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SWARINI Ambulance Service

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***Abstract:** As in India every minute's one person dies because patient is not able to reach the hospital in time, we are developing an application which will reduce the time. The main purpose of these project will reduce the time between ambulance driver and the Patients and it will save someone's life. When the patient or user will open the user application on his smartphone and when click on emergency button given on application it will directly send its location to the ambulance driver which are available nearby ambulance. In SWARINI ambulance service require two smartphones one for user and another for ambulance driver. Global Positing System (GPS) and uses Google Map Application Programming Interface (API) to plot details of the user and driver on Google Map of the application. Through SWARINI ambulance service it will be possible for patient to reach hospital at the time which can save the life of patient.*
***Keywords:** IOT, API, GPS.*

I. INTRODUCTION

With the current technology era where mostly everything runs on smartphones and applications, the need for quick and efficient services are almost important in every aspect especially when it comes to medical services. Patients are mostly having issues on search for an ambulance, handling the location and availability of the limited service in the time of emergency. The question arises when the user has to find a way to check the availability of the ambulance and for the ambulance to find the user's precise location in the quickest time possible. Thus the ambulance driver must have proper information provided to them so that they won't get lost or find themselves searching for the exact location of the patient. This made the ambulance driver lose and not be able to reach the patient who needs immediate medical attention. The main aim of this system to reduce the time of calling the operator and to request an ambulance, reduce fraud calls and to allow ambulance drivers to locate the victim easily by using GPS signal.

II. PROBLEM DEFINATION

In the today busy life many people are died to not or fait gating the ambulance service. And no grauty to come ambulance at the exactly that spot of accident. To understand that problem we are implement the SWARINI ambulane system.To overcome that drawback. In this app we can esily find the ambulance and decrease the time inefficient.

In today's busy life so many people are died due to traffic conjuction. And also due to the accident location and the traffic conjunction in between accident location and hospital increases the chances of the death of victim. There is a need of life due to accidents and the time taken by the drawback to reach hospital.To overcome the drawback of existing system we will implement the new system in which there is,one application is created that is the SWARINI ambulance system. Thise app can gives the shortest path to reading the ambulance as soon as poosible. Also gives the

Availability of doctor with the help of hospital call.

III. LITERATURE SURVEY

Deepali Ahir,Saurabh Bharade et.al [1] they had proposed a system that clears the traffic congestion by turning all the red lights to green on the path of the ambulance, hence helping in clearing the traffic and providing way towards its destination. The system consists of an android application which registers the ambulance on its network. In case of emergency situation, if the ambulance halts on its way, the application sends an emergency command to the traffic signal server and also the direction where it wants to travel along with this the current position with the help of Global Positioning System (GPS). The nearest signal is identified based upon the current position of the ambulance. An that particular signal is made green till the ambulance passes by and later it regains its original flow of control. In this way it acts like a life saver project as it saves time during emergency by controlling the traffic lights.The drawback of their system they had not implemented shortest path algorithm for the ambulance to reach the nearest hospital. In the paper written by Poonam Gupta,Satyasheel Pol, Dharmanath Rahatekar [2] they specified the application which collects the location information from Global Positioning System (GPS) hardware and uses Google Map Application Programming Interface (API) to plot details of the ambulances on the Google Map Client of the Smartphone App. Goggle map functionality can

be used for the other module which enables users to find the hospitals with the number of services provided by those in brief manner. With the help of medically equipped and technologically powered ambulance, information about patient's health details can be sent to the hospital in order to take further action. Interaction between the smartphone and the centralized database can be done using Representational State Transfer Application Programming Interface (REST APIs). The platforms that are used, capable of molding into various services that are implemented and it is believed that these technologies can make a revolutionary work in public GPS work if utilized properly. In this system drawback of Google Maps is that it only pins the hospitals but does not provide their detailed information. Hence users may need to access information about the hospital by going to a particular hospital's website.
The system developed by Sandeep Reddy, Vandhana Khare [3] used to provide clearance to any emergency Ambulance vehicle by turning all the red lights to green on the path of the emergency vehicle, hence providing a complete green bay to the desired vehicle. This system they have implemented effective smart ambulance system by using GPS, GSM and smart mobile along with ZigBee Technology. From ambulance they will be capturing the patient parameters along with the coordinates these two details will be sent to control center. Control center will be going to send nearest hospital details to the ambulance, then ambulance will choose the path to hospital and traffic signal within this direction will be green light and this route will be considered it as green bay.
The drawback of this module, it depends on the bad weather condition. This system specified by Shantanu Sarkar [4] to propose a GPS system in which the GPS tracker will be set up in the ambulance so that the hospital management can track down the location of the ambulance at any time and if they get a call for an emergency case they can track down the ambulance nearest to that location and send the ambulance to that location to pick up the patient, this will save time and will help the patient to reach the hospital as early as possible. The drawback of this system, user can not send the request directly to driver application, so that this system to take more time to accept the user request. An application developed by Akshay Naik, Vaibhav More et.al [5].they which provides an Emergency Ambulance Service for mobile devices. The position function of Global Position System (GPS) and a user friendly interface which will track the location of ambulance is provided. The application is capable for sending emergency notification and phone calls. Nearest hospitals which provides ambulance service are also enlisted with their respective contact details.
The drawback of this application is, it does not send patient parameters to the hospital for monitoring patient condition To overcome the above mention drawbacks we planed to developed the IoT based system named as "SWARINI Ambulance System". This application will provide the list of hospitals in the nearest area and will provide the shortest route for the ambulance to reach the accident spot as quickly as possible. When a ambulance driver pick up the patient, it will also check whether doctor is available or not in the hospital.

