

# PLASMA DONOR APPLICATION

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**PROBLEM DEFINITION:**

- During the COVID 19 crisis, the requirement of plasma became a high priority and the donor count has become low.
- Saving the donor information and helping the needy by notifying the current donors list, would be a helping hand.
- In regard to the problem faced, an application is to be built which would take the donor details, store them and inform them upon a request

**OBJECTIVE:**

- To provide guidance on the measures needed to develop and implement effective systems for assessing the suitability of individuals to donate.
- Review the available evidence base and provide recommendations on criteria for plasma donor selection.
- Our system motivates and maintains a permanent well-indexed record of voluntary blood donors.

## LITERATURE SURVEY-1

### ► NAME OF THE PAPER:

A Health-IoT Platform Based on the Integration of Intelligent Packaging , Unobtrusive Bio-Sensor and Intelligent Medicine Box.

### ► NAME OF THE AUTHOR:

Geng Yang, Li Xie , Matti Mantysalo , Xiaolin Zhou, Zhibo Pang, Li Da Xu, Sharon Kao-Walter.

### ► JOURNAL PUBLISHED:

IEEE paper on A Health-IoT Platform.

### ► MONTH AND YEAR PUBLISHED:

2015, April 4

### ► OBJECTIVE OF THE PROJECT:

To develop an intelligent home-based there is a suggested and implemented healthcare platform. It entails Connectivity for I Med Box and communication for I Med Pack capabilities made possible by SOC, Bio-Patch, and RFID. IoT and it combine.

## LITERATURE SURVEY – 2

### ► NAME OF THE PAPER:

Convalescent Plasma Therapy.

### ► NAME OF THE AUTHOR:

M N Noorshidha, G. Aghil ,Department of Computer Science, National Institute of Technology Puducherry, Karaikal, India.

### ► JOURNAL PUBLISHED:

2021 International Conference on Artificial Intelligence and Smart Systems (ICAIS).

### ► MONTH AND YEAR PUBLISHED:

2021 10-12 March.

### ► OBJECTIVE OF THE PROJECT :

Convalescent Plasma Therapy is an investigational therapeutic method recommended as a treatment strategy for COVID- 19 as vaccines, and proper treatment methods were unavailable. Evaluating plasma holds in the presence of multiple infections paper name.

### LITERATURE SURVEY - 3

► **NAME OF THE PAPER :**

Mechanisms of Physical Plasma-Incuded Blood Coagualtion.

► **NAME OF THE AUTHOR:**

F.Hille Chair for Physics of Electrotechnology, Technical University of Munich, Germany.

► **JOURNAL PUBLISHED:**

IEEE International Conference on Plasma Science (ICOPS).

► **MONTH AND YEAR PUBLISHED:**

2021 12-16 September.

► **OBJECTIVE:**

Interestingly, incubation of whole blood with concentration-matched hemolysates phenocopied the plasmas-mediated platelet activation. Hence, we identified hemolysis being the main mechanism of plasma-induced blood coagulation via platelet activation .

### LITERATURE SURVEY - 4

► **NAME OF THE PAPER :**

Use of Non-Thermal Atmospheric Pressure Plasma Discharge for Coagulation and Sterilization of Surface Wounds.

► **NAME OF THE AUTHOR:**

C. Sandow Infineon Technologies AG, Neubiberg, Germany.

► **JOURNAL PUBLISHED:**

IEEE International Conference on Plasma Science (ICOPS).

► **MONTH AND YEAR PUBLISHED:**

12-16 september.

► **OBJECTIVE OF THE PROJECT:**

Our experiments have shown that such plasma treatment hastens Coagulation and causes simultaneous wound sterilization.

## LITERATURE SURVEY – 5

➤ **NAME OF THE PAPER:**

Data driven approach for finding the Best Plasma Donors.

➤ **NAME OF THE AUTHOR:**

N.E. Islam University of New Mexi Albuquerque, NM, USE. Schamiloglu.

➤ **JOURNAL PUBLISHED:**

Abstracts IEEE International Conference on Plasma Science.

