SHRI SIDDHESHWAR SHIKSHAN MANDAL'S

**COLLEGE OF ARCHITECTURE SOLAPUR**

Recognised by COA New Delhi and Affiliated to Solapur University, Solapur

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# CERTIFICATE

This is to certify that Mr./Ms. ..Shweta S. Sutar..... bearing college roll no: SSMCOA/ / and PAHSU seat no. ..... has submitted the sessional work in Subject code ....., Subject ..Project I..... for Term [I] / [~~II~~] and has satisfactorily completed the course work in partial fulfillment of the content of the syllabus for (~~1st~~) / (~~2nd~~) / (~~3rd~~) / (4th) / (~~5th~~) year **B. Arch** for Punyashlok Ahilyadevi Holkar Solapur University.

| | | |
|---|---|---|
| ..Shweta..... | ..... | ..... |
| Candidates Signature Date: | Faculties Signature Date: | Principals Signature Date: |
| ..... | ..... | ..... |
| Internal Examiner Signature Date: | College Stamp | External examiner Signature Date: |

## What Is Rehabilitation?

Rehabilitation is a process of restoring someone to health or normal life through therapy and education, especially after an illness or injury. It often involves medical, physical, psychological, or vocational measures to help individuals regain or improve their abilities and functionality.

## What Is Disaster Rehabilitation?

Disaster rehabilitation focuses on restoring communities and infrastructure after a natural or man-made disaster. It includes efforts to rebuild homes, provide medical care, restore essential services, and support affected individuals in recovering their lives. The goal is to enhance resilience and facilitate the recovery of communities in the aftermath of a disaster.

## Types Of Disaster

- Natural Disasters: -

1. **Earthquakes**: Sudden shaking of the ground caused by the movement of tectonic plates.
2. **Cyclones** Powerful tropical storms with strong winds and heavy rainfall.
3. **Floods** Overflow of water onto normally dry land.
4. **Tornadoes** Violently rotating columns of air extending from a thunderstorm to the ground.
5. :**Wildfires** Uncontrolled fires in forests or other areas.

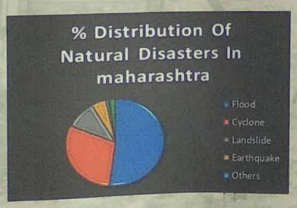
- Man-Made Disasters:

1. **Industrial Accidents** Chemical spills, nuclear accidents, or other incidents in industrial facilities.
2. **Technological Hazards:** Cybersecurity breaches, infrastructure failures, or technological accidents.
3. **Transportation Accidents** Plane crashes, train derailments, or other accidents involving transportation

- Hybrid Disasters:

1. **Complex Emergencies**: Situations involving a combination of conflict, population displacement, and natural disasters.
- Pandemics Widespread outbreaks of infectious diseases affecting large populations.
- Environmental Disasters

1. **Droughts** :Extended periods of abnormally low rainfall leading to water shortages.
2. **Landslides**: Downward movement of rock, soil, and debris on a slope.



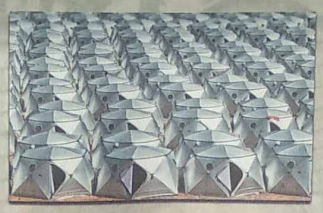

**Disasters in Maharashtra high rainfall zones of eastern and western Maharashtra are prone to flash floods and landslides.**

## Aim

The purpose of post-disaster architecture is to help the afflicted community recover from the tragedy as swiftly and effectively as feasible. This can involve urgent emergency shelter and support, as well as long-term housing, community rebuilding, and risk mitigation requirements

## Objective

1. To improvement and restoration of all aspects of public or community services to an adequate level in post-disaster areas
2. the main objective of normalizing or running normally all aspects of government and community life in post-disaster areas.
3. The objective of post-disaster rehabilitation is to restore and enhance the affected community's physical, social, and economic well-being, promoting resilience and sustainable recovery.
4. This involves rebuilding infrastructure, providing essential services, addressing psychological and social needs, and fostering long-term community recovery



## Need And Necessity

1. Immediate assistance is required to address the basic needs of affected populations, including shelter, food, water, and medical care, to mitigate human suffering.
2. Recovery of Livelihoods Of Rehabilitation efforts aim to restore and enhance economic activities, ensuring that individuals and communities can regain their means of livelihood and economic stability.
3. Infrastructure Restoration Reconstruction of essential infrastructure, such as housing, schools, hospitals, and transportation systems, is crucial to reestablish normalcy and improve overall living conditions.
4. Rehabilitation activities focus on building resilience within communities, incorporating measures to withstand future disasters and reduce vulnerability.
5. Addressing environmental damage caused by disasters and promoting sustainable practices are integral to rehabilitation efforts, ensuring the long-term health of ecosystems.
6. Prevention of Secondary Hazards Or Rapid rehabilitation helps prevent secondary hazards, such as disease outbreaks, by restoring sanitation and healthcare services promptly.
7. Rehabilitation contributes to rebuilding social fabric by addressing psychosocial needs, supporting community engagement, and fostering a sense of belonging.
8. For Government Stability Effective rehabilitation efforts strengthen the credibility and stability of government institutions, ensuring they can provide essential services and maintain social order.
9. Economic Stability Was Timely rehabilitation prevents prolonged economic disruptions, enabling the recovery of businesses and industries, which is essential for the overall stability of the affected region.
10. International Solidarity Was Post-disaster rehabilitation often involves collaboration and support from the international community, fostering global solidarity and cooperation in times of crisis.

## Architectural Scope

1. **Assessment and Planning**: Conducting thorough assessments of damaged structures and urban areas to inform strategic rehabilitation plans. This includes identifying vulnerable areas and proposing resilient designs.
2. **Design for Resilience**: Incorporating resilient and disaster-resistant design principles into the reconstruction of buildings and infrastructure to minimize future risks.
3. **Infrastructure Reconstruction**:Designing and overseeing the construction of resilient buildings, bridges, roads, and utilities that meet safety standards and contribute to long-term sustainability.
4. **Community-Centered Design**: Engaging affected communities in the design process, considering cultural preferences, and promoting community ownership in rebuilding efforts.
5. **Innovative Technologies**: Incorporating cutting-edge technologies and materials to enhance the durability and adaptability of structures in the face of potential future disasters.
6. **Green and Sustainable Practices** Integrating environmentally friendly and sustainable design practices to reduce the ecological impact of reconstruction and promote long-term environmental health.
7. **Accessibility and Inclusivity**: Ensuring that reconstructed infrastructure is accessible and inclusive, considering the needs of people with disabilities and vulnerable populations
8. **Urban Planning and Land Use**: Reevaluating and redesigning urban planning strategies to mitigate risks, control urban sprawl, and enhance the overall resilience of communities.
9. **Heritage Preservation**: Incorporating measures to preserve and reconstruct cultural and historical landmarks damaged during the disaster, maintaining the identity of the affected area.
10. **Capacity Building** Facilitating training and capacity-building initiatives for local architects, builders, and communities to enhance their ability to contribute to resilient design and reconstruction efforts.

**SHWETA S SUTAR**
**BN – 22 SEM VII**
**PROJECT I**
**SSSM'S COA SOLAPUR**

# Museum Of Architecture

## What Is Museum ?

A museum is a place where artifacts, artworks, and other objects of cultural, historical, scientific, or artistic significance are preserved, exhibited, and studied for public education and enjoyment.

## What Is Museum Of Architecture ?

An architecture museum focuses on the collection, preservation, and exhibition of items related to architecture. This may include architectural drawings, models, photographs, and other artifacts showcasing the evolution of architectural styles, techniques, and influential works. Visitors can learn about the history and development of architecture through these exhibits.

