Traffic Light Violation Monitoring System

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Introduction.

Nowadays the traffic congestion is becoming the serious issue, especially in developed cities. To reduce traffic we need to solve the worsening traffic through education and enforcement, the red light safety program will likely continue to change driver behavior and by the proposed system will help us to reduce the traffic congestion.

This system focuses in monitoring the Traffic light Violation and to identify culprit vehicle. To monitor the vehicle manually is very difficult task and due to traffic congestion and increasing number of users on road it is difficult to identify vehicle uniquely.

The aim of this research is to automate the identification of the vehicle and improves safety and saves lives at crossroads by ensuring motorists don’t drive through on-coming traffic. Vehicles can be monitored simultaneously when even travelling parallel or closed behind each other by capturing signal violations on high resolutions camera, disregard of traffic regulations is brought under control because in our recent year’s wireless networks like Wifi and Bluetooth are widely used in the road transport as they provide more cost effective options. Technologies like radio frequency identification or what we call RFID it is a form of wireless communication incorporates the use of electromagnetic, GSM and ZigBee can be used in traffic control to provide cost effective solutions. This will minimize side collisions that can prove fatal. RFID is a wireless technology that uses radio frequency electromagnetic energy to carry information between the RFID tag and the RFID reader. Some of the RFID systems will only work within the range inches or centimeters, while the others may work for at least 100 meters or 300 feet or more. While a **GSM** is an open and digital cellular technology used for transmitting mobile voice and data services, which accepts a SIM card and operates over a subscription to a mobile operator, just like a mobile phone. AT commands are used to control the modems. And the ZigBeee will operate at low-power and can be used at all levels of work configurations to perform pre-defined tasks.

The problem in traffic is worse from the current years, it can be seen that existing technologies are insufficient to handle the problems congestion control, emergency vehicle clearance, stolen vehicle detection, to solve these kind of problems, I proposed to implement the traffic light violation monitoring system. I am designing a system which will tell about the incident that will happen by culprit vehicle because it will help to find out which vehicle has jumped the red light signal when and where.