DIGITAL AMBULANCE SERVICE EMERGENCY ALERT SYSTEM USING GPS

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ABSTRACT: *Digital ambulance service is aimed to develop an android system to automatically identify the patient current GPRS location and find the nearest ambulance service and display its address and contact details to the user. The administrator manages the ambulance details with contact details and GPS locations in the MYSQL database. Patient monitoring during the golden hour of patient transportation helps to improve medical care. It includes monitoring various health parameter of a patient such as ECG, blood pressure, temperature, heart beat rate and so on. Finally, sends the patient report to nearest hospitals. A text SMS sent to a Doctor's mobile or authorized person in that particular hospital which contains location and values of all the sensors. Hospital authority can intimate doctor about ambulance location and patient health. By using these parameters, doctor can do the necessary preparation for treatment of patient. This paper design and deploy an integrated medical data acquisition system, administrative data collection system, and communication system in order to save the life of the patient. The acquired signals are made in to a data packet and sent to a central monitoring station using GPRS.*

Keyboard: *MYSQL, XAMPP, GPS, GPRS, EMS.*

1. INTRODUCTION:

It has been extensively documented that health workers have to meet two types of communicative challenges in order to achieve organizational performance goals. They must ensure effective external dialogue in relations with patients, and effective internal information exchange in relations with coworkers in other professions. The external relations have received most attention in the literature on health communication, but effective internal communication can be just as important Internal communicative challenges are especially salient in prehospital medical work. The ambulance service not only serves as a link between different health's institutions. Paramedics also have to communicate with emergency personnel who do not have a medical background. This communication is often interactive in the sense that sender and audience are not in an ordinary face-to-face relation. It also has a significant interdisciplinary dimension that can make it difficult to ensure that the information exchange is effective.

This article presents an exploratory study of how paramedics in Norway perceive interdisciplinary dialogue over a new national digital network designed to facilitate and improve communication between the emergency services. The research design was qualitative and a naturalistic methodological approach was employed. Semi-structured interviews were used to clarify the paramedics' thoughts and beliefs about the interdisciplinary dialogue. The article argues that such an understanding can yield in-depth knowledge of communicative challenges in prehospital work, and that there should be more focus on such challenges in the education and training of emergency personnel.

2. SYSTEM ANALYSIS

2.1 EXISTING SYSTEM:

Improving efficiency in healthcare sector is one of the difficult and most challenging jobs. That includes various aspects such as getting ambulance within minimum amount of time, providing proper treatment to the patient so that the chances of surviving will increases in critical condition. Moreover road accidents in the city have been increased and to bar the loss of life due to the accidents is even more crucial.

DRAWBACKS:

➢ Elderly peoples who are unable to provide accurate information

➢ Utilize the emergency phone calls, users whom find themselves in an unknown location that can't be described or provide an accurate address when emergency occurs

➢ Casualties which caused by the late arrival of ambulance and searching for an available nearby ambulance have been some of the hustling factor that faced by current fast pace community.

➢ With more congested roads and insufficient information, the search and rescue operation become nearly impossible.