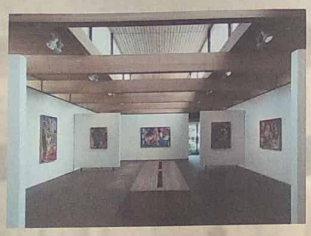
Famous works done by different architect needs to be documented and displayed to people for them to understand the buildings surrounding them. This project consists of displays of works of architect from different era. It will also deal preservation or architectural drawings of famous buildings. It will also act as an educational center for aspiring architects by means of spaces designed for lectures and competition to be held

## Aim Of The Study

The purpose of the museum is to showcase the work of important national and international architects and to create a timeline for visitor of how buildings around them have evolved from the past and give them a better understanding of how it can be further developed

## Objective

1. promotion of better architecture and built environment
2. helping everyone understand and appreciate the potential of architecture and design
3. encouraging public engagement and demand for excellence in art, design. and architecture
4. Preserve architectural drawings and models of famous architects.
5. The objective of my research is to study qualitative and quantitative aspects of museum lighting design in existing installations.
6. The museum design will guide the visitors to discover, explore and learn about history in a creative environment
7. Lighting plays a significant role in developing interaction between humans and museum artifacts in one defined space.
8. The goal of a museum is to create an interactive experience for the guests, as well as preserve the condition of artifacts



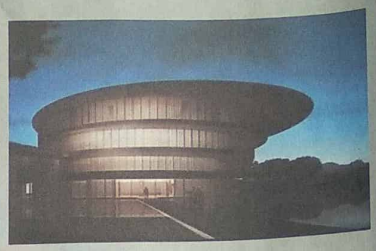
## NEED OF STUDY

- In India architecture along with architects is not celebrated and appreciated by the people. They are unaware, how important architect's contribution is to developing the society.
- There is no place in India where multiple architect's work is preserved. researched and exhibited on permanent basis thus providing the need to facilitate such a museum of architecture where students, architects and common people can understand, study and analyse the works and the relics.
- Lighting is a critical component in a museum environment because the space enables visitors to see objects, experience new sights and react to the surrounding environment.

Typically, environments have two types of light- natural and artificial. For a museum, the role of light is an essential part of creating an atmosphere prime for discovery, while also preserving artefacts

## SCOPE & LIMITATION

Exibiting many architectural relics, drawings and models of numerous architects under one permanent roof is a unique solution which is unavailable anywhere in the country.
The use of light is related to geometrical shapes, colours, and many things. The concept of light can give lot of scope to think and achieve the functional spaces more lively and with lot of expression.
Use of light in architecture is a very vast topic and extent of research will have to be defined. This can be a very difficult balancing act between meeting preservation needs and forming interactive experiences that achieve the goal of the museum integrating with se of light.



museums have played an integral role in preserving the history of our society. Exhibits tell us stories about how our nation, our communities and our cultures came to be and without them, those stories could be forgotten. Museum architecture has been of increasing importance over the centuries, especially more recently. A challenge for museum architecture is the differing purposes of the building.
Compared with cathedrals, museum buildings often became landmarks with the capacity of attracting crowds of visitors. But the impact of museum architecture goes far beyond the symbolic dimension, once that many of buildings effectively changed urban dynamics

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# World Trade Centre

## What Is Trade ?

Trade refers to the buying and selling of goods and services between individuals, businesses, or countries. It is a fundamental economic activity that has been crucial to the development of civilizations throughout history.

Trade occur within
single country e can (domestic trade
between different countries
(international trade)

## What Is World Trade Centre [ WTC ] ?

The term "World Trade Centre" (WTC) commonly refers to a complex or organization that serves as a hub for international trade and business activities. These centers are typically located in major cities worldwide and provide facilities for companies to engage in global commerce

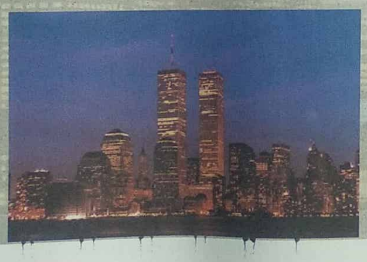
World Trade Centre offer services such as office spaces, exhibition areas, and networking opportunities, facilitating connections between businesses from different countries. These centers often organize events, trade shows, and conferences to promote international trade and collaboration.

## AIM

To create newer design approach for vertical buildings under the concept of Green-field techniques and kinetic building with a proposal to design for World Trade Centre (SKYSCRAPER)To study the concept of Skyscraper, its function, to allot space and segregate the zones of use within a vertical building and Structural techniques that is possible in a skyscraper CONSTRUCTION with the kinetic building technique and consider with climatic data

## OBJECTIVE

To establish a WTC tower at downtown area with High developed infrastructure and creating an environmental free tower for international trade attraction and activities To develop a more sustainable skyscraper by using kinetic building



WORLD TRADE CENTRE®

## What Is A Structure Of WTC ?

Each WTC may have its own governance structure, which could involve public-private partnerships, government agencies, or private entities.

## Why WTC As A Thesis Topic ?

1. **Urban Planning Challenges** The construction and redevelopment of the WTC site involve complex urban planning considerations, offering opportunities to explore challenges related to large-scale projects in urban environments
2. **Symbolism and Memory**: The WTC holds significant symbolism and emotional resonance. Exploring how architecture contributes to the collective memory of a place can be a poignant and thought-provoking aspect of a thesis
3. **Sustainability and Resilience**: Investigating how the new WTC structures incorporate sustainable design and resilience features in response to both environmental and security concerns can be a relevant and contemporary focus
4. **Cultural and Social Impact**: Analyzing the cultural and social impact of the WTC on its surrounding community can provide insights into how architecture influences and interacts with society.
5. **Technology Integration**: The WTC incorporates advanced technologies in its design and infrastructure. Studying these technological integrations can be valuable for understanding the role of technology in modern architecture
6. **Urban Integration**: Examining how the WTC integrates into the urban fabric of New York City and its role in shaping the surrounding
7. **Architectural Significance**: The WTC is an iconic symbol with a rich architectural history. Analyzing its design, evolution, and the challenges faced can provide a deep understanding of architectural principles environment can be a compelling aspect of urban design exploration
8. **Post-Disaster Design**: The WTC site's redevelopment post-9/11 involved unique considerations for post-disaster design and memorialization, making it a relevant topic for exploring resilience in architecture.

## Which Type Of Companies Will Involved In WTC ?

The number of companies involved can vary widely based on the size, capacity, and objectives of the particular WTC
The level of participation often depends on the available infrastructure, the size of the facility, and the focus of the World Trade Center (e.g., whether it's a global hub or specific to a particular industry)
Mostly Small And Big Type Of Companies Will Start Company With WTC
It Was Good Platform For Local Companies To Exhibit There Product To International Level

## Which Was The First WTC ?

The twin tower

## Architectural Scope

1. **Iconic Design**: The WTC was envisioned as a symbol of economic prowess and global interconnectedness, necessitating an iconic and memorable architectural design.
2. **Functionality**: The architectural plan needed to accommodate diverse needs, including office spaces, conference facilities, retail areas, and cultural spaces, ensuring a functional and versatile environment.
3. **Safety and Security**: Given its significance, the design incorporated advanced safety and security features, particularly considering the tragic events of September 11, 2001.4.
4. **Sustainability**: There was an emphasis on incorporating sustainable design principles to minimize environmental impact and promote energy efficiency.
5. **Urban Integration**: The WTC needed to seamlessly integrate into the urban landscape of its location, considering the surrounding infrastructure and cityscape.
6. **Cultural Sensitivity**: The architectural scope considered the cultural and historical context, aiming to create a space that respects and reflects the values of the community and the world.
7. **Technological Integration**: The design incorporated cutting-edge technologies for communication, connectivity, and building management.

## Some Advantages To City After Establishment :

The establishment of a World Trade Center (WTC) in a city can bring about several advantages:

1. **Economic Growth**: The WTC serves as a hub for international business, attracting global companies and fostering economic growth through increased trade and commerce.
2. **Job Creation**: The presence of offices, conference facilities, and retail spaces in the WTC generates employment opportunities, contributing to local job creation.
3. **Global Connectivity**: A WTC enhances a city's global connectivity by hosting international conferences, trade shows, and events, attracting participants from around the world.
4. **Prestige and Recognition**: The iconic nature of the WTC can enhance the city's prestige and global recognition, symbolizing economic strength and significance.
5. **Cultural and Commercial Center**: With retail spaces, cultural venues, and dining establishments, the WTC contributes to the city's cultural vibrancy and commercial diversity.
6. **Infrastructure Development**: The construction and maintenance of the WTC often lead to additional infrastructure development, benefiting the overall urban landscape.
7. **Innovation and Collaboration**: The WTC can foster innovation and collaboration by bringing together businesses, professionals, and thought leaders from various industries and countries.
8. **Tourism Boost**: An iconic WTC can attract tourists, further supporting the local economy through increased tourism-related activities.

