IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 1, September 2023

Trauma Care

Nikhil D Varghese[1] and Prof. Redhya M[2]
Student, IV Semester, MCA[1]
Assistant Professor, Department of Computer Applications[2]
Sree Narayana Institute of Technology, Kollam, Kerala, India

Abstract: *90% growth of technology and infrastructure has made our lives easier. The advent of technology increased the traffic hazards and the road accidents take place frequently which cause huge loss and property because of poor emergency facilities. We all have heard about the refusal on the part of private hospitals in Kollam and Trivandrum to admit an accident victim resulted in his tragic death, almost 7 hours after the accident. This project will provide an optimum solution to this drawback. This system will link all the hospitals in a locality. It will provide the current status about the blood banks, ICU, ventilator and casualty services of all hospitals, We can know whether a bed is available in an ICU or not. If an accident occurs in a particular area one can take a photograph and can inform the hospitals about the condition of the patient such that the hospitals can take immediate actions. Through the emergency button available in the system, the users can inform authorities on accidents occurred.*

Keywords: Trauma Care

I. INTRODUCTION

In today's fast-paced world, accidents and emergencies can occur unexpectedly, necessitating immediate medical assistance. The ability to quickly locate the nearest hospital with intensive care unit (ICU) facilities and promptly report the incident to the necessary authorities is critical for saving lives. However, the increased growth of technology and infrastructure, while making our lives easier, has also led to a rise in traffic hazards and road accidents. Unfortunately, poor emergency facilities and incidents like the refusal of private hospitals in Kollam and Trivandrum to admit an accident victim have resulted in tragic consequences, highlighting the urgent need for an optimum solution. To address this drawback, our project aims to provide a comprehensive system that links all the hospitals in a locality, enabling efficient emergency response. By leveraging the power of technology and infrastructure advancements, our system will provide real-time information about the critical facilities available in each hospital, including blood banks, ICU beds, ventilators, and casualty services. Users will have access to this information, allowing them to make informed decisions during emergencies and quickly identify the nearest hospital with the necessary resources.There are mainly four modules:

- Admin
- Hospital
- Staff
- Public
- Ambulance
- Police

This project is into the importance of immediate medical assistance during accidents and emergencies. It will explore the impact of technology and infrastructure growth on traffic hazards and the frequency of road accidents. The tragic incident in Kollam and Trivandrum involving the refusal of private hospitals to admit an accident victim will be highlighted, emphasizing the pressing need for an effective solution. The project's objectives and functionalities, such as linking hospitals, providing real-time information, accident reporting, and the emergency button feature, will be discussed in detail. Finally, the introduction will underscore the project's significance in improving emergency facilities and ensuring swift actions during critical situations

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 1, September 2023

II. METHODOLOGY

Requirement Analysis: Conduct in-depth research and interviews with workers, contractors, and potential users to understand their needs and pain points.

Identify key features and functionalities required in the web application, such as worker registration, profile management, search and filter options, communication channels, and feedback mechanisms.

System Design:

Develop a comprehensive system architecture that encompasses user interfaces, databases, communication protocols, and security measures.

Design intuitive and user-friendly interfaces for workers, contractors, and users, ensuring ease of registration, profile creation, and interaction.

Database Development:

Design and implement a robust database structure to store worker profiles, user data, contractor details, project information, references, and feedback.

Implement data validation and security measures to safeguard sensitive information.

III. EXISTING AND PROPOSED SYSTEM

The initial medical response at the scene of the trauma, which can be provided by emergency medical technicians (EMTs) or paramedics. Pre-hospital care may involve stabilizing the patient, administering life-saving interventions, and transporting the patient to the nearest hospital equipped to handle their injuries. Once the patient arrives at the hospital, they are typically triaged and evaluated by emergency department personnel, who may include nurses, physicians, and other medical staff. The patient may undergo diagnostic tests, such as imaging studies or laboratory tests, and receive initial treatments such as pain management, wound care, or medications

Proposed system

This system involves a coordinated network of hospitals and healthcare providers that work together to ensure patients receive the appropriate level of care based on the severity of Trauma Care SNIT KOLLAM Page 4 their injuries. Regionalized trauma systems typically include a designated trauma center, which is equipped to handle the most severe injuries, and a network of community hospitals that provide initial stabilization and transfer of patients to the trauma center when necessary. A proposed system for trauma care should be designed to provide rapid and effective medical attention to individuals who have suffered physical injuries as a result of an accident or violence.

IV. BACKGROUND

Technologies used in the project:

ReactJS is an open-source JavaScript library developed by Facebook for building user interfaces (UIs) for web applications. React is particularly well-suited for creating dynamic and interactive UI components that can efficiently update and render changes as data and states evolve

Laravel is an open-source PHP web application framework that provides an elegant and efficient way to build web applications and APIs. It was created by Taylor Otwell and has gained widespread popularity due to its simplicity, developer-friendly features, and robust ecosystem. Laravel follows the Model- View-Controller (MVC) architectural pattern and offers a wide range of tools and functionalities to streamline the development process.

