Mahatma Education Society's
PILLAI COLLEGE OF ARCHITECTURE
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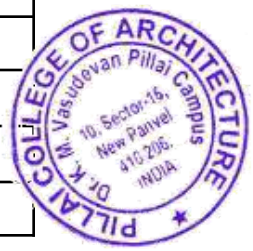
1.2. Academic Flexibility

1.2.1 List of Programmes in which choice based credit system (CBCS)/ Elective course system has been implemented

INDEX

AY 2023-24	Sem	Choice based credit system (CBCS)/ Elective course
Sr. no.		**B.Arch**
1	Sem 1	Fine Arts
2	Sem 2	Elements of Space making
3		Painting and Sculpture
4	Sem 3	Geometry in Architecture
5	Sem 4	Earthquake resistant buildings
6		Communication skills
7		Idea, Innovation & Patenting
8		Pre Design studies
9	Sem 5	Architecture, Anxiety and spirituality
10		Principles & Application of building sciences
11		Disaster relief shelter -
12		Project Management
13		Transportation
14	Sem 6	Parametric Design
15		Communication & organization management
16	Sem 7	Digital Tools and Techniques
17	Sem 9	Arch Heritage and conservation
18		Illustrations as Design Narratives
19	Sem 10	BIM
		M.Arch
20	Sem 1	GIS
21		Mapping and Representation



22	Sem 2	Urban & Architectural conservation
23		Theory & Methods of Urban Design
24	Sem 3	Real Estate & Land Management in Urban Design
25	Sem 4	UD Seminar

PRINCIPAL
PILLAI COLLEGE OF ARCHITECTURE
Dr. K. M. Vasudevan Pillai Campus,
10, Sector-16, New Panvel-410 206.

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: Elective		**Term: I**	**AY: 2023-24**	
Course Code: 121	**Credits : 03**	**Semester: 1**	**No of Periods per week : 1**	
Total Marks: 50	**Internal: 50**	**External: N/A**	**Theory Paper: N/A**	

Faculty:	Subject coordinator : Prof. Jayesh Patil Team Members: Prof Kedar Shinde, Prof. Sahil, Prof. Mahesh

INTRODUCTION:

Fine art plays a crucial role in the education of architecture students. It provides a foundation for creativity, expression, and the development of skills. Fine art encompasses various artistic disciplines, including painting, sculpture, drawing, and more.

Methodology:

Aim: Fine art elective for architecture students can enhance their creative and design skills. It improve their sketching and visualization abilities. Learning this subject will enhance their awareness. It will help them in freehand sketching and hands-on working.

Objectives:- **1- Execution of types of lines, shapes, forms, natural objects, manmade objects using different types of pencils, pens, colours, papers, etc.**
2- Water colour handling - Different types of water colours (poster, water and acrylic) and application of these in their assignments as per the instructions.
3- Outdoor sketching (Urban sketches, Natural objects, human figures with their proportion)
4- 2D designs - Composition using geometrical shapes and forms and their shape and shadow.
5- Different types of color schemes - Monochromatic color scheme, Complementary color scheme, Analogous color scheme and usage/application of this in their assignments when needed.

PROCESS:

1. **Please explain the methods of Conduction of classes and studios wrt aim and objectives.**
   An effective and engaging learning environment is created for students. Students are given practical work so that they enhance their experiences, improve their drafting and freehand sketching skills and colour knowledge, various types of pencil handling and implementation skills. The proposed method combines various student - centered ways in order to develop their interest, focus and coordination among groups and knowledge about various fine art materials. Organizing regular lectures and workshops help students improve their work. The lecture are mostly focused on practical work and its process with respect to the techniques. They are guided for making an impressive portfolio to showcase their own work. Many PPT presentations are shown to the students to make them aware about the fundamental and process of their work. It also enhances their presentation skills of their own work. Students are given practical demo of topics and made aware about various techniques to handle things and given knowledge about material required for practical work.
   Students are taught to handle various types of materials, pencils, etc. Freehand drawing is focused on the lectures and students learn types of lines in freehand drawing. It enhances their control on hand, improves their visualizing and observation skills with the help of outdoor sketching. Landscape painting using water colours and their techniques helps the student to learn about different colours and their application. Pencil rendering, learning shade and shadows and implementing them in their work using pencil rendering is also learnt by the students. Students also learn composition of 2D design using geometrical shapes and other natural or manmade elements as well as application of colours like water or poster colours, pencil colours, with rendering in it.

2. **Tools and techniques used for course conduction.**
   Various tools and techniques are very crucial for a strong foundation of architecture students. They enhance their practical experience and helps in developing their interests in different topics. They can develop and enhance their hands-on work skills.
   1- Lectures: Organizing regular sessions and lectures help students improve their work. The lecture are mostly focused on practical work and its process with respect to the techniques. Students are given real world examples of famous architectures. They are guided for making an impressive portfolio to showcase their own work.
   2- Presentations: Many PPT presentations are shown to the students to make them aware about the fundamental and process of their work. It also enhances their presentation skills of their own work. Students are given practical demo of topics and made aware about various techniques to handle things and given knowledge about material required for practical work.
   3- Drafting: Students are taught about different types of papers and their qualities, and which paper to use for what work as well as regarding developing their drafting skills and materials needed for it, like pencils, water colour pencils, pens, poster colours, etc., and correct way of using them.

4- Sketching: Freehand sketching is the most important part for architecture students. Students are trained in freehand architectural sketching, urban sketching, and outdoor sketching to quickly convey their ideas and concepts. Correct proportions and perspectives of each object is taught to them.

3. **Which are the innovative approaches adopted in this semester?**
   New equipment and materials with tools and techniques were introduced to develop the necessary skills of the students. Types of rotaring pens, micron pens, types of charcoal or colour pencils were taught to handle which helped in increasing the self-confidence of students. Techniques for composition and displaying an art work was introduced and techniques were taught.

4. **Explain the approaches used to encourage library usage by students and faculty.**
   Students were instructed to read and learn about some architectural histories and some art related books and make notes from the books like sketching master class, Color drawing, Rendering with pen and ink, Drawing shortcuts etc.

5. **How and to what extent, the aim and objectives are achieved. How COs are aligned to each lecture and assignment and assess the outcomes wrt the same:**
   An effective and engaging learning environment is created for students. Students are given practical work so that they enhance their experiences, improve their drafting and freehand sketching skills and colour knowledge, various types of pencil handling and implementation skills. The proposed method combines various student - centered ways in order to develop their interest, focus and coordination among groups and knowledge about various fine art materials. Organizing regular lectures and workshops help students improve their work. The lecture are mostly focused on practical work and its process with respect to the techniques. They are guided for making an impressive portfolio to showcase their own work. Many PPT presentations are shown to the students to make them aware about the fundamental and process of their work. It also enhances their presentation skills of their own work. Students are given practical demo of topics and made aware about various techniques to handle things and given knowledge about material required for practical work.
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   1st Assignment - Drawing freehand lines enhances hand-eye coordination and fine motor skills.
   Without the constraints of tools, individuals often tap into their creativity, exploring unique

shapes and patterns.
Freehand drawing encourages close observation of the subject, helping individuals see and replicate details more accurately.
Over time, practicing freehand lines can boost confidence in one's drawing abilities and overall artistic skills.
Freehand lines often capture spontaneity and emotion, allowing artists to express themselves more freely compared to structured methods.
2nd Assignment - Gradation: Using different grades allows artists to create a range of tones, adding depth, dimension, and realism to drawings or sketches.
Various pencil grades enable artists to capture intricate details and textures more effectively, enhancing the overall quality and realism of the artwork.
With a range of pencils, artists can seamlessly transition between light, medium, and dark shades, achieving a broader spectrum of tones within a single piece.
Different grades offer varying levels of control, allowing artists to achieve precise lines or soft shading based on the desired effect.
Pencil gradation enhances an artist's expressive potential, enabling them to convey mood, emotion, and atmosphere through nuanced shading techniques.
3rd Assignment – Colour pencil gradation and textures: Practicing color pencil gradation helps artists achieve smoother transitions between shades, leading to more realistic and lifelike representations in their artwork.
By focusing on different textures like fur, wood grain, or fabric, artists can develop skills to mimic real-world surfaces, adding depth and detail to their creations.
Working with color pencils enhances an artist's understanding of color theory, including complementary colors, shading, and blending techniques.
4. Using colored pencils allows for vibrant and expressive artwork. Grading and texture assignments offer artists the freedom to experiment with colors and textures, fostering creativity.
5. Regular practice with color pencil gradation and texture assignments strengthens hand-eye coordination, fine motor skills, and observational abilities.
Colored pencils offer a versatile medium, suitable for various styles and subjects. Mastering gradation and texture techniques expands an artist's repertoire, enabling them to tackle a wide range of artistic challenges.
4th Assignment – 2D Design composition: Engaging in 2D design composition assignments helps individuals grasp essential design principles like balance, contrast, unity, rhythm, and emphasis.
Practicing 2D design composition enhances one's ability to communicate ideas, messages, or concepts visually through effective layout, organization, and arrangement of elements.
Designing a 2D composition requires critical thinking and problem-solving, as artists must make deliberate decisions about placement, scale, color, and other elements to achieve their desired outcome.
These assignments encourage creative thinking and experimentation, pushing individuals to explore new ideas, techniques, and approaches to design challenges.
Working on 2D design compositions improves technical skills, such as using design software,

understanding color theory, and manipulating various design elements effectively. Completing 2D design composition assignments allows artists and designers to build a diverse portfolio showcasing their skills, creativity, and versatility in 2D design principles.

6. **Extent of horizontal and vertical integration achieved.**

Horizontal and vertical integration are concepts in architecture that shows how different elements and processes come together in a project.

Horizontal integration plan focuses on the coordination and integration of various ways, designs and processes across a project. It involves combining and bringing together of different students in a group coordination with various opinions and ideas to collaboratively work on a single project and carry it out effectively with making and achieving the goals and effective decisions. This horizontal plan involves collaboration of students, enhancing effective communication among them and being consistent towards the group work for a good result.

Vertical integration plan involves the integration of various stages and phases of a project till the completion which includes the involvement of a single student individually. It focuses and would help students to enhance their decision making ability and self-confidence towards their opinions and ideas. It also helps in improvement of managing skills carrying out the work in effective cost and time successfully.

Both horizontal and vertical integration plans and approaches in architecture have their own advantages and can be applied to different types of architectural projects, model making individually, depending on various factors and the project size, complexity, and demand of each project.

Extent of adherence to the Course Plan and schedule of submission prepared before the course started.

Students are given assignments according to the Course plan, the schedule of submission might not always be on time since it is more focused on giving time to students for doing their work patiently. The expected outcomes is hence focused rather than the time. Proper knowledge about various materials is given to the students. Ways of handling of various material like types of pencils, colours, is taught to the students as per the course prepared. Sometimes more time might be required for a particular topic, but the intention to teach the students properly with all the expected details is always met. All the rules and regulations as well as aims & objectives are always tried to be achieved.

7. **Explain with the help of each assignment and students work.**

1st Assignment - Drawing freehand lines enhances hand-eye coordination and fine motor skills. Without the constraints of tools, individuals often tap into their creativity, exploring unique shapes and patterns.

Freehand drawing encourages close observation of the subject, helping individuals see and replicate details more accurately.

Over time, practicing freehand lines can boost confidence in one's drawing abilities and overall artistic skills.

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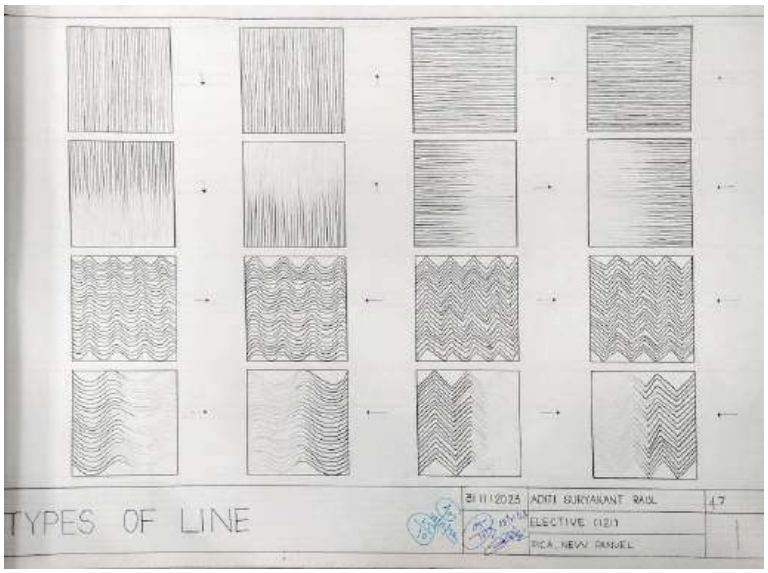
Working on 2D design compositions improves technical skills, such as using design software, understanding color theory, and manipulating various design elements effectively.

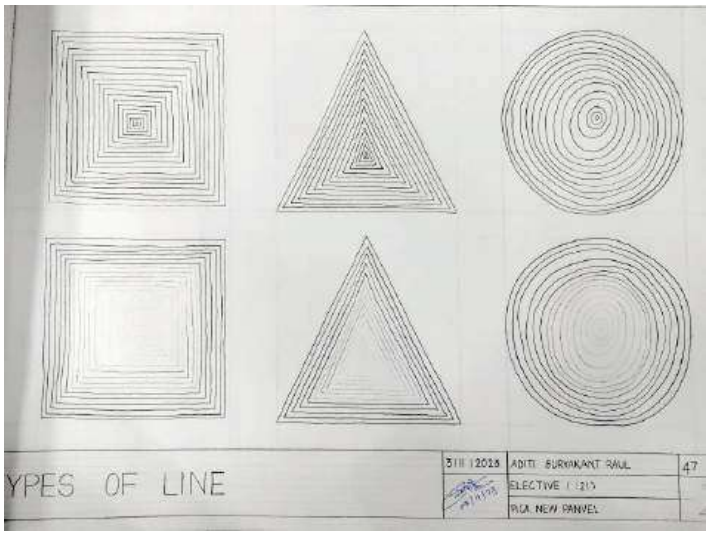
Completing 2D design composition assignments allows artists and designers to build a diverse portfolio showcasing their skills, creativity, and versatility in 2D design principles.

8. **Scope for improvement in future (next year).**
   New materials which are necessary would be introduced with their techniques. If some new material in the market will be available which is related with the assignments, it may be introduced to the students. Moreover, if the students would get an opportunity to visit some architectural historical places and monuments, then it be beneficial for the students to understand outdoor sketching and landscaping and working on field properly. Experts of particular subjects can be called to visit the students and provide them with some more knowledge.
9. **Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.**
   N/A

Course Plan Submitted v/s completed				
Subject: Elective			Course Code: 121	
Faculty: Prof. Jayesh Patil, Prof Kedar Shinde, Prof. Sahil, Prof. Mahesh				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
13/10/2023	**Types of lines**	**Different Types Of Line With Hb, 2b, 4b, 6b, 8b, 10b Pencil**	**Yes**	**CO - 1**
3/11/2023	**2D Design (pencil composition)**	**Composing a 2D Design**	**No**	**CO - 4**
10/11/2023	**Graphite pencil gradation**	**Gradation With graphite pencils**	**Yes**	**CO - 5**
24/11/2023	**Colour pencil gradation & textures**	**Gradation With Colour Pencil , Poster Colour, Water Colour and textures**	**Yes**	**CO – 2 CO – 5**
15/12/2023	**2D Design with colour pencil and textures**	**Implementation of colours using different textures**	**Yes**	**CO – 2 CO - 4 CO – 5**
22/12/2023	**PRE FINAL SUBMISSION**	**-**	**Yes**	**-**
05/01/2024	**FINAL SUBMISSION**	**-**	**Yes**	**-**

ASSIGNMENT 1- TYPES OF LINES


TYPES OF LINE
31/1/2023
ADITI SURYAKANT RAUL
47
ELECTIVE (121)
PICA, NEW PANVEL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47
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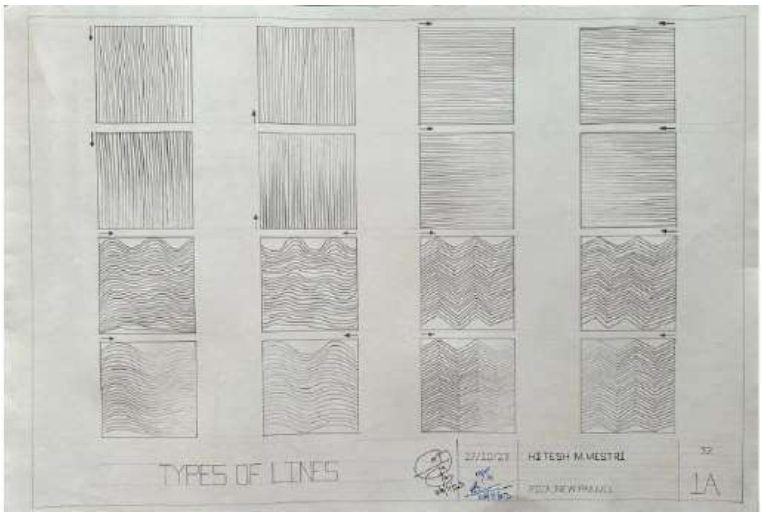
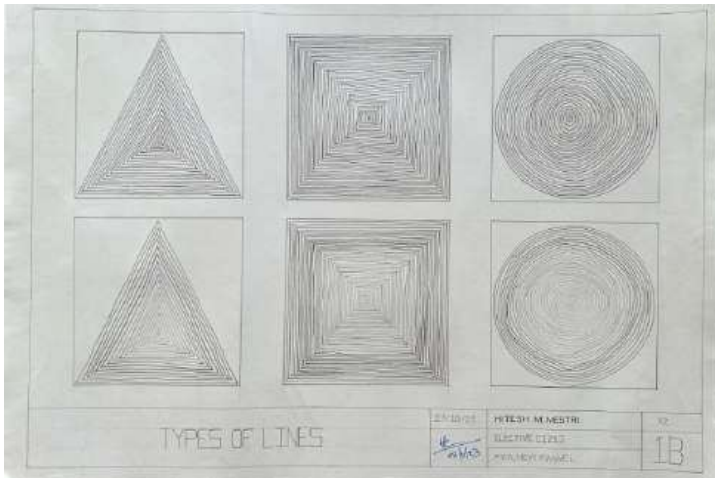
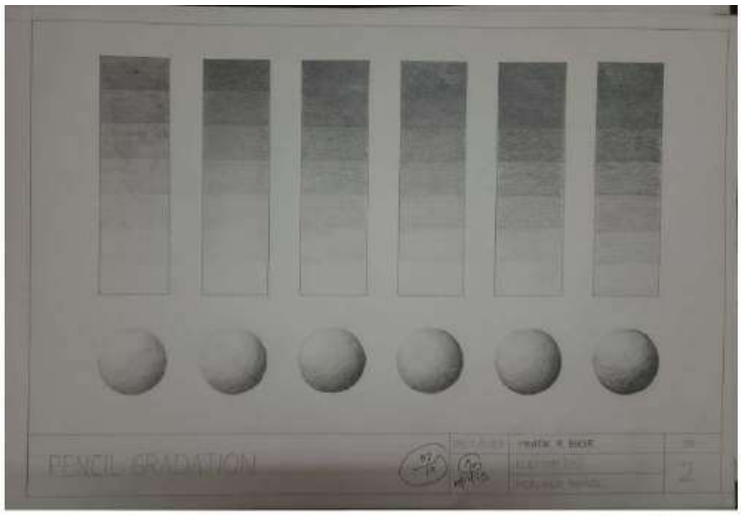
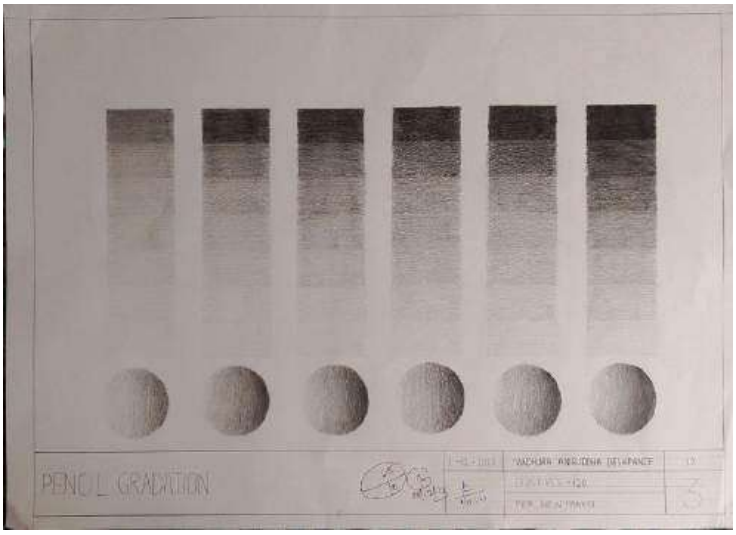
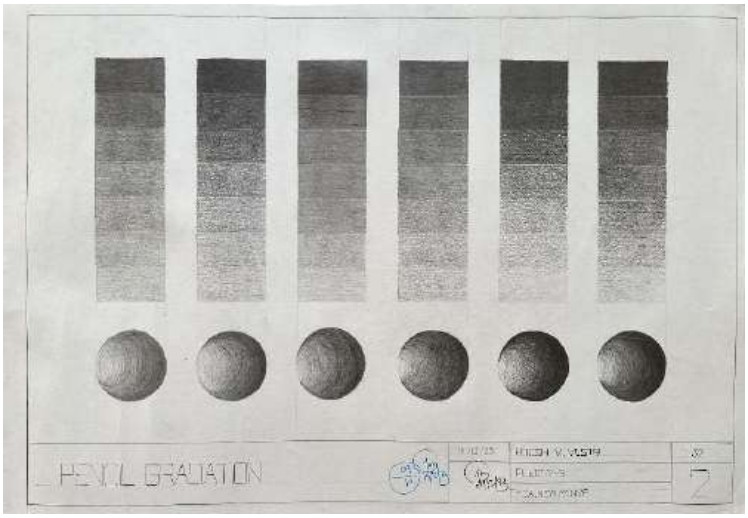

TYPES OF LINES
27/10/23
HITESH M.MESTRI
32
1A

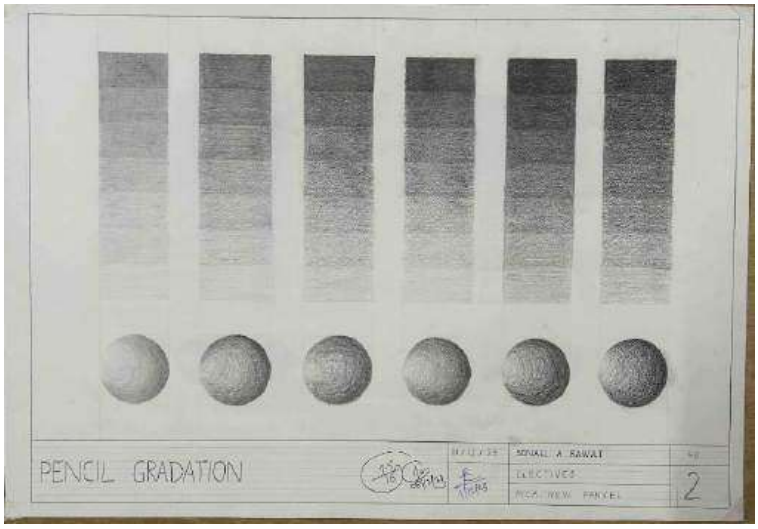

TYPES OF LINES
HITESH M.MESTRI
1B

ASSIGNMENT 3- GRAPHITE PENCIL GRADATION

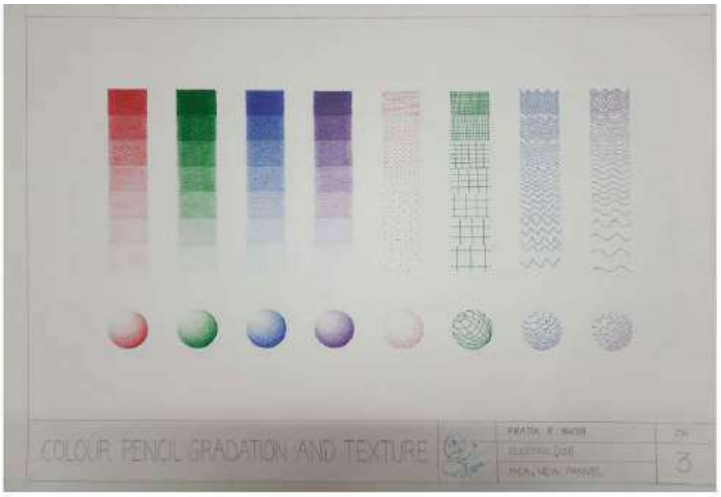








ASSIGNENT 4 - COLOUR PENCIL GRADATION & TEXTURES



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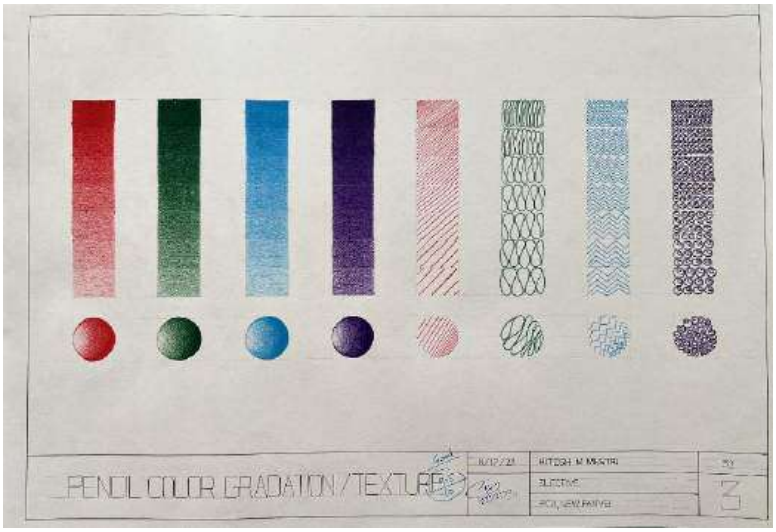
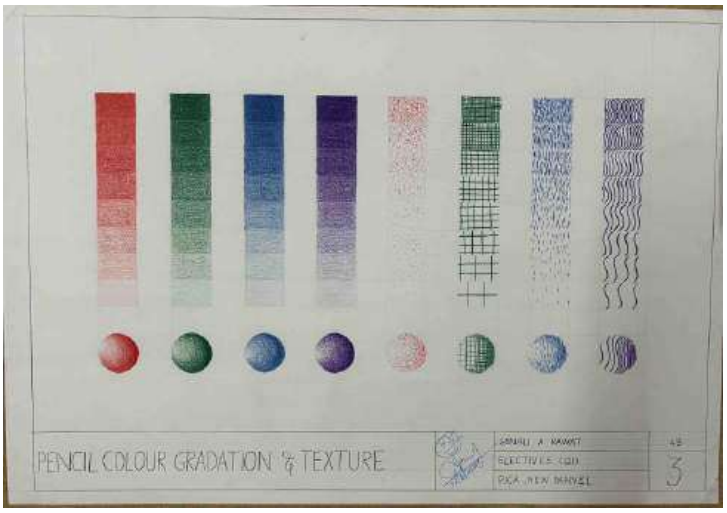
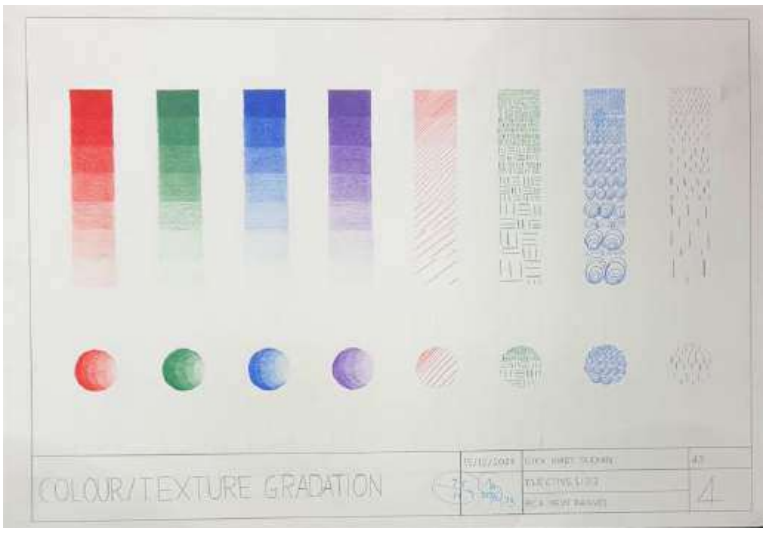
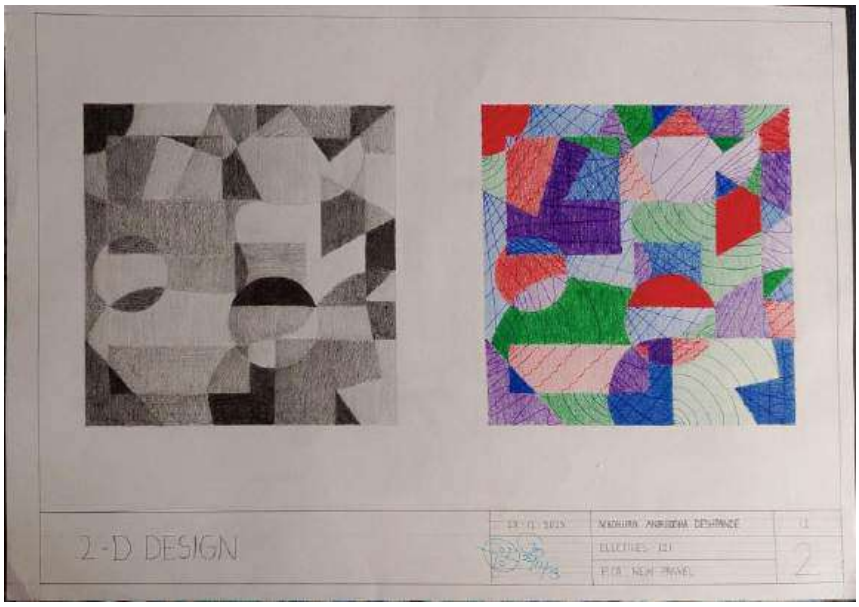






ASSIGNENT 5 - 2D DESIGN WITH COLOUR PENCIL AND TEXTURES



M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: Elective		**Term: II**	**AY: 2023-24**	
Course Code: 221	**Credits : 03**	**Semester: 1**	**No of Periods per week : 1**	
Total Marks: 50	**Internal: 50**	**External: N/A**	**Theory Paper: N/A**	

Faculty:	Subject coordinator : Prof. Jayesh Patil

INTRODUCTION:

Fine art plays a crucial role in the education of architecture students. It provides a foundation for creativity, expression, and the development of skills. Fine art encompasses various artistic disciplines, including painting, sculpture, drawing, and more.
Students can create wall murals, relief art work, geometrical carving etc...
Students should get familiar with the material and its properties, also students will be able to learn the proper technique of using tools for carving with drill machine, hammer, handsaw, wooden chisel
Student can develop relief/round sculpture model making skill.
It is especially beneficial to students, it helps to promote self-confidence.
Clay sculpting is a hands-on activity that enables the students to learn how to manipulate and shape clay using their hands. It is an excellent way to develop fine motor skills and sensory awareness.

