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TRAUMA CENTER
ARCHITECTURE DESIGN PROJECT (THESIS) – 2024-25

Submitted in partial fulfillment of the Requirements for the
“Bachelor of Architecture” Degree Course

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A project report submitted to
VISVESHVARAYA TECHNOLOGICAL UNIVERSITY
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CERTIFICATE

This is to certify that this thesis report titled **TRAUMA CENTER** by **SWATHI G P** of X SEMESTER B. Arch, USN No. **1AA20AT056**, has been submitted in partial fulfillment of the requirements for the award of under graduate degree **Bachelor of Architecture (B.Arch)** by Visveshwaraya Technological University VTU, Belgaum during the year 2024- 25.

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DECLARATION

This thesis title “**TRAUMA CENTER**”, submitted in partial fulfillment of the requirement for the award of the under graduate of bachelor of architecture is my original work to the best of my knowledge.

The sources for the various information and the data used have been duly acknowledged.

The work has not been submitted or provided to any other institution/ organization for any diploma/degree or any other purpose.

I take full responsibility for the content in this report and in the event of any conflict or dispute if any, hereby indemnify acharya's nrv school of architecture and visveshwaraya technological university, belagavi, and its official representatives against any damages that any raise thereof.

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ABSTRACT

A trauma center is a specialized therapeutic facility planned to give comprehensive and quick care for patients with serious or life-threatening wounds. These centers are equipped with advanced therapeutic technology and staffed by highly prepared experts, including trauma specialists, emergency doctors, and specialized nurses. A Trauma center is also called as an emergency department(ED),also known as accident and emergency(A&E),emergency room(ER) or casualty department. The trauma level certification can specifically affect the patients outcome and decide if the patient needs to be transferred to a higher level trauma center.

WHY ADVANCED TRAUMA CENTER

India, the second-most populous nation in the world, is in fast epidemiological move, with an increasing burden of noncommunicable diseases like injury . With its large population and insufficient health care framework, it offers a major chunk of the trauma burden. Every year 5 million people die due to injuries and 1/10th of world's deaths, larger than fatalities due to HIV/AIDS, TB and malaria.it is startling to note that lower and middle wage gather of India contribute about Over 90% of worldwide burden injuries. Hence, trauma influencing the beneficial youth of the nation, which is something else solid and free from incessant disease. Trauma is caused by wide grouping of threats e.g., fall, weapon wounds, harming, burns, suffocating, intentionality self-harm, attacks, falling objects, and natural and man made calamities . The upgrade and organization of trauma administrations or systems is a brought successful way of moving forward quiet result and is achievable in about all settings . around 2 million lives may be saved each year if the injury death rates is decreased.

Trust zone in the field of trauma administrations are as follows.

- Provide physical assets for pre-hospital care and communication systems.
- Provide well-trained staff at all levels of care from pre-hospital to conclusive trauma care.
- Provider ought to be well prepared and ought to understand the basic needs of trauma victim.
- Organize and coordinated pre-hospital administrations with conclusive care facilities so that a patient is moved to an suitable facility in the shortest conceivable time.

HIERARCHICAL LEVELS

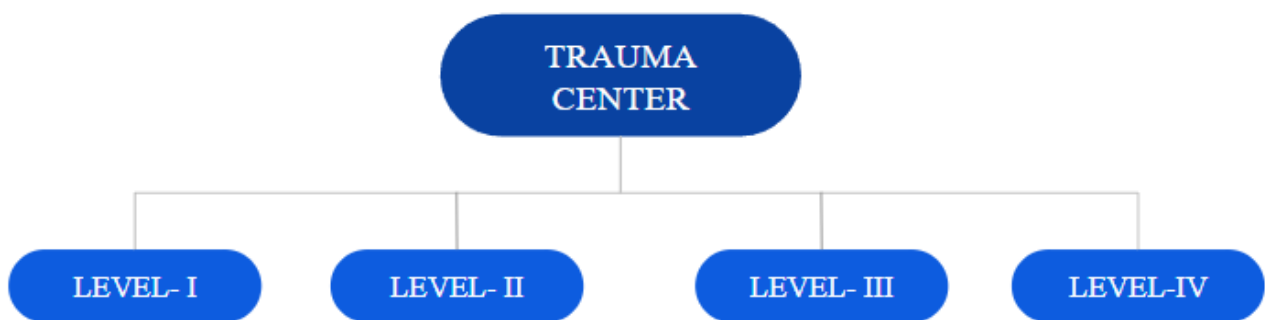


fig-1

- A **Level I** trauma center is needed to have a certain number of the taking after individualities on duty. 24 hours a day at the sanitarium.
 - Surgeons
 - Emergency physicians

- Anesthesiologists
- nurses
- An education program
- preventative and outreach programs.
- A **Level II** trauma center works in collaboration with a Level I center. It gives comprehensive trauma care and supplements the clinical capability of a level I institution with 24- hours availability of all introductory specialties, work force and outfit.
- A **Level III** trauma center does not have the full availability of specialists, but does have means for emergency resuscitation, surgery, and ferocious care of utmost trauma cases.
- A **Level IV** trauma center exists in same where the resources do not exists for a Level III trauma center. It gives starting evaluation, stabilization, individual capabilities, and transfer to advanced level of care.
- A **Level V** constantly not formally designated but alludes to installations that can give fundamental emergency care and stabilization.

ACKNOWLEDGEMENT

The success and final outcome of this project required a lot of guidance and I am extremely privileged to have got this all along the completion of my project.

I would like to express my sincere appreciation to my project guide, **Ar. Aksa. K**, for her invaluable support and guidance throughout the development of my project on the trauma center. Her mastery and insightful feedback were crucial in navigating the complexities of the project, eventually leading to its success and positive outcomes.

Ar. Aksa. K encouragement and faithful belief in my abilities motivated me to push through challenges and strive for fabulousness. I am truly thankful for the time and effort she dedicated to mentoring me.

I would also like to extend my appreciation **to my family , my friends , my guide** and all those who contributed to this project. Your support has played a vital part in this journey.

Thank you for being part of this fulfilling experience.

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