V. CONCLUSION

In conclusion, trauma care is a vital component of healthcare that aims to provide immediate and appropriate medical care to patients who have experienced traumatic injuries. Effective trauma care requires a multi-disciplinary approach involving emergency medical personnel, trauma surgeons, nurses, paramedics, police, and other healthcare professionals. The goal of trauma care is to reduce morbidity and mortality rates among trauma patients by providing rapid assessment, stabilization, and transport to appropriate medical facilities. Trauma care has several key features,

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 1, September 2023

including the use of evidence-based practices and protocols, the use of advanced medical equipment, and the involvement of skilled and experienced healthcare professionals. In addition, trauma care requires effective communication and collaboration between healthcare providers, patients, and their families.The functionality of trauma care extends beyond medical interventions and involves the public, hospitals, ambulance services, police, and other stakeholders in the community. By working together, these stakeholders can support trauma care efforts and enhance outcomes for trauma patients

VI. FUTURE ENHANCEMENT

The use of telemedicine technology could allow healthcare providers to remotely assess and monitor trauma patients, reducing response times and improving patient outcomes. AI technology could help healthcare providers quickly and accurately assess patients' injuries and provide personalized treatment plans based on patient-specific data.The use of data analytics could help healthcare providers identify trends and patterns in trauma care, allowing for more targeted interventions and improvements in patient outcomes. The use of simulation training could provide healthcare providers with realistic scenarios to practice and refine their trauma care skills, improving their ability to provide effective care in real-world situations. Increasing community-based education and awareness programs could help improve recognition and response to traumatic incidents and enhance outcomes for trauma patients. The use of personalized medicine could enable healthcare providers to tailor trauma care interventions to individual patients based on their unique medical histories, genetics, and other factors