➢ Traffic congestion is one of the major problems in urban areas, which have caused much hitches for the ambulance.
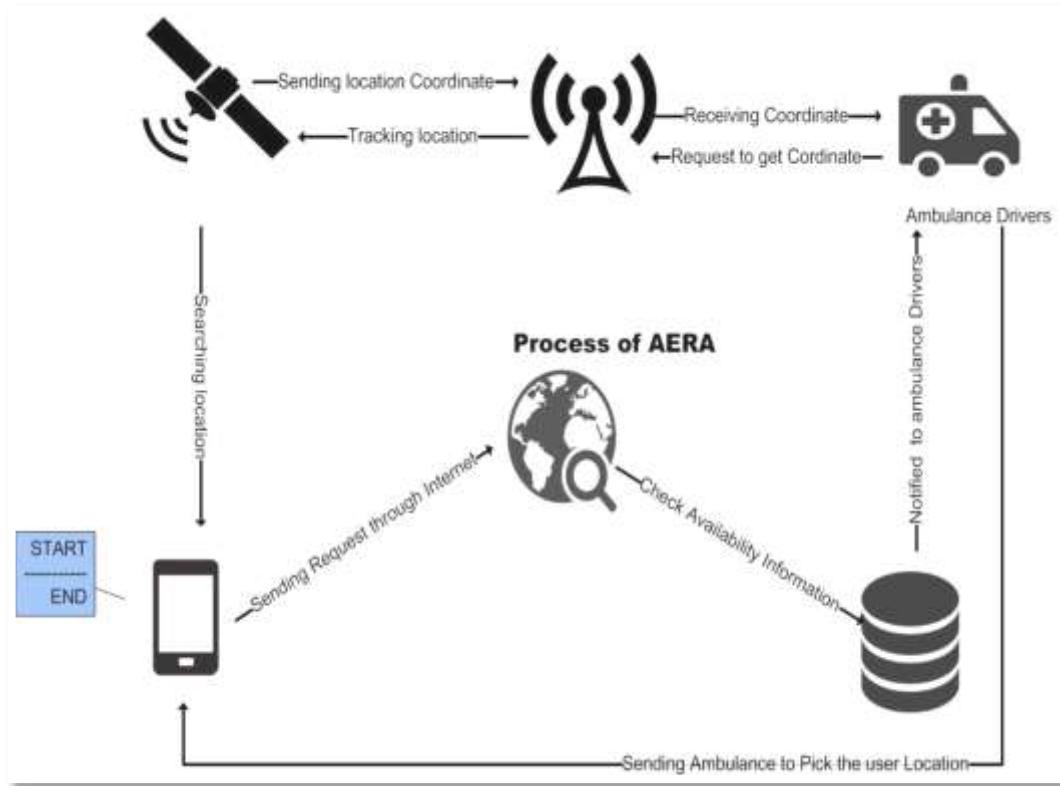
2.2 PROPOSED SYSTEM:

Emergency medical response in India is lagging behind other countries. This is partially because of lack of technology implementation at ground zero. To address the issue, we are introducing smart ambulance system. Over the last few years there is a revolutionary development in the field of Internet of Things (IoT) and smartphone technologies helps in building a platform which serves every smartphone user. The application collects location information from Global Positing System (GPS) and uses Google Map Application Programming Interface (API) to plot details of the ambulances on the Google Map Client of the Smartphone App. 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. Sending patient's health information to the hospitals helps the hospital staff to get things ready required for the treatment. Here the patient need not to wait in any case. Hospitals information is directly provided through maps and hence there is no need to visit the particular hospital's website for information. Live feeds will help for better medical procedures which helps in saving patient's life in an effective way.

ADVANTAGE:

➢ It's beneficial for the users in case of emergencies as it saves time which gets consumed in searching for the ambulance by other means.

➢ Information about the hospitals provided helps in getting the appropriate hospital which is suitable for the patient's treatment.

➢ The main advantage of "Digital Ambulance Service" is that with the help of GPRS technology, the data of patient health can be sent to a longer distance through SMS. With the help of this, doctor could have all prior information ready in hand before the patient reaches to the hospital.

➢ With the use of GPS technology, the exact co-ordinates of ambulance can be tracked. And then distance from the hospital can be found out. Thus we can get / manipulate approximate time for the ambulance to reach to hospital.

➢ The system receives the health parameter values, longitude and latitude and sends SMS automatically after a period interval of time.

3. SYSTEM ARCHITECTURE

The following system architecture shows the sequential execution of the proposed system. This figure indicates how the actions are performed in the application

System architecture

4. CONCLUSION

An idea is proposed for saving a patient's life in a faster way possible. It is beneficial for users in case of emergencies as it saves time. With this Application, the ambulance can reach the patients as location is given through the app and can provide necessary equipment required for the patient's health. Information about the hospitals provided helps in getting the appropriate hospital which is suitable for the patient's treatment. The live feed data sent through the ambulance to the hospital helps in keeping track of patient's health details and reach the hospital without any time lag. Sending patient's health information to the hospitals helps the hospital staff to get the necessary pre-requisites regarding the patient's treatment. Hence it reduces the time complexity and helps to provide faster medical services.

5. REFERENCES

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