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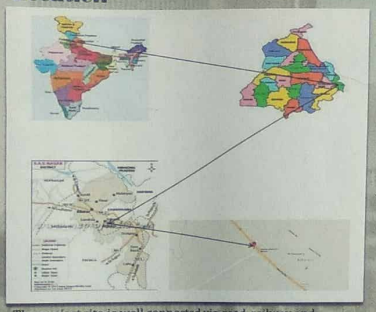
# Net Case Study

## World Trade Centre

Commercial project, Plot No. 2, Block-D, Aerocity, S.A.S Nagar, Mohali, Punjab

M/s. WTC NOIDA Development Company Pvt. Ltd. has proposed to develop 'World Trade Centre' a commercial project at Block–D, Aerocity, Mohali, Punjab on a land measuring 8.034 acre (32,512.44 m2 ).
The Project comprises of offices, retails/shops, food court, multiplex, service apartments. It's in close proximity to the Mohali airport.

## Location



The project site is well connected via road, railway and airway.
The nearest railway station is Sahibzada Ajit Singh Railway Station which is 2.5 km away from the project site in NW direction.
Mohali International Airport is at a distance of 3.5 km from the project site in NE direction.
NIPER and Fortis Hospital are 5 km away.

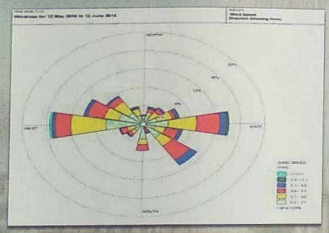
## Site Neighborhood


## CLIMATE AND METEOROLOGY

Mohali has a sub-tropical continental monsoon climate characterized by a seasonal rhythm: hot summers, slightly cold winters, unreliable rainfall and great variation in temperature (−1 to 44 °C or 30 to 111 °F). In winter, frost sometimes occurs during December and January. The average annual rainfall is recorded at 617 millimeters (24.3 in)

## Wind

The Wind direction in the area is mostly from North-West to South-East. During January to May the winds are quite strong while July to October is calm months. The general trends of various meteorological data from meteorological observatory at Chandigarh and field observations are used to draw Wind Rose Diagram.



## Detailed Area Statement

| S. No. | Particulars | Area (in m²) |
|---|---|---|
| 1. | Plot Area | 32,512.44 |
| 2. | Permissible Ground Coverage (@ 40%) | 13,004.98 |
| 3. | Proposed Ground Coverage (@ 39.67%) | 12,899.45 |
| 4. | Permissible FAR (@ 3) | 97,537.33 |
| 5. | Total Proposed FAR (@2.99) | 97,446.22 |
| 6. | Non-FAR:<br>• Basement Area<br>• Non-FAR on upper floors<br>• Mumty | 53,867.46<br>26,273.36<br>26,778.61<br>815.49 |
| 7. | **Total Built-Up Area** | **1,51,314** |
| 8. | Landscape Area | 9517 |
| 9. | Maximum Height of the Building (m) | 79 m |

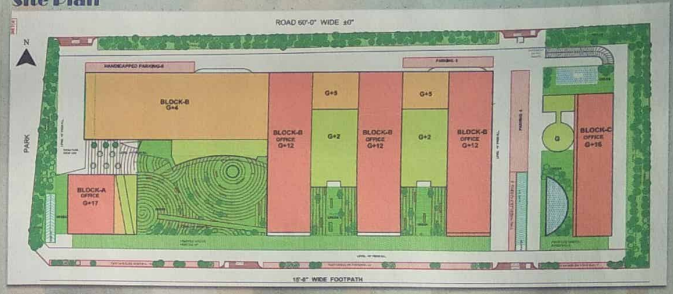
The Group has made concerted efforts towards creating environment friendly human habitation projects in line with customer needs. Good Business and Quality Practices, Quality Products, Integrity, Customer and Product Value, guide our vision towards building a great institution.
The present project provides world class infrastructure to the users.
The project comprises following facilities:

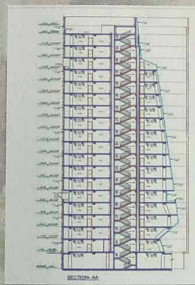
- **Offices**
- **Retail/Shops**
- **Food Court**
- **Multiplex**
- **Service Apartments**

Project proposed to have 3 blocks A, B and C

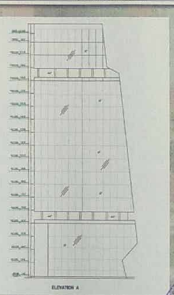
1. Block A having G+17 floors including office complex.
2. Block B having G+12 floors is further divided into Block B1, B2 and B3. G+2 floor in front is retail and 3rd to 12th floor is office. G+5 in back of Block B is Multi level Car Parking. 3rd floor will have multiplex and food court.
3. Block C have G+15 floors and it includes service appartment.

## Site Plan



Block A - Section



Block A - Elevation

## CONCLUSION

The Socio-Economic standard of people living in the study area will improve due to employment opportunities created due to the project. This will lead to better quality of life and will also set a standard for future development in the study area. Due to the project the infrastructure of the study area surroundings will improve by setting up of schools, hospitals, bus shelters and by the development of roads, parks, play grounds etc. This will give a boost in the quality of life of people of the study area.

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# PROJECT

GURUPRASAD·K·C
SEM-VII
ROLL NO-03

SHRI SIDDHESHWAR SHIKSHAN MANDAL'S

**COLLEGE OF ARCHITECTURE SOLAPUR**

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# CERTIFICATE

This is to certify that Mr./Ms. GURUPRASAD. F. CHARKESWAR bearing college roll no: SSMCOA/ 20 /03 and PAHSU seat no. 213639 has submitted the sessional work in Subject code ....., Subject PROJECT-I for Term [I] / [II] and has satisfactorily completed the course work in partial fulfillment of the content of the syllabus for (1st) / (2nd) / (3rd) / (4th) / (5th) year **B. Arch** for Punyashlok Ahilyadevi Holkar Solapur University.

| Candidates | Faculties | Principals |
|---|---|---|
| Signature | Signature | Signature |
| Date: 12/12/25 | Date: | Date: |

| Internal Examiner | External examiner |
|---|---|
| Signature | Signature |
| Date: | Date: |

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Seal/Stamp

## WHAT IS A LIBRARY?

A library is a collection of information, sources, and resources. "The public library, the local gateway to knowledge, provides a basic condition for a lifelong learning, independent decision making and cultural development of the individual and social groups.

- These provide services to the general public and make books available for borrowing, generally by issuing library cards .
- Traditionally, collection of books used for reading or study, or the building or room in which such a collection is kept.
- Libraries are considered part of the cultural heritage.
- It is accessible by the general public & usually funded from public sources, such as taxes.
- The Main task of the public library is to provide the public with access to books.
- They are open to all & every community member can access the collection.
- Provide basic services without charges.
- Essential part of having an education & literate population.
- offer things like companionship for older adults.

## HISTORY

- In 1850, by the act in Britain, it gave the local administrative division, the power to establish a free public libraries. It was the first effort to organize the collection of documents.
- It provided a universal free access to information & literature.
- world's oldest library was founded sometimes in the 7th century B.C. In Iraq, Named the library of Ashurbanipal.
- The first public libraries act, the Madras Public Library Act, was passed in 1948.

## AIM

- To providing a suitable environment for reading and cultural enrichment for all ages
- The project aims to be a public space promoting inclusiveness and awareness of the public libraries that would give opportunities for the people and the surrounding areas.

