

IDEATION PHASE
LITERATURE SURVEY

Date	20 October 2022
Team Id	PNT2022TMID33146
Project Name	Plasma Donor Application
Maximum Mark	4

LITERATURE SURVEY:

Several experiments have been carried out over the years by different groups of researchers. Here are some of the following groups:

1. The “MBB: A life saving application”

AUTHORS: Ramakant Gawande, Narendra Gupta, Nikhil Thengadi.

They come up with a system to link all donors and help in controlling blood transfusion process. Their system will also maintain database which hold data of donors and blood according to their city and further by their locality. They have proposed a machine so that it will hyperlink all donors. The machine will help to control the blood transfusion service and create a database to maintain records on shares of blood in every place as records on donors in every city. Moreover, human beings will be capable of see which sufferers want blood components thru the application. They will be able to check in as donors and as a result acquire a request from their nearby customers who desires blood to donate blood in instances of want

2. In 2015, Mobile Based Healthcare Management using Artificial Intelligence

AUTHORS: Amiya Kumar Tripathy, Rebeck Carvalho, Keshav Pawaskar, Suraj Yadav, Vijay Yadav.

In this paper, the health-care management system is proposed which will consist of mobile based heart rate measurement so that the data can be transferred and diagnosis based on heart rate can be provided quickly with a click of button. The system will consist of video conferencing to connect remotely with doctor. The system will also consist of Doc-Bot and an online Blood Bank. In this implemented project, heart rate calculation differs from actual one due to noise present in input signal. So the performance is not efficient in practical. Methodology used Clustering, Text Mining, Pattern Matching, Support Vector Machine, Partitioning Algorithm and

DonorHART tool used in collecting donor reaction information. Limitations are Difficulty in handling emergency situation and No proper security for personal details misuse.

3. In year 2018, “Automated blood bank system using Raspberry PI”.

AUTHORS: Ashlesha C. Adsul, V. K. Bhosale, R. M. Autee . **AUTHORS:** Ashlesha C. Adsul, V. K. Bhosale, R. M. Autee .

“Raspberry pi based blood bank system” proposed to bring blood donors to the one place. The aim of this system is fulfil every blood request by using android application and raspberry pi. In the proposed system, data about the donors will be collected by using android application and raspberry pi by installing systems at places such as hospitals, blood banks etc. These data will be stored in the database. User/Patients needs to access application and needs to enter his requirements about the blood in the application the requirements are matched with the database and message will be to that particular blood donor through GSM modem.

4. In year 2020, “Towards an Efficient and Secure Blood Bank Management System”.

AUTHORS: P.A.J. Sandaruwan, U.D.L. Dolapihilla, D.W.N.R. Karunathilaka; W.A.D.T.L. Wijayaweera, W.H. Rankoth.

A blood bank plays an important role in a hospital as well as in a country, ensuring safe and timely blood transfusions. However, there are several challenges faced by blood banks around the world, specifically when securing the blood supply chain. Reducing the supply-demand imbalance, protecting the data privacy of donors as well as receivers, are some of them. Therefore, there is a timely requirement for an effective and secure management system for the blood bank. We have proposed a management platform for the blood bank operations with the following modules: (1) forecast blood demand, (2) suggest blood donation campaign locations and (3) secure blood supply chain. The proposed platform has been implemented using techniques such as Long Short-Term Memory (LSTM), k-means clustering, Geographic Information Systems (GIS), and block chain. Our results show that using our proposed modules, we can minimize the imbalance between supply and demand of blood, find the most suitable donor in an emergency, and enhance the privacy of data.

5. In year 2021, “A Systematic Review & Design of Web-Based Blood Management System”.

AUTHORS: Gokul Dudani, Tanushree, Kajal Singh, Anushka Singh Chauhan

Blood is a fluid that carries oxygen and is a connective tissue that carries other substances because of its volume. Now that we understand the importance of

blood, we see that it not only carries oxygen to the tissues but also clears the air between them through the heart and blood vessels. The average volume of blood donation is 470ml per person, which is only 8% of the adult volume. When blood is needed in a hospital, it is usually not available in time, leading to inconsistencies. Both patients and sponsors are unaware that the donor is being hospitalized due to a lack of communication and other services. A system like this is needed to close the communication gap between hospitals, blood banks, donors, and receptors. The main purpose of a web-based blood donation program is to ensure compliance with blood stock. In today's system, first and foremost the hand system, and when a person needs a blood type and that type is not available in that blood bank, it takes time to process blood from another blood bank, which may adversely affect the patient's health because time is critical in emergencies. Therefore, a web-based blood donation system is a good place to monitor whether a particular type of blood is available in a stock or not, as well as to provide a place where blood can be accessed.