➤ **MONTH AND YEAR PUBLISHED:**

2010 June 20.

➤ **OBJECTIVE OF THE PROJECT:**

The effectiveness of antibodies is affected by the health and clinical.

## LITERATURE SURVEY – 6

➤ **NAME OF THE PAPER :**

Lifetimes of operating states Plasma.

➤ **NAME OF THE AUTHOR:**

E. Schamiloglu.

➤ **JOURNAL PUBLISHED:**

ICOPS 2000. IEEE Conference Record - Abstracts. 27th IEEE International Conference on Plasma Science.

➤ **MONTH AND YEAR PUBLISHED :**

Published in 6th august 2002.

➤ **OBJECTIVE OF THE PROJECT:**

The use of NO donors has several drawbacks which includes inducing systemic side effects, due to their non-localized action. We have developed a novel pinto-hole spark discharge (PHSD) plasma device which generates nitric oxide (NO), which can be applied safely and locally to endothelial cells at low concentrations.

## LITERATURE SURVEY – 7

➤ **NAME OF THE PAPER:**

The Path towards automated data analysis.

➤ **NAME OF THE AUTHOR :**

Tania Cerquitelli ,Elena Baralis, Lia Morraand Silivia Chiusano.

➤ **JOURNAL PUBLISHED:**

IEEE paper was authored on Data Mining for Better Healthcare.

➤ **MONTH AND YEAR PUBLISHED:**

2016.

➤ **OBJECTIVE OF THE PROJECT :**

The mining system should be able to devise which knowledge could be most interesting to the user extract actionable knowledge from large medical dataset with minimal user intervention. System should be capable of yielding actionable knowledge extracting manageable sets. Large parameter spaces need to be explored at abstraction level to envision a system capable of evaluating and comparing many data-mining technique configurations at a time.

## LITERATURE SURVEY – 8

➤ **NAME OF THE PAPER:**

Healthcare Management using Artificial Intelligence.

➤ **NAME OF THE AUTHOR:**

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

➤ **JOURNAL PUBLISHED:**

IEEE paper on Mobile Based Healthcare Management .

➤ **MONTH AND YEAR PUBLISHED:**

19 June,2016.

➤ **OBJECTIVE OF THE PROJECT:**

This system is more efficient to increase donation frequency among existing donors, in particular those whose blood type is in high demand.

## LITERATURE SURVEY – 9

► **NAME OF THE PAPER:**

Nearest Blood & Plasma Donor Finding.

► **NAME OF THE AUTHOR:**

Nayan Das, Amit Trivedi DA-IICT, Jalandher.

► **JOURNAL PUBLISHED:**

2007 IEEE 33rd Annual Northeast Bioengineering Conference Stony Brook,USA.

► **MONTH AND YEAR PUBLISHED:**

10-11 March 2007.

► **OBJECTIVE OF THE PROJECT :**

This system motivates and maintains a permanent well-indexed record of voluntary blood donors .

## LITERATURE SURVEY - 10

► **NAME OF THE PAPER:**

Evaluating plasma holds in the presence of multiple infections .

► **NAME OF THE AUTHOR:**

D. Hirata

T. Sugino .

► **JOURNAL PUBLISHED:**

Seventh International Conference on Indium Phosphide and Related Material Hokkaido, Japan.

► **MONTH AND YEAR PUBLISHED:**

1995.

► **OBJECTIVE OF THE PROJECT :**

The application of immunohistology to the spectrum of plasma cell disorders has yet to be incorporated widely into routine haematology practice.

## CRITICAL FINDINGS:

- To wipe off the scarcity of blood and ensure availability of safe and quality blood and other blood components, round the clock and throughout the year. This will lead to alleviation of human sufferings, even to the far-flung remote areas in the country.
- Educating the community on the beneficial aspects of blood donation and harmful effect of collecting blood from paid donors.
- To make things easy for patients and relatives of COVID-19 positive persons and the medical fraternity in finding a plasma donor
- This system is more efficient to increase donation frequency among existing donors, in particular those whose blood type is in high demand.



