**Intelligent Ambulance with Automatic Traffic Control**

**Aim:**

The aim of this project is smart automatic traffic control system for the ambulance implemented by IOT.

**Abstract:**

With a large population enlargement of vehicles there is also a big trouble of car accidents or road accidents, and with these overcrowded roads there is a problem of delay in first aid service. To overcome this delay in first aid service this paper describes a solution that is “IntelligentAmbulance with Automatic Traffic Control”which includes the accident detecting,alerting and tracking mechanism with automatic traffic light controlling system such that the ambulance can achieve a free way in order to provide the first aid to patient as fast as possible. The smart, intelligent traffic system uses a Bluetooth sensor in each and every street light for detecting ambulance. As the ambulance approaches the traffic signal, the Smart Traffic signal System blocks other routes than the ambulance route. Street lights use the red light to warn other vehicles on the way to the ambulance.

**Existing system:**

In the existing system is the ambulance reaches the traffic junction, the encoder converts the serial data into parallel data when it passes from the transmitter to the receiver. If the signal is red, it comes to green automatically. The decoder in the receiver section converts the parallel data into serial data when it is sent back. This helps the ambulance to cross the traffic junction as soon as possible. The prioritized traffic switching is done priority wise.

**Proposed system:**

In this paper, we have successfully designed and analyzed an automatic traffic light controller for emergency vehicle. Peripheral interface controller (Arduino) is used as the microcontroller and the system can be operated wirelessly using radio frequency (bluetooth) during emergency cases.

**Block diagram:**

**Traffic system:**

Arduino uno

Traffic light (LED)

ESP8266

Traffic signal

Power supply

**Ambulance:**

ESP8266

Bluetooth master

Battery (6v)

**Block diagram description:**

Above the block diagram has functionalities. One is traffic control and another one ambulance tracker. The traffic control system is contained Arduino UNO with traffic light and emergency light. Ambulance contained ESP8266 and master Bluetooth. Bluetooth is used to find the location of the ambulance and it’s help to the hospital ready to start the treatment. Arduino UNO is used to control the traffic situation Also, it saves the ambulance from traffic problem and makes it to the hospital quickly.

**Requirements:**

**Hardware Requirements:**

* Arduino UNO
* Esp8266 -2
* LED -9
* Bluetooth -4
* Traffic light led -2
* Battery 12v

**Software Requirements:**

* Compiler: Arduino IDE
* Language: c, c++