

# Advanced Ambulance Monitoring System using IoT

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**Abstract** - In India every minute's one person dies because he is not able to reach the hospital in time. The main function of this project will reduce the time travel between ambulance and hospital. It saves someone's life. When the ambulance driver or patient's relative open the application on his smart phone it will send request to the hospital. In hospital, at present the doctors, rooms and medicines are available means they accept the request and also monitor the patient's condition.

**Key Words:** PIC Microcontroller, ADXL sensor

## 1. INTRODUCTION

According to research, we found that approximately 2000 people died monthly due to only carelessness of their health. This is because they do not have time for themselves and forget about their health management due to heavy work load. The reason behind to make this project is the growing world of technology and people forget their health check up which is needed to be monthly or quarterly as we all know that internet of things make our life easier. So we had to decide to make an internet of things based healthcare project for people who provide them all the personal information about their health on their mobile and the best part of this project is that it can be used by everyone make our health management easier than available system.

## 2. LITERATURE SURVEY

### 2.1 EXISTING SYSTEM

Dr.SandeepReddy [1] the paper titled as "A smart ambulance system" the main idea to design providing efficiency in healthcare sector by using cloud monitoring.

Dr.Borhade [2] the paper titled as "Smart ambulance rescue system with patient monitoring" the main objective of the project is dealing with location system of the patient, ambulance, driver and doctor using GPS. The main drawback of this paper is does not provide an information about medicine in pharmacy.

ShantanuSarkar [3] the paper titled as "Ambulance assistance for emergency services using GPS navigation" the main objective of the system is detect emergency case and to send ambulance to the patient, so that the patient can reach the hospital within stipulated time. The main drawbacks of this paper is it only applicable for short distance.

## 2.2 PROPOSED SYSTEM

In remote health care Body Area Networks (BAN) are very popular but demand low energy consumption due to very constrained resources. For it several protocols, such as ZigBee, Bluetooth, Wi-Fi etc, have been proposed but non has delivered the optimum results. These systems also demand vast interoperability among devices. Recently a propriety protocol provides such features and strengthens the goals for Internet of Things (IoT). The authors describe a software architecture which flexibly integrates protocol enabled sensors to deliver health care services. The approach is validated on a health care application that integrates heart rate and temperature sensors. Described architecture is modular, flexible, scalable and possess several features.

## 3. SYSTEM ARCHITECTURE

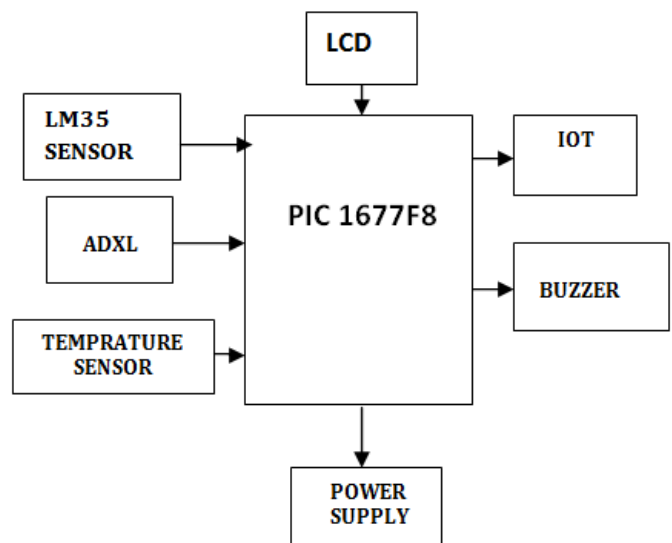


Figure: Block diagram for ambulance monitoring

## 4. ADVANTAGES AND DISADVANTAGES

### Advantages

If patient is immovable conditioning. Our system monitors the patient under this conditioning also.

It spread the information worldwide.

### Disadvantage

It is costlier

## 5. CONCLUSION

In previous days the patients cannot reach the hospital in correct time. With the help of this paper, the patients can easily reach the hospital within a time. This paper will reduce the time travel between the ambulance and hospital.

## REFERENCES

1. National Conference on Advance in Computing, Communication and Networking (ACCNNet – 2016).
2. Accident Emergency Response and Routing Software (AERARS)(2011) using Genetic Algorithm International journal on Computer Science and Engineering.
3. Ateeth Kumar Thirukkovulur 1, Harikrishna Nandagopal, Vigneesh Parivallal,” (2012) Intelligent Vehicle Control Based On Identification of Road And Traffic Signal Operated RFID Transponders, International Conference On Advances in Electrical and Electronics Engineering (ICAEE) Penang, Malaysia.
4. Internet of things for Smart Cities. Andrea Zanella, Senior Member IEEE, Nicola Bui, Angelo Castellani, Lorenzo Vangelista, Senior Member, IEEE and Michele Zorzi, Fellow,(February 2014) IEEE, IEEE INTERNET OF THINGS JOURNAL,VOL. 1, NO.1
5. J.Holler, V.Tsiastis, C.Mulligan, S.Karnouskos, S. Avesand, and D. Boyle,(2014) From Machine-to-Machine to the Internet of things :introduction to a new Age of intelligence ,Elsevier, Amsterdam, Netherlands.
6. S.Jagadeshwaran, N. Dinesh Chmbur,(April 2012) Mumbai, INDIA Computer Technology Department, VeermataJijabai Technological Institute, Mattunga, Mumbai, INDIA “Automatic Ambulance Rescue System”.
7. J.Holler, V.Tsiastis, C.Mulligan, S.Karnouskos, S. Avesand, and D. Boyle, (2014) From Machine-to-Machine to the Internet of things :introduction to a new Age of intelligence Elsevier, Amsterdam, Netherlands.