



# INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact factor: 4.295

(Volume3, Issue2)

## Blood Donor Communication

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**Abstract:** *The theme of this project is to reduce the communication gap between donor and blood bank management. Four types of login are available on this website namely donor, user, hospital and blood bank. In this website, new donor wants to register the personal details with Aadhar card number and blood group details. Aadhar card number is used to avoid the data redundancy. The donor knows the information like camp details and his/her blood status via SMS. This status will be updated to the user after few days from blood donation whether his/her blood group rejects or accepts and used or non-used in the blood bank. After three months from blood donation, a notification will send to the user via SMS/email that they are capable of denoting blood again. By using user, hospital, and blood bank login one can easily found the donor details by place and blood group by using this website and application. Also one can easily post the wanted blood group on this website. The application is a platform independent one. Below we give the brief introduction of proposed system and the system features and scope*

**Keywords:** *Donor Management, Blood Bank Management, Hospital Management, Blood Bank Details, Blood Request, Donor Communication.*

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### I. INTRODUCTION

Now technology is growing faster in this 21st century. Today's generation depends on advanced technologies and most people use the advanced technologies to their everyday life like smartphones and so on. Today most people have their own android Smartphone. In this paper, we have mentioned about the idea to develop an android application based on blood bank management system. By using this application we can reduce the communication gap between the blood donor and blood bank. Blood bank management system is already available as the web based application with fewer facilities. In Blood bank management system we are providing the solution by both web and mobile. In our project, the information is sent in the way of SMS. The blood donor can gain the information from the SMS like camp details. We are going to develop our system as an android application and website. Nowadays, the blood preservation plays a major role. The blood is preserved in the blood banks and it can be used later. The details about the blood preserved according to the blood group are hard to predict with the help of our proposed system and the user can search nearby blood bank and blood group details as fast as possible. According to our proposed system, the user who needs blood can easily search for the required blood group details from the blood bank. In our proposed system, the user can post blood request either in the app or on the website. The blood donor will see it and the blood will be delivered to the user at the correct time. Our project connects various blood banks available at various places. The main aim is to interconnect with various blood banks and communicate with other blood banks. It helps to save the life of the people who are in an emergency. In our project, the details of the blood donors, blood and blood bank where the blood is consumed are stored in our centralized server. The website and app are used to monitor the details without any redundancy of the data.

### RELATED WORK

A. *A Survey Paper on E-blood Bank and an Idea to Use on Smartphone*

Today, supreme of the people use advanced technologies in their daily life like Internet, Smartphone. So, the idea mentioned in this paper will make the process of blood bank less time-consuming. In this presentation, there will modules for donor, doctor, and blood bank. The donor has to register himself to use this improved system. For the doctor, no need to call in every blood bank to check the blood eases of use. In improved system, the only doctor can

check. The blood bank will send a notification to donor regarding Donation camps or Emergency donation. They are providing the efficient search who needs the blood in their own city as fast as possible. The main purpose of E-blood bank is to interconnect all the blood banks of the state into a single network, authentication, storage and circulation of various live data and information by using computation technology.

### B. Web-based Blood Donation System

In web based blood donation system; it is principally used for maintaining the stock record of the blood. In today's system first it is manual system and also it when the person requires the exacting type of blood and if that type is not available in that blood bank then it is time-consuming to arrange the blood from another blood bank it may affect the patient health because time is very important in unintentional cases. So in web based blood donation system is best for checking whether the particular type of blood is available in a stock or not and also it gives the location weather that available. In web based blood donation system simple GUI (Graphical user Interface) is created. All blood bank will update the regular data on the website so that the stock is conserved on the centralized server. By using a unique ID, issuing of blood bag is done. The first advantage is a use of technology for maintaining the record and easily available the source. Reduce the paperwork and checking availability and keeping the online record of stock and money required for blood. Blood is an important aspect of all living things. It substantiates to be a lifesaving factor in the case of emergency requirement. There are a number of web-based blood banks which are available for communication stuck between blood bank and hospitals. None of the online blood bank offers the direct contact between donor as well as the blood bank. This is the major drawback of the existing system. Existing systems are time-consuming; require more man power and it is exorbitant. This paper introduces the comparison between the existing system and improved system

## III. PROPOSED SYSTEM

Today, most of the people use advanced technologies in their daily life like Internet, Smartphone. The donor has to register himself to use this improved system. In improved system, doctor and donor can check blood availability details in a blood bank. The blood bank will send a notification to donor regarding Donation camps or Emergency donation. It enables monitoring of the results and performance of the blood donation activity. They are providing the efficient search who needs the blood as fast as possible. The main purpose of E-blood bank is to interconnect all the blood banks of the state into a single network, Such system is able to assemble all the data of each and every individual into legible reports to support decision making from effective donor screening to optimal blood broadcasting in the field. The data which is stored on the computing devices will help the public for easy access to the blood availability status in blood banks on fingertips so that he can place a request or notify particular blood group in nearby blood bank (Especially rare groups) save a valuable life. The user can also get the exact path from his/her location to blood bank or hospital by using Global Positioning System (GPS). The details of the blood banks, hospitals etc. will be saved in a database and only the admin will have access to the database. Private and confidential data of the users can only be viewed by an administrator.