Methodology:

Aim: Fine art elective for architecture students can enhance their creative and design skills. It improve their sketching, sculpting, painting and visualisation abilities. Learning this subject will enhance their awareness. It will help them in freehand sketching and hands-on working.
To Acquire basic sculpting (clay application) skills.
Introducing students to various materials and techniques used in making sculpture models.
Enabling Students to make sculpture models for study and presentation.

Objectives:-

CO1:	Depending on their knowledge and skills of modelling clay and other raw materials as well as different types of colours, canvas and papers
CO2:	Assembling and carving techniques using sculpting tools in their works, different types of brushes and their using techniques with sketch composition, Color filling accuracy and their creativity
CO3:	Conversion of 2D shapes into 3D forms using modelling clay and on canvas using shades and tones of colours
CO4:	Study of principles and elements of design and application in assignments
CO5:	Finishing, Cleanliness, casting, preservation and reproduction of sculptures and painting techniques

PROCESS:

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   An effective and engaging learning environment is created for students. Students are given practical work so that they enhance their experiences, improve their drafting and freehand sketching skills and colour knowledge, various types of pencil handling and implementation skills. The proposed method combines various student - centered ways in order to develop their interest, focus and coordination among groups and knowledge about various fine art materials. Organizing regular lectures and workshops help students improve their work. The lecture are mostly focused on practical work and its process with respect to the techniques. They are guided for making an impressive portfolio to showcase their own work. Many PPT presentations are shown to the students to make them aware about the fundamental and process of their work. It also enhances their presentation skills of their own work. Students are given practical demo of topics and made aware about various techniques to handle things and given knowledge about material required for practical work.

Students are taught to handle various types of materials, pencils, etc. Freehand drawing is focused on the lectures and students learn types of lines in freehand drawing. It enhances their control on hand, improves their visualizing and observation skills with the help of outdoor sketching. Landscape painting using water colours and their techniques helps the student to learn about different colours and their application. Pencil rendering, learning shade and shadows and implementing them in their work using pencil rendering is also learnt by the students. Students also learn composition of 2D design using geometrical shapes and other natural or manmade elements as well as application of colours like water or poster colours, pencil colours, with rendering in it.

Assignment – SCULPTURE MAKING: Begin by introducing the concept of sculpture and its relevance to architecture. Discuss famous sculptors, sculptural styles, and the integration of sculpture into architectural design. Teach fundamental sculptural principles such as form, scale, proportion, balance, and rhythm. Emphasize the importance of three-dimensional thinking and spatial awareness. Introduce a variety of materials suitable for sculpture, such as clay, wire, wood, metal, or found objects. Provide basic tools like sculpting tools, knives, sandpaper, and adhesives. Encourage students to gather inspiration from their surroundings, architectural history, nature, or personal experiences. Encourage the use of sketches, models, and digital tools to develop and visualize their ideas.

Extent of horizontal and vertical integration achieved.

Horizontal and vertical integration are concepts in architecture that shows how different elements and processes come together in a project.

Horizontal integration plan focuses on the coordination and integration of various ways, designs and processes across a project. It involves combining and bringing together of different students in a group coordination with various opinions and ideas to collaboratively work on a single project and carry it out effectively with making and achieving the goals and effective decisions. This horizontal plan involves collaboration of students, enhancing effective communication among them and being consistent towards the group work for a good result.

Vertical integration plan involves the integration of various stages and phases of a project till the completion which includes the involvement of a single student individually. It focuses and would help students to enhance their decision making ability and self-confidence towards their opinions and ideas. It also helps in improvement of managing skills carrying out the work in effective cost and time successfully.

Both horizontal and vertical integration plans and approaches in architecture have their own advantages and can be applied to different types of architectural projects, model making individually, depending on various factors and the project size, complexity, and demand of each project.

Extent of adherence to the Course Plan and schedule of submission prepared before the course started.

Students are given assignments according to the Course plan, the schedule of submission might not always be on time since it is more focused on giving time to students for doing their work patiently. The expected outcomes is hence focused rather than the time. Proper

knowledge about various materials is given to the students. Ways of handling of various material like types of pencils, colours, is taught to the students as per the course prepared. Sometimes more time might be required for a particular topic, but the intention to teach the students properly with all the expected details is always met. All the rules and regulations as well as aims & objectives are always tried to be achieved.

6. **Explain with the help of each assignment and students work.**
7. Begin by introducing the concept of sculpture and its relevance to architecture. Discuss famous sculptors, sculptural styles, and the integration of sculpture into architectural design. Teach fundamental sculptural principles such as form, scale, proportion, balance, and rhythm. Emphasize the importance of three-dimensional thinking and spatial awareness. Introduce a variety of materials suitable for sculpture, such as clay, wire, wood, metal, or found objects. Provide basic tools like sculpting tools, knives, sandpaper, and adhesives. Encourage students to gather inspiration from their surroundings, architectural history, nature, or personal experiences. Encourage the use of sketches, models, and digital tools to develop and visualize their ideas.

8. **Scope for improvement in future (next year).**
   New materials which are necessary would be introduced with their techniques. If some new material in the market will be available which is related with the assignments, it may be introduced to the students. Moreover, if the students would get an opportunity to visit some architectural historical places and monuments, then it be beneficial for the students to understand outdoor sketching and landscaping and working on field properly. Experts of particular subjects can be called to visit the students and provide them with some more knowledge.
9. **Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.**
   N/A

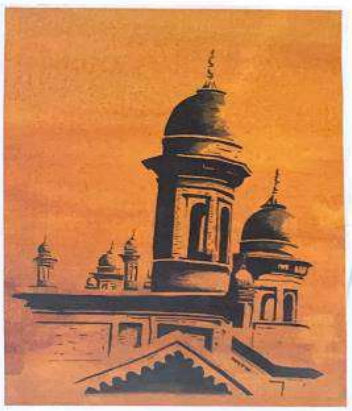
Course Plan Submitted v/s completed				
Subject: Elective			Course Code: 221	
Faculty: Prof. Jayesh Patil				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
15/03/2024	**Pencil composition sketches for sculpture/ painting**	**Making pencil sketches for sculpture/painting**	**Yes**	**CO - 4**
22/03/2024	**Sculpture/painting making**	**Starting to form the sculpture using clay referring to the**	**No**	**CO - 2 CO – 3 CO - 4**

		sketch/start painting according to rough sketch		
12/03/2024	**Finishing and texture of sculpture/painting**	**Texturing and finishing the sculpture with tools and painting**	**Yes**	**CO - 5**
12/03/2024	**FINAL SUBMISSION**	**Final submission of the ready sculpture/painting**	**Yes**	**-**

ASSIGNMENT – SCULPTURE MAKING (CLAY)

THE NATIONAL COLLEGE OF ARTS

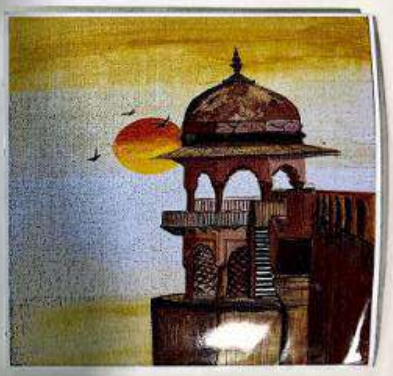
The National College of Arts (colloquially known as NCA) is a public university located in Lahore, Punjab, Pakistan. The institute was originally founded in 1876 as the Mayo School of Industrial Arts and was one of the two art colleges created by the British India in reaction to the Arts & Crafts Movement. It was named in honor of the recently assassinated British Viceroy Lord Mayo in 1876.



	MOHIT B. PATIL	41
	ELECTIVES	
	PICA, NEW PANVEL	

JAIGARH FORT

JAIGARH FORT IS SITUATED ON THE PROMONTORY CALLED THE CHEEL KA TEELA (HILL OF EAGLES) OF THE ARAVALLI RANGE, IT OVERLOOKS THE AMER FORT AND THE MAOTA LAKE, NEAR AMER IN JAIPUR, RAJASTHAN, INDIA. THE FORT WAS BUILT BY MIRZA RAJA JAI SINGH IN 1726 TO PROTECT THE AMER FORT AND ITS PALACE COMPLEX AND WAS NAMED AFTER HIM. THE MATERIAL USED IN FORT IS, RED SANDSTONE. THE FORT, RUGGED AND SIMILAR IN STRUCTURAL DESIGN TO THE AMER FORT IS ALSO KNOWN AS VICTORY FORT. IT HAS A LENGTH OF 4 KM ALONG THE NORTH-SOUTH DIRECTION AND A WIDTH OF 1 KM. THE FORT FEATURES A CANNON NAMED 'JAIVANA' WHICH WAS MANUFACTURED IN THE FORT PRECINCTS AND WAS THEN THE WORLD'S LARGEST CANNON ON WHEELS. JAIGARH FORT AND AMER FORT ARE CONNECTED BY SUBTERRANEAN PASSAGES AND CONSIDERED AS ONE COMPLEX. THIS FORT, LOCATED ON ONE OF THE PEAKS OF THE ARAVALLI RANGE OF HILLS IS BUILT ABOUT 400 M ABOVE THE AMER FORT. IT PROVIDES AN EXCELLENT OF VIEW OF ARAVALLI HILLS AND AMER FORT BELOW.



10\04\2024	NUPUR MAHADIK	25
	ELECTIVE	
	PICA, NEW PANVEL	

THE LEANING TOWER OF PISA:

THE LEANING TOWER OF PISA IS A FREE-STANDING BELL TOWER OF PISA CATHEDRAL. IT IS KNOWN FOR ITS NEARLY FOUR DEGREE LEAN, THE RESULT OF AN UNSTABLE FOUNDATION. THE TOWER IS ONE OF THE STRUCTURES IN PISA'S CATHEDRAL SQUARE. THE ARCHITECT BONANNO PISANO BEGAN ITS CONSTRUCTION IN 1173. THE HEIGHT OF THE TOWER IS 56.84 METRES. THIS TOWER BEGAN TO LEAN DURING CONSTRUCTION IN 12TH CENTURY, DUE TO SOFT GROUND WHICH COULD NOT SUPPORT THE STRUCTURE. WEIGHT IT WORSENED THROUGH THE COMPLETION OF CONSTRUCTION IN 14 CENTURY. BY 1990 THE TILT HAD REACHED 5.5 DEGREES. THE STRUCTURE WAS STABILIZED BY REMOVAL WORK BETWEEN 1174 AND 2001, WHICH REDUCED THE TILT TO 3.97 DEGREES.

CANVAS PAINTING

01\04\2024	SARAJ S. CHETTY	24
	ELECTIVES	
	PICA, NEW PANVEL	

Format 4

M.E.S.				
PILLAI COLLEGE OF ARCHITECTURE, New Panvel				
C O U R S E R E P O RT				
Subject: Elective 2 (Elements of Space-making)		**Term: II**	**AY: 2023-24**	
Course Code: BAC 221	**Credits : 2**	**Semester: IV**	**No of Periods per week : 06**	
Total Marks: 50	**Internal : 50**	**External : 00**	**Theory Paper : 00**	

Faculty:	Subject coordinator : Prof. Suvarna Thakare Team Members:

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

Space-making is at the core of architectural practice. Architects create spaces that accommodate human needs and activities. The understanding of the fundamentals require for effective architectural design. The study of space-making introduces students to a holistic approach to design. It encourages them to think about how spaces interact with users, the environment, and other elements.

Methodology (All the following points must be addressed in ALL subjects)

Aim: The course aims to impart a foundational understanding of design fundamentals in space-making.

Objectives:-

- Introduce students to the fundamental concepts of space-making, emphasizing their role in architectural design.
- Develop skills for the systematic analysis of spaces using principles such as order, hierarchy, rhythm, scale, path space relationship, axis, sequential progress, and degree of enclosure.
- Foster the ability to apply learned principles in creative design projects through various studio

exercises.

PROCESS: (Please elaborate pointwise)

1. Please explain the methods of Conduction of classes and studios wrt aim and objectives.

   The process for the course consists of a combination of: lectures by faculty members on various topics, the ideas discussed in the lectures will be imbibed through sketching assignments which make students to think of arrangements of various space making elements.
   Students need to maintain their sketch journal to understand the journey. All the activities will be followed with detail discussion with the faculty member where they will get the feedbacks on their work.

2. Tools and techniques used for course conduction.
   - Faculty Lectures and Presentations – To explain the various space making elements faculty lectures were taken which included digital presentation and one to one discussion. A list of space making element where give with various attributes of it. Students were asked to do the detailed case study of existing structures and idetntify and understand how each space making element is used in those structures.

3. Which are the innovative approaches adopted in this semester?
   Students were given freedom to select the desired structure of study and mode of presentation.

4. Explain the approaches used to encourage library usage by students and faculty.
- Students were provided with a list of recommended books and encouraged to explore the library for additional relevant books or projects that could serve as sources of inspiration.

5. How and to what extent, the aim and objectives are achieved.
- Aim and objectives are achieved partely due to very late allotment of students to the course, short semester and NAAC visit.

6. Extent of horizontal and vertical integration achieved.

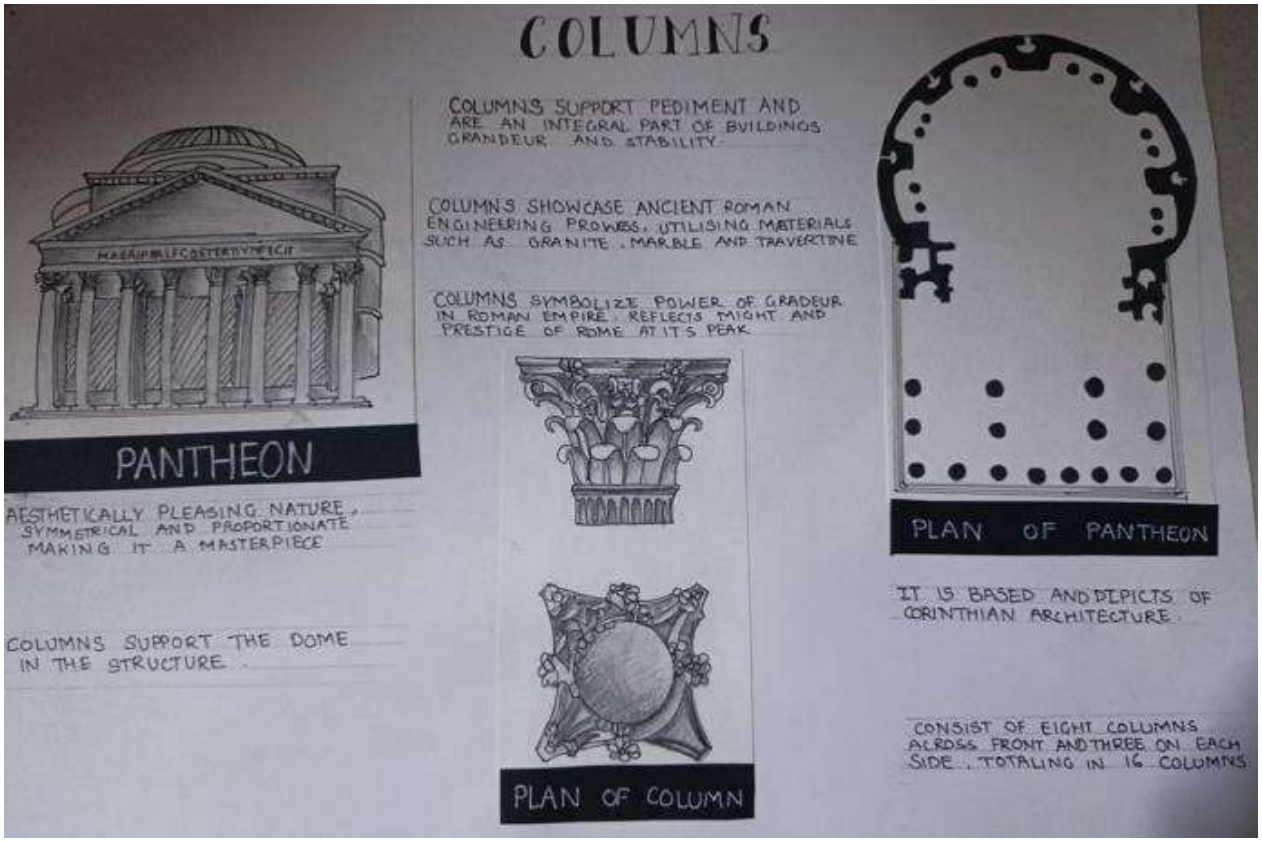
- Vertical Integration – The course will help students to design meaningful spaces for their AD projects.

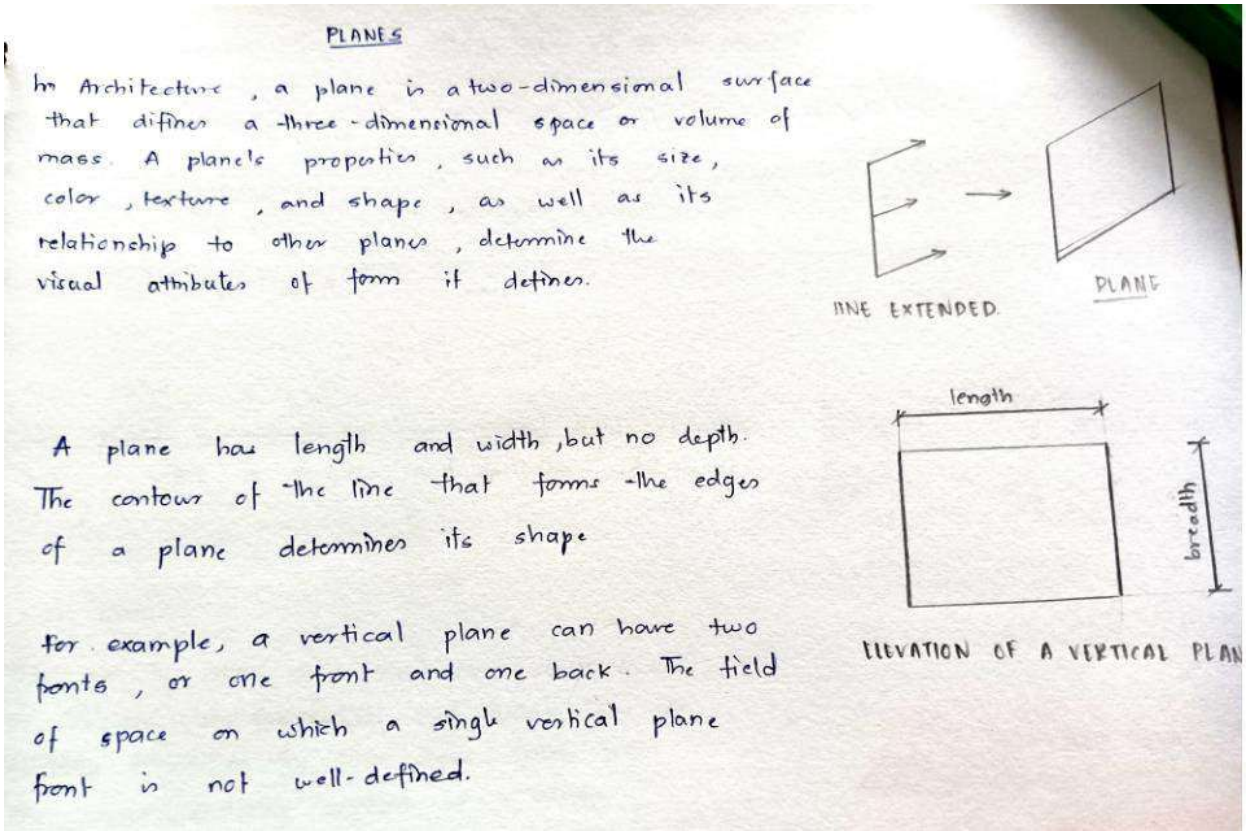
7. Extent of adherence to the Course Plan and schedule of submission prepared before the course started.
   The entire course plan and submission schedule went haywire due to NAAC visit and extracurricular activities in the lecture time.

8. Explain with the help of each assignment and student work.

Assignment 1 – Sketching and analysis of basic design elements is aligned with the CO1- Systematically analyze existing spaces, identify design elements and principles.

This assignment helped students to orient toward the subject and importance of space making through building elements.

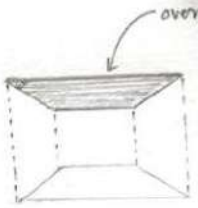




In Architecture, there are three types of generic planes.

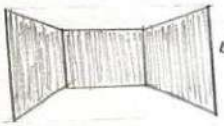
Overhead planes.

This can be either the roof plane or the ceiling plane. The roof plane protects the building's interior spaces from the elements, while the ceiling plane is the upper enclosing surface of a room



Wall plane

This plane is active in our normal field of vision and is vital to shaping and enclosing architectural space



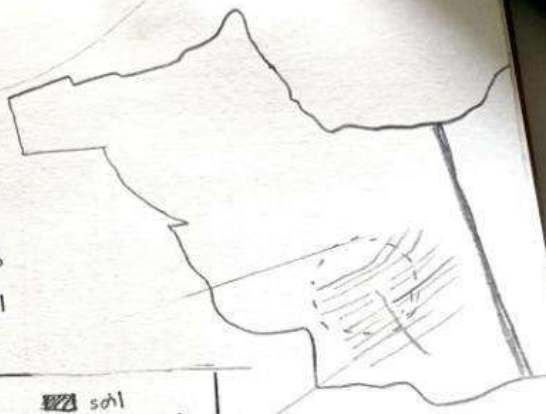
Base plane

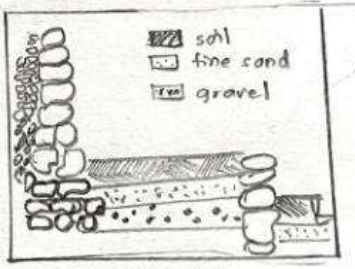
This can be either the ground plane, which serves as the physical foundation and visual base for building forms, or the floor plane, which forms the lower enclosing surface of a room.

Examples of Wall plane Architecture.

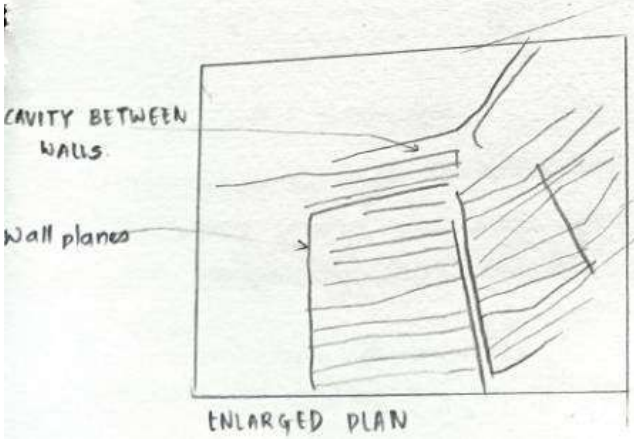
Machu Pichu

The peruvian historical sanctuary was elevated base plates, with polished dry-stone walls becoming the base plates edges as they increase in elevation. This technique results in a terraced building estate, where each raised space becomes platform for viewing the greater surrounding natural landscape





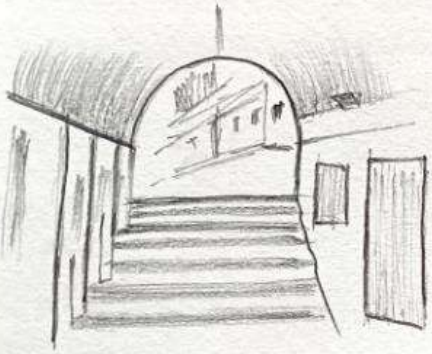
SECTION



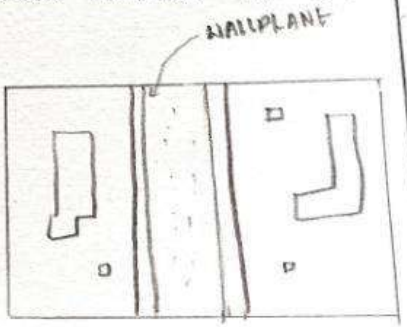
Here, you can see the extensive uses of wall planes in Machu-Picchu, to form terrace. The planes are slightly elevated in forms Making it a great viewing experience to our eyes

Venice streetscape

The facade of various buildings act as the two parallel planes of interest, pulling the pedestrian and vehicular movement in both directions towards the open ends.



Venice streetscape



PLAN

MAZE LIKE STRUCTURE

Also known as 'calli' in Italian, and are narrow winding passageways that weave through the city's maze-like layout.

Most streets in venice are Pedestrian-only, meaning they are not accessible to vehicles.

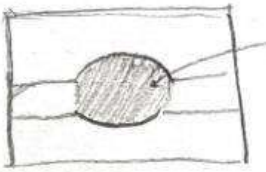
streetscape is how the buildings, gardens, paths and road work together to create the 'look and feel' of a street.

They make us feel visual sights.

A streetscape that looks inviting can increase market demand and property prices.

Base plane or Ground plane

This serves as the foundation of a building and forms the lower enclosing surface of a room.



DEPRESSED BASE PLAN

Example of Base plane are:

stage area at LCC

A depressed base plane that uses the vertical surfaces of the lower area to define a volume.

Here, the overuse of depressed base plan is expressed throughly. As it gives volume to the flat entity

Machu picchu: An elevated base plane where the walls becomes the base.

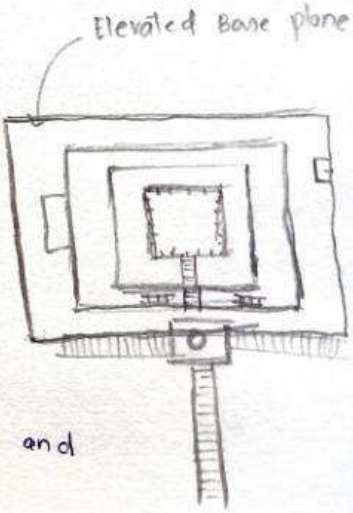
Elevated Base plane in ziggurat gives us a visual sensation, intriguing our thoughts, feeling and emotions.

Elevated Base plan:-

An elevated base plane is an elevated portion with base plane and delineates a specific territory.

Ex. ziggarut at Ur.

The different level of base plane (Terrace) are connected with stairs to make it accesible for human imagination.



PLAN of ZIQQURAT

Assignment 2 – presentation of the Assignment 1 is aligned with the CO3- Effective Communication of Design Intentions

This assignment helped students broaden their knowledge about the subject and made confident in communicating their thoughts.

9. Scope for improvement in future (next year).

- Allocating more time will help students to improve the understanding .

10. Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.

- Due to unpredictable circumstances site visit and guest lecture could not be arranged.

