# Plasma Donor Application

### Smart Blood Bank as a Service on Cloud

During a literature review, we collected information on city and national blood bank management systems. Some hospitals have their own blood bank departments and all technical facilities in urban areas, but this management has been found to be poor in rural areas. • Some countries have online blood banking systems, like Sri Lanka. Further Reading Of the 7.5 million units of whole blood drawn annually in India, (at least) 2% of the blood is wasted for various reasons. Subtracting 2% of discarded blood, the total amount of whole blood or red blood cells available in India is 6 60,000 units or blood components, a conservative estimate that only 25% of blood is separated into components. is assumed. In this situation, there are approximately 1,365,000 components for patients. Now let's look at the service fee cap set by the National Aids Control Organization (NACO) to determine the total national revenue. NACO prescribes Rs. 850 per unit of whole blood or RBC, 6, 60,000 units yields an ingredient of Rs. 5 9,100,000 on average). • Total sales of whole blood/red blood cells and components is Rs.6,17,35,00,000 (or US\$12,327,0000 at US\$1 = Rs.50). There are types of blood banks/centers (from an administrative point of view) in India. They are administered by the public (government) sector, the Indian Red Cross Society (IRCS), non-governmental organizations (NGOs, non-profit basis) and the corporate or commercial sector. Today, let's talk about how India manages more than 2, 60 blood banks efficiently. About 55% of blood banks are in the government sector, 5% in the IRCS, about 20-25% in the NGO sector and the rest in the corporate or commercial sector. Every year, our country needs about core units of blood, of which only 5 million units are available. India has many blood banks and all of them are decentralized. In the current system, each hospital has its own blood bank and there is no interaction between blood banks. • All blood banks are affiliated with hospitals, there are no independent blood banks.

### **Blood Bank Information System Based on Cloud Computing In Indonesia**

In the log, it is described that the proposed blood banking system establishes a connection between the blood bank and the individual donor by sending a message to a previously registered regular/permanent donor. On this log, users can search for donors by location closest to them using GPS (Global Positioning System). After submitting the information, the nearest blood donor will receive a notification of the need for blood donors. Cloud-based blood banking

android-based application has been made by previous research. Blood donor information management system and optimization were also performed by Priya et al. A smartphone app is being developed to allow searching for nearby volunteer donors, followed by donor-to-donor communication, especially in emergency situations. In this paper, Catassi and Petersen describe a computerized blood bank inventory. The purpose is to control the distribution of blood banks and hospitals. Can monitor blood condition daily. Mittal and Snotra, in their study, explain that the availability of a blood supply in emergency situations is crucial for patients in need. Blood donation centers exist to meet this need. But whether it's an individual donor or a medical organization, there's no means available to link up with them directly. That's why individual donors and medical facilities must be connected. In another case, Ali et al proposed a blood bag system. This is a web-based system that connects to a central database to control all data about blood banks and blood donation campaigns. Basically, the system identifies the donor, tests and stores the blood bags and delivers them to the patient. The donor-assisted blood bag system and blood bank help patients in need of blood donation through a centralized control system that can streamline the entire transfusion process. Each process is recorded in the database. With huge amount of data and information, blood bank information system will be very useful and can be managed as a decision making system.

## A Health-IoT Platform Based on the Integration of Intelligent Packaging

In 2015, Geng Yang, Li Xie, Matti Mantysalo, Xiaolin Zhou, Zhibo Pang, Li Da Xu wrote an IEEE paper on the Health-IoT platform based on the integration of smart packaging, discrete biosensors and smart pill box., Sharon Kao-Walter, Qiang Chen, Lirong Zheng. In this paper, a smart home healthcare platform is proposed and implemented. This concerns iMedBox with connectivity, iMedPack with communication capabilities supporting RFID, Bio-Patch and SOC. It merges with IoT. The wearable bio patch can detect and transmit the user's biosignal to the iMedBox in real time. The only limitations are, lack of full platform. And the physical size, rigid nature and short battery become a limitation for long-term use.

# **Mobile Based Healthcare Management using Artificial Intelligence**

In 2015, an IEEE paper on Mobile-Based Healthcare Management Using Artificial Intelligence was authored by Amiya Kumar Tripathy, Rebeck Carvalho, Keshav Pawaskar, Suraj Yadav, Vijay Yadav. In this article, the proposed healthcare management system, will include mobile-based heart rate measurement so that data can be transmitted and heart rate-based diagnosis

can be provided quickly. with just one click of a button. The system will include a videoconference to connect remotely with the doctor. The system will also include a Doc-Bot and an online blood bank. In this done project, heart rate calculation differs from reality due to noise present in input signal. So performance is inefficient in practice. The methodology used Clustering, Text Mining, Pattern Matching, Support Vector Machine, Partition Algorithm and DonorHART engine were used to collect information on donor response. The limitations are that it is difficult to handle emergency situations and there is no proper security measure for the misuse of personal data..

#### AN ANDROID APPLICATION FOR VOLUNTEER BLOOD DONORS

When it matters most, people rely on blood to be available at all times. The main source of a successful blood supply chain is voluntary blood donors. management. Through donations, they support the blood supply. In case of emergency, due to lack of supply, patients visiting the hospital will be the only source of blood supply. Center and voluntary blood donation. Timing is definitely an important factor in this situation. To ensure that services are provided as soon as possible, the facility should call the nearest available sponsor. In emergency situations where it is not possible to supply blood from the blood banks' reserves, a smartphone application is created to facilitate the search for the nearest available blood donation volunteer and contact him. Despite all the advancements of medicine and technology, no alternative medical means to replace blood, blood components or blood-derived products have yet to be found. Blood can only be provided by living donors. Blood transfusions save millions of lives every year around the world. However, the quantity and quality of blood available for transfusion remains a major concern worldwide, especially in developing countries. Almost everywhere in the world, blood collection services are performed in an orderly manner. Turkey has not yet achieved the desired level of application compared to the rest of the world. In Turkey, there are 297 blood donation centers. They are mainly found in big cities like Istanbul, Ankara and Zmir. The Turkish Red Crescent Society oversees blood collection in small towns and rural areas. Unfortunately, there is no coordination among all these organizations and blood supply management and recruitment continue to fluctuate between scarcity and waste. On the other hand, when blood supply is insufficient to meet demand due to emergency or chronic illness, blood is provided by public announcement on traditional or social media, not always gives the desired result.