IV. METHODOLOGY

The SWARINI Ambulance system is based on the emergencies ambulance service through the internet.
The patient's health parameter are monetarized and the same time driver of the ambulance can call the doctors/hospital.
The witness can send the request to the ambulance driver those how are in the working state and that is in the 5km radius then patient send request and location go to the all nearest ambulance driver then driver can accept the request and go to the further process. Once a driver can accept the request of patient's location can sends the driver. Movement of ambulance and no. of ambulance can show the patient's app. When the driver arrives the spot of accident that pickup the patient's and detail of patients sends to the hospitals and check the availability of specialist doctors in the choose of the patient driver can drop the patients to that hospitals. If patient are not able to say any things and there are no body are in there that case driver drop that patient to Government hospital.

V. CONCLUSION

The proposed system can be used by the hospitals to track down their ambulance. The main aim of our project to provide emergency medical survice to the critical patient, so that they can reach the hospital on time. GPS technology is used to track the patient location and the main advantage is that it saves a lot of time and saves the patient life.

VI. FEUTURE SCOPE

This model is developed with the aim to help the ambulance reach hospital as early as possible. It can be enhanced further in many way. Few of them are as follows.
Considering various traffic scenarios in the way of hospital and how this system will responds to them.
Securing the communication between the ambulance app and the server, so that only authorized personnel is allowed to do the same. For e.g a login system.
Information the general public of the online ambulance governess in case of emergencies.
Sending the patients data to the hospital before reaching so that the necessary arrangement can be done.

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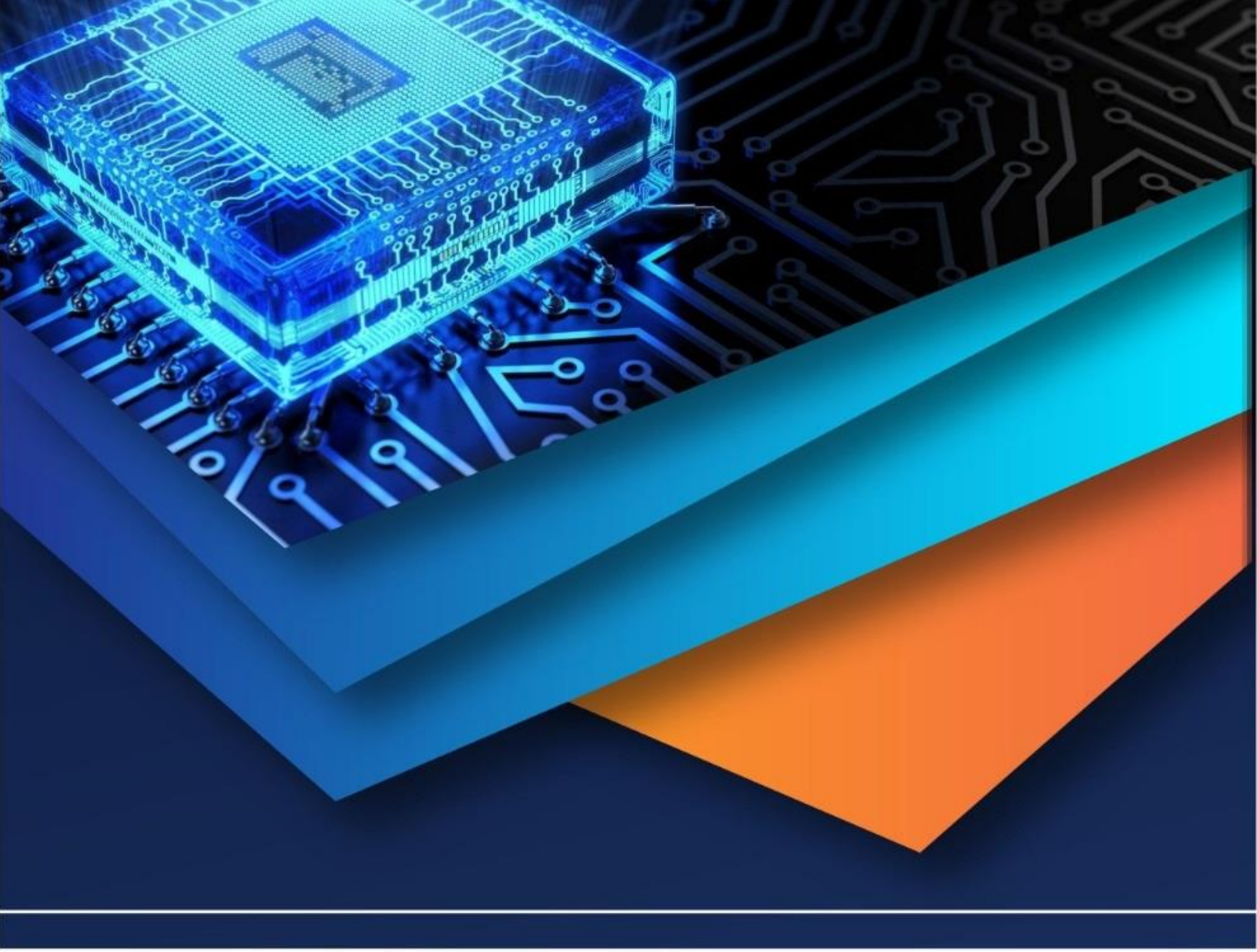

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