Course Plan Submitted v/s completed				
Subject: Elective 2 (Basics of Space-making)			Course Code: BARC 221	
Faculty: Prof. Suvarna Thakare				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	**Lecture1:** - - Overview of Architectural Design Fundamentals	Assignment 1: Sketching and analysis of basic design elements	Yes	CO1 - Systematically analyze existing spaces, identify design elements and principles

	Importance of Space-making in Architectural Design			and CO3 - Effective Communication of Design Intentions
2	**Lecture2:** - - Principles of Order and Organization - Systematic Approaches to Space-making	**Assignment 2**: Design exercises focusing on creating order in spatial arrangements	NO	CO1- Systematically analyze existing spaces, identify design elements and principles
3	**Lecture3:** - - Designing Pathways and Circulation Systems - Spatial Hierarchies through Paths - Understanding Axes in Architecture Achieving Symmetry and Balance	**Assignment 3:** Redesigning spaces to enhance user movement/ Adding various circulation pattern in Assignment 2 spatial arrangements **Assignment 4:** Case study of projects emphasizing axis and symmetry, hierarchy, rhythm, scale, enclosure in spatial layouts	NO	CO1- Systematically analyze existing spaces, identify design elements and principles CO4- Integration of Contextual Sensitivity
4	**Lecture 4:** - Creating Hierarchy in Design - Rhythmic Patterns in Architectural Space Elements for Visual Harmony	**Assignment 5:** Exploring hierarchy and rhythm through model-making	NO	CO3- Effective Communication of Design Intentions
5	**Lecture 7:** - Degrees of Enclosure in Spaces - Balancing Enclosed and Open Spaces Introduction to assignment 7	**Assignment 6:** Each student presents their final project, followed by feedback and discussion. Students need to submit all the sketches and models created in the course time along with the final project	NO	CO5- Informed decisions to address spatial issues by using basic space-making elements. CO2- Develop proficiency in applying fundamental design principles
6	Apply learned principles to design a space incorporating order, path, axis, hierarchy, rhythm, scale, and enclosure		NO	

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

CO1- Systematically analyze existing spaces, identify design elements and principles
Task and Lecture:

Lecture:
Overview of Architectural Design Fundamentals
Importance of Space-making in Architectural Design

Assignment 1: Sketching and analysis of basic design elements

Skill:

- The ability to identify the uniqness of the space making element in the structure
- Skill in acknowledging the innovative use of the element
- Analysing the potential of spacemaking element
- Importance of the spacemaking

Knowledge:

- Knowledge of various spaces created in the structure
- Understanding of various meaning associated to the element
- Familiarity with use of the element in the use of the structure
- Profeciency in space planning

Understanding:
Appreciation of how change of proportion, texture, placement gives different meaning to the space
Recognition of space formation.

CO3- Effective Communication of Design Intentions.
Lecture:
Overview of Architectural Design Fundamentals
Importance of Space-making in Architectural Design

Assignment 2: Presentation of the Assignment 1

Skill:

- Proficiency in representation of thoughts
- The ability to visually inspect the structure development

Application :
Implementing the knowledge in designing the spaces.

SEM II (FIRST YEAR) B.ARCH 2023-24

Month: March

Subject: Elective Elements of Space Making

Faculty: Sushma T

Assignment (Topic):

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSION DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	APPROVED MARKS	RETURNED DATE
			01/03/24	1		25/03/24			29/03/24	25/03	01
1	2023PA0051	AGALAWE VIDHAN									
2	2023PA0015	BATNA VARUN ABHAY	A				0		A	0	0
3	2023PA0056	BANTHIA TAANISH PARAG	P	P			0		A	0	0
4	2023PA0013	BAREJA ASHA KANU									
5	2023PA0014	BHAGAT KANAK									
6	2023PA0015	BHOIR PRATIK RAVINDRA									
7	2023PA0017	BHOMKAR SUYOG DINKAR									
8	2023PA0063	BIJAYA BISWANSH RATHISH	P				0		A	0	0
9	2023PA0018	CHAPEKAR BANKA RIYAZ					5		A	0	0
10	2023PA0007	CHINGANKAR NUTAN PRAMOD									
11	2023PA0055	CHOUDHARY CHETAN RAMLAL					0		CANCELLED	0	0
12	2023PA0011	DESHPANDE MADHURA ANIRUDDHA									
13	2023PA0064	DHAMALE BHAVARTHI PRASHANT									
14	2023PA0052	DIXIT ADITI RAJESH									
15	2023PA0071	GAIKAS SHRAVANI GANESH	6	6			5.5		A	A	A
16	2023PA0075	GHARAT PARTH BHUSHAN									
17	2023PA0058	GHATTE ABHINAV ISHWARDAS		1P			3.0		A	5	5
18	2023PA0063	INGALE RIDHANYA SANJAY	A	6			6.5		A	0	0
19	2023PA0016	IYER LAKSHANA RAVIK		5			6			6	8
20	2023PA0053	JADHAV YASH AAT					5		A	0	0
21	2023PA0041	JAIN ABHISHEK BIRAJ									
22	2023PA0070	KADU OM VIJAY		6			5.5			6.5	5.5
23	2023PA0045	KAMADI MATHEES ATENDRA	A	5			7.5			8	8
24	2023PA0036	KASALE PRATHAM RAJESH									
25	2023PA0010	KATKAR KANCHAN ARVIND									
26	2023PA0027	KAZI HAMZA MOHD. HANIF									
27	2023PA0024	KHANDARE RAJ DEVAN	A			A	0			0	0

SEM II (FIRST YEAR) B.ARCH 2023-24

Month: March

Subject: Elective Elements of Space Making

Faculty: Sushma T

Assignment (Topic):

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSION DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	APPROVED MARKS	RETURNED DATE
			1/03/24				23/03/24		28/03/24		
28	2023PA0014	MAHADIK NUPUR HARISHCHANDRA									
29	2023PA0072	MAHAJAN TANVI PRABHU	A				5.5			5	5
30	2023PA0074	MD YOUSUF	A				30		A	0	0
31	2023PA0057	MENGWAR NAMRATA DEWANAND	A				5.5		A	0	0
32	2023PA0067	MESTRI HITESH MANISH									
33	2023PA0060	MIRAJKAR NIDHI KISHORE									
34	2023PA0073	MORE BHAGYASHREE RAMRAO	A				A	0		0	0
35	2023PA0040	NAGWEKAR HARSHULL SAMIR									
36	2023PA0024	NIWATE ATHARVA KIRAN									
37	2023PA0049	OWHAL TANVI RAJENDRAKUMAR					3	3	A	0	0
38	2023PA0046	PARAB KASHNA SANJAY									
39	2023PA0054	PATEL FAIZ TAUNA									
40	2023PA0069	PATIL AKSHADA DHANRAJ									
41	2023PA0042	PATIL MIDHIT BALARAM									
42	2023PA0025	PATIL PRACHI VIDYA	A								
43	2023PA0068	PATIL SANJANA VIVEK									
44	2023PA0048	PATIL VAISHNAVI PRAVIN						5.5		0	5
45	2023PA0070	RAJORIA RAJ ANIL KUMAR	A	6			A	0		0	0
46	2023PA0014	KAMARAJU JANHAVI SRINIVAS	A								
47	2023PA0006	RAUL ADITI SURYAKANT									
48	2023PA0062	RAWAT SONALI ANIL		3A				6		6.5	8
49	2023PA0003	RIYA MARY SUDHIN									
50	2023PA0044	SAHU VARUN ANIL	A					0		5	5
51	2023PA0047	SARMALKAR SHUBH SANDEEP									
52	2023PA0012	SAWANT TANMAYE PARAG	A								
53	2023PA0018	SHAIKH TOUSIF HAKIM ALI	A				A	0	A	0	0
54	2023PA0020	SHETTY SAIRAJ SUDHIR	A					0	A	0	0

SEM II (FIRST YEAR) B.ARCH 2023-24

nth : March

Subject: Elective: Elements of Space making Faculty: Suvarna T

ssignment (Topic) :

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
56	2023PA0018	SINGH ANJALI LAVA KUMAR	1/03/24						29/03/24				
57	2023PA0031	SURVE AARYA PRADEEP		5				7.5					
58	2023PA0065	SWAIN SUNITA CHINTAMANI	A	6+1				7.0		8	5.5		
59	2023PA0037	TALEKAR MRUNAL NITIN		5.5				5.5		7	8		
60	2023PA0008	TATKARE RADHIKA SUBHASH											
61	2023PA0012	TESSY THOMAS											
62	2023PA0039	THAKUR ADITI DATTA											
63	2023PA0050	THAKUR ADWAIT MANOJ											
64	2023PA0017	VARGHESE JASMINE JOHNSON											
65	2023PA0033	VISHWAKARMA ADITYA ASHOKKUMAR	A	P				6.5		8	6		
66	2023PA0042	ZENDE RAVINA RUSHIKESH		SA				6.0		6	8		
67	2022PA0036	JOSHI JAY PRAMOD						7.5	A				

Format 2

PILLAI COLLEGE OF ARCHITECTURE, NEW PANVEL

Term I / II - AY 23-24 - Sem: 2

Subject: Elective: Elements of Space making Professor/s Suvarna Thakare

Date	Topics Covered in Lecture	Assignment Introduced	Assignment Submitted	Students' Signature	
1/03/24	Introduction to the subject	Assignment - I			
22/03/24	lecture on basics of spacemaking				
29/03/24	Presentation by Students				

Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: Electives		**Term: I**	**AY: 2023-24**	
Course Code: 321	**Credits : 3**	**Semester: 3**	**No of Periods per week :**	
Total Marks: 100	**Internal : 100**	**External : 00**	**Theory Paper : 00**	

Faculty:	Subject coordinator : Prof. Neha Deshpande Team Members: NA

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

Geometry is a fundamental aspect of architecture and is used to create aesthetically pleasing designs, plan functional spaces, and ensure structural stability. In Architecture, geometry is used to determine the proportions of a building, to create symmetrical and asymmetrical forms and to plan spatial arrangements and circulation patterns. Through this elective students can relate their learning with past and existing structures, architects by studying them and develop the skills which they will require in Architectural Design.

Methodology (All the following points must be addressed in ALL subjects)

Aim:
Aim of the study is to define and clarify those elements as vocabulary of generating architectural form and space in conceptual meaning. Also to identify geometry that makes up basic 2D geometry which would later provide exposure for the students to approach a design project leading them on the right track allowing them to experiment different forms

Objectives:-

- Introduction to elements of geometry and concepts of geometry
- To study and understand the importance of Geometry/ form in Architecture
- To enable the student to understand the basic Concepts of Geometry in relation with Architecture
- In the composition, to interpret the visual construction in a plane serves to define the limits or boundaries of a volume
- To explore the properties of geometric figures using different timeline in architecture
- To acquire skills to help students in making paper models for better conception

PROCESS: (Please elaborate pointwise)

1. Please explain the methods of Conduction of classes and studios wrt aim and objectives.
   Various concepts were discussed in class providing the knowledge needed to address geometric shapes, as well as understand the form of structures. Lectures conducted as per schedule given and discussion with students on Architects and their Buildings showing complex geometric structure with conscious decisions. Assignments were asked to be completed in the studio with constant monitoring and doubt solving.

2. Tools and techniques used for course conduction.
   Powerpoint presentations showing different Concepts, architects, videos of various projects in most topics. Class discussions about the various projects and architect's approach for Architectural design and functionality of the building typology with respect to geometry. Class activity such as model making, observe and write activity to enable students to understand better and start developing their own methods for approaching design projects. Assignments were formulated in such a manner that help students learn various methods of representation and also to form a routine to critically analyze each topic. Discussion about assignments and reviews of submitted work by the students in the form of open discussion.

3. Which are the innovative approaches adopted in this semester?
   Class activity such as model making, observe and write activity to enable students to understand better and start developing their own methods for approaching design projects.

4. Explain the approaches used to encourage library usage by students and faculty.
   While conducting classes and lectures, reference books from the college library were encouraged to make students use the library.

5. How and to what extent, the aim and objectives are achieved.
   As the aim of the electives was clearly defined, the course objectives were aligned with the expected outcome. The skills to identify geometry that makes up basic 2D geometry. This would help in visualization and developing analytical mindset.
   Students would be able to understand the basic Concepts of Geometry in relation with Architecture. Also they would learn to interpret the visual construction in a plane to define the limits or boundaries of a volume. This relates to Theoretical understanding, technical skills as students would be creating models from their understanding. In addition, it would enhance the conception & visual knowledge. Students shall gain knowledge to explore the properties of

geometric figures using different timeline in architecture that would aid them in understanding current trends and practices.
As they work on their Electives and Architectural Design, the students learn more about how geometry can be used as a powerful tool in Presentations and Creativity. Students composed their assignments and Architectural design sheet for maximum effect. Students reviewed several architect's work, structures and concepts to analyze and are expected to utilize this learning in other subjects. Also from the CO attainment sheet it is visible that students have achieved most of the set course objectives yet there is some scope of improvement that can be focused and worked on in next semester.
Furthermore, these skills, knowledge, and understanding gained by the students are aligned with the POs for holistic development of the students.

6. Extent of horizontal and vertical integration achieved.
   While working on the assignments, indirectly students learnt more about Presentation Skills and clarity of representational drawing. This helps them not just in their Architectural Design but also deliver their ideas, concepts in more graphical form, vocabulary and presentable manner. Module 1 of Architectural Design was integrated with this Elective to derive the Form Development sheet. It was quite achievable since the sheet could be a part of the Design portfolio as a conceptual sheet with details of deriving geometry and analyzing the final design.

7. Extent of adherence to the Course Plan and schedule of submission prepared before the course started.

   Refer the table Course Plan Submitted v/s completed table for the Extent of adherence

8. Explain with the help of each assignment and students' work.

   As they work on their Electives and Architectural Design, the student will learn more about how geometry can be used as a powerful tool in Presentations and Creativity. Students are expected to compose their assignments and Architectural design sheet for maximum effect. Students will review several architect's work, structures and concepts to analyze and are expected to utilize this learning in other subjects.
   The Assignment 1 is based on Understanding Composition and concepts of geometry, Assignment 2 Elements and principles. In Assignment 3 students will learn Representation 2D to 3D with the help of cube exercise, Assignment 4- Eras in architecture and use of geometry and in Assignment 5 students will learn to analyze the geometry patterns in existing structures

9. Scope for improvement in future (next year).

   As they work on their Electives and Architectural Design, the students learn more about how geometry can be used as a powerful tool in Presentations and Creativity. Students composed their assignments and Architectural design sheet for maximum effect. Students reviewed several architect's work, structures and concepts to analyze and are expected to utilize this learning in other subjects. Also from the CO attainment sheet it is visible that students have achieved most of the set course objectives yet there is some scope of improvement that can be focused and work on in next semester.

10. Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.

    Special lecture was conducted by Prof. Smita Dalvi ma'am, for one of the subtopic- Geometry in Islamic Art and Architecture. Commencing from Introduction to the Architectural era. The lecture was formulated with subtopics like Geometry as organizing principle in planning of structures, Geometry as visual principle in architecture and ornamentation. The session was quite interesting with different forms of geometry, symbols used Islamic Architecture. Examples of Taj Mahal, Humayum tomb, and other Islamic structures etc were explained with minute jali work, the patterns used ceiling, flooring and facade, geometric analysis of landscape.

Course Plan Submitted v/s completed				
Subject: **Electives (Geometry in Architecture)**			Course Code: 321	
Faculty: **Prof. Neha Deshpande**				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	Introduction to the topic	A3 paper report Vocabulary cover page, Sheet 1	YES	CO1, CO2
2	**Lecture** Concepts in architecture Elements and principles (form & shape) + Golden mean ratio	Sheet 2 (individual)	YES	CO2, CO3
3	**Discussion** Analyze objects with geometry		YES	-
4	**Lecture** Geometry as visual expression	3D Model	YES	CO1, CO2, CO5
5	Discussion Choose a mughal architecture (List)		YES	-
6	Geometry as visual expression	Model A3 Sheet 3 Tracing	YES	CO1, CO2, CO5

7	**Lecture** Language of Geometry in Gothic Architecture	A3 Sheet 4	YES	CO2, CO4
8	**Lecture** Language of Geometry in Mughal Architecture	Sheet 5	YES	CO2, CO3, CO4
9	**Guest Lecture-** Geometry in Mughal Architecture		YES	CO2, CO3, CO4
10	**Lecture** Geometry from existing structures (Choose an Architect)	A3 Sheet 7,8	NO	-
	Introduction to integrated approach	A2 Sheet	YES	CO1, CO2, CO3
11	Discussion	AD integrated final sheet	YES	-
12	**Work completion**		YES	-

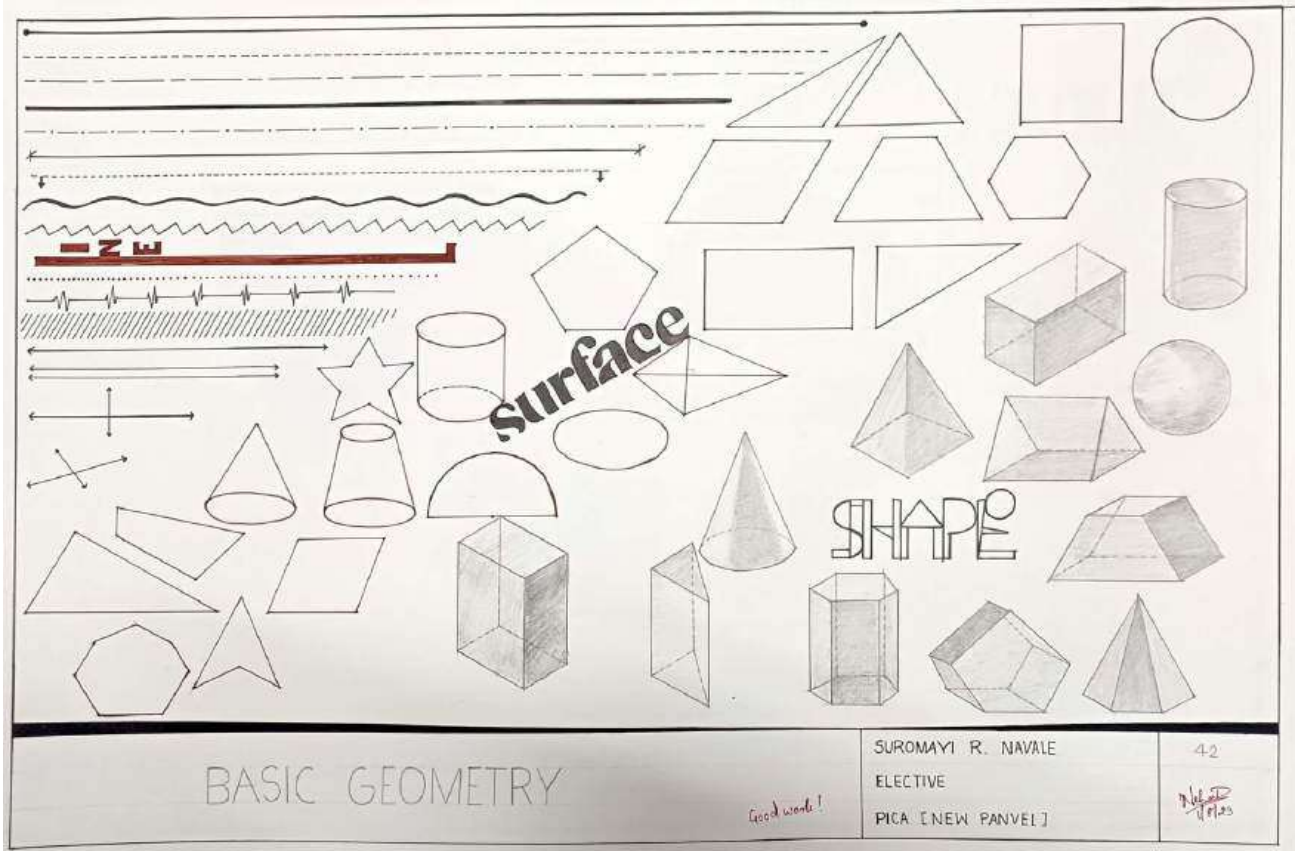
How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

1. Lecture on Introduction on Geometry in Architecture, Assignment 1 given was Geometric wordle, to identify more and more words used in or are a part of Geometry. This was converted into a Cover page for portfolios. Assignment 1 was Construction of lines, surfaces, solids, platonic solids. This is aligned with two COs Knowledge of Principles of 2-D & 3-D compositions and Representation of 3D objects in 2D by graphical, technical aspects of solid geometry.
2. Lecture on Concepts in Geometry. This incorporated the concepts in geometry used for architectural design like Golden proportion, Le Modular, etc. It is aligned with CO2, CO3, Representation of 3D objects in 2D by graphical, technical aspects of solid geometry, Understanding of the geometry and their application in architecture.
3. Lecture on Geometry as visual expression, in this students were asked to make a model of a cube size 15 x 15 cm and should incorporate principles of design. In addition, there were few considerations given to incorporate while designing the model. Furthermore they had to prepare a sheet to draw their model and paste images. Aligned COs are CO1 Knowledge of Principles of 2-D & 3-D compositions, CO2 Representation of 3D objects in 2D by graphical, technical aspects of solid geometry, CO3 Understanding of the geometry and their application in architecture.
4. Lecture on Language of Gothic Architecture. The lecture included symbolic architecture, Gothic style of representation and examples of Gothic structures to identify and analyze the geometry. Students learnt the Representation of 3D objects in 2D by graphical, technical aspects of solid geometry with Understanding the different eras in architecture(gothic & mughal). Assignment was to analyze the geometric forms and detailing in Gothic architecture using 1 structure.

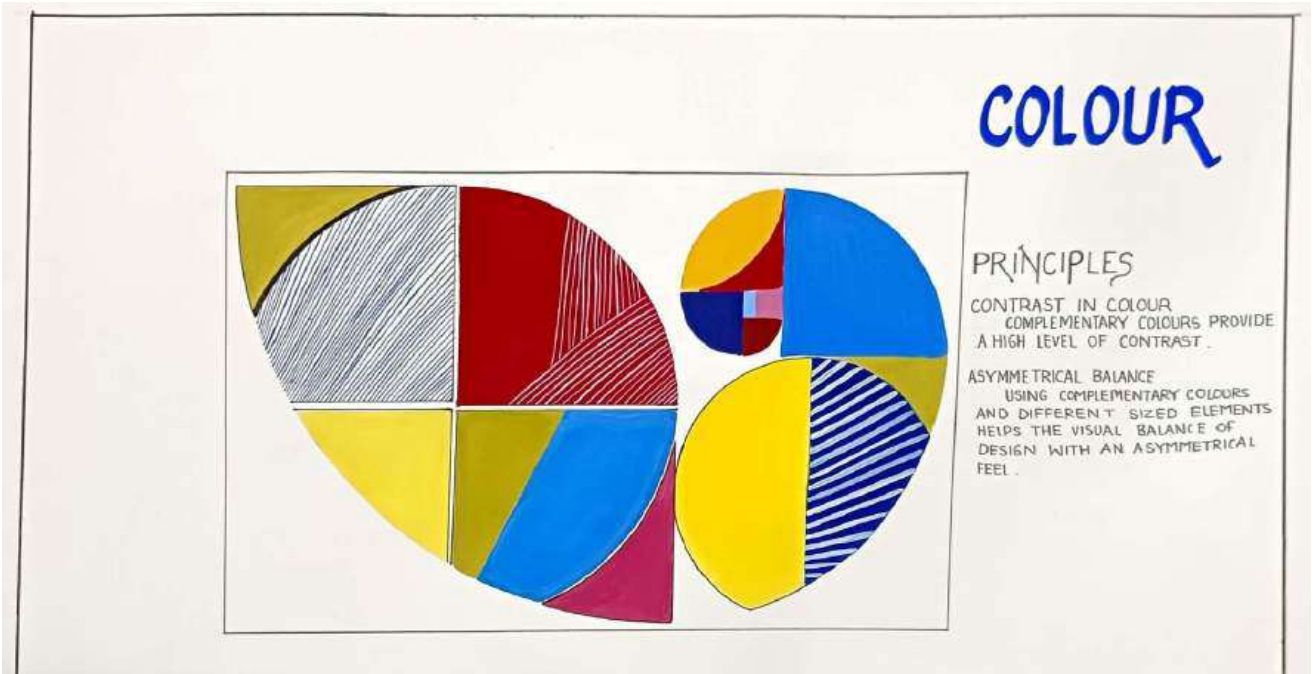
5. Lecture on Language of Islamic Art & Architecture In this topic a brief introduction to the Islamic Art & Architecture was given to the students. Various geometric details and forms were discussed. Jalli patterns and window detailing were discussed using Islamic representation drawing references. through this COs covered are CO2, CO3, CO4., Representation of 3D objects in 2D by graphical, technical aspects of solid geometry, Understanding of the geometry and their application in architecture, Understanding the different eras in architecture(Gothic & Mughal) respectively.

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT)

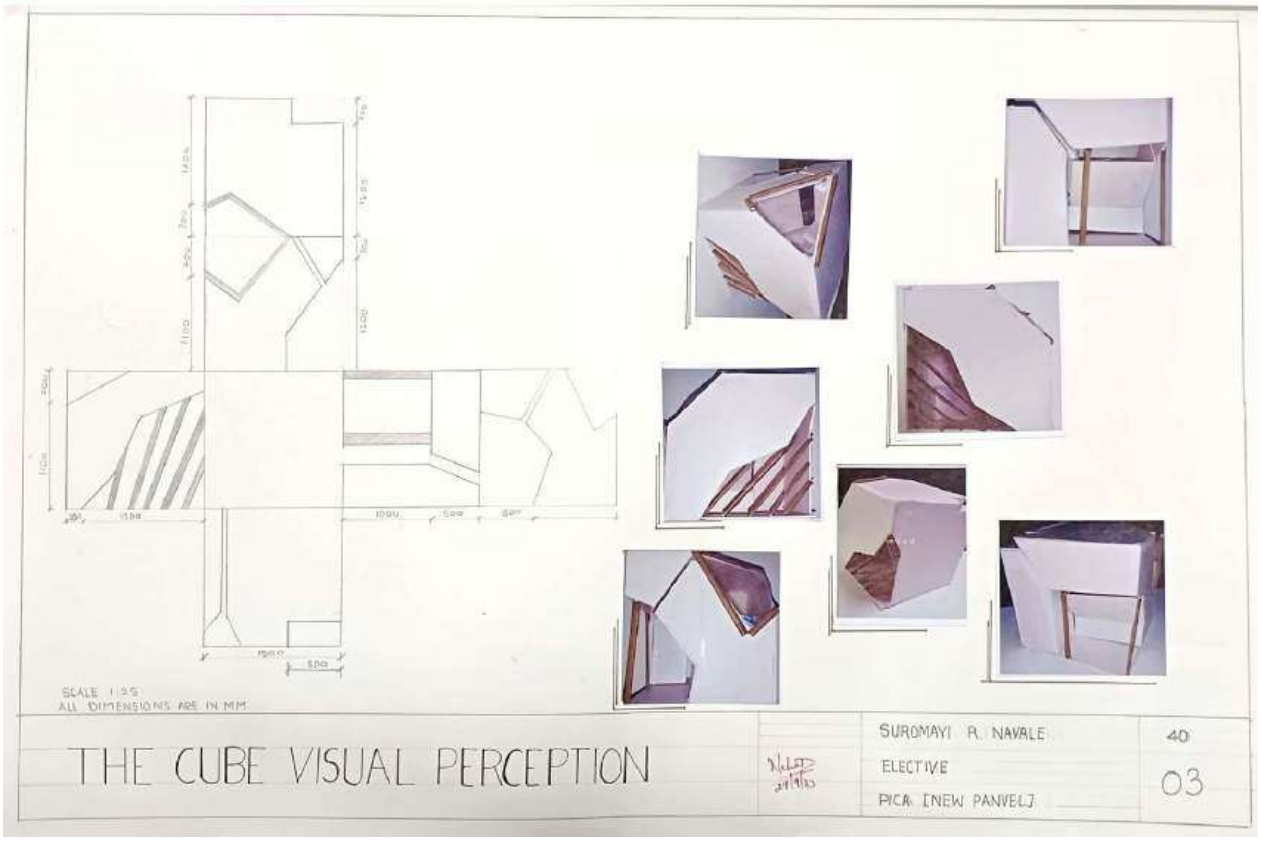
Assignment 1



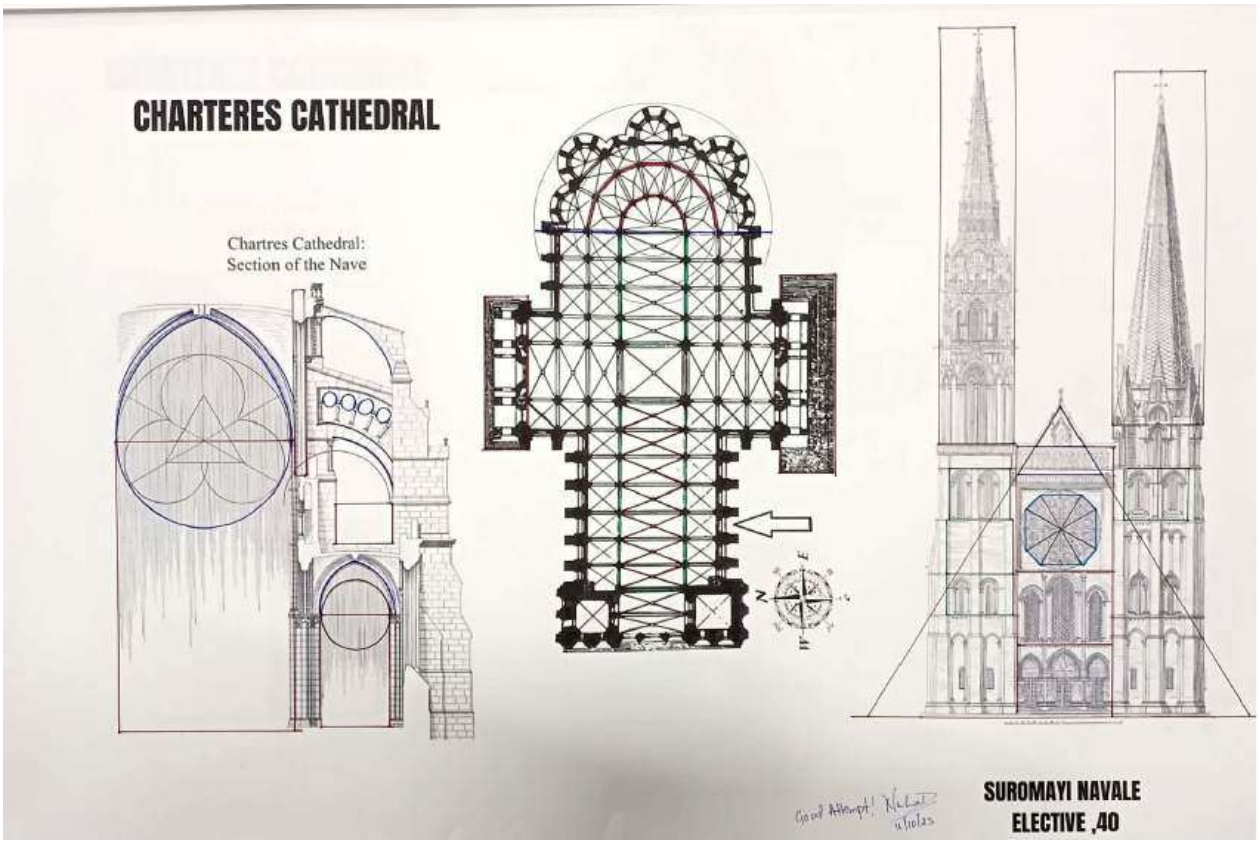
Assignment 2



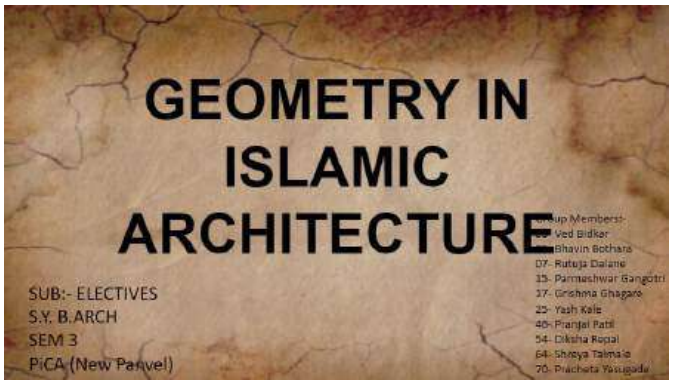
Assignment 3:

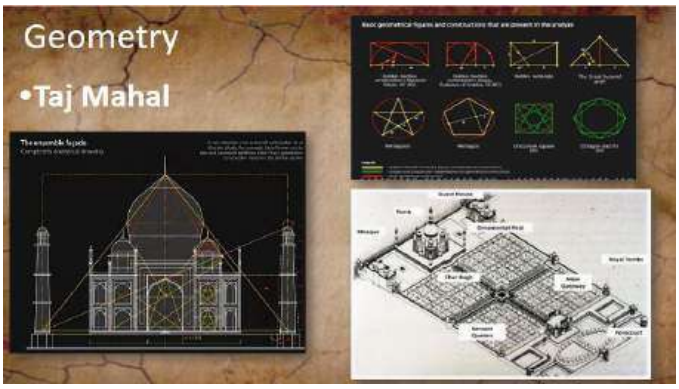


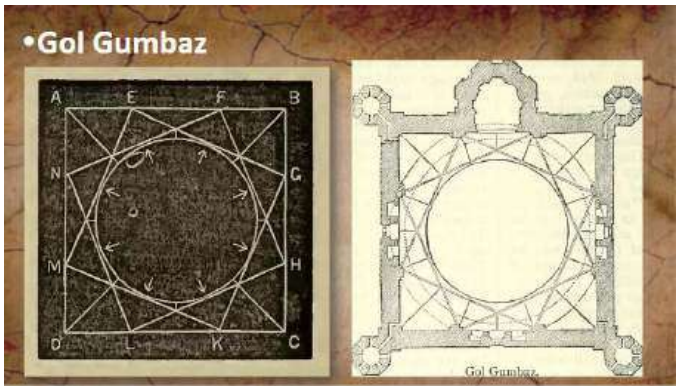
Assignment 4:

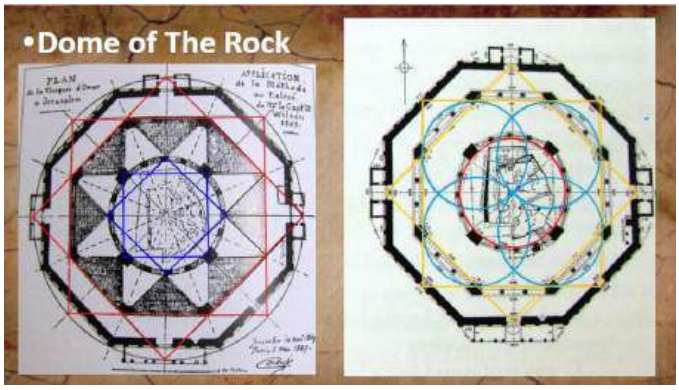


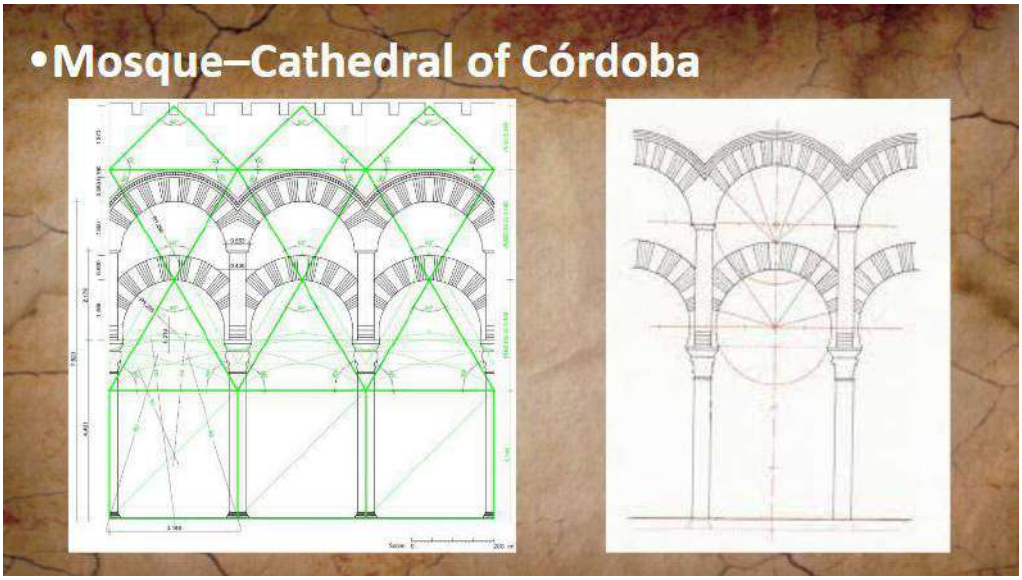
Assignment 5: Group Assignment











Format 1

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject : Elective-(Earthquake resistant construction techniques)		**Session : II**	**Year : AY 2023-24**	
Course code: BARC 421	**Credits:** 03	**Semester : IV**	**No of Periods per week : 2**	
Examination Scheme		**Sessional Marks -**	**Internal : 100**	**Total**
		Theory Paper -	**External Jury : 00** **Theory Paper : 00**	**Marks** 100

Faculty	Subject coordinator : Prof. Shubhangi Bhide
Faculty team:	
1. Prof. Shital Marlapalle	

Course Aim and objective :

Introduction: -
In the dynamic tapestry of our world, the constant threat of natural calamities looms large, affecting nations across the globe. Among these, earthquakes, floods, landslides, and fires stand out as formidable challenges, striking indiscriminately and leaving in their wake profound human suffering, financial losses, and extensive property damage. While we acknowledge the inevitability of these disasters, we recognize that the potential for minimizing their impact lies in our ability to harness technology and knowledge to combat their destructive forces.

Aim:-
The aim of this course is to empower students with comprehensive knowledge and skills related to earthquake resilience, urban planning principles and the technical aspects of earthquake-resistant construction.
The primary goal is to instill a deep understanding of the challenges posed by earthquakes and equip students with the tools necessary to contribute to the development of resilient communities.

Objectives:-
It is to cultivate in students a comprehensive awareness of the devastating consequences wrought by earthquakes and other natural disasters and to arm them with the knowledge of cutting-edge earthquake-resistant technologies, urban planning principles, and technical intricacies that can contribute to the creation of resilient communities

Process:-
Understanding Disaster Risks, Protecting Yourself, and After Effects" is designed to provide students with a comprehensive understanding of earthquake resilience, urban planning principles, and technical proficiency in earthquake-resistant technologies.
Here's an outline of the process with respect to the course outcomes:

Introduction and Context Setting: The course begins with an introduction to the dynamic nature of natural calamities, focusing particularly on earthquakes and their devastating impacts on communities worldwide. The aim is to create awareness about the inevitability of such disasters and the importance of preparedness.

Film Screening: A key component of the course involves showing a film on earthquakes produced by COA , which serves as a visual aid to illustrate the real-life consequences and aftermath of earthquakes. This film helps students connect theoretical knowledge with practical scenarios, enhancing their understanding of disaster risks and mitigation strategies.

Application of Planning Principles: Students delve into urban planning principles that contribute to earthquake resilience. This involves studying land use zoning, building codes, infrastructure design, and evacuation planning. Through case studies and practical exercises, students learn how effective urban planning can mitigate the impact of earthquakes on communities.

Technical Proficiency in Earthquake-Resistant Technologies: The course emphasizes the technical aspects of earthquake-resistant construction techniques and technologies. Students learn about innovative engineering solutions, such as base isolation, reinforced concrete structures, and retrofitting methods. Hands-on workshops and simulations enable students to develop practical skills in implementing these technologies.

Critical Thinking and Problem Solving: Throughout the course, students are encouraged to critically analyze past earthquake events, identify vulnerabilities in urban infrastructure, and propose innovative solutions. Case studies and group discussions foster critical thinking and problem-solving skills, equipping students to address complex challenges in earthquake resilience.

Effective Communication and Collaboration: Effective communication and collaboration are essential in disaster preparedness and response efforts. Students engage in group projects, presentations, and role-playing exercises to enhance their communication skills and teamwork abilities. They learn how to collaborate with diverse stakeholders, including government agencies, NGOs, and community groups, to develop comprehensive disaster resilience strategies.

By the end of the course, students are expected to have gained a deep understanding of earthquake risks, acquired technical proficiency in earthquake-resistant technologies, and developed critical thinking, problem-solving, and communication skills necessary for contributing to the creation of resilient communities.

	List of minimum FIVE Course Outcomes (COs) based on which student’s progress will be evaluated.
CO1	Introduction to Earthquake Film Screening (Developing knowledge and understanding)

CO2	Application of Planning Principles (Application)
CO3	Technical Proficiency in Earthquake-Resistant Technologies (Developing technical proficiency)
CO4	Critical Thinking and Problem Solving (Critical analysis and innovative thinking)
CO5	Effective Communication and Collaboration (Teamwork and communication abilities)

Course Plan Submitted v/s completed				
Subject: Elective-(Earthquake resistant construction techniques)			Course Code: BARC 421	
Faculty: Prof. Shubhangi Bhide, Prof. Shital Marlapalle				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1,2	Introduction to earthquake: Understanding Disaster Risks reasons, protecting yourself and after effects. Observations on the film made by COA on Earthquake	Awareness Report	Yes	CO1,CO5
3	Application of different materials for construction	Material description	Yes	CO1
4	Disaster management for planners	Application of planning principles	Yes	CO2
5,6	Construction of small buildings in seismic region.	Propose the implementation of earthquake-resistant technologies.	Yes	CO3
7,8	Critical Thinking and Problem Solving	Innovative Solutions Project	Yes	CO4
9,10	Effective Communication and Collaboration	Group Presentation	Yes	CO5
11	Conclusion	How do we respond to disaster and plan future dev.	Yes	CO2

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

In this course on earthquake resilience and urban planning, the objectives are aligned with specific course outcomes (COs) to ensure that students achieve the intended learning outcomes. Here's how each lecture, assignment, and assessment is aligned with the COs:

- Introduction to Earthquake Film Screening

CO1 (Developing knowledge and understanding): The film screening serves to introduce students to the dynamic nature of natural disasters, particularly earthquakes, and their impacts on communities. Students gain knowledge and understanding of the real-life consequences and aftermath of earthquakes.

CO5 (Effective Communication and Collaboration): After the film screening, students can engage in discussions and reflections on the film's content, fostering effective communication and collaboration among peers.

Assessment: Awareness Report: Students are assessed on their ability to critically observe and report on the key themes and messages conveyed in the earthquake film produced by COA.

- Application of Planning Principles

CO2 (Application): Students learn to apply urban planning principles such as land use zoning, building codes, and evacuation planning to mitigate the impact of earthquakes on communities.

Assessment: Material description: Students demonstrate their understanding of how different materials can be applied in construction to enhance earthquake resilience.

Technical Proficiency in Earthquake-Resistant Technologies

- CO3 (Developing technical proficiency): Students acquire technical proficiency in earthquake-resistant construction techniques and technologies, including base isolation, reinforced concrete structures, and retrofitting methods.

Assessment: Application of planning principles: Students propose the implementation of earthquake-resistant technologies in the construction of small buildings in seismic regions, demonstrating their understanding and application of technical knowledge.

- Critical Thinking and Problem Solving

CO4 (Critical analysis and innovative thinking): Throughout the course, students are encouraged to critically analyze past earthquake events, identify vulnerabilities in urban infrastructure, and propose innovative solutions.

Assessment: Innovative Solutions Project: Students work on a project where they critically analyze a real-life scenario and propose innovative solutions to address challenges in earthquake resilience.

- Effective Communication and Collaboration

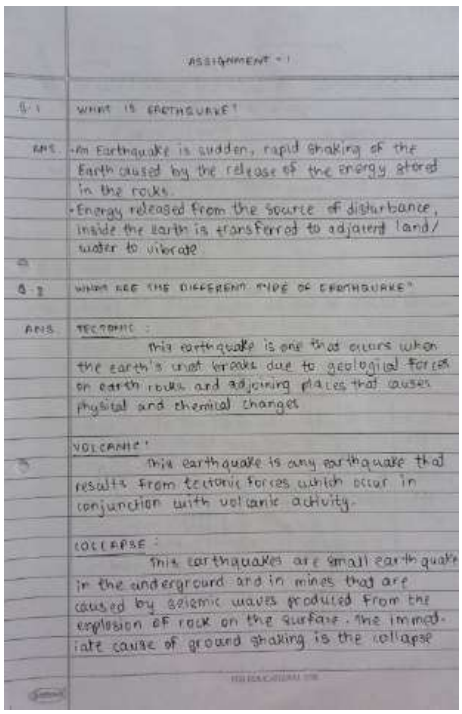
CO5 (Teamwork and communication abilities): Effective communication and collaboration are essential in disaster preparedness and response efforts.

Assessment: Group Presentation: Students collaborate in groups to develop and deliver a presentation on effective disaster management strategies, demonstrating their teamwork and communication abilities.

- Conclusion: How do we respond to disaster and plan future development

COs (All): This final session integrates all COs as students reflect on their learning throughout the course and consider how to apply their knowledge and skills to respond to disasters and plan for future development.
Through this alignment, students' progress through the course with clear learning objectives, engaging in activities and assessments that target specific skills and knowledge areas outlined in the COs. At the end of the course, students are expected to have achieved the intended learning outcomes related to earthquake resilience and disaster management.

IMAGES OF STUDENTS WORK:


ASSIGNMENT - 1

Q-1 WHAT IS EARTHQUAKE?

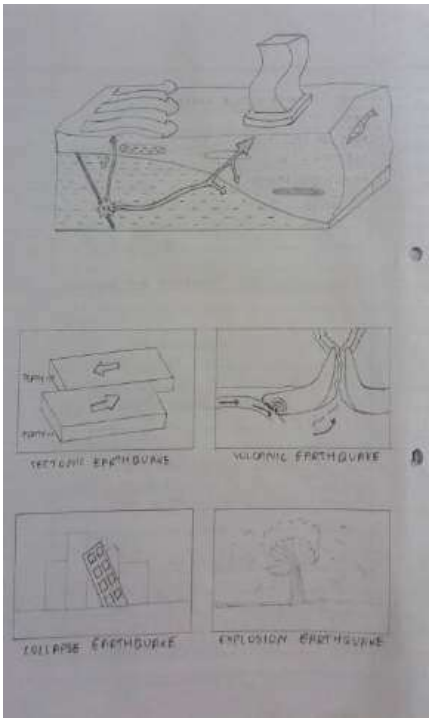
ANS. • An Earthquake is sudden, rapid shaking of the Earth caused by the release of the energy stored in the rocks.
• Energy released from the source of disturbance, inside the earth is transferred to adjacent land/ water to vibrate

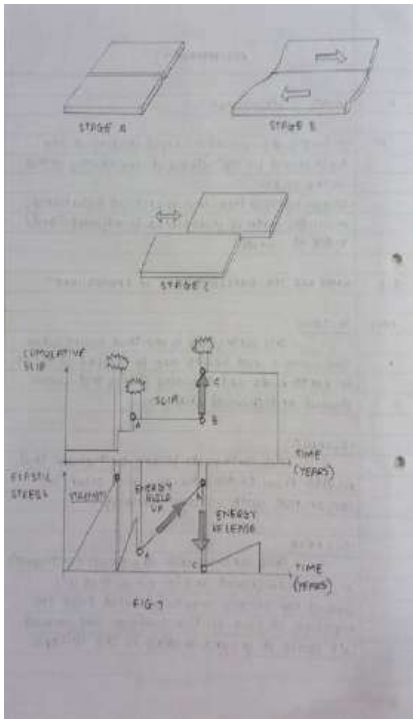
Q-2 WHAT ARE THE DIFFERENT TYPE OF EARTHQUAKE?

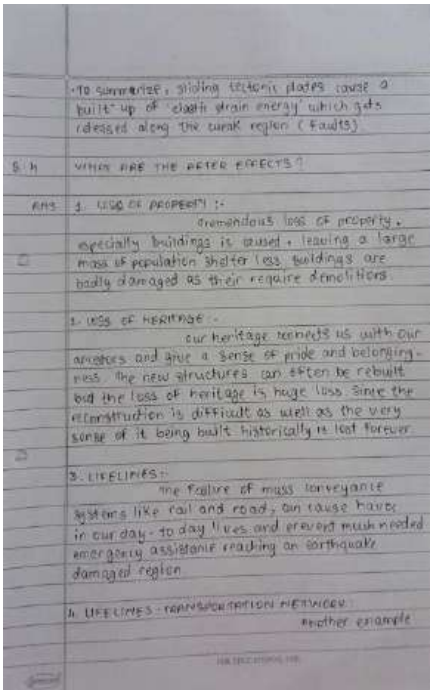
ANS. TECTONIC :
this earthquake is one that occurs when the earth's crust breaks due to geological forces on earth rocks and adjoining plates that causes physical and chemical changes

VOLCANIC :
this earthquake is any earthquake that results from tectonic forces which occur in conjunction with volcanic activity.

COLLAPSE :
this earthquakes are small earthquake in the underground and in mines that are caused by seismic waves produced from the explosion of rock on the surface. the immediate cause of ground shaking is the collapse







- To summarize, sliding tectonic plates cause a built up of 'elastic strain energy' which gets released along the weak region (Faults).

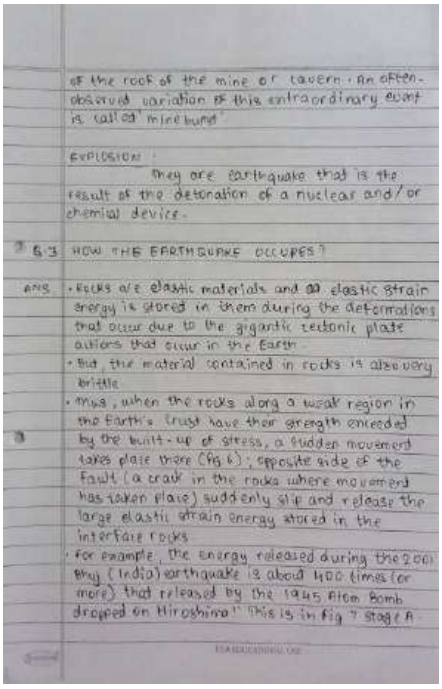
Q.4 WHAT ARE THE AFTER EFFECTS?

Ans 1. LOSS OF PROPERTY :-
tremendous loss of property, especially buildings is caused, leaving a large mass of population shelter less. Buildings are badly damaged as their require demolitions.

2. LOSS OF HERITAGE :-
our heritage connects us with our ancestors and give a sense of pride and belongingness. The new structures can often be rebuilt but the loss of heritage is huge loss. Since the reconstruction is difficult as well as the very sense of it being built historically is lost forever.

3. LIFELINES :-
The failure of mass conveyance systems like rail and road, can cause havoc in our day-to-day lives and prevent much needed emergency assistance reaching an earthquake damaged region.

4. LIFELINES - TRANSPORTATION NETWORK :-
another example

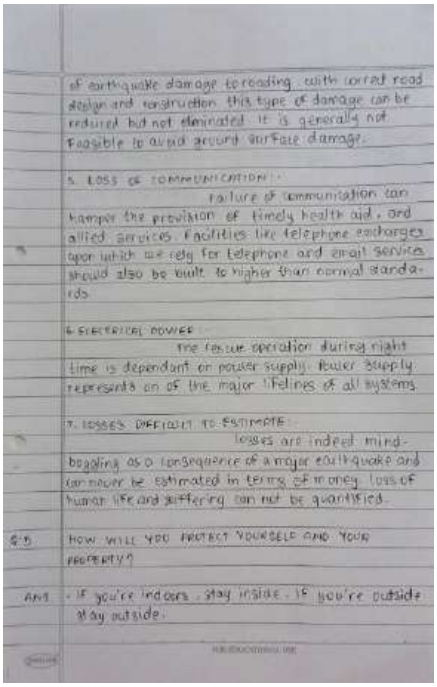


of the rock of the mine or cavern. An often-observed variation of this extraordinary event is 'called' mine bump'.

EXPLOSION :-
They are earthquake that is the result of the detonation of a nuclear and/or chemical device.

Q.3 HOW THE EARTHQUAKE OCCURES?

Ans
- Rocks are elastic materials and do elastic strain energy is stored in them during the deformations that occur due to the gigantic tectonic plate actions that occur in the Earth.
- But the material contained in rocks is also very brittle.
- Thus, when the rocks along a weak region in the Earth's crust have their strength exceeded by the built-up of stress, a sudden movement takes place there (Fig 6); opposite side of the Fault (a crack in the rocks where movement has taken place) suddenly slip and release the large elastic strain energy stored in the interface rocks.
- For example, the energy released during the 2001 Bhuj (India) earthquake is about 400 times (or more) that released by the 1945 Atom Bomb dropped on Hiroshima". This is in Fig 7 Stage A.



of earthquake damage to roading, with correct road design and construction, this type of damage can be reduced but not eliminated. It is generally not feasible to avoid ground surface damage.

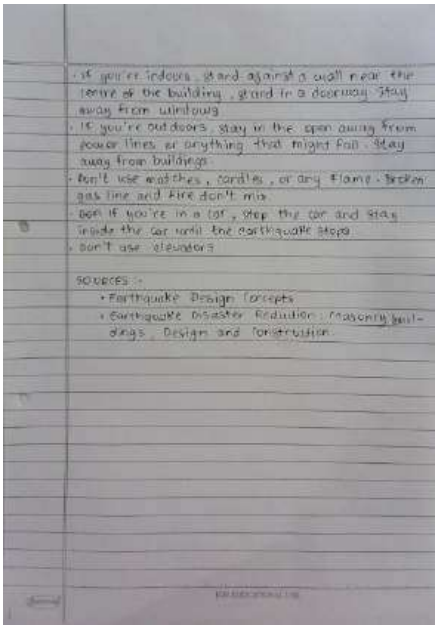
5. LOSS OF COMMUNICATION :-
Failure of communication can hamper the provision of timely health aid, and allied services. Facilities like telephone exchanges upon which we rely for telephone and email services should also be built to higher than normal standards.

6. ELECTRICAL POWER :-
The rescue operation during night time is dependant on power supply. Power supply represents on of the major lifelines of all systems.

7. LOSSES DIFFICULT TO ESTIMATE :-
losses are indeed mind-boggling as a consequence of a major earthquake and can never be estimated in terms of money. Loss of human life and suffering can not be quantified.

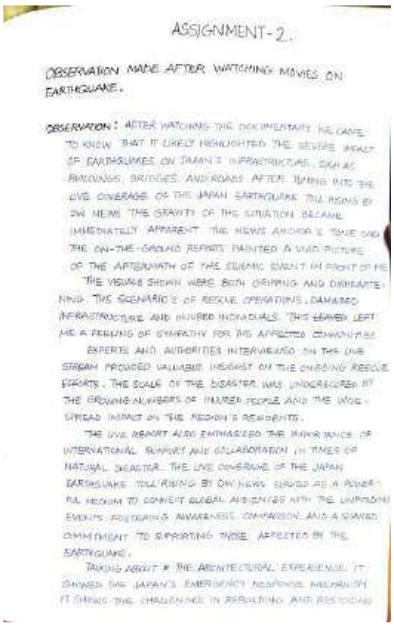
Q.5 HOW WILL YOU PROTECT YOURSELF AND YOUR PROPERTY?

Ans
- If you're indoors, stay inside. If you're outside stay outside.



- If you're indoors, stand against a wall near the centre of the building, stand in a doorway. Stay away from windows.
- If you're outdoors, stay in the open away from power lines or anything that might fall. Stay away from buildings.
- Don't use matches, candles, or any flame. Broken gas line and fire don't mix.
- Don't if you're in a car, stop the car and stay inside the car until the earthquake stops.
- Don't use elevators.

SOURCES :-
- Earthquake Design Concepts
- Earthquake Disaster Reduction : Masonry buildings, Design and Construction.



ASSIGNMENT-2.

OBSERVATION MADE AFTER WATCHING MOVIES ON EARTHQUAKE.

OBSERVATION : AFTER WATCHING THE DOCUMENTARY, WE CAME TO KNOW THAT IT LIKELY HIGHLIGHTED THE SEVERE IMPACT OF EARTHQUAKES ON JAPAN'S INFRASTRUCTURE, SUCH AS BUILDINGS, BRIDGES, AND ROADS. AFTER TUNING INTO THE LIVE COVERAGE OF THE JAPAN EARTHQUAKE TILL RISING BY ON NEWS, THE GRAVITY OF THE SITUATION BECAME IMMEDIATELY APPARENT. THE NEWS ANCHOR'S TONE AND THE ON-THE-GROUND REPORTS PAINTED A VIVID PICTURE OF THE AFTERMATH OF THE SEISMIC EVENT IN FRONT OF ME. THE VISUALS SHOWN WERE BOTH GRIPPING AND DISHEARTENING. THE SCENARIOS OF RESCUE OPERATIONS, DAMAGED INFRASTRUCTURE, AND INJURED INDIVIDUALS. THIS LEAVED LEFT ME A FEELING OF SYMPATHY FOR THE AFFECTED COMMUNITIES.

EXPERTS AND AUTHORITIES INTERVIEWED ON THE LIVE STREAM PROVIDED VALUABLE INSIGHT ON THE ONGOING RESCUE EFFORTS. THE SCALE OF THE DISASTER WAS UNDERSCORED BY THE GROWING NUMBERS OF INJURED PEOPLE AND THE WIDESPREAD IMPACT ON THE REGION'S RESIDENTS.

THE LIVE REPORT ALSO EMPHASIZED THE IMPORTANCE OF INTERNATIONAL SUPPORT AND COLLABORATION IN TIMES OF NATURAL DISASTER. THE LIVE COVERAGE OF THE JAPAN EARTHQUAKE TOLD RISING BY ON NEWS SERVED AS A POWERFUL MEDIUM TO CONNECT GLOBAL AUDIENCES WITH THE UNFOLDING EVENTS, FOSTERING AWARENESS, COMPASSION, AND A SHARED COMMITMENT TO SUPPORTING THOSE AFFECTED BY THE EARTHQUAKE.

TALKING ABOUT # THE ARCHITECTURAL EXPERIENCE, IT SHOWED THE JAPAN'S EMERGENCY RESPONSE MECHANISM IT SHOWS THE CHALLENGES IN REBUILDING AND RESTORING

THE VITAL COMPONENTS OF DAILY LIFE. UNDERSCORE THE LONG-TERM IMPACT ON THE AFFECTED REGIONS. THE ROLE OF COMMUNITY PLANNING IN MINIMIZING EARTHQUAKE IMPACT AND IT EMPHASIS THE CRITICAL ROLE OF PUBLIC AWARENESS AND EDUCATION IN EARTHQUAKE PRONE REGIONS.

