about the traffic conditions beforehand.

- Helps in managing the time and reduces the frustration of the people.
- Gives us information on the traffic conditions in prior so that the journey can be planned accordingly.
- Useful to control and manage the activities of traffic.
- Helps RTO to get the count of vehicles and avoids labor work.
  Avoids traditional methods of performing operations

V Algorithm of the main sensor module used to increment and decrement the count of vehicle

Begin
 Assign comport
 Set serial port
 If comport does not match then
 Display error message
Else
 Detect vehicle
 If 1st sensor is ON then
 Display A
 Increment count
End if
 Detect vehicle
 If 2nd sensor is ON then
 Display B
 Decrement count
End if
 Check limit value
 If count>=limit
 Display alert
 Display alternate route
End if
End

References

[1] J. Fukumoto et al., Analytic method for real-time traffic problems by using Contents Oriented Communications in VANET, in: Proc. 7th International Conference on ITS Telecommunications (ITST), pp. 1-6, Sophia Antipolis (France), June 2007.

[2] J. Miller, Vehicle-to-vehicle-to-infrastructure (V2V2I) intelligent transportation system architecture, in: Proc. IEEE Intelligent Vehicles Symposium, pp. 715-720, Eindhoven (The Netherlands), June 2008