International Journal of Research in Engineering and Science (IJRES)
ISSN (Online): 2320-9364, ISSN (Print): 2320-9356
www.ijres.org Volume 11 Issue 7 ǁ July 2023 ǁ PP. 141-143

A Two Dimensional Matrix Barcode Based Ambulance Allocation System

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ABSTRACT
India now is the most populous country in the world with 142.86 crore people. As a result the number of accidents' is increasing day by day. Approximate 1.5 lakh people dies per year in the road accidents. Due to delay in the arrival of ambulance on the accident spot so many people get died. In India still getting of medical assistance immediately is intricate. To deal with this type situation we come up with allocation of ambulance by using barcode. In India barcode is common now days. Peoples pay their bills by scanning barcodes on their mobile phones. The proposed system consists of barcode application. This application will direct towards the website where local ambulance drivers list will be display. You can call immediately idle driver. If this barcodes available anywhere such as payment barcodes it will be very beneficial for suffered people. People can scan barcode on one click and get facilitated by ambulance rapidly.
Keywords: *GPS, Ambulance Management, IoT, IR sensor.*

Date of Submission: 05-07-2023 Date of acceptance: 16-07-2023

I. INTRODUCTION

Many people lost their life in the accident because of late approach of ambulance. The reason behind that, people doesn't know the contact numbers of nearby ambulance drivers. Barcodes are familiar now for many people. We can see it anywhere i.e. at any shops like petrol pumps, Pan Shops, vegetable shops even at shoe polish shop also. One can save that barcode in their mobile phone or one can share instantly if required. If allocation of ambulance barcode adhere at such general shops it will very helpful for the people who injured in the accidents. The proposed system helps to communicate with the localize ambulance drivers. By scanning that barcode user will be able to see the available ambulance driver list with distance and one can approach to ambulance rapidly. On one touch one can call the ambulance. Government has provided helpline number (108) in order to avail the ambulance but sometimes it is preoccupied by other patients. It is observed that it gets delayed after dialing the helpline number. So we need such a system which can save many lives using government service or private service.

II. LITURATURE SURVEY

The system takes into consideration the emergency cases that might likely occur. The studies painting consider all possible cases. While an ambulance could already be inquisitive about one patient, the device considers it as an to be had ambulance and requests it for some other case, being that the ambulance simplest desires a quick time period to drop-off the modern case and that the second case is tremendously close to the ambulance. This forces the ambulance to accelerate the strategies of drop-off and pickup among the 2 cases. The primary goal of this studies work is to make an ambulance machine which enables ambulances to have faster arrivals and take less time to reach twist of fate sites.

The following visitor's congestion and site visitor's jams are the maximum Critical hurdles for emergency automobiles like ambulance sporting crucial patients as those emergency automobiles aren't capable of attain their destination in time, resulting right into a lack of human lifestyles. To solve this downside to some extent we've got apparently come returned up with smart ambulance the use of IR sensors for ambulance. The proposed system removes the tie up by using turning all of the red lighting to green on the path of the ambulance, hence helping in clearing the site visitors and presenting approach closer to its destination. The machine consists of accomplice android utility which registers the ambulance on its network. In case of emergency state of affairs, if the car halts on its approach, the Software sends partner emergency command to the visitors sign server and additionally the course wherever it needs to transport with this function with the assistance of world Positioning system (GPS).

With the internet of things (IoT) progressively evolving as the following section of the evolution of the net, it turns into vital to recognize the diverse potential domains for utility of IoT, and the studies challenges which can be related to those applications. Starting from smart towns, to health care, smart farming, logistics and retail, to even smart dwelling and clever environments IoT is predicted to infiltrate into truly all elements of daily existence. Even though the contemporary IoT permitting technology has significantly progressed within the current years, there are still numerous troubles that require attention. For the reason that IoT idea ensues from heterogeneous technology, many research challenges are sure to arise. The reality that IoT is so expansive and impacts almost all regions of our lives makes it a tremendous research topic for research in numerous associated fields which includes statistics technology and laptop technology. Hence, IoT is paving the way for brand new dimensions of research to be executed. This paper presents the recent development of IoT technologies and discusses future applications and studies demanding situations on mobile health Hub as well.