ASSIGNMENT-3

* Materials which will use for earthquake prone areas?

In earthquake-prone areas, the selection of materials for construction plays a crucial role in enhancing structural resilience. Earthquake-resistance structures in seismic-prone areas involve using materials with specific properties. Various types of materials commonly employed:

1. REINFORCED CONCRETE (RC): This composite material consists of concrete embedded with steel reinforcement. The concrete provides compressive strength, while the steel enhances tensile strength. RC structures are designed to distribute seismic forces efficiently, preventing catastrophic failure.

2. STEEL FRAMES: Steel's ductility and strength make it a popular choice. Steel frames can absorb and dissipate seismic energy, preventing catastrophic failure.

3. BASE ISOLATORS: These devices, often made of rubber or lead, are placed between a building's foundation and superstructure to absorb & dampen seismic forces.

4. CROSS-LAMINATED TIMBER (CLT): Timber structures, especially those using CLT, provide a sustainable alternative with good seismic performance.

5. FIBRER-REINFORCED POLYMERS (FRP): Materials like carbon or glass fibres enhance the strength of structures, especially when retrofitting existing buildings.

6. DAMPING SYSTEMS: Tuned mass dampers or viscous dampers can be added to control vibrations and dissipate energy during seismic events.

7. MASONRY REINFORCEMENT: Retrofitting masonry structures with materials like fibre reinforced polymers or steel mesh can improve their seismic performance.

8. EARTHQUAKE-RESISTANT BRICKS: Specially designed bricks with improved strength & resistance properties can be used to construct more resilient walls.

9. HIGH STRENGTH ALLOYS: Advanced alloys in steel and other metals contribute to the development of stronger & more ductile structural elements.

10. SHOCK-ABSORBING MATERIALS: Certain polymers or composite materials with shock-absorbing properties can be incorporated to reduce the impact of seismic forces.

The choice of materials depends on factors such as building designs, local seismic hazards, & construction regulations. Combining these materials strategically can lead to structures better equipped to handle the dynamic forces associated with earthquakes.

Book - Earthquake engineering: from Engineering Seismology to performance Engineering - Authors: Yousef Bozorgnia & Vitelmo V. Bertero.

/

+ Construction of small buildings in seismic areas

A study of the damage to the building during past earthquake indicates that the following principles may be observed for the design and construction of buildings to make them earthquake resistant.

1) Materials - Since the earthquake force is mainly a function of mass besides the ground acceleration & the stiffness of the structures, a building should be constructed as light as possible consistent with the structural safety and functional requirements. In particular the roofs and upper storeys of buildings should be built of light materials or of light construction as far as possible.

2) Continuity of construction - It has been observed that the building having elements which bind the walls, columns and other structural components together has stood the earthquake shocks better. It would therefore be of advantage to have the floor slab continuous as far as possible. If precast beams and concrete slab units are used they should be connected together by positive means of like in-situ concrete, welding of prebuilding reinforcements or bolting, etc.

3) Overhanging parts - such as projecting cornices, balconies, parapets and chimneys are the first to fall during an earthquake. Not only do these damage to the building but such parts when they fall injure the people who are running out of the houses or moving on the streets. Such projecting and overhanging parts should be avoided as far as possible or enough care should be taken to reinforce them and anchor to the main structure adequately.

4) Suspended ceilings - It is often used for aesthetic reasons and they are usually brittle and weak and incapable of resisting horizontal forces with the result that during the earthquake they crumble and fall down. Thus special care is required in the design of suspended ceilings. If they cannot be avoided, they should be strong and rigidly tied to the roof or ductile enough to withstand the strengths during ground motion. Similarly the plaster of the ceiling frequently fall down. So the thickness of such plaster should be kept to a minimum.

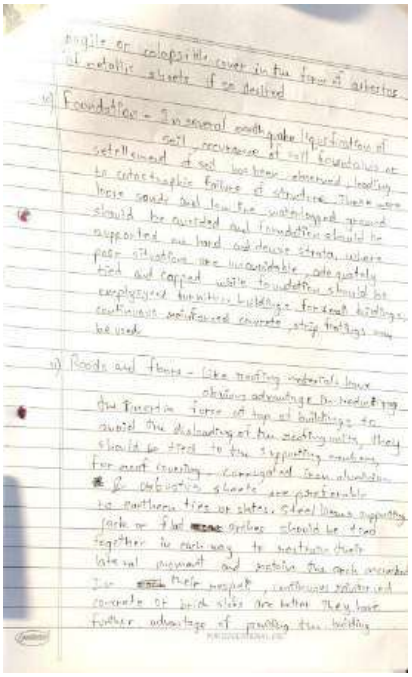
5) Separation of Adjoining structures - Adequate separation of adjoining structures having differential heights or rigidities is necessary to avoid damage due to out of plane vibrations during an earthquake resulting in hammering action between them.

6) Workmanship - structures which are built with the same material and in the same manner but with different quality of workmanship have behaved differently. Those having better workmanship stood the earthquake shaking but those of poor workmanship were shattered to pieces. Therefore, the greatest emphasis must be laid on good quality workmanship in all construction.

7) Damage to non structural parts - It has sometimes happened that where the structural frame was strong enough to resist the earthquake forces, the non-structural elements like brickfilling in a timber frame was not supposed to carry any other loads besides its own weight have fallen out of the frame. So it is necessary that the non-structural parts should be well-tied to the structural frame. to avoid damage to window frames, the drift in the building should also be limited.

8) Fire safety - In the past damage to life and property has occurred due to fires caused by short circuiting of electric wires or kitchen fires during an earthquake. So building should be constructed to be fire resistant and other safety precautions against fire should be taken.

9) Shape of the Building - It has been observed that a symmetrical plan and symmetry with respect to mass and stiffness fare much better than long narrow or irregular shape buildings. Buildings having E, V or L shape plans tend to develop cracks at junctions or at various limits. In such case buildings should be sectionalized into parts by providing separation sections so that each part becomes rectangular, its length not exceeding three times the width. At such sections a complete separation of two parts should be made except below the plinth level. The plinth beams or foundation beams and footings may be constructed continuous. If the two separated parts are not similar in their heights or weight and rigidity they may collide with each other during an earthquake and get damaged. So, a minimum gap of about 1 mm per storey should be provided between them. Such gap may be suitably covered by



CONCLUSION

★ How do we as architects and designers of the built environment respond to a disaster?

→ Architects and designers play a crucial role in responding to disasters by not only aiding in immediate relief efforts but also in long term recovery & rebuilding process.

Immediate Response:

1. ASSESSMENT AND DOCUMENTATION:
   - Architects can assist in assessing the damage to structures & buildings.
   - Documenting the extent of damage is crucial for insurance claims & future planning.
2. EMERGENCY SHELTER DESIGN:
   - Design temporary shelter that are quick to assemble, durable, & meet basic human needs.
   - These shelters should provide safety, sanitation, & privacy for the affected population.
3. MATERIAL SOURCING AND LOGISTICS:
   - Coordinate with suppliers to provide necessary materials for immediate repairs & shelter construction.
4. COLLABORATION WITH RELIEF AGENCIES:
   - Work with relief organizations to understand the needs of affected communities.
   - Provide expertise in designing efficient & effective relief centers.

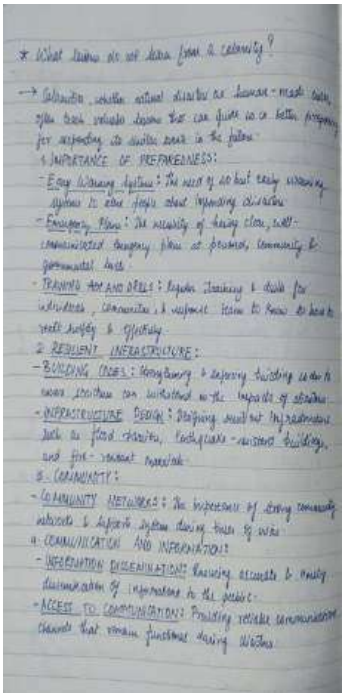
SHORT TERM RECOVERY:

1. TEMPORARY RECONSTRUCTION:
   - Design temporary structures such as schools, clinics & community centers to replace those destroyed.
   - These structures can serve as hubs for recovery efforts and as focal points for community resilience.
2. ADAPTIVE REUSE:
   - Repurpose existing structures that are damaged but salvageable, turning them into usable spaces for recovery efforts.
3. COMMUNITY ENGAGEMENT:
   - Involve the affected community in the design process to ensure that their needs & cultural considerations are incorporated.

LONG-TERM REBUILDING:

1. RESILIENT DESIGN:
   - Design structures that are resilient to the specific type of disaster (earthquake, floods, hurricanes, etc.) prevalent in the area.
2. INFRASTRUCTURE PLANNING:
   - Plan & design resilient infrastructure such as drainage systems, roads & utilities to withstand future disasters.
3. GREEN BUILDING PRACTICES:
   - Incorporate sustainable and eco-friendly design principles to minimize environmental impact and promote regulations, & disaster preparedness measures.
4. CULTURAL PRESERVATION:
   - Preserve cultural heritage by integrating traditional building techniques & designs into new structures.

By integrating these approaches, architects & designers can contribute significantly to disaster response efforts, helping communities recover & rebuild in a more resilient & sustainable manner.



* What lessons do we learn from a calamity?

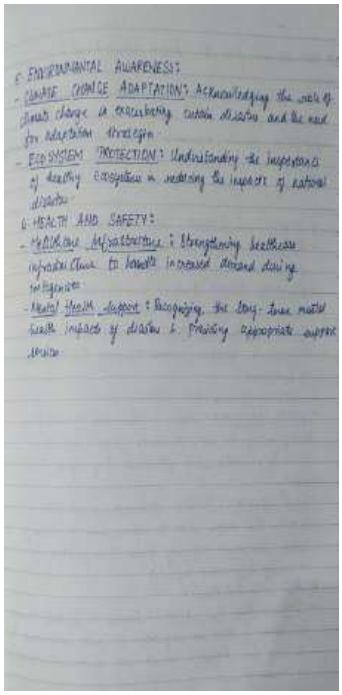
→ Calamities, whether natural disasters or human-made crises, often teach valuable lessons that can guide us in better preparing for responding to similar events in the future.

1. IMPORTANCE OF PREPAREDNESS:
- Early Warning Systems: The need for and early warning systems to alert people about impending disasters.
- Emergency Plans: The necessity of having clear, well-communicated emergency plans at personal, community & governmental levels.
- TRAINING AND DRILLS: Regular training & drills for individuals, communities & responders know to how to act swiftly, safely & effectively.

2. RESILIENT INFRASTRUCTURE:
- BUILDING CODES: Strengthening & enforcing building codes to ensure structures can withstand or the impacts of disasters.
- INFRASTRUCTURE DESIGN: Designing critical infrastructure such as flood barriers, earthquake-resistant buildings, and fire-resistant materials.

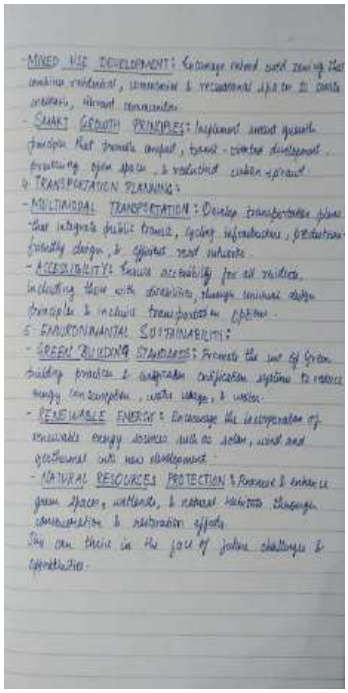
3. COMMUNITY:
- COMMUNITY NETWORKS: The importance of strong community networks & support systems during times of crisis.

4. COMMUNICATION AND INFORMATION:
- INFORMATION DISSEMINATION: Ensuring accurate & timely dissemination of information to the public.
- ACCESS TO COMMUNICATION: Providing reliable communication channels that remain functional during crises.



5. ENVIRONMENTAL AWARENESS:
- CLIMATE CHANGE ADAPTATION: Acknowledging the role of climate change in exacerbating certain disasters and the need for adaptation strategies.
- ECOSYSTEM PROTECTION: Understanding the importance of healthy ecosystems in reducing the impacts of natural disasters.

6. HEALTH AND SAFETY:
- PUBLIC HEALTH INFRASTRUCTURE: Strengthening healthcare infrastructure to handle increased demand during emergencies.
- Mental Health Support: Recognizing the long-term mental health impacts of disaster & providing appropriate support services.

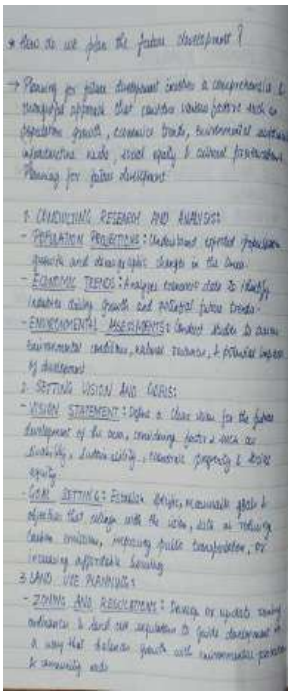


- MIXED USE DEVELOPMENT: Encourage mixed used zoning that combine residential, commercial & recreational space to create vibrant communities.
- SMART GROWTH PRINCIPLES: Implement smart growth principles that promote compact, transit-oriented development, preserving open space, & reducing urban sprawl.

4. TRANSPORTATION PLANNING:
- MULTIMODAL TRANSPORTATION: Develop transportation plans that integrate public transit, cycling infrastructure, pedestrian-friendly design, & efficient road networks.
- ACCESSIBILITY: Ensure accessibility for all residents, including those with disabilities, through universal design principles & inclusive transportation options.

5. ENVIRONMENTAL SUSTAINABILITY:
- GREEN BUILDING STANDARDS: Promote the use of green building practices & certification systems to reduce energy consumption, water usage, & waste.
- RENEWABLE ENERGY: Encourage the incorporation of renewable energy sources such as solar, wind and geothermal into new development.
- NATURAL RESOURCES PROTECTION: Preserve & enhance green spaces, wetlands, & natural habitats through conservation & restoration efforts.

They can thrive in the face of future challenges & opportunities.



* How to we plan the future development?

→ Planning for future development involves a comprehensive & thoughtful approach that considers various factors such as population growth, economic trends, environmental sustainability, infrastructure needs, social equity & cultural preservation. Planning for future development:

1. CONDUCTING RESEARCH AND ANALYSIS:
- POPULATION PROJECTIONS: Understand expected population growth and demographic changes in the area.
- ECONOMIC TRENDS: Analyze economic data to identify industries driving growth and potential future trends.
- ENVIRONMENTAL ASSESSMENTS: Conduct studies to assess environmental conditions, natural resources, & potential impacts of development.

2. SETTING VISION AND GOALS:
- VISION STATEMENT: Define a clear vision for the future development of the area, considering factors such as livability, sustainability, economic prosperity & social equity.
- GOAL SETTING: Establish specific, measurable goals & objectives that align with the vision, such as reducing carbon emissions, improving public transportation, or increasing affordable housing.

3. LAND USE PLANNING:
- ZONING AND REGULATIONS: Develop or update zoning ordinances & land use regulations to guide development in a way that balances growth with environmental protection & community needs.

Format 4

M.E.S. **PILLAI COLLEGE OF ARCHITECTURE , New Panvel**				
C O U R S E R E P O RT				
Subject: Electives – Communication skills		**Term: II**	**AY: 2023-24**	
Course Code: 421	**Credits : 03**	**Semester: IV**	**No of Periods per week : 01**	
Total Marks: 100	**Internal : 100**	**External : 00**	**Theory Paper : 00**	

Faculty:	Subject coordinator : Prof. Ashwini Bhosale

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

An elective course is a course that students choose to take part of their programme of study. Choosing electives demonstrates an interest in new areas of study while showing student's willingness to branch out and try something new. College Electives prepare students for tomorrow, setting the stage for new interests, college majors, and career paths.

This course will give the opportunity to develop and strengthen skills in preparing and presenting public oral presentations in a variety of situations. This course will focus on instructional strategies to develop the written, verbal, non-verbal and technical communication skills of the students. This course will cover all the tools and techniques necessary for improving presentation and public speaking skills so that the participants can express themselves clearly, with confidence and power, in variety of speaking situations. In this course, Students will be taught presentation techniques; how to plan and structure an effective presentation; how to develop ideas; effective delivery methods; and how to overcome anxiety, fear and nervousness when making a presentation.

Methodology (All the following points must be addressed in ALL subjects)

Aim: To develop and strengthen skills in preparing and presenting public oral presentations in a variety of situations in professional world.

Objectives:-

- To develop the written, verbal, non-verbal and technical communication skills of the students.
- To cover all the tools and techniques necessary for improving presentation and public speaking skills so that the participants can express themselves clearly, with confidence and power, in variety of speaking situations.
- To teach students presentation techniques; how to plan and structure an effective presentation; how to develop ideas; effective delivery methods; and how to overcome anxiety, fear and nervousness when making a presentation.

PROCESS: (Please elaborate pointwise)

PROCESS:

Methods of Conduction:

The course employs a multifaceted approach to instruction, incorporating lectures, PowerPoint presentations, group discussions, and interactive sessions to facilitate learning. Through small group discussions and collaborative learning activities, students engage with course material, leveraging peer interaction to enhance their understanding. Writing assignments and exercises are utilized to reinforce key concepts and improve analytical and problem-solving skills, thereby nurturing effective communication abilities. Furthermore, the integration of tools such as Microsoft PowerPoint and SketchUp software enhances students' visual communication skills and aids in the creative expression of ideas.

Tools and techniques used for course conduction:

The course utilized Microsoft PowerPoint presentations to enhance engagement and comprehension, employing multimedia elements such as images, audio, and video to captivate students' attention and facilitate deeper understanding. Recognizing the importance of visualization in architecture, an assignment was tailored to incorporate SketchUp software, renowned for its user-friendly interface and robust 3D modeling capabilities. SketchUp provided students with the necessary tools to conceptualize, refine, and articulate their design concepts effectively within the course framework.

Assignments designed for students with respect to the above aims and objectives:

• Report Writing: After each class, students engage in concise writing tasks that reinforce the day's lessons, promote retention of key points, and enhance their writing proficiency.

• Collaborative Learning: Students participate in paired or group tasks aimed at achieving specific outcomes, fostering collaborative problem-solving and encouraging diverse perspectives.

• Group Projects: Through group assignments, students tackle complex problems, delegate responsibilities, share knowledge, and hold each other accountable, fostering teamwork and the development of individual voices within a shared identity.

• Interactive Sessions: Inspiring yet challenging sessions encourage frequent communication among students, facilitating self-monitoring of their progress and personal development.

• Model-Making Activities: Discussions around design models allow students to engage with spatial design concepts, visualize construction processes, and contribute creatively to the design process.

• Book Cover Design: Students undertake the task of designing their own book covers, evaluating their comprehension and communication skills in a visual medium. Emphasis is placed on creating covers that appeal to viewers, reflect the book's genre, and effectively communicate its purpose and plot details.

Topics covered for the students:

1. Introduction To Communication Skills
2. Barriers In Communication
3. 10 Tips To Make Successful Architecture Project Presentation
4. Visual Communication
5. Reading Skills: A Gateway For Communication Skills
6. Effective Writing Communication Skills

Extent of horizontal and vertical integration achieved. Explain in 150 to 300 words.

Horizontal integration in the context of an architectural design studio refers to the seamless collaboration and communication across different disciplines and stakeholders involved in the design and construction process. This integration ensures that all aspects of a project are aligned and work together harmoniously, leveraging the diverse expertise of various participants to create a cohesive and successful outcome.

Here’s how horizontal integration plays out in an architectural design studio:

Interdisciplinary Collaboration

Teamwork Across Specializations:

Architectural design projects often require input from various specialists, such as structural engineers, interior designers, landscape architects, and sustainability consultants. Horizontal integration promotes collaborative teamwork, ensuring that all these disciplines work together from the project's inception to its completion.

Shared Goals and Vision:

By integrating different perspectives early on, the project team can develop a unified vision and shared goals. This prevents conflicts and misalignments that could arise later in the project, ensuring that all decisions contribute towards the common objective.

Effective Communication

Clear Communication Channels:

Establishing effective communication channels is crucial for horizontal integration. Regular meetings, collaborative platforms, and transparent reporting systems ensure that all team members are on the same page, facilitating the smooth exchange of information and ideas.

Understanding and Empathy:

Architects and designers must communicate effectively with clients, who may have different backgrounds, expertise, and expectations. By empathizing with the client's perspective and clearly conveying design concepts, architects can ensure that the client's needs and preferences are understood and met.

Integration of Client Feedback

Responsive Design Process:

Horizontal integration involves continuously incorporating client feedback into the design process. This iterative approach allows for adjustments and refinements based on the client's evolving needs and expectations, leading to a more satisfactory final product.

Managing Expectations:

Clear communication helps manage client expectations, reducing the likelihood of misunderstandings or disappointments. By setting realistic goals and keeping the client informed at every stage, architects can build trust and foster a positive relationship.

Coordination and Conflict Resolution

Resolving Conflicts:

In any collaborative project, conflicts can arise due to differing opinions and approaches. Horizontal integration provides mechanisms for conflict resolution, such as mediation and collaborative problem-solving, ensuring that disputes are addressed constructively and do not hinder progress.

Building a Supportive Network:

A well-integrated team forms a supportive network, where members assist each other and share resources. This network enhances the team's ability to tackle challenges and deliver a successful project.

Impact on Academic and Personal Development

Skill Development:

For students in an architectural design studio, horizontal integration fosters the development of essential skills, such as teamwork, communication, and problem-solving. These skills are invaluable not only in their academic pursuits but also in their future professional careers.

Forming Relationships:

By engaging in collaborative projects, students form meaningful relationships with peers, instructors, and industry professionals. These relationships can provide support, mentorship, and opportunities, positively impacting their personal and academic lives.

Conclusion

Horizontal integration in an architectural design studio emphasizes the importance of interdisciplinary collaboration, effective communication, and continuous client engagement. It nurtures a supportive network and develops strong interpersonal skills, ultimately contributing to the successful delivery of architectural projects and the professional growth of students.

Scope for improvement in future (next year):

Guest lectures can be conducted with respect to the subject to increase more productivity amongst the students.

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS

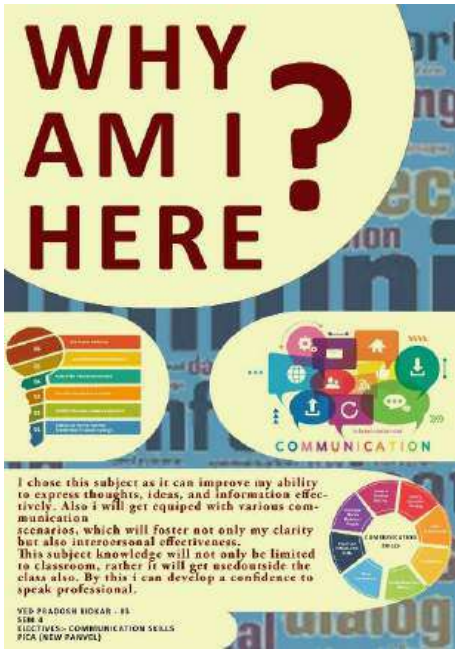
Assignment 1: Exploring Existence - "Why Am I Here?" Flyer Design

Objective:
The objective of this assignment is to provide students with an opportunity to creatively showcase their understanding of communication skills through the design of a unique A5 size journal dedicated to their book assignments. This assignment aims to merge visual elements, written content, and photographs to effectively communicate the essence of each book assignment.

Instructions:

Format: The journal should adhere to the A5 size specifications.
Cover Design: Design a captivating cover for the journal that reflects your personal style and creativity. Consider incorporating relevant imagery, typography, and colors to make it visually appealing.
Title Page: Create a title page that clearly states the purpose of the journal and includes your name or pseudonym as the creator.
Book Assignments: Dedicate separate pages or spreads within the journal for each book assignment. Include a brief write-up explaining the assignment, followed by photographs or illustrations that visually represent your interpretation of the assignment.
Flyer Design: Develop a flyer design for the journal, incorporating the provided references. You have the flexibility to choose between handmade or digital design techniques.
Content Organization: Organize the content in a coherent and visually pleasing manner. Ensure that each assignment is clearly delineated and that the layout enhances the overall aesthetic appeal of the journal.
Creative Elements: Infuse your journal with creative elements such as hand-drawn illustrations, calligraphy, mixed media, or digital graphics. Experiment with different techniques to elevate the visual impact of your design.
Reflection: Conclude the journal with a reflective piece where you discuss your creative process, challenges encountered, and lessons learned throughout the assignment. Share insights into how this project has enhanced your communication and design skills.
Submission Guidelines:
Submit your completed journal either in physical or digital format, adhering to the specified A5 size dimensions.
For physical submissions, ensure that the journal is neatly bound or presented in a professional manner.
For digital submissions, compile the pages into a cohesive PDF document for easy viewing.
Assessment Criteria:
Creativity and Originality: The extent to which the journal demonstrates innovative design concepts and unique visual elements.
Clarity and Organization: The clarity and coherence of the content organization, ensuring that each assignment is effectively communicated.
Visual Presentation: The overall visual appeal of the journal, including cover design, layout, typography, and use of imagery.
Reflection: The depth of reflection provided on the creative process and the integration of feedback received from the instructor or peers.
References:

Provided references for flyer design.
Note: Feel free to incorporate additional elements or design techniques to personalize your journal and make it a reflection of your individual style and creativity.



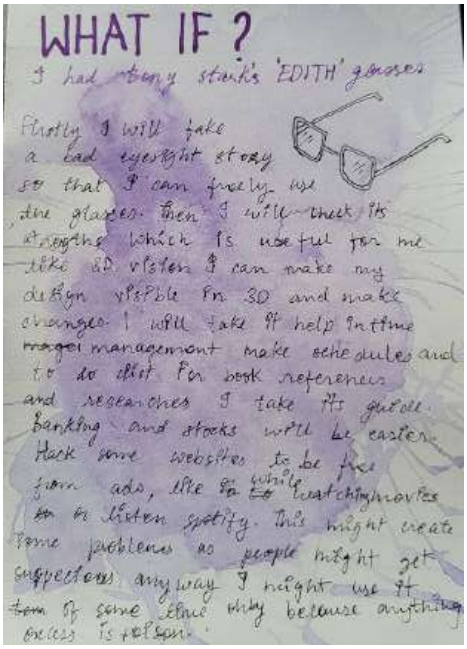
Assignment 2: Exploring the "What If" Challenge

Assignment 2: Exploring Hypothetical Realities: The "What If" Challenge

Introduction:
Welcome to the "What If" challenge! In this assignment, you will embark on a journey of imagination and creativity by delving into intriguing hypothetical scenarios. By asking "What If" questions, we will explore alternative realities, sparking your creativity and honing your writing skills.

Scenario Selection:
Choose one of the following scenarios to analyze and develop your narrative:

What if you can fly for a day?
If you were a king/queen, how would you spend your day?
What if the dream world is the actual world?
What if dinosaurs are still alive somewhere?
What if you could relieve your childhood in exchange for your life?
What if all of the adults disappeared, leaving only children to fend for themselves?
What if the Titanic suddenly appeared... with all of the original passengers and crew members onboard?
What if someone woke up in a strange spaceship with no recollection of how they got there?
What if someone kept waking up from dream after dream with no end and no way to determine what was real and what was a dream?
What if someone woke up in a remote forest with no recollection of how they got there?



Report Structure:
Your report should include the following elements:

Introduction to your chosen scenario.
Development of the hypothetical situation, exploring its implications and potential outcomes.
Character development (if applicable) and narrative progression.
Conclusion summarizing the key insights gained from exploring the "What If" scenario.
Graphical sketches or illustrations to complement your narrative and enhance visual appeal.
Time Limit:
Set a reasonable time limit for completing the assignment, ensuring that you allocate sufficient time for brainstorming, writing, and sketching.

Conclusion:
The "What If" challenge offers a unique opportunity to push the boundaries of your imagination and develop your creative writing skills. By exploring these hypothetical scenarios, you will discover new ways to engage readers and craft compelling narratives. Embrace the challenge, unleash your creativity, and embark on a journey of endless possibilities!

What if ??

- Once I was dreaming that I was jumping from a sky scrapper after finishing my architecture and i was feeling like a bird in sky seeing the natural beauty of our surrounding. The intricate designs of buildings, the geometric pattern of cities and the harmony between nature and Human made structures.
- what if i would be a king. firstly I will do all things that a king does, then I will do all things that I wished in my childhood like buying all expensive cars, & planes.
- what if my dream world is the actual world, then I will be the most powerful and ~~cleared~~ cleanest man on the Earth.
- If dinosaurs are still alive somewhere, then I will make such places Extinct Places from the others.
- If I could Exchange my childhood from now then, I would firstly, will be the toppest person in the class as I know all the answers already - then I will Enjoy my childhood to the fullest.

and lessons learned in the intervening years. The richness of life (adult) with its complexities and setbacks contributes to personal development and Resilience. On the other hand allure of Reclaiming the purity and unbridled enthusiasm of childhood may hold a nostalgic charm. Ultimately, the decision would hinge on individual values, priorities and perspectives on the meaning of life. While the prospect of reliving childhood might appeal to some depth and breadth of experiences gained through the passage of time. It becomes a contemplation of whether the innocence of childhood is worth trading for the depth and complexity that life's journey brings.

