

SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY

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Medhub : Connecting Healthcare For Tomorrow

Zeroth Review

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ABSTRACT

Medhub is a secure web-based application designed to facilitate organ and equipment transfer between hospitals. It is exclusively accessible to authorized hospital personnel. The system provides features for managing organ availability, booking, and adding organs with detailed credentials, including organ freshness and patient-related information, ensuring high reliability.

A peer-to-peer transaction mechanism maintains confidentiality, ensuring no other hospital can access details of the transaction. Additionally, the platform supports equipment transfers (e.g., oxygen cylinders) and provides easy access to blood bank contacts. By focusing on secure communication and transparent organ details, the system enhances trust and efficiency in critical healthcare logistics.

INTRODUCTION

The project is a secure web application designed to manage organ and medical equipment transfers between hospitals. It enables authorized hospital personnel to access organ availability and handle transactions securely. The system prioritizes confidentiality through peer-to-peer communication, ensuring sensitive data and transactions remain private.

In addition to organ transfers, the application also facilitates equipment transfers (e.g., oxygen cylinders) and provides access to blood bank contacts. By focusing on simplicity, security, and transparency, the project aims to improve coordination and trust among hospitals, ultimately enhancing patient care.

LITERATURE SURVEY

S.NO	PAPER	ANALYSIS
1	<p>ONLINE ORGAN DONATION MANAGEMENT SYSTEM</p> <p><u>2023 International Research Journal of Modernization in Engineering Technology and Science</u></p>	<p>The organ management system helps hospitals access donor records and manage organ donations efficiently. It collects donations from donors, delivers them to the right organizations, and shares information with doctors to ensure transparency. People who wish to donate can register themselves in the system. Organ transplantation saves lives, but there is a big gap between the number of organs needed and those available. Many organs from deceased donors go unused due to a lack of awareness and proper systems. To improve donations, efforts like opt-out systems, better donor programs, and family counseling are needed. Doctors should work with organ donation coordinators when speaking to families of brain-dead patients. With better awareness and effective systems, more lives can be saved.</p>
2	<p>Doctor Finder and Appointment Booking</p> <p><u>2022 IEEE International Conference on Current Development in Engineering and Technology (CCET)</u></p>	<p>Life has become too hard in order to get appointment in case of any medical issue or normal routine checkup. the main aim of this site is to make easy and comfortable for the patient who are taking appointment of a doctor in nearby location and to resolve various problem that a patient had to face while taking an appointment. The website act as a database containing doctor details, patients detail, and appointment details are maintained by server and this website also has future of finding doctor near you using GPS and location sensing.</p>

LITERATURE SURVEY

S.NO	TITLE	ANALYSIS
3	<p>Organ Donation Decentralized Application Using Blockchain Technology</p> <p>2019 2nd International Conference on Computer Applications & Information Security (ICCAIS)</p>	<p>Organ Donation Decentralized Application Using Blockchain Technology is an organ donation decentralized app using blockchain technology. It would be a web application for patients to register their information-most importantly medical ID, blood type, organ type and state. The system would work on a first-in, first-out basis unless a patient is in critical condition.</p>
4	<p>Characterizing Organ Donation Awareness from Social Media</p> <p>2017 IEEE 33rd International Conference on Data Engineering (ICDE)</p>	<p>Approximately 22 people die every day in the USA due to a lack of organs for transplant. Research suggests that the most effective solution is to increase organ donor rates, current, proposals range from expanding the donor eligibility criteria (donor pool) to performing mass media campaigns. However, little is known about the extent in which activities on social media are associated with aspects (e.g. awareness) of organ donation. Our hypothesis is that social media can be utilized as a sensor to characterize organ donation awareness and population engagement in donation for each different organ. In this sense, we collected Twitter messages (tweets) regarding organ donation, and characterized organ awareness by aggregating tweets from users who mostly mentioned that organ</p>

EXISTING SYSTEM

Overview:

- The organ management system provides quick access to donor records collected from across the country. It helps collect donations and deliver them to the right organizations, while keeping doctors informed to ensure transparency. The system also manages donor registration and user details, allowing interested individuals to register as donors.
- To promote organ donation, effective measures like opt-out systems, donation after circulatory death, and donor action programs are needed. Counseling families of brain-dead patients should be a standard step. Physicians should involve Organ Procurement Organization (OPO) coordinators before speaking with families. Key practices include proper donor screening, professional counseling, and better awareness programs. Authorities should prioritize these efforts to close the gap between organ supply and demand.

EXISTING SYSTEM

DRAWBACKS:

- **Privacy and Security Risks**

Sensitive patient data may be exposed to security risks, especially if the system lacks strong encryption or is vulnerable to breaches.

- **Difficult Access and Communication**

Donars may struggle to navigate the app, making it hard to request services or communicate with Service providers effectively.

- **Challenges in Organ Identification**

Donars may find it difficult to accurately identify their condition due to a lack of clear guidance or tools within the app.

PROPOSED SYSTEM

Medhub is a secure and efficient web-based platform designed to streamline organ and equipment transfers between hospitals. This system aims to address challenges in organ transplantation and medical resource sharing by providing a centralized, user-friendly interface for authorized hospital personnel.

Advantages of the Proposed System

- Improves organ and equipment availability through centralized management.
- Ensures confidentiality and privacy in hospital-to-hospital transactions.
- Encourages transparency and trust among hospitals.
- Simplifies coordination during critical situations, ultimately saving more lives.

Thank You!