## OBJECTIVE

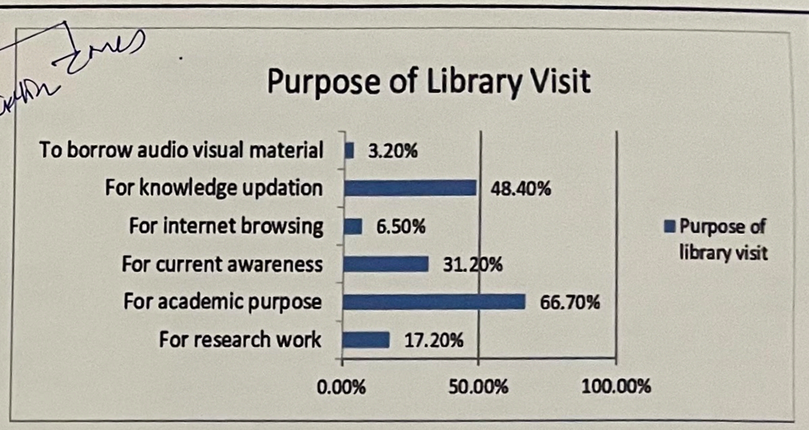
- To actively support literacy campaigns as literacy is the key to education and knowledge.
- Play a key role in collecting, organizing and exploiting information as well as providing access to a wide range of information sources.
- To bridge the gap by providing public access to the internet as well as providing information in traditional formats.
- Provide access to major collections of the world's literature and knowledge.
- The public library has an important role as a public and meeting space.
- To create an awareness in people regarding the importance of books and other resources as a means to gather information and learn as a community.

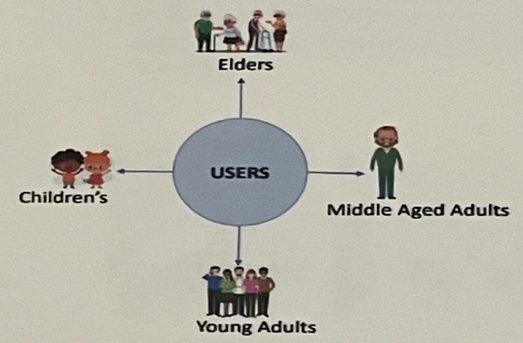
## TYPES OF LIBRARIES

- Academic libraries.
- Children's libraries.
- National libraries.
- Public lending libraries.
- Reference libraries.
- Research libraries.
- Digital libraries.
- Special libraries.

WORLD'S FIRST LIBRARY

The Library of Ashurbanipal, located in Nineveh (present-dayMosul,Iraq), was an ancient Assyrian library dating back to the 7th century BC.




## REASON FOR CHOOSING THE TOPIC

- Community Impact: Public libraries are integral community spaces. Designing one allows you to directly impact and enhance the community's access to knowledge, education, and resources.
- Social Importance: Libraries serve diverse demographics, offering a wide range of services beyond book lending, such as workshops, events, and technology access. Designing a library allows for exploration into creating inclusive spaces for various societal needs.
- Sustainability: Libraries can serve as models for sustainable design. Incorporating eco-friendly features, renewable energy sources, and efficient space utilization can be pivotal in showcasing sustainable architectural practices.
- Research and Learning: A library's design involves understanding how people interact with space and information. It allows for exploration into user experience design, ergonomics, and the psychology of learning environments.

## NEED

- They offer free educational resources to everyone.
- They preserve history, and Libraries help connect communities. Centre for information & education.
- experience new ideas, get lost in wonderful stories. Provide a sense of space for gathering.
- Plays an important role in society

## SCOPE

- Proper natural lightning, ventilation & control of noise.
- library spaces for all aged groups.
- Impact of library as a creative space

## ARCHITECT'S ROLE

- Designing good environment for the visitors and arranging proper circulation.
- Importance of the development of attractive public places.

# PUBLIC LIBRARY - INTRODUCTION

SSSMS COLLEGE OF ARCHITECHTURE SOLAPUR Estd.1992

**PROJECT-1**

BY:-GURUPRASAD.K.CHABUKSWAR
ROLL NO:-03
F.Y B.ARCH
SSSMS COA, SOLAPUR

## WHAT IS A IT PARK?

1. An IT park is a specialized area specifically designed to house multiple technology-based companies and organizations.
2. It offers a centralized location with modern infrastructure, shared facilities, and a collaborative environment to support various tech-related activities, such as software development, research, and data management.
3. The park serves as a hub for innovation and industry growth by fostering networking, resource sharing, and synergistic interactions among diverse tech entities.

## HISTORY OF IT PARK

1. The concept of IT parks emerged in response to the growing demand for specialized spaces to accommodate the rapid expansion of the technology industry.
2. During the 1980s and 1990s, there was a noticeable surge in the development and adoption of computing technology, leading to the establishment of various technology hubs and clusters. However, it was in the 1990s, particularly in regions like the United States, India, and parts of Europe, that the idea of dedicated IT parks gained prominence.
3. India, for instance, witnessed the establishment of the first Software Technology Park in 1991 in Bangalore, which played a pivotal role in shaping India's IT industry. The success of this park prompted the creation of similar specialized zones across the country, fostering a conducive environment for the burgeoning software industry.
4. Similarly, other countries recognized the potential of concentrating technology companies in designated areas to spur innovation and economic growth. As a result, IT parks began to proliferate globally, providing tailored infrastructure and amenities to accommodate tech businesses, promote collaboration, and attract investment.
5. Technopark in Thiruvananthapuram, Kerala is India's first IT park. It was established in 1990 and is still the largest IT park in India. It's also the largest IT park in Asia in terms of built-up area.

## AIM

to provide a it park which helps in urban,economy and lifestyle development of the following city/state

## OBJECTIVE

1. To create perceptual condition which allow employers to work effectively To make building an ideal place for work by providing visual communication channels to outside
2. To create favourable conditions for the creation and development of the new ideas in the multi-component environment
3. To study various types of openings and fenestration to penetrate maximum natural light
4. To provide an best infrastructure facility for IT industry under one roof.

## SCOPE

As there are number of engineering colleges in and around Solapur this project provides numerous opportunities for the teenagers As the city is well connected to metro cities like Hyderabad, Pune, Mumbai, Bengaluru etc thus opens up for huge connectivity and will be more convenient

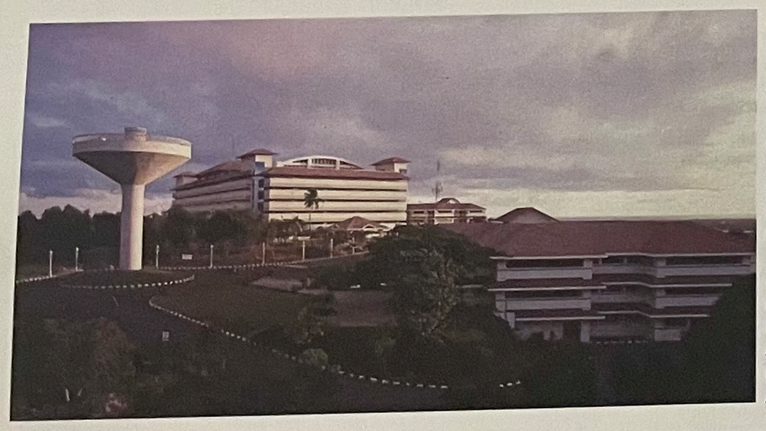
## ARCHITECT'S ROLE

1. Location of the project being at a developing city brings lot of challenges for architects:
2. To ensure the project fits in the skyline of the city
3. Services and office sector should be divided properly
4. Provide proper circulation and segregation of areas
5. To create a work environment which inspires the employees to work
6. To create a stress free environment and a positive vibe work space
7. One of the most important factors when designing is the climate of the site, this can represent difficulty when dealing with elevations facades

## REASON FOR CHOOSING THE TOPIC

1. Complexity and Diversity: IT parks are multifaceted projects that encompass various functions such as office spaces, research labs, data centers, recreational areas, and more. Designing such a complex requires addressing diverse architectural needs within a single project.
2. Innovation and Future Readiness: The rapidly evolving nature of technology requires architectural designs that can adapt to future advancements. Designing an IT park involves creating spaces that are flexible and can accommodate emerging tech trends.
3. Sustainability Focus: Modern architectural trends emphasize sustainability. Designing an IT park provides an opportunity to integrate green building practices, energy-efficient systems, and environmentally friendly features.