WHAT IF I HAVE DORAEMON.

Having a Doraemon would be quite an adventure! Doraemon, the beloved character from the Japanese manga and anime series, is known for his magical gadgets from the future. If I have Doraemon, I'll potentially have access to all sorts of futuristic devices and solutions to every day problem. However, Remember that Doraemon is a fictional character, so enjoying his stories is the closest I can get to experiencing his wonderful gadgets and friendship.

WHAT IF ?

AS A KID I WAS AMAZED AFTER WATCHING THE MOVIE INCEPTION AND I STILL REMEMBER NOT UNDERSTANDING IT. IT WAS TOTALLY CONFUSING WHEN THEY FROM ONE DREAM TO ANOTHER, BUT WHAT IF IT HAPPENS IN REAL LIFE THAT WE KEEP WAKING UP FROM DREAM TO DREAM WITHOUT AN END. IT WILL BE A TOTALLY MESSED UP SITUATION. THE TIME IN THE DREAMS CAN ALSO MOVE DIFFERENTLY. THE ONLY WAY TO GET OUT OF A DREAM WOULD BE IF SOMEONE FROM OUTSIDE THE DREAM WAKES YOU UP BUT THAT WOULD DIFFICULT AS YOU WOULD CAUGHT IN A LOOP AND WOULDN'T KNOW WHAT IS REAL. THE ONLY WAY TO WAKE UP WOULD BE THEN TO KILL YOURSELF IN THE DREAM BUT THAT WOULD BE RISKY AS WE DON'T KNOW ABOUT THE REALITY. THUS WE WILL BE CAUGHT IN AN ENDLESS LOOP UNLESS WE CAN DIFFERENTIATE DREAMS FROM REALITY.

3

WHAT IF I COULD TIME TRAVEL?

If I could time travel, I'd scroll through all ancient books to witness historical events and live life as per their lifestyle.

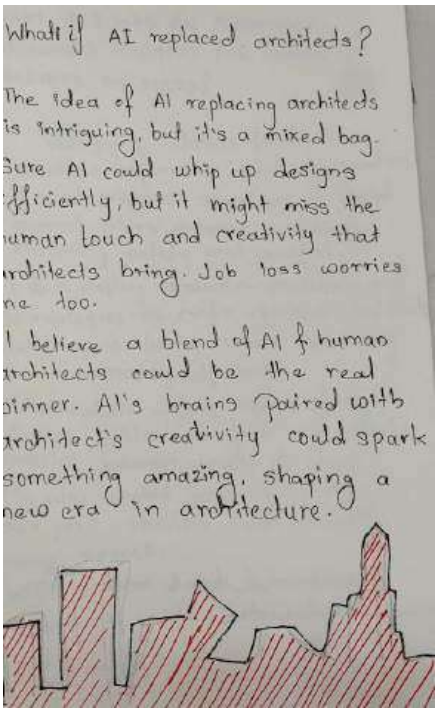
If I could time travel, I'd like to correct my past mistakes to untangle future tragedy happens. Cause of it. Also, I'll have lot of happy memories cause of less mistakes.

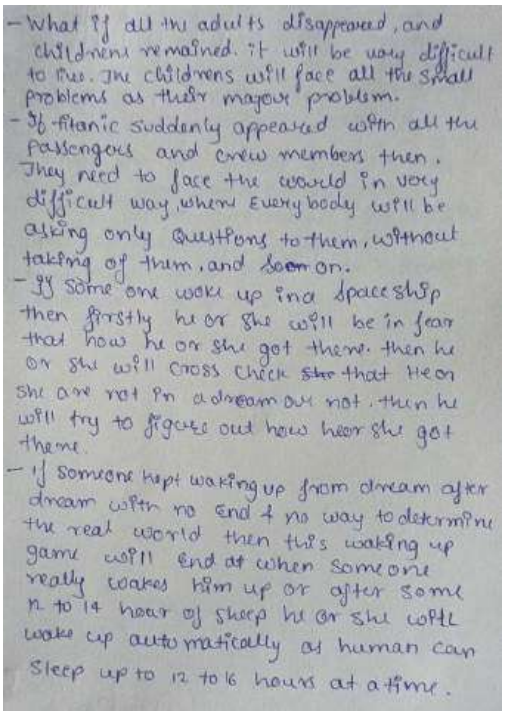
If I could time travel, I'd like to relive all my happy moments/ memories from childhood which is most stressfree period of my life.

If I could time travel, I would like to see life journey of my parents/friends or idols. Cause I want part of their life to experience or absorbs it in my life.

If I could time travel I'd discover forgotten stories of some people or places or incidents and appreciate them in front of world.

If I could time travel I'd like to see how people will read after I'll leave this world.





Assignment 3: Architectural Role-Playing Exploration

Objective:
The objective of this assignment is to immerse yourself in the world of architecture by embodying the persona of a renowned architect. Through this role-playing activity, you will gain insights into the architect's personality, design philosophy, and creative process by studying their life and famous works.

Instructions:

Choose an architect whose work resonates with you.
Dive into the architect's life, personality, and design thinking process.
Select one of the architect's famous works to focus on for this assignment.
Prepare a presentation where you will embody the architect and explain the design process behind the selected work to the class.
Optionally, you may dress up in the style of the architect to enhance the immersive experience.
Assignment Details:

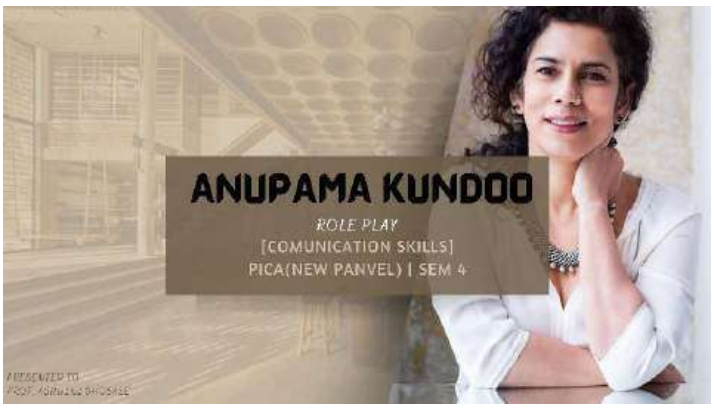
Step 1: Selection of Architect and Work
Select an architect whose work intrigues you. Research various architects and their notable projects to find one that resonates with your interests and design preferences. Consider the architect's style, era, and contributions to the field of architecture. Once you've chosen an architect, select one of their famous works to delve deeper into for this assignment.

Step 2: Immersion into the Architect's World

Immerse yourself in the life and work of the chosen architect. Study their biography, explore their design philosophy, and analyze their approach to architecture. Pay attention to key influences, significant projects, and unique design principles that characterize the architect's style.

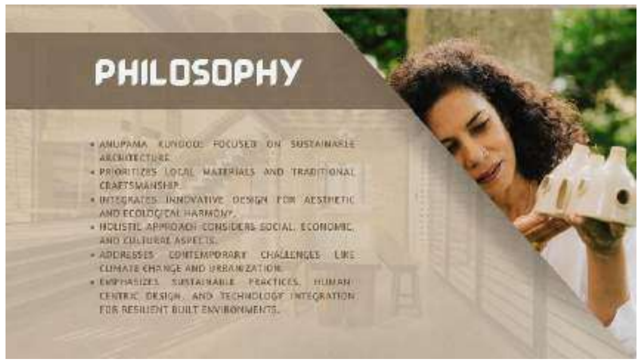
Step 3: Preparation of Presentation
Prepare a presentation where you will assume the role of the chosen architect. Begin by introducing yourself as the architect and providing background information about your life and career. Then, focus on the selected work and delve into the design process behind it. Discuss the inspiration, conceptualization, and execution of the project, highlighting key design elements and architectural innovations. Use visual aids such as images, sketches, and diagrams to illustrate your points and enhance the presentation.

Step 4: Presentation Day
On the designated presentation day, come prepared to embody the architect and share your insights with the class. Dressing up in the style of the architect is optional but encouraged for a more immersive experience. Deliver your presentation with confidence, channeling the architect's personality and passion for their work. Invite questions and engage in discussions to deepen understanding and foster appreciation for the architect's contributions to the world of architecture.
Conclusion:
Through this role-playing exploration, you will gain a deeper understanding of an architect's style, design process, and creative vision. Embrace the opportunity to step into the shoes of a renowned architect, and let their spirit guide you as you unravel the mysteries behind their iconic works of architecture.




HOLLOW CLAY TUBE (GUNA) CATENARY VAULT ROOF
TERACOTTA POT FILLER SLAB
FERROCEMENT ROTATING SCREEN
RECYCLED WOOD
SLATE STONE FLOORING
CEMENT OXIDE FLOORING

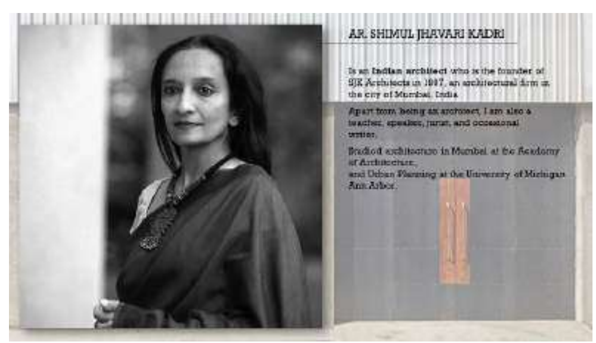

WALL HOUSE
• WALL HOUSE BY ANUPAMA KUNDOO LOCATED OUTSIDE AUROVILLE.
• BUILT IN 2000 ON A 15-ACRE COMMUNITY AREA FOR COMMUNAL LIVING.
• COST: ONE MILLION RUPEES, AIMED AT REDEFINING PRIVATE RESIDENCE DESIGN.
• TESTED TECHNOLOGICAL INNOVATIONS FOR FUTURE PROJECTS.
• UTILIZED LOCAL MATERIALS CREATIVELY AMID GLOBAL RESOURCE CHALLENGES.
• MODERN CONCEPT WITH TRADITIONAL USE OF COMPRESSED EARTH, CONCRETE, AND STEEL.
• EMPHASIZED ENVIRONMENTAL CONSCIOUSNESS USING LATERITE STONE AND FERROCEMENT.
• WALLS MADE FROM HAND-MADE INDIAN CLAY BRICKS, CONTRASTING WITH VENETIAN BRICK COLUMNS.


PHILOSOPHY
• ANUPAMA KUNDOO FOCUSED ON SUSTAINABLE ARCHITECTURE.
• PRIORITIZES LOCAL MATERIALS AND TRADITIONAL CRAFTSMANSHIP.
• INTEGRATES INNOVATIVE DESIGN FOR AESTHETIC AND ECOLOGICAL HARMONY.
• HOLISTIC APPROACH CONSIDERS SOCIAL, ECONOMIC, AND CULTURAL ASPECTS.
• ADDRESSES CONTEMPORARY CHALLENGES LIKE CLIMATE CHANGE AND URBANIZATION.
• EMPHASIZES SUSTAINABLE PRACTICES, HUMAN-CENTRIC DESIGN, AND TECHNOLOGY INTEGRATION FOR RESILIENT BUILT ENVIRONMENTS.


Bodh Gaya - where the Buddha received enlightenment, one of the holiest sites of pilgrimage for the Buddhist world.
Located – Gaya, Bihar
Client Marasa Sarovar hospitality
Spread over 5 acres
The 59-key hotel consists of two key zones – the public block closer to the northern access road and the guests' private block on the site's southern end.


PLAN
HOTEL AT BODHGAYA
ROOMS
CAFE AND KITCHEN
COURTYARD
SPA
PARKING


The architects collaborated with local families for the clay tiles cheaper and far more sustainable than industrial insulation alternatives.
The double roof constitutes a concrete vault and a pitched roof covered with steel and clay tiles, with an air gap between them.
• comfortable indoor temperatures
• reducing energy consumption.
Rainwater is collected in underground pits with honeycombed walls, slowly seeping into the earth. Roofs direct water to tanks for irrigation.


AR. SHIMUL JHAVARI KADRI
Is an Indian architect who is the founder of SJK Architects in 1997, an architectural firm in the city of Mumbai, India.
Apart from being an architect, I am also a teacher, speaker, juror, and occasional writer.
Studied architecture in Mumbai at the Academy of Architecture,
and Urban Planning at the University of Michigan Ann Arbor.

Assignment 4: Architectural Transformation: From Concept to Creation

Objective:
To explore the multifaceted nature of architectural design by examining a distinctive project and transforming it into a different theme while considering contextual factors.

Assignment Details:

Part 1: Exploration of Architectural Intricacies

Select a distinctive architectural project from the provided library resources.
Conceptualize and express spatial design ideas through an innovative PowerPoint presentation and physical model.
Develop a physical model depicting the current design of the selected project.
Present the selected project, delving into its architectural intricacies through the PowerPoint presentation and model.
Part 2: Reimagination and Transformation

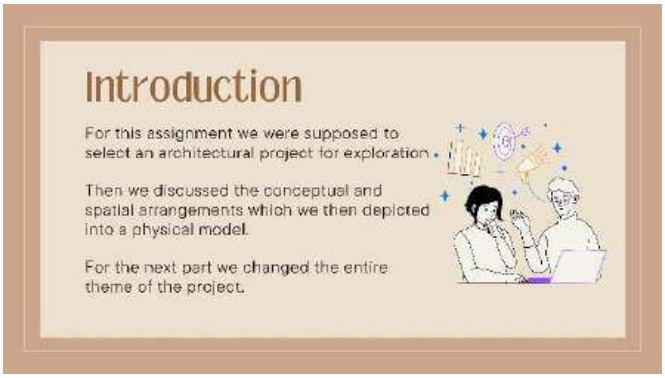
Reimagine and transform the chosen project into a different theme such as a cafe, library, school, hospital, clinic, playgroup, salon, kiosk, etc.
Justify the conversion by considering the neighborhood context and relevant factors influencing the new theme.
Create model presentations for both the original and transformed designs, accompanied by corresponding

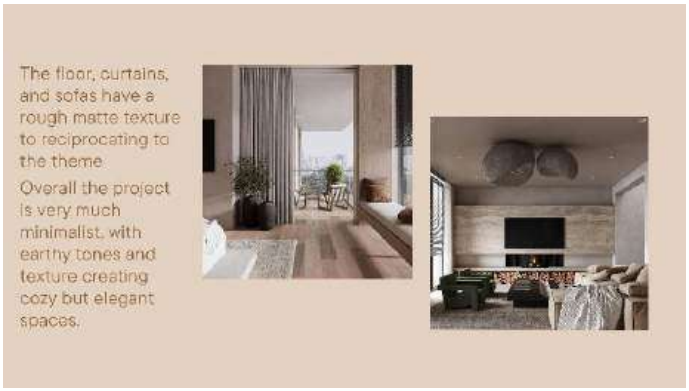
presentations.
Additional Requirements:

Produce a short film creatively showcasing the evolution of the design process for both Part 1 and Part 2. Reflect on the multifaceted architectural production process, capturing insights and lessons learned throughout the transformative design journey.
Submission Guidelines:

Submit the PowerPoint presentations for Part 1 and Part 2, along with documentation of the physical models.
Submit the short film documenting the design process.
Provide a reflective essay capturing insights and lessons learned throughout the transformative design journey.
Evaluation Criteria:

Creativity and Innovation in Design Concepts
Depth of Exploration into Architectural Intricacies
Justification and Contextualization of Transformation
Quality and Presentation of Physical Models
Effectiveness of PowerPoint Presentations
Creativity and Execution of Short Film
Reflection and Insightfulness in the Reflective Essay
Note: Plagiarism will not be tolerated. All sources must be properly cited, and the work must be original. Late submissions will incur penalties unless prior arrangements have been made.





- Architect **Charles Deaton** said, '**If people do not have angles, then we should not live in boxes**. The perishable grocery super-brand called for an unconventional, fluid, and adhesive design for its restaurant section. The idea was to create a homogenous volume characterized by curvilinear ceilings and statuesque **Dholpur** stone slivers over the blank canvas. The free-form oak furniture adds a second meandering layer that enhances the zaftig volume.

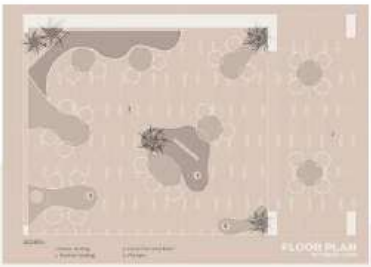


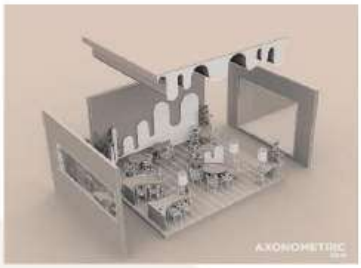
Myfresh Café

Location: Panchkula, India
Architects: Loop Architects
Total Area of project: 600 sq.ft.
Constructed in the year: 2020
Lead Architects: Suvitra Bhardwaj & Nikhil Pratap Singh

"The curve is the line of the Gods." Myfresh Café is an attempt to create a bold and sinuous space that mimics natural form unequivocally and unabashedly. It is an experimental endeavor that explores the minimal aspect of seamless forms.

PLANS & AXONOMETRY





The third accent layer of green and floor lamps gives the space a vertical impetus and depth. The fierce and striking dynamism of the space is consciously muted through a monotonal palette of beige and fawn shades. Myfresh is a contemporary outlet that reflects its patrons' vibe and tries to conjure magic through its buxom imagery.



OUR MODEL





PHOTOS







Assignment 5: Exploring Architectural Concepts through Multimedia Expression

Objective:
The objective of this assignment is to deepen your understanding of architectural design concepts through multimedia expression. You will select an architectural project of your choice, interpret its spatial design ideas, and translate them into various forms of multimedia, including conceptual drawings, posters, presentations, and short films. Through this process, you will gain insight into the creative production process of architectural projects while honing your skills in visual communication and storytelling.

Instructions:
Project Selection: Choose one architectural project that intrigues you. It could be a building, a landscape, an urban design, or any other architectural endeavor that you find inspiring. Ensure that the project has sufficient visual material available for your analysis and interpretation.
Conceptual Drawings: Generate a series of conceptual drawings that express your interpretation of the spatial design ideas embodied in the selected project. These drawings should capture the essence of the project's design philosophy, spatial organization, and any unique architectural features that stand out to you.

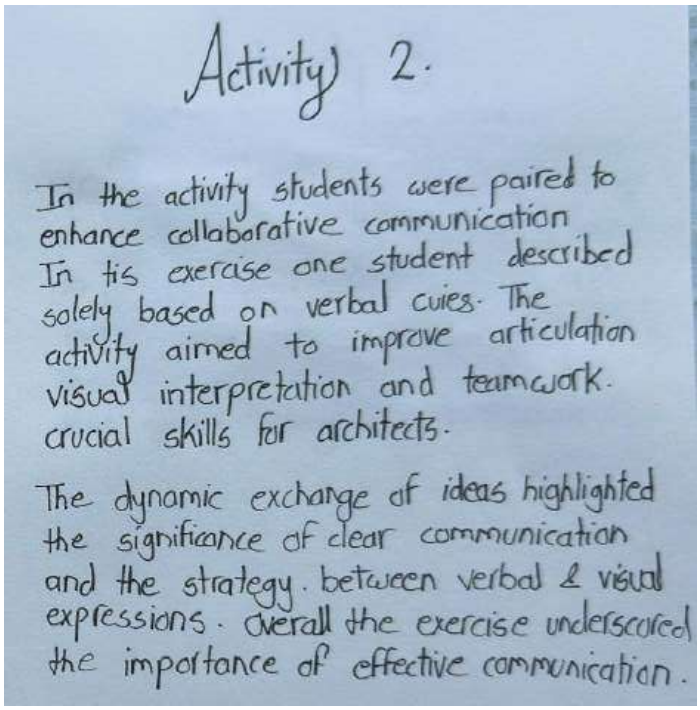
Poster Creation: Create a visually compelling poster that conveys your understanding of the architectural project. The poster should integrate your conceptual drawings, textual explanations, and any additional visual elements that enhance the overall message. Aim for coherence and clarity in your presentation.
Pecha Kucha Presentation: Prepare a Pecha Kucha-style presentation that integrates spoken words and imagery to showcase your interpretation of the architectural project. Your presentation should be concise, engaging, and structured around key themes or concepts derived from your analysis. Each presentation slide should be timed to automatically advance after a fixed duration (e.g., 20 seconds) to maintain the Pecha Kucha format.

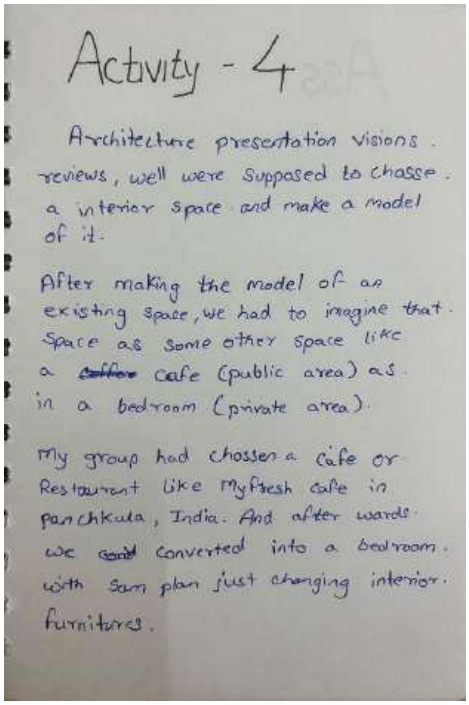
Film Theme or Sequence: Translate the spatial design ideas of the selected project into a film theme or sequence. This could involve imagining how the space would unfold cinematically, exploring different camera angles, lighting effects, and narrative elements to convey the essence of the architecture. You can use drawing, filming, modeling, writing, and/or editing techniques to create your short film concept.
Short Film Production: Develop a short film based on your film theme or sequence concept. Utilize the multimedia skills you have acquired to bring your vision to life effectively. This may involve storyboard development, filming scenes, creating digital models, writing scripts, and editing footage to produce a cohesive narrative that communicates your interpretation of the architectural project.
Documentation and Reflection: Throughout the assignment, document your creative process, including research, ideation, experimentation, and refinement. Reflect on the challenges you encountered, the decisions you made, and the insights you gained during each stage of the production process. Consider how your understanding of the architectural project evolved through multimedia expression and what lessons you can apply to future design endeavors.

Submission Guidelines:
Compile all components of your assignment into a single digital portfolio or presentation.
Ensure that your submission is well-organized, visually appealing, and easy to navigate.
Submit your assignment by the specified deadline, adhering to any additional formatting or submission requirements provided by your instructor.

Evaluation Criteria:
Your assignment will be evaluated based on the following criteria:
Creativity and Originality: The extent to which your interpretation of the architectural project demonstrates innovative thinking and imaginative expression.
Visual Communication: The clarity, coherence, and effectiveness of your visual representations, including drawings, posters, presentations, and short films.
Conceptual Understanding: The depth of your understanding of the spatial design ideas embodied in the selected project and your ability to translate them into multimedia formats.
Technical Proficiency: The skillfulness and proficiency demonstrated in the execution of multimedia techniques, including drawing, filming, modeling, writing, and editing.
Documentation and Reflection: The thoroughness and insightfulness of your documentation and reflection on the architectural project production process, including challenges, decisions, and lessons learned.

Note: Feel free to seek guidance from your instructor throughout the assignment process. Embrace experimentation and exploration as you engage with the creative possibilities of multimedia expression in architectural design.





ACTIVITY - 5

Architecture Presentation visions reviews, we were suppose to choose an interior space and make a model of it.

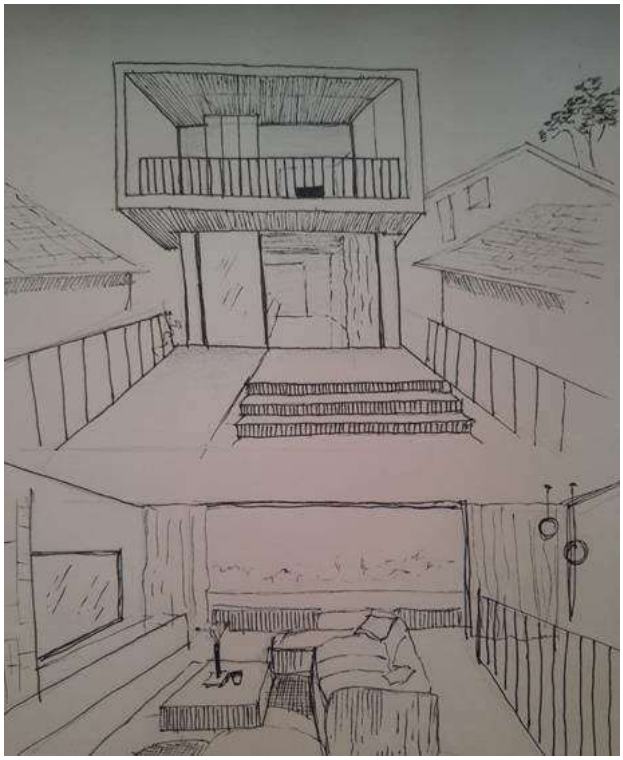
After making of that model. we had imagine the space with any other function with same interior design style.

My group had chosen a cafe at the begining and later on we made bedroom from the same interior model.

Book Journal

This assignment particularly what i learned is that converting spaces from one to another which i did in the first is a pantry with seating of 8 people which the space have longer fenestration like ribbon windows. That is the key point where i thought to convert the space in a bedroom which can really feel the user staying in between nature and can enjoy plesent view from the bed.

AFTER: BED ROOM.



STRATA HOUSE

The project selected by the group is of a residential house located in sydney, Australia. The house is on a countour based site. The model my group made is of the living room on the ground floor. The living room is more open and spacious having an open terrace attached to it. The living room is aesthetically pleasing and welcoming giving the user a peaceful experience. The room boasts a minimilistic theme and an absence of walls allowing for versatile variations in room layout. The quality gives the room to be transformed in any different space. thus we choose this model. After analyzing the space we all came to a common understanging that the space can be either converted into a food cafe or a gaming cafe.

Assignment 6: Personalized Book Cover Design for Communication Skills Elective

Objective:
The objective of this assignment is to engage your creativity and expressiveness by designing a handmade cover page for the Communication Skills elective. This assignment provides an opportunity for you to showcase your personal style, interests, and expertise in the field of communication through visual design. Your cover design will serve as a unique representation of your personality or training in this subject area.

Instructions:

Research and Inspiration: Begin by conducting research on book cover designs, particularly focusing on covers related to communication skills, graphic design, and visual communication. Explore different styles, techniques, and themes to gather inspiration for your own design.

Concept Development: Reflect on your personal experiences, interests, and expertise in communication skills. Consider how you can incorporate elements of your own personality or training into the design concept. Brainstorm ideas and sketch out rough concepts to visualize your cover design approach.

Materials and Techniques: Select appropriate materials and techniques for creating your handmade cover page. You may choose to work with traditional art supplies such as pencils, markers, paint, collage materials, or mixed media elements. Experiment with different textures, colors, and techniques to bring your design concept to life.

Design Execution: Begin the process of creating your book cover design, paying attention to composition, typography, imagery, and overall visual impact. Work iteratively, refining your design as you progress and incorporating feedback from peers or instructors if available.

Personalization and Expression: Infuse your cover design with elements that reflect your unique personality, style, or expertise in communication skills. Consider incorporating symbols, motifs, or visual metaphors that resonate with you personally or that symbolize key concepts in communication.

Presentation: Once your book cover design is complete, photograph or scan it to create a digital representation for presentation purposes. Prepare a brief explanation or artist statement that provides insight into the inspiration, creative process, and significance of your cover design.

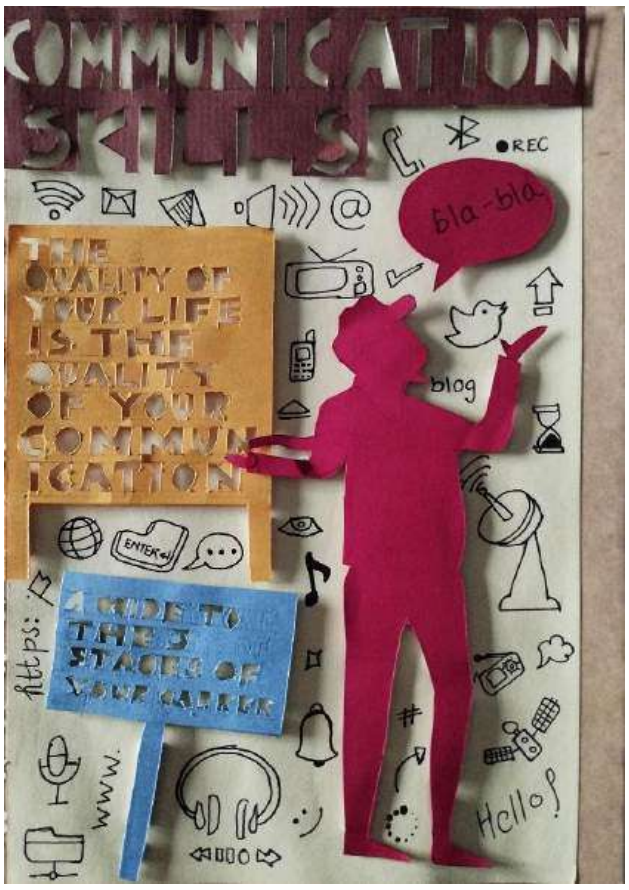
Reflection: Reflect on your experience of designing the book cover, considering the challenges you encountered, the decisions you made, and the artistic choices you found most rewarding. Discuss how your design reflects your personal connection to the subject of communication skills and what you learned through the creative process.