VII. RESULTS AND DISCUSSION

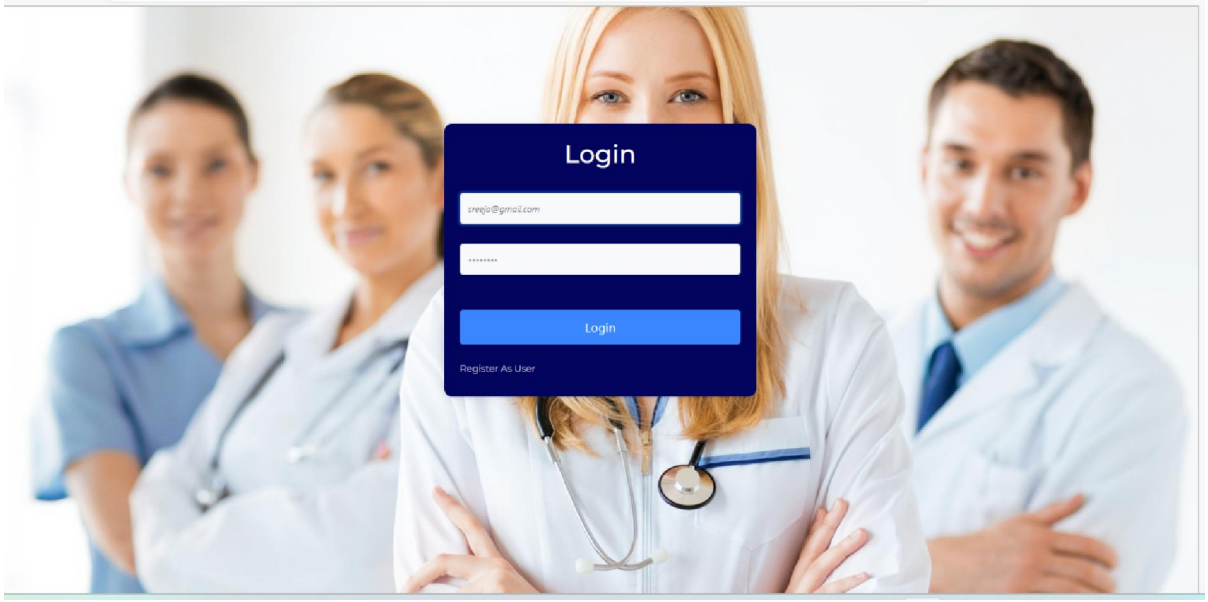

Figure 1: Login page

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 1, September 2023

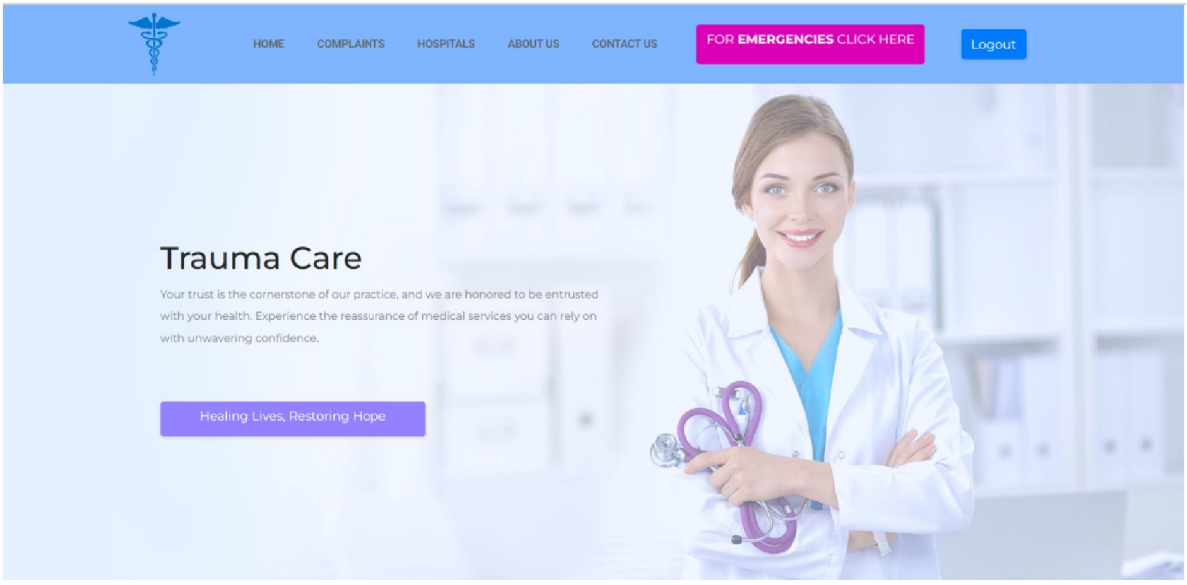

Figure 2: User Home Page

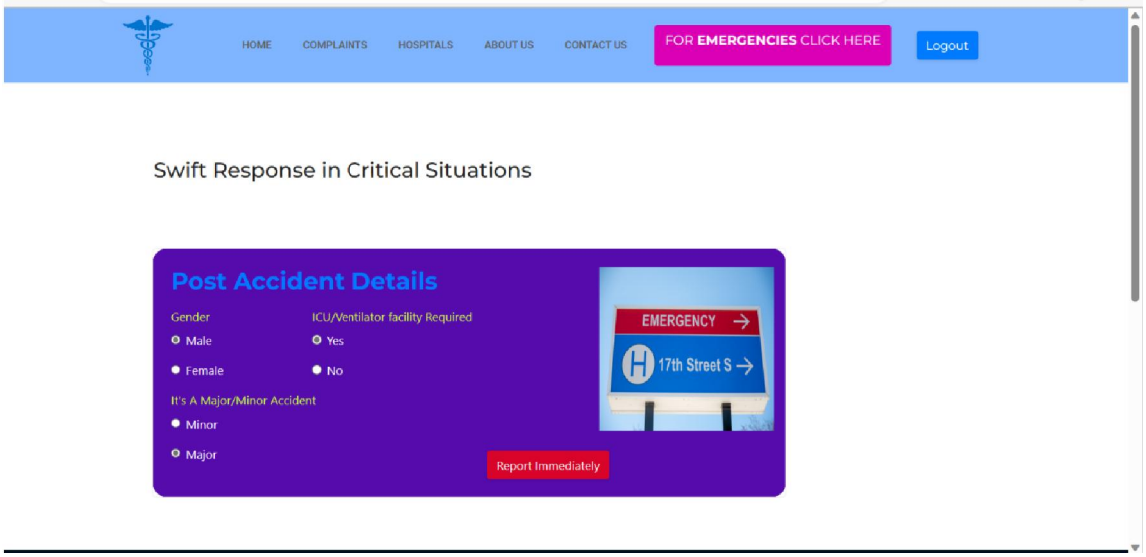

Figure 3: Emergency button page

REFERENCES

[1]. American Psychological Association. (2017). Trauma. Retrieved from https://www.apa.org/topics/trauma/

[2]. Bessel A. van der Kolk. (2014). The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma. Penguin Books.

[3]. Brave Heart, M.Y.H., &DeBruyn, L.M. (1998). The American Indian Holocaust: Healing Historical Unresolved Grief. American Indian and Alaska Native Mental Health Research, 8(2), 60-82.

[4]. Cohen, J.A., Mannarino, A.P., &Deblinger, E. (2017). Trauma-focused CBT for children and adolescents: Treatment applications. Guilford Press.

[5]. Courtois, C. A., & Ford, J. D. (Eds.). (2013). Treating complex traumatic stress disorders: An evidence-based guide. Guilford Press.

[6]. Figley, C.R. (1995). Compassion Fatigue: Toward a New Understanding of the Costs of Caring. Brunner/Mazel.

[7]. Foa, E.B., Keane, T.M., & Friedman, M.J. (Eds.). (2000). Effective Treatments for PTSD: Practice Guidelines from the International Society for Traumatic Stress Studies. Guilford Press.