BENEFITS OF AN IT PARK TO A PARTICULAR CITY/STATE



TECHNOPARK KERALA

ELLISON TECH-PARK AT OXFORD ,UK

# IT PARK- INTRODUCTION

SSSMS COLLEGE OF ARCHITECHTURE, SOLAPUR Estd.1992

# PROJECT-1

BY:-GURUPRASAD.K.CHABUKSWAR
ROLL NO:-03
F.Y B.ARCH
SSSMS COA, SOLAPUR

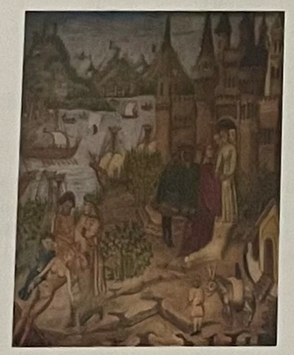
## WHAT IS A MEDICAL COLLEGE

1. A MEDICAL COLLEGE IS AN EDUCATIONAL INSTITUTION THAT PROVIDES MEDICAL EDUCATION FOCUSED ON TRAINING INDIVIDUALS TO BECOME DOCTORS AND OTHER PROFESSIONALS.
2. THIS COLLEGES PROVIDE EXTENSIVE EDUCATION AND PRACTICAL TRAINING IN VARIOUS FIELDS OF MEDICINE SUCH AS ANATOMY, PHYSIOLOGY ETC
3. THESE INSTITUTIONS MAY VARY FROM STAND-ALONE COLLEGES THAT TRAIN DOCTORS TO CONGLOMERATES THAT OFFER TRAINING RELATED IN ALL ASPECTS OF MEDICAL CARE.
4. MBBS IS A DEGREE IN MODERN SCIENTIFIC MEDICINE ESTABLISHED BY INDIAN MEDICAL COUNCIL ACT 1956 AND CONTINUED IN NATIONAL MEDICAL COMMISSION ACT 2019
5. AFTER MBBS, THEY REGISTER WITH STATE MEDICAL COUNCILS

## HISTORY

1. ANCIENT MEDICAL EDUCATION: MEDICAL EDUCATION IN ANCIENT CIVILIZATIONS LIKE EGYPT, MESOPOTAMIA, GREECE, AND INDIA OFTEN OCCURRED THROUGH APPRENTICESHIPS AND ORAL TRADITIONS. PHYSICIANS PASSED DOWN KNOWLEDGE TO THEIR APPRENTICES THROUGH DIRECT OBSERVATION, LECTURES, AND PRACTICAL EXPERIENCE.
2. EARLY MEDICAL SCHOOLS: THE EARLIEST KNOWN FORMAL MEDICAL SCHOOL WAS THE SCHOLA MEDICA SALERNITANA IN SALERNO, ITALY, FOUNDED AROUND THE 9TH CENTURY. IT GAINED PROMINENCE IN THE MIDDLE AGES AS A CENTER FOR MEDICAL EDUCATION, BLENDING TEACHINGS FROM VARIOUS CULTURES.
3. 19TH AND 20TH CENTURIES: MEDICAL EDUCATION FURTHER EVOLVED DURING THE 19TH AND 20TH CENTURIES. FLEXNER REPORT IN THE UNITED STATES IN 1910, LED BY ABRAHAM FLEXNER, TRANSFORMED MEDICAL EDUCATION BY SETTING STANDARDS FOR CURRICULUM, FACULTY QUALIFICATIONS, AND FACILITIES. THIS LED TO THE CLOSING OF MANY SUBPAR MEDICAL SCHOOLS AND THE STANDARDIZATION OF MEDICAL EDUCATION.
4. GLOBALIZATION OF MEDICAL EDUCATION: MEDICAL EDUCATION IS NOW A GLOBAL AFFAIR, WITH INSTITUTIONS WORLDWIDE OFFERING PROGRAMS THAT MEET INTERNATIONAL STANDARDS. CROSS-BORDER COLLABORATIONS, EXCHANGE PROGRAMS, AND RESEARCH PARTNERSHIPS HAVE BECOME COMMON.

- WORLD'S FIRST MEDICAL COLLEGE
- THE WORLD'S FIRST KNOWN MEDICAL SCHOOL IS BELIEVED TO BE THE SCHOLA MEDICA SALERNITANA, LOCATED IN SALERNO, ITALY. IT EMERGED AROUND THE 9TH CENTURY AND GAINED PROMINENCE IN THE MIDDLE AGES AS A CENTER FOR MEDICAL EDUCATION.
- THE SCHOLA MEDICA SALERNITANA PLAYED A PIVOTAL ROLE IN THE DEVELOPMENT OF MEDICAL EDUCATION, PAVING THE WAY FOR THE ESTABLISHMENT AND GROWTH OF FORMAL MEDICAL SCHOOLS AND COLLEGES ACROSS EUROPE AND LATER AROUND THE WORLD.



## AIM

1. TO CREATE FUNCTIONAL, COMPILANT AND TECHNOLOGICALLY ADVANCED SPACES THAT FACILITATE LEARNING, RESEARCH AND HEALTHCARE
2. DEVELOPING A COMPREHENSIVE PROGRAM OF RESEARCH OF INTERNATIONAL STANDARD ON VARIOUS HEALTH RELATED ISSUES
3. THIS INSTITUTE IS COMMITTED T O PROVIDE QUALITY EDUCATION AND HEALTH CARE SERVICES WITHOUT ANY DISCRIMINATION TO ALL.

## OBJECTIVE

1. ADDRESSING REGULATORY STANDARDS-(ANALYZING AND ADDRESSING THE COMPLIANCE REQUIREMENTS, BUILDING CODES, AND HEALTHCARE REGULATIONS THAT GOVERN THE DESIGN AND CONSTRUCTION OF MEDICAL FACILITIES)
2. COMMUNITY ENGAGEMENT AND CONTEXTUAL INTEGRATION-(ANALYZING AND ADDRESSING THE COMPLIANCE REQUIREMENTS, BUILDING CODES, AND HEALTHCARE REGULATIONS THAT GOVERN THE DESIGN AND CONSTRUCTION OF MEDICAL FACILITIES)
3. THIS INSTITUTE IS COMMITTED T O PROVIDE QUALITY EDUCATION AND HEALTH CARE SERVICES WITHOUT ANY DISCRIMINATION TO ALL.

## TYPES OF MEDICAL COLLEGE COLLEGES

- GOVERNMENT AIDED
- PRIVATE

MEDICAL

## SCOPE

1. MOST OF THE PROFESSORS IN GOVERNMENT MEDICAL COLLEGES ARE ALSO DOCTORS WHO ARE DONE WITH TREATING PATIENTS AND THEN CHOOSE TO TEACH.
2. YOU CAN VERY WELL OPT FOR THE RESEARCH AND DEVELOPMENT FIELD AS A GREAT SCOPE OF MEDICAL SCIENCE. AS THERE ARE NEW TREATMENTS FOR VARIOUS ILLNESS ALWAYS IN EXPLORATION.
3. THEREFORE, YOU CAN EASILY CONSIDER THAT THE SCOPE OF MEDICAL COLLEGES IS HUGE. ALL YOU NEED TO DO IS TO FIND OUT YOUR WAY AND CHOICES WHAT YOU WISH TO DO AND THEN THE SKY IS LIMITLESS TO EXPLORE

## REASON FOR CHOOSING THE TOPIC

1. MEDICAL COLLEGE AS AN INSTITUTION HAS TO RESPOND TO CHANGING SOCIAL ENVIRONMENT ATTITUDES, ADVANCEMENTS IN MEDICINE, THERAPY AND DIAGNOSIS AND TECHNOLOGY.
2. EACH DEPARTMENT OF MEDICAL COLLEGE HAS OWN IDENTITY. ITS VERY GOOD COMBINATION OF PRIVATE AND PUBLIC SPACE. BESIDE.IT, IN TODAY'S HOSPITAL ENGINEERING DEPARTMENT AND SUPPORT SERVICES HAVE ASSUMED BEST IN MEDICAL COLLEGE THROUGHOUT THE COUNTRY.
3. THUS AS A STUDENTS OF ARCHITECTURE, I TAKE THIS OPPORTUNITY TO EXPLORE AND LEARN THE COMPLEXITIES OF DESIGNING MEDICAL COLLEGE PROPOSAL WITH OWN EFFORTS FOLLOWING THE ALL THE ALL RELATED STANDARDS WITH A LITTLE BIT DIFFERENT PERSPECTIVE FROM MY SIDE.