The fitness care has grow to be a huge issue in recent times due to lack of availability of quick fitness offerings. This paper is concerned with clever (108) ambulance guide. The patient or individual requesting the carrier registers himself in the app. Ambulance selections up the affected person from his region. Then the sensors display the situation of the patient. The affected person's information will be transferred to the database that can be accessed by the health center staffs for short association. That is executed a good way to prepare the services earlier than the affected person arrives on the hospital.

III. EXISTING SYSTEM

In this study we are not concerned about traffic management for ambulance or signals management at square on the road. We are concern about allocation of ambulance as early as possible to the accident spot. In India reaching ambulance to the exact location rapidly is a challenging task. If we talk about 108 medical ambulance support number, it is delayed due to some circumstances like preoccupied by other, technical problems, and limited ambulances availability. People's time get wasted in waiting for ambulance. In India Large geographical area has allocated limited ambulances. Hence it is difficult to provide medical assistance rapidly by existing system.

IV. PROPOSED SYSTEM

In the proposed system user will scan the barcode which is sticked near any shop or save in the mobile phone. If any mishap happens anywhere localized people come forward to help. They will be aware about this barcode system. So one can scan the barcode which may be available near surrounding or having same in his mobile phone. He can call any ambulance driver which available and near to him. The barcode will redirect on the website where available ambulance driver list will be shown. It is GPS enabled website where user can find the distance between ambulance and the accident spot.

4.1 Advantages of Proposed System

1. User can find and approach ambulance service instantly.
2. One can track rout by using GPS.
3. It can save the life of people.
4. It may be implementing for wide area.

V. SYSTEM ARCHITECTURE

When accident happens the user will scan the barcode. After scanning barcode user will be able to see the list of available ambulance drivers with their respective contact numbers. The list may contain private ambulance driver as well as government ambulance driver contacts. User will call to the driver of nearest ambulance driver if it is busy so user can call to next nearest ambulance and it will arrive at the accident spot. After giving first aid to patient the ambulance will approach to nearest hospital immediately.

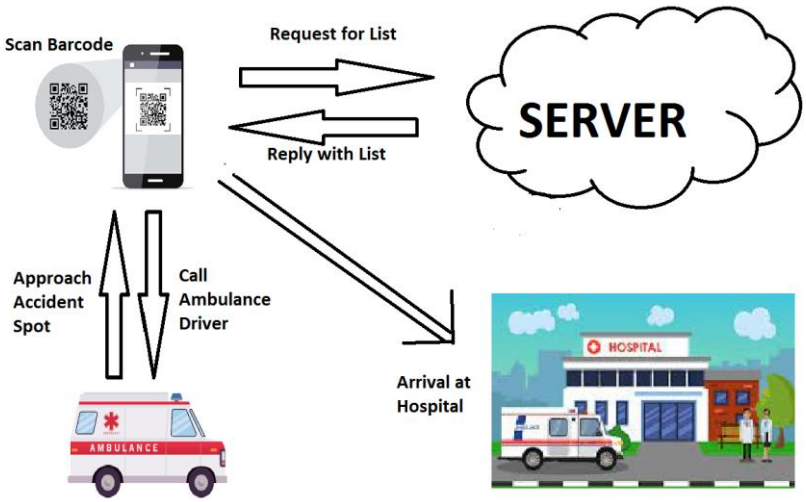

Figure: System Architecture

VI. CONCLUSION

This system tries to solve the problem of not reaching the ambulance at the accident spot. Here we included both the private and government ambulance system so that needy person will get facilitated by this system. This system overcomes two problems first is one can easily find the list of available ambulance drivers and other one is we can track ambulance real time. In this way this system can save invaluable life of people.

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