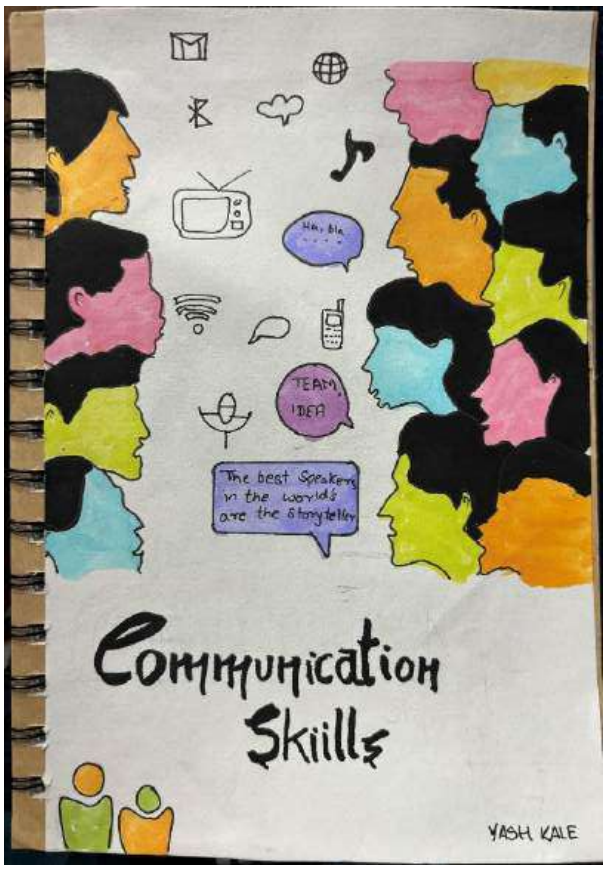
Submission Guidelines:

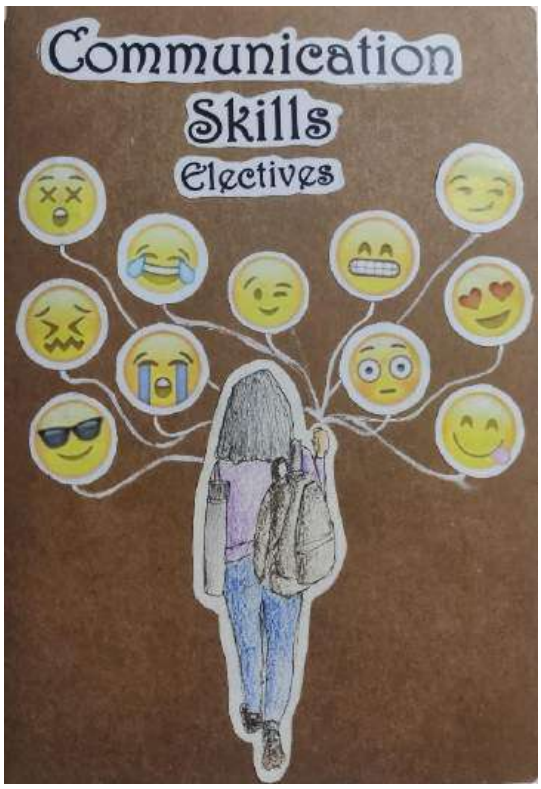
Submit a digital image or scan of your handmade book cover design along with your artist statement. Ensure that your submission is clearly labeled with your name and any additional information requested by your instructor.

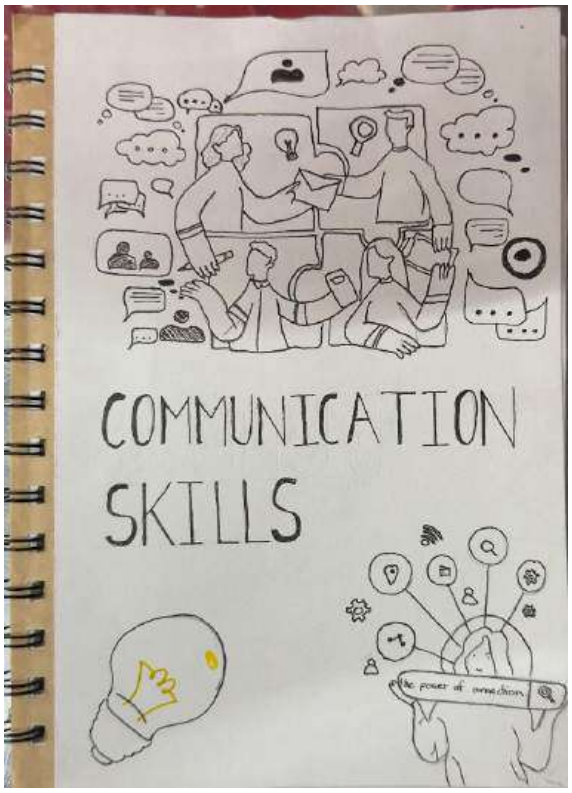
Submit your assignment by the specified deadline, adhering to any additional formatting or submission requirements provided by your instructor.
Evaluation Criteria:
Your assignment will be evaluated based on the following criteria:

Creativity and Originality: The extent to which your book cover design demonstrates originality, inventiveness, and artistic expression.
Visual Impact: The overall visual appeal and effectiveness of your design in capturing the attention and interest of viewers.
Personalization and Relevance: The degree to which your design reflects your personal style, interests, or expertise in communication skills and its relevance to the subject matter.
Craftsmanship and Technique: The skillfulness and proficiency demonstrated in the execution of handmade techniques, including use of materials, composition, and attention to detail.
Reflection and Insight: The depth of your reflection on the creative process, including challenges, decisions, and personal connections to the subject of communication skills.
Note: Embrace experimentation and exploration as you engage with the creative process of designing your book cover. Allow your personality and individuality to shine through in your design, creating a visually compelling representation of your connection to the subject of communication skills.






Communication
Skills
Electives


COMMUNICATION
SKILLS


COMMUNICATION
SKILLS


SMS
IDEA
COMMUNICATION
SKILLS
SUJAL KOLI
29
PICA

Course Plan Submitted v/s completed				
Subject: Electives – Communication skills			Course Code: 421	
Faculty: Prof. Ashwini Bhosale				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	**Introduction to Communication Skills:** Definition, The Importance of Communication. Objectives What is Communication? Importance of Communication How do we Communicate? Why are Communication skills important? What is a Skill? Language skills Types of Communication Styles of Communication What is Communication skills in Architecture?	**Activity 1:** 1. **Why am I here?** 2. **Guide for the blindfolded** **Book assignment 1:** **Rose, Thorn, Bud**	YES	**CO1**
2	**Barriers to communication & Visual Communication**	**Activity 2:** 1. **Telephone** 2. **Memory Test Activity** 3. **Partner Presentations** 4. **Introduction to Role-playing** **Book assignment 2:** A4 report on assignment 2 (How	YES	**CO2, CO3**

		did you experience all the activities)		
3	**Discussions**	**Presentation by students – Role Playing**	YES	**CO3**
4	**Final Presentation**	**Presentation by students – Role Playing**	YES	
5	**Reading Skills: a gateway for communication skills** **Basic Listening Skills**: Introduction, Self-Awareness, Active Listening, Becoming an Active Listener, Listening in Difficult Situations.	**Assignment 3:** **1. One Word Splash** **2. Just Listen** **Book Assignment 3:** **Text to self reading Task**	YES	**CO1**
6	**Writing Effectively:** Subject Lines, Put the Main Point First, Know Your Audience, Organization of the Message	**Assignment 4:** **1. Picture story** **Book Assignment 4,5:** **1. Dear Diary** **2. Writing exercise**	YES	**CO2**
7	Picture Story class presentation (Assignment 4)	**Assignment 4:** Class Presentations (Picture story)	YES	**CO4**
8	**Giving Presentations:** Dealing with Fears, Planning your Presentation, Structuring Your Presentation, Delivering Your Presentation, Techniques of Delivery. **Introducing Pecha Kucha Format.**	**Assignment 5:** 1. Architectural Presentations – Visions Reviewed	YES	**CO3, CO4**
9	Architectural Presentations – Visions Reviewed (Assignment 5)	Discussions	YES	

10	Architectural Presentations – Visions Reviewed (Assignment 5)	**Final Presentation** **Book Assignment 6: An A4 report on the learnings from Assignment 5**	YES	
11	The Importance of Teamwork & Collaboration in Architectural World	**Assignment 6: Spaghetti Tower** **Book Assignment 6** An A4 report on the learnings from Assignment 6	YES	**CO4, CO5**
12	**Group Discussion:** Introduction, Communication skills in group discussion, Do's and Dont's of group discussion	**Assignment 6: Debate** **1. Form follows function/function follows form** **2. Sustainability should be mandatory/ Sustainability should be voluntary**	YES	**CO5**
13	**Final Submissions of Electives**		YES	

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

To align the Course Outcomes (COs) with the lectures and assignments of the Communication Skills Elective, we can outline how each lecture and assignment contributes to achieving these outcomes. Let's break down the COs and how they are addressed throughout the course:

Course Outcomes (COs):
Mastering clear communication, structured content, and engaging delivery techniques across diverse contexts.
Alignment with Lectures and Assignments:
Lecture Topics: Introduction to Communication Skills, Barriers in Communication, Visual Communication, Effective Writing Communication Skills.

Assignments:
Assignment 1 (Flyer Design): Emphasizes visual communication skills and structured content.
Assignment 2 (What If Challenge): Encourages creative thinking and structured narrative development.
Assignment 5 (Multimedia Expression): Involves interpreting architectural concepts and translating them into engaging multimedia presentations.
Assessment: Evaluations of assignments focus on the clarity of communication, both written and visual, and the effectiveness of the delivery techniques used.

Applying critical analysis to communication challenges, proposing effective solutions, and adapting strategies accordingly.

Alignment with Lectures and Assignments:
Lecture Topics: Barriers in Communication, Effective Writing Communication Skills.
Assignments:
Assignment 3 (Architectural Role-Playing): Requires critical analysis of an architect's design philosophy and effective presentation of findings.
Assignment 4 (Architectural Transformation): Challenges students to analyze architectural intricacies and propose innovative transformations.
Assessment: Assignments assess students' abilities to analyze complex communication challenges and propose creative solutions through presentations and reports.

Cultivating self-assurance, managing anxiety, and delivering engaging speeches with poise and conviction.

Alignment with Lectures and Assignments:
Lecture Topics: Overcoming anxiety, fear, and nervousness when making presentations.
Assignments:
All Assignments: Each assignment requires students to present their work confidently, fostering self-assurance and effective speech delivery.
Assessment: Students' poise, confidence, and conviction in their presentations are evaluated as part of the assessment criteria.

Excelling in group discussions, debates, and team projects through effective teamwork and problem-solving.

Alignment with Lectures and Assignments:
Assignments:
Assignment 3 (Architectural Role-Playing): Involves group discussions and collaborative learning.
Assignment 4 (Architectural Transformation): Requires teamwork to tackle complex problems and delegate responsibilities.
Assessment: Team-based assignments evaluate students' ability to collaborate effectively and solve problems collectively.

Skillfully utilizing visual tools like multimedia presentations and architectural models to convey complex ideas effectively.

Alignment with Lectures and Assignments:
Lecture Topics: Visual Communication.
Assignments:
Assignment 1 (Flyer Design): Focuses on visual design and multimedia elements.

Assignment 5 (Multimedia Expression): Encourages the use of multimedia to convey architectural concepts effectively.
Assessment: Evaluates students' proficiency in utilizing visual tools to enhance communication and convey ideas clearly.
Assessment and Evaluation:
Each lecture and assignment is designed to reinforce specific skills and knowledge related to the Course Outcomes.
Assessments of student progress and achievement are conducted based on the alignment of lecture content, assignment objectives, and evaluation criteria.
Guest Lectures and Future Scope:
Guest lectures can further enhance productivity and knowledge transfer related to the course content.
Future improvements may include incorporating more interactive sessions, real-world case studies, and advanced techniques in communication and presentation skills.
By aligning lectures, assignments, and assessments with the Course Outcomes, the Communication Skills Elective aims to equip students with comprehensive skills in communication, critical analysis, self-assurance, teamwork, and effective use of visual tools for professional contexts.

Course Assessment Procedures

- Concept quizzes and skills quizzes for each module Class Attendance, Progressive Marking to be done, Class room Participation
- On the spot topic, debate discussion
- Performance Assignment/ Presentation

Recommended Books for Reading:

- Presentation and Public Speaking by S M Wahiduzzaman (Author)
- Public-Speaking Secrets of the World's Top Minds by Carmine Gallo (Author).
- The Complete Presentation Skills Handbook by Suzy Siddons (Author)
- Five Stars: The Communication Secrets to Get from Good to Great By Carmine Gallo
- Power Questions: Build Relationships, Win New Business, and Influence Others By Andrew Sobel and Jerold Panas

Recommend Links for Watching:

For current texts and materials, use the following links for presentation;

- https://www.youtube.com/watch?v=xmj1LBJu_Ss
- Barack Obama at https://www.youtube.com/watch?v=NxFkEj7KPC0 Page 6 of 3
- Barack Obama at https://www.youtube.com/watch?v=Qbel5MhtDq4
- Oprah Winfrey Harvard Commencement speech at https://www.youtube.com/watch?v=GMWFieBGR7c
- Mark Zuckerberg at https://www.youtube.com/watch?v=BmYv8XGl-YU
- https://www.youtube.com/watch?v=iCvmsMzlF7o&list=RDCMUCAuUUnT6oDeKwE6v1NGQxug&index=24 1

Format 1

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

T E R M P L A N

Subject : PRE DESIGN STUDIES (ELECTIVE)		**Session : 2023 - 2024**		**Year : 2023**
Course code: 421	**Credits:** 03	**Semester : IV**	**No of Periods per week : 02**	
Examination Scheme		**Sessional Marks - 50** **Theory Paper** -	**Internal : 50** **External Jury : 00** **Theory Paper : 00**	**Total Marks: 50**

Faculty	Subject coordinator: Prof. Tanaya Deka
Faculty team:	
1.	2.
3.	4.

Course Aim and objective :

INTRODUCTION: -

Pre-Design as a subject plays a very important role in developing the analytical minds of the students and thus improving the creative visualization and communication skills, through which improved value creation is achieved. The process of Pre-design also helps in developing the technical skills and the theoretical understanding of the process of acquiring a project and developing it further.

METHODOLOGY :

AIM:-

To prepare the students for their Architectural Professional Practice by developing different skills required to acquire the projects by convincing the clients and further developing it.Also to approach design in a constructive way by formulating & developing design strategies.

OBJECTIVES :

To prepare the students with the ground work to be done before the actual process of the design starts.

To create a comprehensive platform to launch the design.

The groundwork eventually helps formulate & present Architectural programme & site analysis.

PROCESS:-

The course will be conducted through lectures and discussions and would give two outcomes:

1. Powerpoint presentation of the lectures.
   There would be presentation of the lectures of the various topics from the syllabus. Alongwith it interactive sessions & discussions for better understanding of the students.
2. Students were taught to prepare feasibility reports by taking up existing projects. A lot of discussions continued till the final output was achieved.
3. Lastly, Pshychology was taken up and taught to the students about its importance and role in Architectural Design process. Students were given different topics on which they gave presentations in the class and also discussions were held so that all the students can get the overview of the importance of Psychology in Architecture.

To assess their understanding about various codes of conduct and legal implications along with other topics, tests would be conducted.

Suggested Reading Books/ Links/Research Journals

S.No.	Name of the reference
1	Architectural Programming and Predesign Manager, by Robert G. Hershberger
2	Before You Build: A Pre-Design, Pre-Construction Guide for Homeowners (Project Team): Homeowners Architecture Project Workbook Kindle Edition
3	Programming for Design: From Theory to Practice by Edith Cherry

4	Why architecture matters | Psychology in Architecture Author:Paul Goldberger
5	The Architecture of Happiness Author – Alain de Botton Year -2006

Week	Topic to be covered	Date	Assignments	Adhered to the schedule or not	Marks weightage %	Learnings/ Takeaway if any
1	Introduction on Pre-Design	12.12.23		YES	5%	It is very important for the students to know.
2	Process of Pre-Design	19.12.23		YES	5%	It is very important for the students to know.
3	Pre-Design Dynamics	02.01.24		YES	10%	This approach helped students to participate & understand with practical sites.
4	Introduction of feasibility report	09.01.24	Study on some existing reports	YES	5%	Very important
5	Study on Feasibility Report	16.01.24	Decoding the studied reports	YES	5%	
6	Preparation of Feasibility Report	23.01.24		YES	5%	
7	Preparation of Mind Mapping	30.01.24	Mind mapping reports	YES	5%	Interaction with contractors would be even more helpful.
8	Guest Lecture	06.02.24	Lecture	YES	5%	
9	Introduction to Pshychology in Architecture	13.02.24	Discussion	YES	5%	
10	Role & Importance of Pshycology in the process of Pre-Design	20.02.24	Discussion	YES	5%	

11	Presentation by students on respective topics	27.02.24	Power point presentation	NO	10%	
12	Continuation of presentation	05.03.24	Power point presentation	YES	5%	Personal interaction would be more useful.
13	Discussion on the presentations.	12.03.24		YES	5%	
14	Discussion & conclusion on Pshycology in Architecture.	19.03.24		YES	5%	
15	Doubts clearing session	26.03.24		YES	20%	

IDEA , INNOVATION AND PATENING

ELECTIVE

Presented by: 04. SAYLI BIRLA
25. RUSHIL KATHIRIYA
65. NISHANT TANDEL

Guided by: PROF. TANAYA
PROF. NEHA D
PROF. PRATHAMESH

Date : 03 / 01 / 2024

Semester: SEMESTER IV

College: PICA (NEW PANVEL)

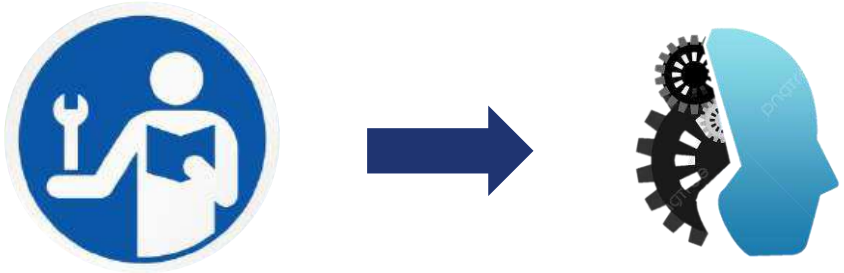
Need / Requirements:

In today's rapidly advancing technological landscape, the need for precision, efficiency, and adaptability in various fields has become paramount. The traditional metric scale, while reliable in its simplicity, is increasingly being overshadowed by the capabilities offered by digital metric scales. The transition from analog to digital metric scales is driven by several compelling reasons that underscore the necessity for this technological evolution.

1. Precision and Accuracy:
2. Efficiency and Time-Saving:
3. Versatility and Multifunctionality
4. Data Logging and Record-Keeping
5. Integration with Digital Systems
6. Ease of Use and Reduced Learning Curve

Unlocking Infinite Possibilities

Revolutionizing Measurement: The Digital Metric Scale

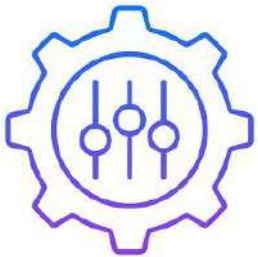


Traditional

Digital

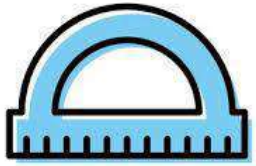
The digital metric scale redefines precision and adaptability, seamlessly integrating advanced sensors, connectivity, and user-friendly interfaces to revolutionize measurement experiences across diverse fields.

FUNCTIONS



Smart Customization

- Imperial to metric conversion.
- Customizable settings for industry or personal preference.



Adjustable Angles

- Beyond scaling, the digital scale offers adjustable angles.
- Enhance flexibility and accommodate various design requirements.

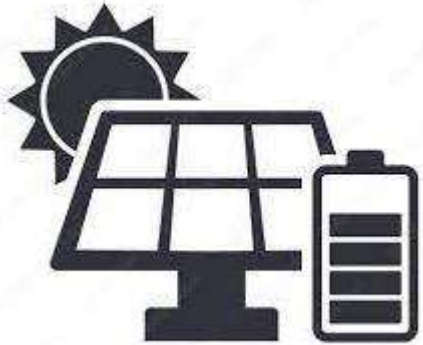
Digital Scaling

- Simplifying drafting with a user-friendly digital scale.
- Versatile tool for reading drawings with precision.

SPECIFICATION:

Processor use is LSI
(large scale integration)

- 12 inches LCD display for clarity.
- Lithium iron battery life with solar charging.
- Single switch to ON / OFF the scale.



USER GROUP:

The Digital Multi-Scale and Angle Sensing Device are tailored to meet the needs of diverse user groups across various industries. The primary user groups include

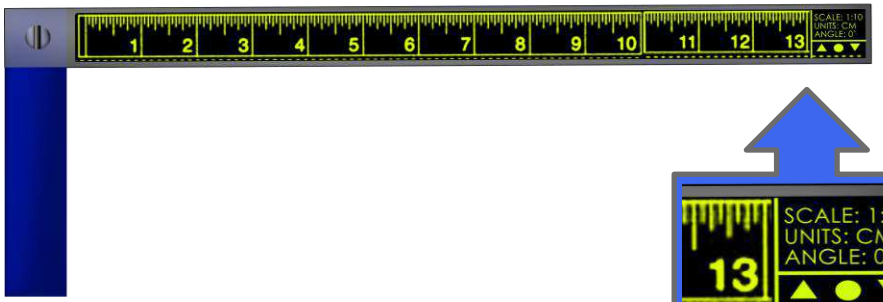
1. Manufacturing and Engineering Professionals
2. Construction and Carpentry Specialist
3. Scientific Researchers and Lab Technicians
4. Field Surveyors and Geologists
5. Educational Institutions
6. Professional Trades

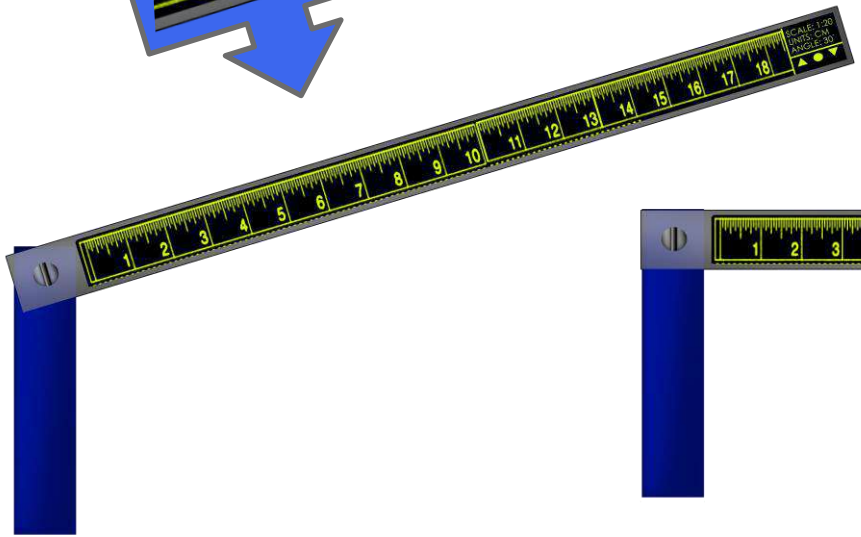
What are the Advantages?

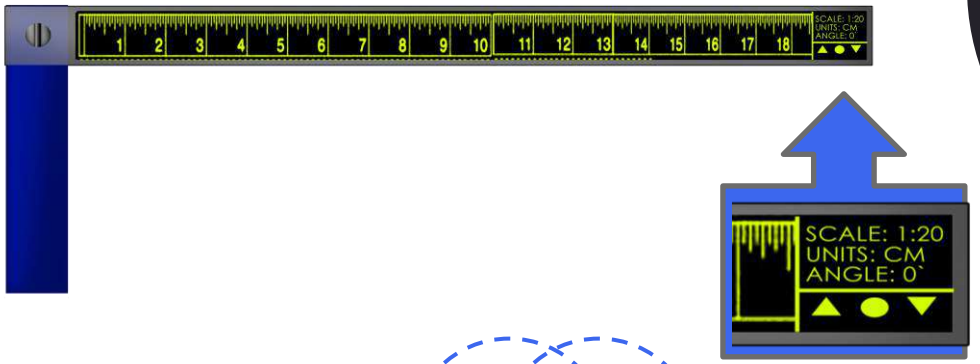
- Tailored for architects and students.
- Multiple scale options for versatile drafting.
- Sensors for identifying the angles.
- No need to carry multiple drafting tools.
- Easy to use, Easy to carry.

PRODUCT


SCALE: 1:20
UNITS: CM
ANGLE: 30`
8


1 2 3 4 5 6 7 8 9 10 11 12 13
SCALE: 1:10
UNITS: CM
ANGLE: 0`
SCALE: 1:10
UNITS: CM
ANGLE: 0`
13


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
SCALE: 1:20
UNITS: CM
ANGLE: 30`


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
SCALE: 1:20
UNITS: CM
ANGLE: 0`
SCALE: 1:20
UNITS: CM
ANGLE: 0`

Thank You

Format 4

M.E.S.				
PILLAI COLLEGE OF ARCHITECTURE , New Panvel				
C O U R S E R E P O R T				
Subject: Electives		**Term: I**	**AY: 2023-24**	
Course Code: 521	**Credits : 2**	**Semester: V**	**No of Periods per week : 2**	
Total Marks: 50	**Internal : 50**	**External : Nil**	**Theory Paper : Nil**	

Faculty:	Subject coordinator : Dr. Sudnya Mahimkar

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

The course "Architecture, Anxiety and Spirituality" was designed to address the unique challenges faced by architecture students in managing stress and anxiety. The aim was to equip students with practical strategies, incorporating both traditional and innovative approaches, to promote mental well-being throughout their academic journey.

Methodology

The primary aim of the course was to enhance students' understanding of anxiety and provide them with tools to manage it effectively. The specific objectives included raising awareness, identifying triggers, teaching coping strategies, and fostering a supportive community.

PROCESS:

The course spanned 12 modules, each focusing on a specific aspect of anxiety management. Lectures, group discussions, and interactive activities were employed to engage students actively

in the learning process. The incorporation of mindfulness and spiritual practices aimed to provide a holistic approach to anxiety management.

Tools and Techniques Used
Lectures and Discussions: Traditional lectures were complemented by open discussions where students could share their experiences and insights.

Mindfulness Exercises: Regular mindfulness exercises, including guided meditation and deep-breathing techniques, were integrated into each session.

Group Activities: Collaborative projects and group activities encouraged peer-to-peer support and a sense of community among students.

Yoga Sessions: Periodic yoga sessions were conducted to emphasize the mind-body connection and the release of happy hormones.

Innovative Approaches Used

Guest Speakers: Experts in psychology and mindfulness were invited to share their insights, offering a diverse range of perspectives on anxiety management.

Reflective Journals: Students were encouraged to maintain reflective journals throughout the course, fostering self-awareness and tracking their progress.

Library Usage
The course promoted the use of the university library for additional resources on anxiety management, mindfulness, and related topics. Recommended readings and research articles were provided, and students were encouraged to explore the library's collection.

Achievement of Aim and Objectives
The course was successful in achieving its aim and objectives:

Increased Awareness: Pre- and post-course surveys indicated a significant increase in students' awareness of anxiety and its management.

Identifying Triggers: Through group discussions and reflective activities, students demonstrated a heightened ability to identify personal anxiety triggers.

Coping Strategies: Assignments, such as the Anxiety Management Plan and Mindfulness Exercise, showcased students' application of coping strategies learned in the course.

Community Support: Group activities and the community outreach project demonstrated a stronger sense of community and peer support among students.

Library Utilization: The majority of students reported utilizing the library for supplementary readings, indicating a positive response to the recommended resources.

Addressing Aim and Objectives through Assignments

Anxiety Management Plan: This assignment directly addressed the aim and objectives by requiring students to create a personalized plan integrating strategies learned in the course.

Mindfulness Exercise: By practicing mindfulness exercises, students applied techniques introduced in the course, aligning with the objective of promoting mental well-being.

Community Outreach Project: This assignment not only encouraged students to apply their knowledge but also addressed the aim of fostering community support and awareness about anxiety.