## ARCHITECT'S ROLE

1. PROVIDING THE INSTITUTE WITH MODERN FACILITIES
2. GIVING THEM BETTER ENVIRONMENT TO LIVE, STUDY, AND GROW WITHIN
3. MAKING THE INSTITUTE A LANDMARK AND CREATE A BUILT-UP THAT WILL IMPORTANCE TO CITY, PROMOTE TRADE, BUSINESS AND ECONOMY
4. THE SERVICES THAT SHOULD BE RENDERED IN THE SITE

# MEDICAL COLLEGE - INTRODUCTION

SSSMS'S COLLEGE OF ARCHITECHTURE, SOLAPUR Estd.1992

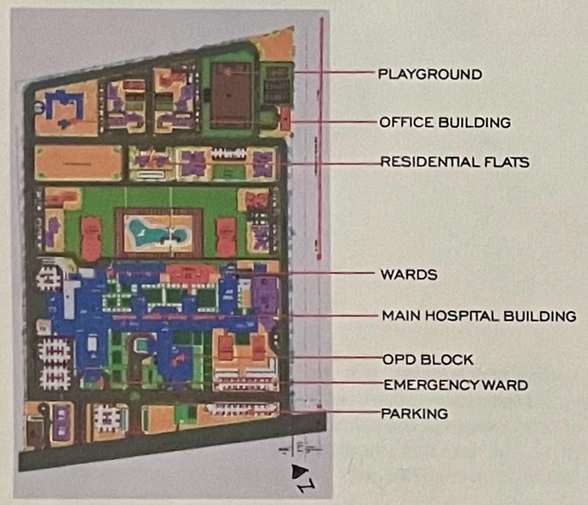
PROJECT-1

BY:-GURUPRASAD.K.CHABUKSWAR
ROLL NO:-03
F.Y B.ARCH
SSSMS COA, SOLAPUR

# PUNJAB INSTITUTE OF MEDICAL SCIENCES

## • INTRODUCTION

1. PROJECT :-PUNJAB INSTITUTE OF MEDICAL SCIENCES
2. LOCATION :-JALANDHAR,PUNJAB(INDIA)
3. TYPE :-MEDICAL COLLEGE AND MULTISPECIALITY HOSPITAL
4. ARCHITECT:-AR.GAUTUM SHAH
5. SITE AREA :-56 ACRES(2,26,624 SQ.M)




SITE PLAN

PHASE I -MEDICAL COLLEGE AND MULTISPECIALITY HOSPITAL
COMPLETION DATE-MARCH 2005

PHASE2-AUDITORIUM,HOSTELS, RESIDENTIAL FLATS
COMPLETION DATE-SEPTEMBER 2006

## • ORIENTATION

1. THE HOSPITAL IS A SOUTH-WEST FACING BUILDING.
2. THE O.T'S AND TREATMENT AREAS ARE LOCATED IN THE MOST SUITABLE ORIENTATION IE. IN NORTH-WEST.
3. GENERAL WARDS ARE FACING NORTH-EAST WHICH JUST ALLOWS THE MORNING SUN TO PENETRATE INSIDE.
4. EMERGENCY WARDS ARE LOCATED IN SOUTH AND SOUTH EAST DIRECTION WHICH IS THE MOST SUITABLE LOCATION FOR WARDS.
5. NO ROOMS ARE PLACED IN EAST AND WEST DIRECTION WHICH HELPS IN AVOIDING DEEP SUN

## • PARKING

1. THE TOTAL CAR SPACE FOR 460 CARS FOR THE VISITORS HAVE BEEN PROVIDED IN THE SITE. DIFFERENT PARKING SPACE FOR EMERGENCY AND STAFF IS ALSO PROVIDED.
2. THE PARKING AND ENTRANCE PORCHES ARE STRATEGICALLY PLACED AND THERE IS PROPER FLOW OF THE TRAFFIC. THIS MAKES THE SPACE USER FRIENDLY AND RESULTED IN THE WORKED OUT AND EFFICIENT DECISIONS

## • ARCHITECTURAL FORM

1. THE ARCHITECTURAL FORM DIRECTLY FOLLOWS THE FUNCTION WITH A VERY SIMPLE AND STRAIGHT LINE BUILDING FAÇADE.
2. THE FAÇADE IS SIMPLE ACCORDING TO THE PLANNING OF SPACES, AND NO SPECIAL EFFORTS HAVE BEEN INCORPORATED TO HIGHLIGHT THE FORM OF THE BUILDING.
3. THE FRONT FAÇADE COMPRISES OF FIVE FLOORS ONE ABOVE THE OTHER CATERING TO THE MAJOR FUNTIONAL AREAS OF THE HOSPITAL AND MEDICAL COLLEGE WHILE THE SIXTH FLOOR HAS BEEN RECESSED FROM THE BUILDING LINE WHICH COMPRISES OF THE ADMINISTRATIVE

## • LANDSCAPE

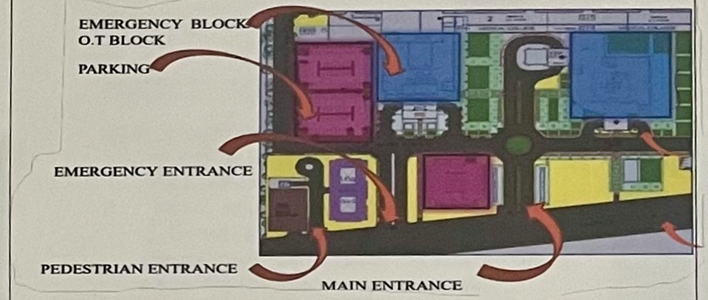
1. EMPHASIS HAS BEEN LAID ON THE MIX USE OF HARD AND SOFT AREAS FOR LANDSCAPING.
2. SOFT AREAS ARE IN THE FORM OF SMALL SQUARE BOXES WHICH HAS BEEN FORMED IN BETWEEN HARD AREAS HAVING PROVISION OF A TREE IN THE CENTER ALONG WITH UPLIGHTING. ON ONE SIDE OF THIS BOX SITTING IS ALSO PROVIDED WHICH ALLOW PEOPLE TO SIT IN OPEN WITH A TREE SHADING ABOVE THEM.
3. FLOOR HAS BEEN GIVEN A MATERIAL DIFFERENCE ( WASHED CONCRETE FINISH AND STONE ) WHICH SETS THE MOVEMENT PATTERN OF THE SPACE.
4. ALL THE ELECTRICAL WIRES HAVE BEEN LAID UNDERGROUND WHICH PREVENTS THE STATE OF CHAOS.
5. IN FRONT OF HOSPITAL ENTRANCE A WATER POOL HAS BEEN CONSTRUCTED WHICH CREATES A SOOTHING EFFECT IN SUMMERS.
6. PROVISION OF LANDSCAPE COURTYARDS HAS BEEN PROVIDED ALONG THE WARDS WHICH BRINGS A LOT OF LIGHT INSIDE THE BUILDING AND CREATES AN EFFECT OF GREEN SPACE INSIDE THE BUILDING.

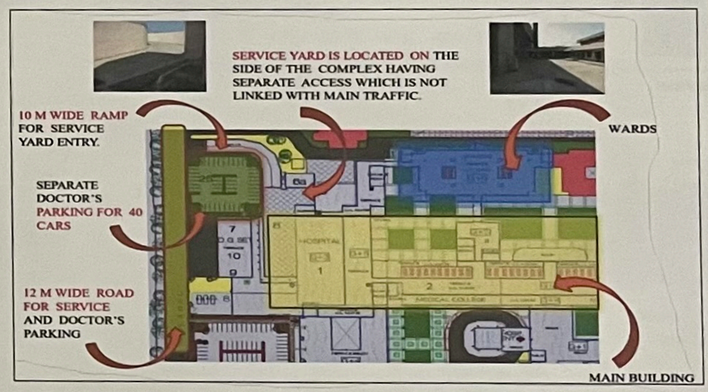
**PIMS HAS THREE ENTRANCE:**

• TO EMERGENCY.

• TO OPD.

• TO INSTITUTION AND HOSPITAL.