## IV. SYSTEM ARCHITECTURE

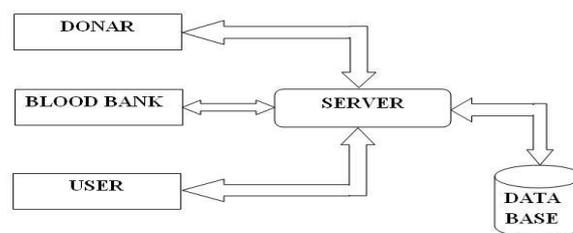


Fig. 1 system architecture of blood donor communication

## V. MODULES IN OUR PROJECT

### A. Admin Module

This module is important for our project because admin manages and monitor the whole site. Admin maintains donor details at regular intervals for to avoid the redundant data. Admin manages the four fields there are the donor, user, blood bank, hospital. In this fields are monitored by admin at daily intervals and the privileges varying depend on above fields for some security purpose. Admin update some information related to the given fields. The SMS notification process maintained in admin. This SMS message contains camp location and blood process status. Admin gives some extra privileges to the blood bank and hospital fields because many blood donation camps organized by hospitals and blood banks so the camp detail updating is maintained at the two fields. Admin to checked the updated details and notify from user or donor. The blood bank updates the bloodstock availability this information's are maintained by admin. The notification process is monitored by admin.

### B. Hospital Module

Before this, there is no connection between the hospital and the blood bank. In our module, we implement to interaction with blood bank and patient. We are having the hospital management admin for this interaction. From this, there is a good interaction (or) communication between the blood bank and the hospital. In this module, a doctor has some more

privileges more than the donor, because only needs more blood contents. For this reason, the privilege will be given more to the hospital. From this, we can save many lives in an emergency case. Now we have introduced one thing in this project which is nothing but the post blood request. This option is to contact the blood bank admin in emergency cases to get the blood immediately. Otherwise, at that time, there is a way to contact the blood bank admin (or) doctor. At the same time, the information which is needed for that doctor will be updated.

#### *C. User Module*

With some rules and conditions, the users can view our sites. The user module also counts the user view rate. The request is based on donor details, which can be given by the admin. This module is used for the purpose that in emergency cases if anyone needs blood they can immediately give request to the donor (or) blood bank admin to get the blood. From this, we can save many lives. User module updates some information in the front view of our project. User module contains two special features that post blood request and search module. Will be needed and what kind of blood is needed. Immediately the blood bank admin delivers the requested blood. From this, in emergency cases, the blood will be immediately given the way to the needed persons.

#### *D. Search Module*

The search module is used for what means if a user searches a blood bank in a new place, they can't get the blood at a proper time. For this purpose, the search module is used. From this, the user can easily search the nearby blood bank to get the blood. So those in need of blood can get the blood at a correct time.

#### *E. Blood Bank Admin*

Blood bank admin is the thing which is most important in our project. Because the blood bank admin can maintain and store the blood content. Blood bank admin module is acting as an admin because the blood bank admin can only update the blood-related information. This information's can't be changed by anyone. But the blood bank admin can change the details. The bloodstock availability will be updated only by the blood bank admin. During daily intervals, the blood bank admin maintains the blood bank and its website. From this, it leads the way to the user to know but the correct information. Post blood request is being monitored by the blood bank admin. For what means, if anyone needs blood urgently they can easily get from the blood bank.

### **CONCLUSION**

In today's world of technology and communication where the world is title towards the rapid enlarge and improvement. So this is our decent effort to reduce the gap between the need or requirement of blood and the immediate availability of blood in suitable method... The improved system reduces the time necessary to collect and matter of blood process. The donor will get himself register through this improved system. In the case of emergency requirement, the blood donor can place a request. The blood bank can notify the donor in case of emergency. The blood bank collects the blood from different blood banks and blood bank will notify if less. The application also provides the information about the different events so that the user will get information about the organized donation camps. The upcoming scope of the improved system is creating a huge network of blood banks increase over a whole country. The use of the Global Positioning System to identify the nearby blood banks. The user also knows the how much bloodstock available in the blood bank.

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