

# **INTELLIGENT AMBULANCE WITH AUTOMATIC TRAFFIC CONTROL**

## **INTRODUCTION**

In today's world health hazards are a major concern. Especially people in the older age group are the victims, and moreover the traffic conditions are worsening day by day, which results in traffic jams.

Many important jobs get delayed due to these traffic jams. Ambulance service is one of the major services which get affected by traffic jams. To solve this problem we have come up with the solution of “Intelligent ambulance with automatic traffic control”.

Here we are tracking the patient's health conditions. The health parameters such as Heart rate, body temperature, Blood pressure and Blood level are sent to the hospital using the on board GSM unit. All these parameters are displayed in the hospital unit on a pc with the help of visual basic s/w.

Simultaneously if at all the Ambulance encounters the traffic jam in the route, the driver is provided with the remote to control the traffic signals. The particular signal is made Green for some time and after the ambulance passes by, it again regains its original flow of sequence of signaling.

## LITERATURE SURVEY

Previous work on home vital signs monitors can be seen in the current models that are in hospitals and homes. There are many different types and brands of vital signs monitors available today. They range in size, function, and price. Most are very expensive, costing patients or healthcare providers upwards of \$2,500 per system.



Welch Allyn Vital Signs Monitor  
Monitor



DRE Philips SureSigns VSI Vital Sign

There are many different types of vital signs monitors, so many patents of vital signs monitors exist. One such patent is a blood pressure and heart rate monitoring method and apparatus by Hewitt. This system uses an auscultatory transducer and a microprocessor-based circuit to record blood pressure and heart rate. It also uses a new method to measure blood pressure without unnecessary constriction of the

patient's limb.

So far in the market only the devices measuring different parameters are available, which are all stationary, but we are putting efforts to send this information wirelessly over the long distance using GSM unit.

## **LOGICAL BLOCK DIAGRAM**



### **Explanation of Logical Block Diagram**

As we can observe there is a chowk shown in the diagram, consisting of four different lanes. An ambulance is going from lane 1. The patient is carried in the cardiac van, whose various parameters are being measured by the sensory units inside the van. These parameters are constantly being sent to the hospital unit via GSM transceiver, in the form of a message of data (SMS).

The hospital you can see is at the side of road and it is receiving these SMS's via a dedicated mobile phone. The information is shown on the pc connected to this mobile phone via data cable. The s/w used here is a very user friendly and front end s/w, i.e. Visual basics.

At the same time, ambulance is also making the lane 1's signal green and all other signals as red, due to traffic. This is achieved by RF link via TX 433 and RX 433 pair. Microcontroller timers and counters are used for controlling

Logical block diagram provides logic behind the project and gives complete overview of project. It shows logical flow behind the project. In this all 3 units that is Ambulance, Hospital and Traffic signal units are shown .Here the driver selects the lane number, and then the particular signal is made Green. So logical block diagram is all about logical flow of the project.

Source: <http://mediatoget.blogspot.in/2012/02/intelligent-ambulance-with-automatic.html>