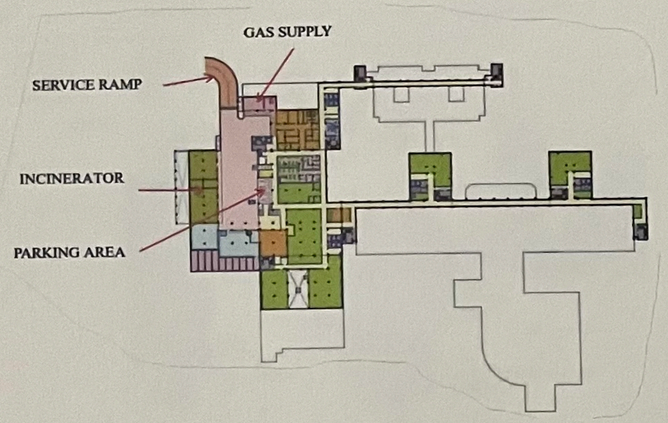




1. BUILDING IS DIVIDED INTO 5 MAIN BLOCK CONNECTED WITH MAIN CORRIDOR. SERVICE YARD HAS BEEN PROVIDED IN THE BASEMENT WHICH HAS A DIRECT ACCESS THROUGH A SERVICE RAMP CONNECTED TO PERIPHERY ROAD.
2. INTER-RELATIONSHIPS BETWEEN EMERGENCY,OPD,DIAGNOSTICS AND OPERATION THEATRE HAS BEEN WORKED OUT IN AN ADEQUATE MANNER WHICH FULFILL THE FUNCTIONS AND AT THE SAME TIME ACHIEVE THE REQUIRED AREAS.

# MEDICAL COLLEGE - CASE STUDY


PROJECT-1
BY:-GURUPRASAD.K.CHABUKSWAR
ROLL NO:-03
F.Y B.ARCH
SSSMS COA, SOLAPUR

# PUNJAB INSTITUTE OF MEDICAL SCIENCES




## BASEMENT PLAN

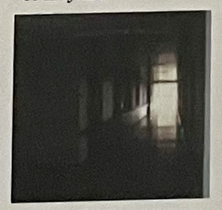
THE BASEMENT CONSIST OF:-

1. MAJOR SERVICES SUCH AS GAS SUPPLY,INCEINERATORS,RECIEVE STORE,LAUNDRY,BOILERS,ELECTRICAL ROOM,WATER TANKS,CENTRAL STERILE SERVICES DEPARTMENT(CSSD),AIR HANDLING UNIT
2. THE BASEMENT IS INTERCONNECTED TO ALL THE 10 PARTS CONNECTED VIA CORRIDORS THE BASEMENT CONSIST OF TOTAL 9 STAIRCASES
3. BASEMENT CONSIST OF A SERVICE YARD AND LOADING DOCK WHICH IS OPEN TO SKY
4. THERE IS A SEPARATE ENTRANCE FOR LARGE VEHICLES THROUGH RAMP

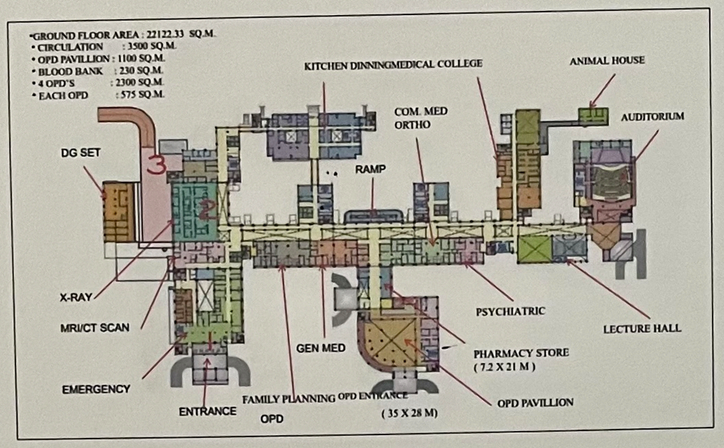
View of the enterior ramp

Internal view of courtyard

Exterior view of emergency



BASEMENT CORRIDOR



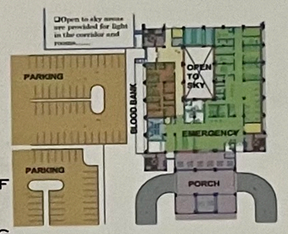

## GROUND FLOOR PLAN

PART- I CONSIST OF:-

1. PORCH
2. EMERGENCY BLOCK
3. BLOOD BANK

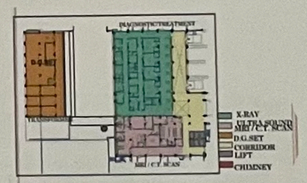
STRUCTURE:-

1. THE SQUARE STRUCTURAL GRID OF 7.2MX7.2M
2. STAFF PARKING AND VISITOR'S PARKING ARE PROVIDED ON LEFT SIDE OF THE BUILDING




PART-2 CONSIST OF:-

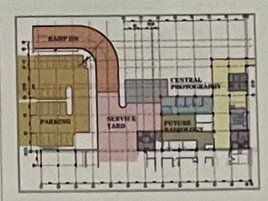
1. DIAGNOSTIC TREATMENT AREA
2. D.G SET
3. XRAY AREA
4. ULTRASOUND AREA
5. MRI AREA



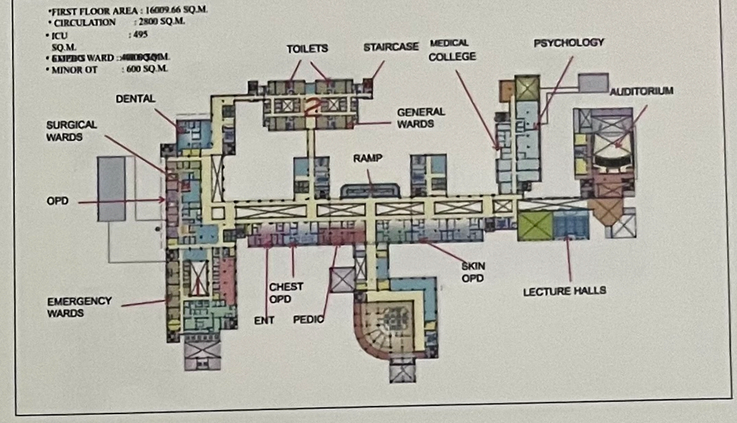

PART 2- GROUND FLOOR

PART-3 CONSIST OF:-

1. SERVICE YARD
2. RAMP
3. RADIOLOGY DEPARTMENT
4. CENTRAL PHOTOGRAPHY AREA
5. PARKING



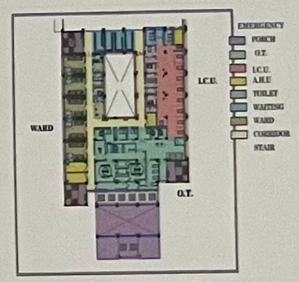

PART 3- GROUND FLOOR




## FIRST FLOOR PLAN

PART- I CONSIST OF:-

1. 9 ICU BEDS AND 1 ISOLATION BED WITH THE SUPPORT ROOMS ARE IN ICU AREA
2. EACH ICU BED IS PROVIDED WITH 3.0MX2.5M AREA AND THE WHOLE OPERATION THEATRE COMPLEX IS ISOLATED FROM THE ICU AND THE VISITORS AREA
3. FIRST FLOOR CONTENTS THE TOTAL INTAKE OF 35 BEDS IN TOTAL
4. THE ICU'S AND OT'S ARE RESTRICTED AREAS AND VISITOR'S ARE NOT ALLOWED




FIRST FLOOR-PART-1

PART-2 CONSIST OF:-

1. 9 ICU BEDS AND 1 ISOLATION BED WITH THE SUPPORT ROOMS ARE IN ICU AREA
2. EACH ICU BED IS PROVIDED WITH 3.0MX2.5M AREA AND THE WHOLE OPERATION THEATRE COMPLEX IS ISOLATED FROM THE ICU AND THE VISITORS AREA
3. FIRST FLOOR CONTENTS THE TOTAL INTAKE OF 35 BEDS IN TOTAL
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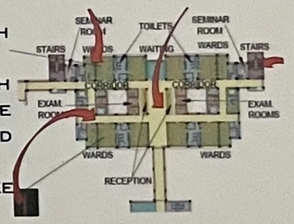


# MEDICAL COLLEGE - CASE STUDY

SSSMS COLLEGE OF ARCHITECHTURE, SOLAPUR Estd.1992

# PROJECT-1

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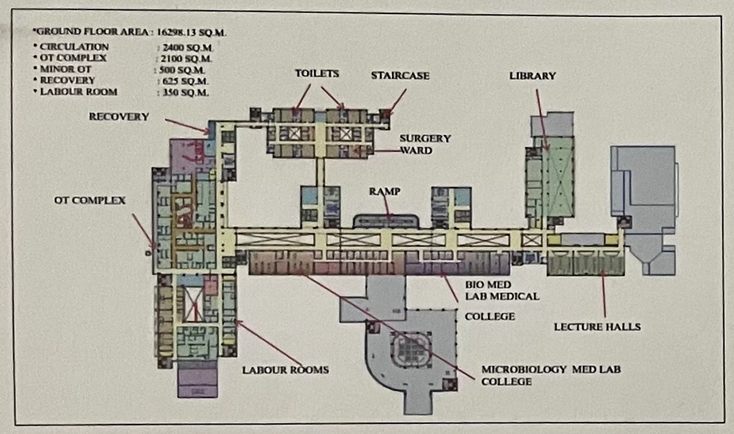
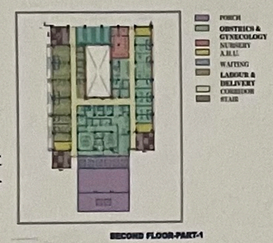



## SECOND FLOOR PLAN

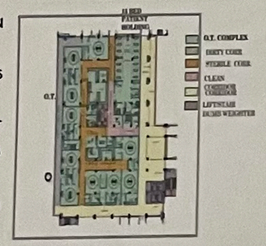
PART- I CONSIST OF:-

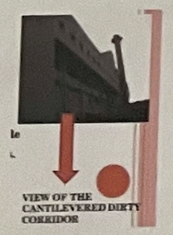
1. OPERATION THEATRE'S
2. GYNECOLOGY DEPARTMENT
3. LABOUR AND DELIVERY AREA
4. 5 BEDED INDEPENDENT WARDS
5. SUPPORT FACILITIES AND NURSE STATIONS
6. THE SUPPORT FACILITIES AND THE NURSE STATION ARE PLACED IN THE FRONT OF ASSIGNED DEPARTMENTS



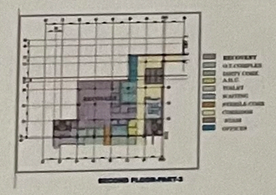

PART-2 CONSIST OF:-

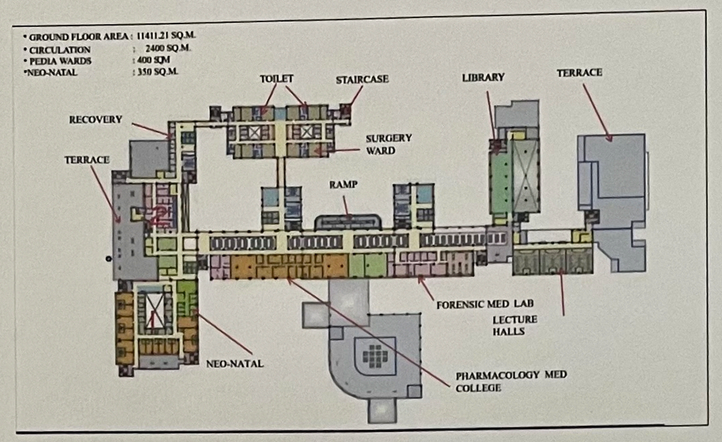
1. THE WHOLE CORRIDOR IS DIVIDED IN THREE TYPES(DIRTY,CLEAN,STERILE
2. STERILE CORRIDORS CONSIST OF OT'S AND 2 SEPTIC OT'S
3. THE CLEAN CORRIDOR CONSIST OF PATIENT HOLDING WHERE THE PATIENT'S BED ARE PREPARED FOR THE OT,S
4. THE DIRTY CORRIDOR IS CANTILEVERED FROM THE BUILDING AND IS 2.5M WIDE





VIEW OF THE CANTILEVERED DIRTY CORRIDOR


EMERGENCY BLOCK CORRIDOR

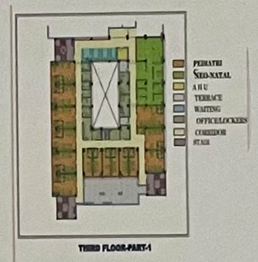


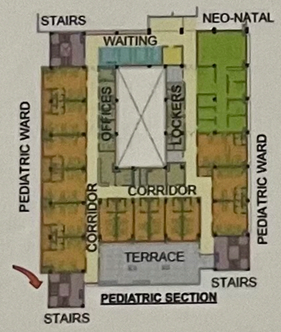



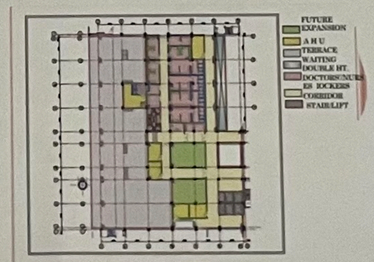

## THIRD FLOOR PLAN

PART- I CONSIST OF:-

1. NEONATOLOGY DEPARTMENT
2. PEDIATRIC WARD
3. GYNECOLOGY OT'S
4. THE ICU'S AND OT'S ARE RESTRICTED AREAS AND VISITOR'S ARE NOT ALLOWED
5. ALL THE SUPPORT FACILITIES ARE AROUND THE CENTRAL COURTYARD AND IN THE FRONT OF REQUIRED DEPARTMENTS
6. THIS HAVE A DEEP INTERRELATIONSHIP WITH THE BELOW DEPARTMENTS



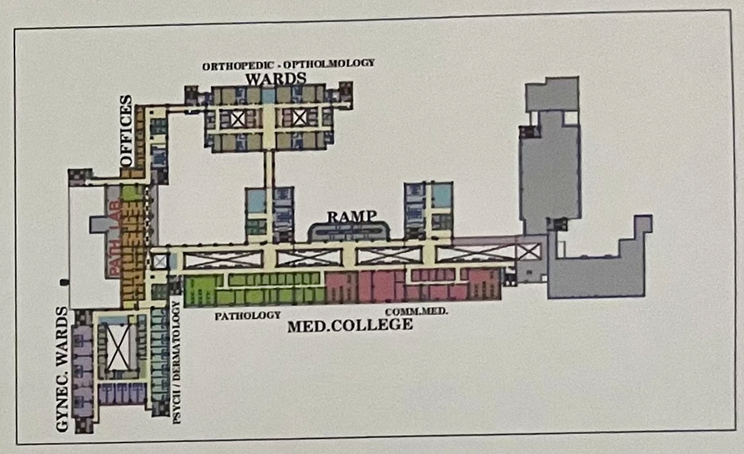



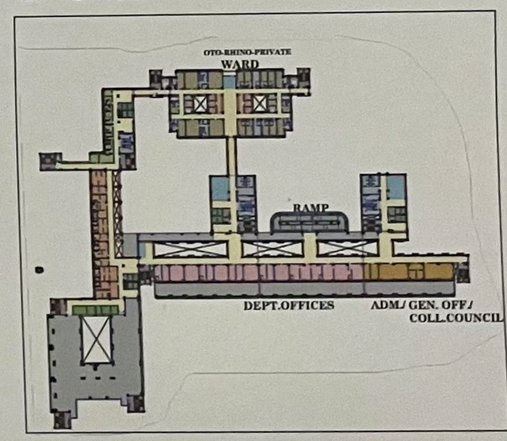




## FOURTH FLOOR PLAN

FORTH FLOOR CONSIST OF:-

1. MEDICAL COLLEGE
2. PATHOLOGY LABS
3. GYNECOLOGY WARDS
4. ORTHOPEDIC AND OPTHOLMOLOGY WARDS
5. OFFICES




## FIFTH FLOOR PLAN

FIFTH FLOOR CONSIST OF:-

1. DEPARTMENT OFFICES
2. ADMINISTRATION, GENERAL OFFICES, COLLEGE COUNCIL

# MEDICAL COLLEGE - CASE STUDY

SSSMS COLLEGE OF ARCHITECHTURE, SOLAPUR Estd.1992

**PROJECT-1**

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