Self-Reflection and Self-Assessment: Incorporated into each module, these activities allowed students to assess their progress in line with the course objectives.

Course Plan Submitted v/s completed				
Subject:			Course Code: 521	
Faculty: Dr. sudnya Mahimkar				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
June – Week 1	Understanding anxiety	Diary - anxiety management plan	**Yes**	CO1, CO 2
June – Week 2	Identifying triggers			CO1, CO 2
June – Week 3	Managing time			CO3
June – Week 4	Setting goals	Self-assessment – Stage 1		CO5
July – Week 1	Self-care	Spiritual Self-Care Activity Diary		CO4
July – Week 2	Mindfulness	mindfulness exercise that incorporates		CO4

		spiritual elements		
July – Week 3	Building resilience			CO3
July – Week 4	Positive self-talk	Self-assessment – Stage 2		CO3
August – Week 1	Seeking support	anxiety management plan – peers / community outreach / discussions outcome		CO3
August – Week 2	Coping strategies			CO3
August – Week 4	Balancing work and life			CO3
September – Week 1	Moving forward	Self-assessment – Stage 3		CO5

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same:

CO1:	Knowledge (Remembering) – Identify key concepts related to the intersections of architecture, anxiety and spirituality, including foundational terms and principles.
CO2:	Comprehension (Understanding) – Explain the significance of spiritual practices in influencing anxiety experiences and describe the unique stressors they face in their academic journey
CO3:	Application – Apply relevant theories and methods to assess the levels of anxiety in them and explore how spiritual practices can serve as coping mechanism.
CO4:	Analysis – Compare and contrast different spiritual approaches in mitigating anxiety and critically assess their effectiveness.
CO5:	Evaluation – Evaluate the cultural implications of incorporating spirituality as elective and propose recommendations for future interventions.

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.

The images can not be submitted as it is a very personal data.

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

COURSE REPORT

Subject :Electives		**Session : 2023-24**	**Year :3rd year**	
Course code: BARC 521	**Credits :** 3	**Semester :5**	**No of Periods per week :**	
Total Marks: 100	**Internal :100**	**External :00**	**Theory Paper :**	00

Faculty	Prof.Sarojini Lohot .

INTRODUCTION

The students need to understand the fundamental principles in the building of physics for ensuring efficiency functionally in already built environments. A house is much more than four walls and a roof. It is an interactive system made up of many components, structure, ventilation, and filtration. Each component influences the performance of the entire system. Buildings perform in very predictable fashion. These performance characteristics are based on four simple principles of physics.

AIM

The course aims at providing a fundamental understanding of the physics related to buildings and to propose an overview of the various issues that have to be adequately combined to offer the occupants a physical, functional and psychological well-being.

OBJECTIVES

To understand solar geometry and its application in design
To understand thermal properties of different components of building ,wall glass roof etc
To understand day lighting and harvesting stratergies.

PROCESS

The studio will have lectures , book reading , and hands on assignments in the class
1.Climate Analysis:- climate data for the region where the building is located, including temperature variations, solar radiation levels, humidity, wind patterns
an effective climate analysis process integrates accurate data collection, thorough assessment of climate impacts, strategic application of passive design strategies, integrated with the design process.

2. Case studies:- explore case studies, analyze building systems, and propose strategies to enhance energy efficiency, indoor environmental quality, and sustainability in buildings.

3.Application in design proposal:- w.r.t Passive design strategies day lighting, ventilation & materials used.

METHODOLGY ADOPTED

Tools and techniques you are planning to use
(eg.
1. lectures,
2. Presentations,
3. Case study/Site visit.

HORIZONTAL INTEGRATION.

Electives assignment are aligned with the AD sem 5 projects which will help the students in development of the design

COURSE OUTCOMES

1 Gaining knowledge about sun movement & its impact on building design
2 Understanding new technologies w.r.t building envelope design.
3 Day lighting Strategies Implementation:- Stratergies to enhance day lighting
4 Skill to develope energy efficient building
5 Design Optimization Skills:

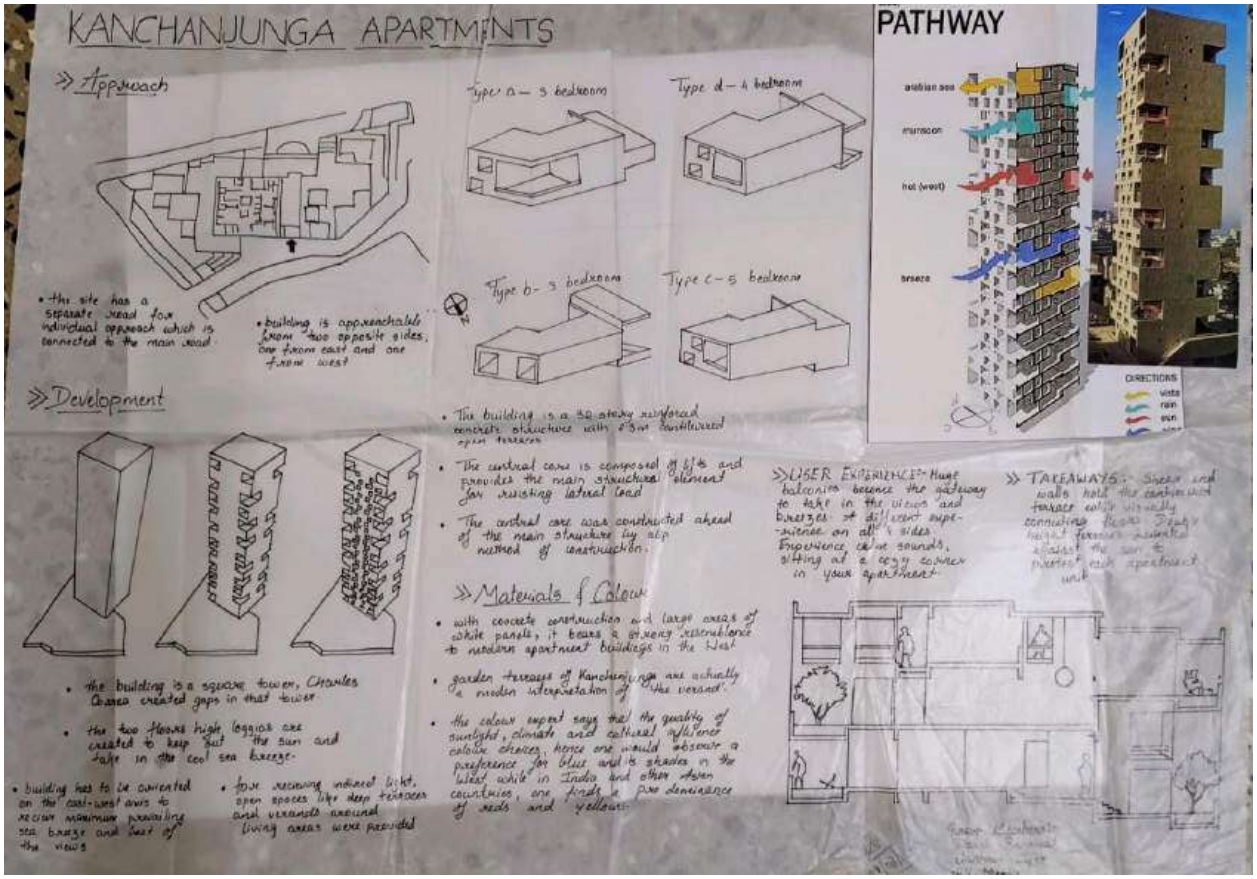
Course Details :						
Week	**Topic**	**Objectives**	**Date**	**Related Assignments**	**Date of Submission**	**Marks weightage %**
1	Solar Geometry	To understand Earth sun relation, Sunpath diagram, solar radiation Design implementations	4 Weeks	Assignment-1 CLIMATE ANALYSIS FOR DESIGN PROJECT	CO1,CO5	20
2	Glazing & Shading Devices	To understand Thermal Properties of glazing , shading devices & calculations	3Week	Assignment 2 CASE STUDY ANALYSIS	CO2,C04	20%
3	Lighting design concept	Basics of daylight, Daylight Harvesting systems & design considerations	4 Week	Assignment 3 Stratergies used in design problem w.r.t daylighting, & ventilation & materials used.	CO3,CO5	60%

Note : 10% Marks weightage to be considered for Attendance

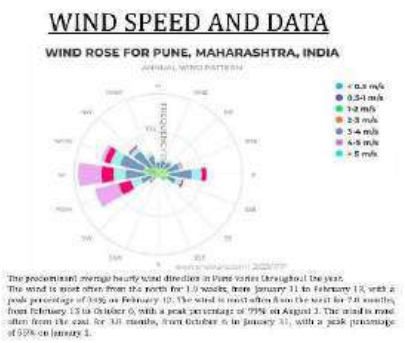
Bibliography	
S.No.	Name of the reference
1.	Handbook of Energy Conscious Buildings by: J.K. Nayak & J.A. Prajapati
2.	Climate Responsive Architecture: A handbook for energy efficient buildings by Arvind Kishan, Nick Baker, Simos yannas, S.V. Szolklay, Isaac Meir, Yair Etzion
3	Design with Climate: bioclimatic approach to architectural regionalism by Victor Olgyay

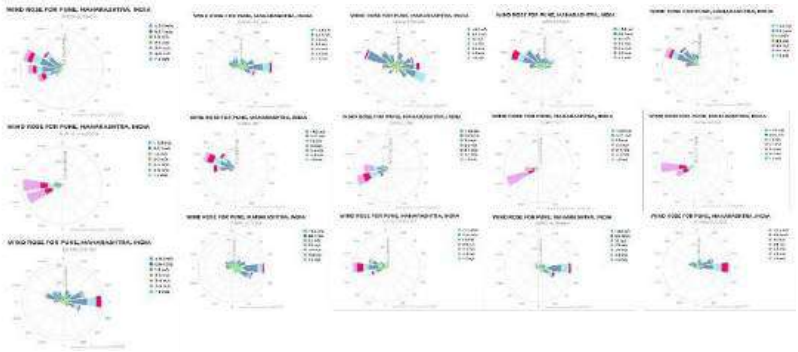
STUDENTS WORK

1) Case study analysis w.r.t climatic zones

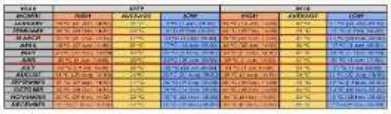


2) CLIMATE ANALYSIS





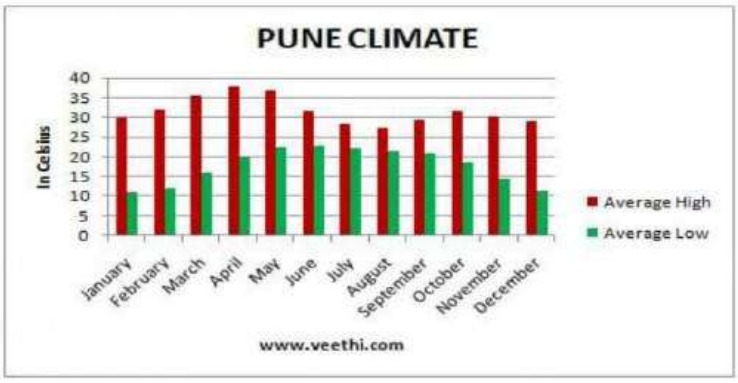
TEMPERATURE DATA



- The months March, April, May, June have compartively highest temperature throughout the year.
- Annaul average temperature - 23.8°C
- Annual average high temperature - 31°C
- Annual average low temperature -20°C

@weatheronline.in

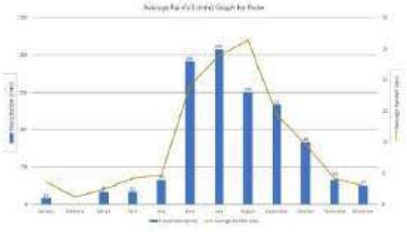
TEMPERATURE ANALYSIS

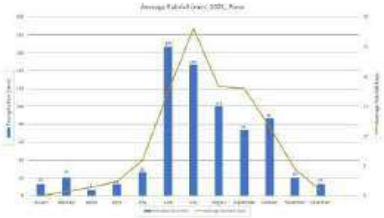


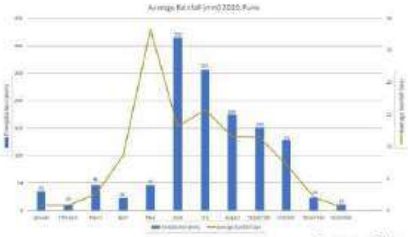
RAINFALL

The selected site for the project is located on the Mumbai-Pune Expressway, 5 km from the Talegaon-Urse toll plaza and 26 km before Lonavala.

Talegaon accepts on average 741 mm (29.2 in) of rainfall per year, or 61.8 mm (2.4 in) per month. The driest weather is in January when an average of 0 mm (0 in) of rainfall (precipitation) occurs. The wettest weather is in July when an average of 163 mm (6.4 in) of rainfall (precipitation) occurs.





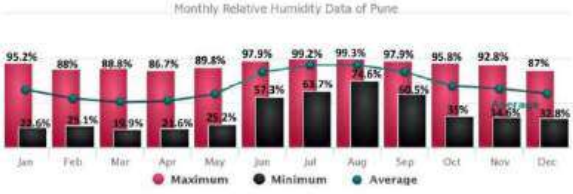


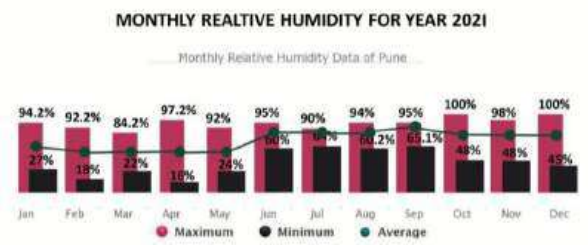
Source - @icap

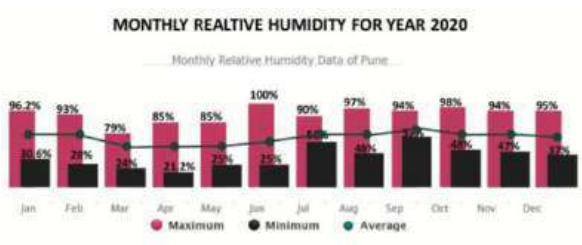
MONTHLY RELATIVE HUMIDITY DATA OF PUNE FOR PAST 3 YEARS

	MONTHS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
2020	MAX.	96.20%	93%	78%	85%	85%	100%	90%	97%	94%	98%	94%	95%
	MIN.	30.60%	28%	24%	21.20%	25%	25%	56%	48%	57%	48%	47%	37%
	AVERAGE	63.40%	60.50%	51.50%	53.10%	55%	62.50%	73%	72.50%	75.50%	73%	70.50%	66%
2021	MAX.	94.20%	92.20%	94.20%	97.20%	92%	95%	90%	94%	95%	100%	98%	100%
	MIN.	27%	18%	22%	16%	24%	60%	64%	69.20%	65.10%	48%	46%	45%
	AVERAGE	60.60%	55.10%	53.10%	56.60%	58%	77.50%	77%	77.10%	80.05%	74%	73%	72.50%
2022	MAX.	95.20%	88%	88.80%	86.70%	89.80%	97.90%	99.20%	99.30%	97.90%	95.80%	92.80%	87%
	MIN.	22.80%	25.10%	19.90%	21.80%	25.20%	57.30%	63.70%	74.60%	60.30%	35%	34.80%	32.80%
	AVERAGE	64.70%	54.90%	50.90%	52.10%	59.90%	57.30%	63.70%	82.30%	84.50%	69%	65.80%	60.40%
				Highest Average									
				Lowest Average									

MONTHLY REALTIVE HUMIDITY FOR YEAR 2022





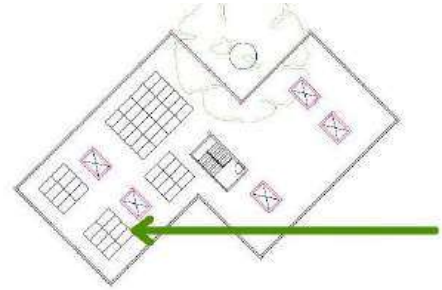


The highest humidity is seen during the monsoon season particularly during the months of July and August

The highest average humidity was observed in the months of August in 2022

The lowest Average humidity was seen during the month of March in 2022

3) Climate Responsive Strategies used in your AD design



ROOF PLAN OF MOTEL

MAKING USE OF SOUTHERN LIGHT BY PROVIDING SOLAR PANELS ON ROOF TOP OF MOTEL AND RESTAURANT

DIMENSIONS OF SOLAR PANELS : LENGTH - 2.00 M, WIDTH - 1.00 M DEPTH - 0.025 M

NO. OF PANELS : 72

48 PANELS ON MOTEL ROOF TOP,

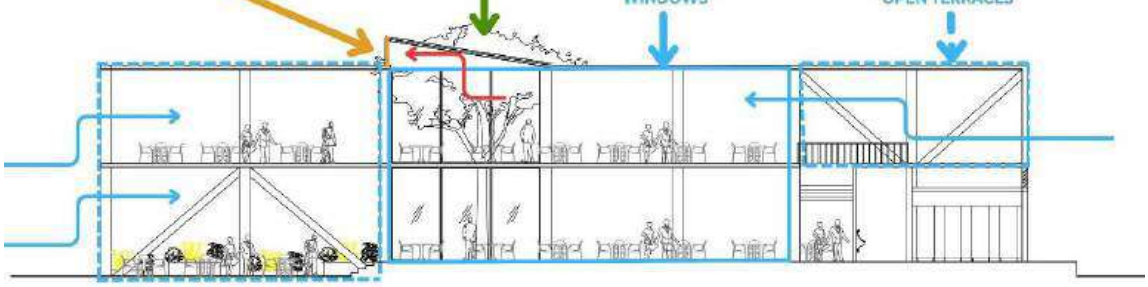
24 PANELS ON RESTAURANT ROOF TOP

SKYLIGHTS : TO TAKE THE NORTHERN LIGHT INSIDE THE STRUCTURE

LONGER EAST FACADE TO TAKE IN THE WINDS COMING FROM THE EAST WINDOWS AND OPEN TERRACES ALLOWING WINDS FROM THE EAST TO ENTER THE STRUCTURE, MAKING STACK VENTILATION POSSIBLE.

WINDOWS

OPEN TERRACES



PART SECTION OF RESTAURANT

19 AASTHA KARKHANIS
ELECTIVES _SEMESTER 5
PILLAI COLLEGE OF ARCHITECTURE,
NEW PILLAI

Format 4

M.E.S. **PILLAI COLLEGE OF ARCHITECTURE, New Panvel**				
C O U R S E R E P O R T				
Subject: Disaster Relief Shelter **(Elective - 5)**		**Term: I**	**AY: 2024-25**	
Course Code: **BARE 521**	**Credits : 3**	**Semester: V**	**No of Periods per week : 1**	
Total Marks: 100	**Internal : 100**	**External : 00**	**Theory Paper : 00**	

Faculty:	Subject coordinator : Prof. Suvarna Thakare Team Members: --

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

As the climate is changing at a fast pace and the frequency of occurrence of disasters is increased in the past decade. Any disaster management requires the provision of personal safety, security from adverse climatic conditions and ill health, and supply of food/water/clothing to the affected people. The provision of shelters is of paramount importance for displaced or affected people. Architects, as responsible master designers, need to think beyond the expensive dwellings for the rich and also focus on the well-being of the disaster-affected people of the country.

Therefore, this elective intends to widen students' knowledge in understanding of the types of disasters, their reasons for occurrence, their impact on people's lives and the role of architects in case of disaster. This elective aims to make students aware of architectural interventions in case of various disasters. And to sensitize and enable students to learn and apply techniques to build structures that can be easily erected, dismantled and transported, thereby extending help to the NGOs and Government sectors working for the same.

Methodology (All the following points must be addressed in ALL subjects)

Aim: This elective aims to make students aware of architectural interventions in case of various disasters. And to sensitize and enable students to learn and apply techniques to build structures that can be easily erected, dismantled and transported

Objectives:-
1. To understand the various types of disasters and their impacts on human lives.
2. To familiarize with the aspects of Disaster Management: Prevention and management

PROCESS: (Please elaborate pointwise)

1. Please explain the methods of Conduction of classes and studios wrt aim and objectives.
The entire course was divided into three modules. Each module had a faculty presentation and discussion. Module 1 was focused on Disaster Types and Human Response; Module 2 was focused on Material Research and anthropometry considerations and Module 3 was focused on Prototype design based on the study done in Module 1 and 2.

2. Tools and techniques used for course conduction.

- Faculty Lectures and Presentations – To explain the various concepts on disaster and architectural intervention in disaster prone area faculty had taken lectures followed with discussion on it.
- Discussions with students - One-to-one discussions helped students to widen their knowledge base and understanding of the subject.

3. Which are the innovative approaches adopted in this semester?
As this subject was introduced for the first time in the syllabus, students were given the freedom to select a disaster type of their choice to explore in depth. They could either focus on understanding any disaster in detail and design an architectural intervention based on the knowledge gained through lectures and assignments. This approach sparked curiosity and encouraging students to take ownership of their learning and delve deeper into the subject.

4. Explain the approaches used to encourage library usage by students and faculty.
As this was the new topic and rarely explored in the B. Arch curriculum therefore Students were provided with a list of recommended books which are readily available online. Students were encouraged to explore the library for additional relevant books or projects that could serve as sources of inspiration.

5. How and to what extent, the aim and objectives are achieved.

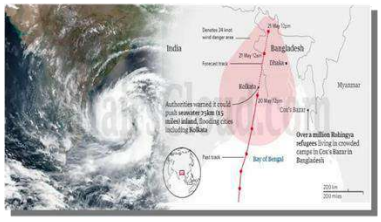
Aim and objectives are achieved completely. It is done through Various assignments and its presentation during studio, discussions, preparation of scaled model for the architectural intervention.

6. Extent of horizontal and vertical integration achieved.
   Vertical Integration – The content of the course acts as a foundation for the thesis topic selection in their 9th Semester

7. Extent of adherence to the Course Plan and schedule of submission prepared before the course started.
   The entire course plan and submission schedule were meticulously documented, with the only deviation being that the submission dates were changed from the initial plan.

8. Explain with the help of each assignment and students work.
   Assignment 1:
   Students to compile 10 image examples of any one disaster that happened all over the world showcasing the impact of destructions with minimal writeups arranged in a presentation format (to be presented on the next class)

Batten Down the Hatches: A Look Back at Cyclone Amphan, 2020



Looking back at Cyclone Amphan, a powerful storm that hit the Bay of Bengal in 2020.

The Amphan made landfall near the Sundarbans, between the Digha coast that is in India and the Hatiya island in Bangladesh. It caused the death of 84 human lives (72 person in Inda and 12 Bangladesh.), widespread devastation and huge economic loss.

Amphan formed in the Bay of Bengal in May 2020, rapidly intensifying into a super cyclonic storm. Its massive size and strength posed a significant threat to coastal areas.

The loss in terms of architecture due to Cyclone Amphan was substantial. The cyclone caused extensive damage to buildings, infrastructure, and architectural structures in the affected areas. Many homes, schools, hospitals, and other buildings were destroyed or severely damaged by the strong winds and storm surges brought by the cyclone








The architectural landscape of the affected regions was significantly impacted, requiring extensive reconstruction and repair efforts to restore the damaged structures.

Immediate response teams were deployed to provide emergency assistance, including rescue operations, medical aid, and distribution of essential supplies like food, water, and shelter materials.


Immediate response teams were deployed to provide emergency assistance, including rescue operations, medical aid, and distribution of essential supplies like food, water, and shelter materials.

Assignment 2:

Students to compile 5 image examples of Disaster Relief Shelters used in the disaster (Which you had studied in the earlier assignment - 1) with minimal writeups arranged in a presentation format (to be presented on the next class).

ASSAM

The Art of Living has been working round the clock to provide relief materials to the flood victims. Apart from collecting and distributing flood relief material, our teams have been uniting various stakeholders to join hands in working for the flood relief including, the corporate.

Starting June every year, the monsoons arrive in Assam, leaving the rivers like Brahmaputra and Pagaldia at a threat of breaching the danger mark, further leading to flooding. This year too, the monsoon has been particularly harsh with 30 of the 33 districts reeling under nature's fury. The death toll has risen to over 75 and there has been a loss of animal life with over 200 animals reported dead, including 17 one-horned rhinoceros at the Kaziranga National Park. Over 54 lakh people have been displaced and several farmers have lost their homes and crops. The immediate concern is the spread of diseases like diarrhea, fever, and pneumonia as people have no option but to live surrounded by stagnant water.

Assignment 3:

Search for minimum five materials with photos and brief writeups and approximate costing. Find out innovative examples' disaster relief shelter around the world (to be presented in power point format).

BAMBOO HOUSE SHELTER

Withstand earthquake,, winds, rainfall. Good thermal and acoustic properties.
Bamboo doesn't snap at the first sign of stress. Its elasticity allows it to weather storms and earthquakes that would break or crumble other building materials.

COST EFFECTIVE :- 450-500/- per sq.ft

RELIEF TENTS

For disaster management, tents play a crucial role in providing temporary shelter to those affected by natural disasters like earthquakes, floods, or hurricanes. They are quick to set up, portable, and can accommodate displaced individuals or families in need of immediate housing

The minimum cost for a basic disaster management tent in Indian rupees can be around ₹5,000

SHIPPING CONTAINER SHELTERS

Shipping container shelters are being used in disaster management due to their quick deployment, durability, and cost-effectiveness. These shelters repurpose shipping containers into housing solutions for disaster-affected individuals. They offer strength, customization options, sustainability, affordability, and scalability, making them valuable in providing emergency shelter.

COST EFFECTIVE :- On average, the cost of a basic shipping container shelter can range from ₹1.5 lakh to 3.5 lakh

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FLAT- PAC SHELTER

These shelters come in flat-pack kits and can be easily transported and assembled on-site. They are durable, weather-resistant, and provide a safe living space.

Approximately 1 lakh per shelter.

Assignment 4:
Dear Students, Kindly select any two options of shelters presented today and explain its joinery details. Ex. Connection of horizontal members, vertical members with each other, roofing details and its connections with main frame, walling details and its connection with the frame.
In short details of following things -

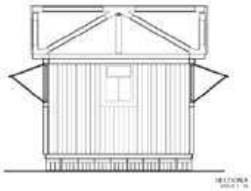
A - Anchoring to ground
B - Bracing technique
C - Connections : All
connections and joineries of various building components
D - Diaphragm (Roof) connections

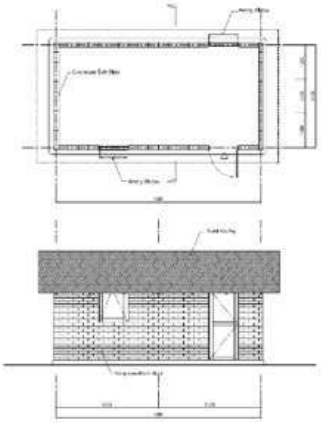
Straw Bale House

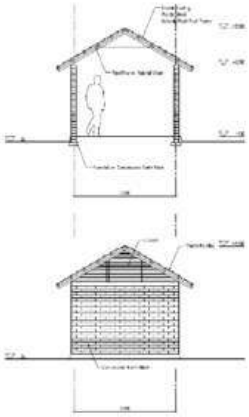
Brick Rubbled House

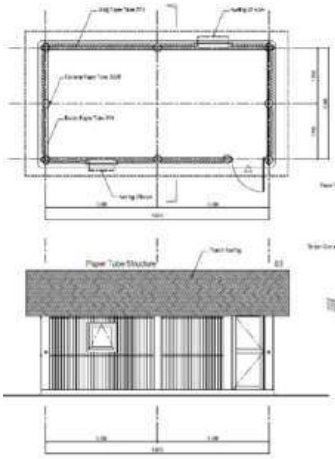
Woodeen Frame

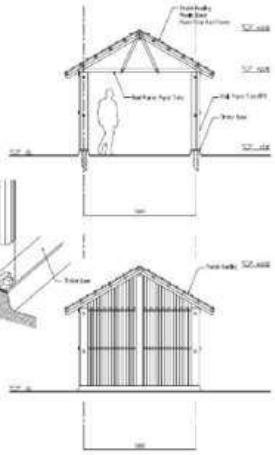
Bamboo House

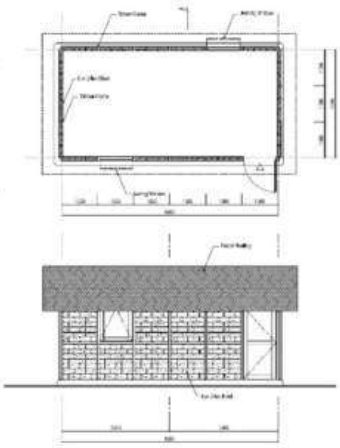


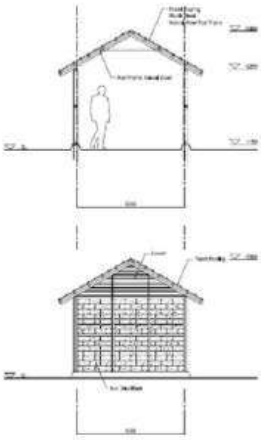


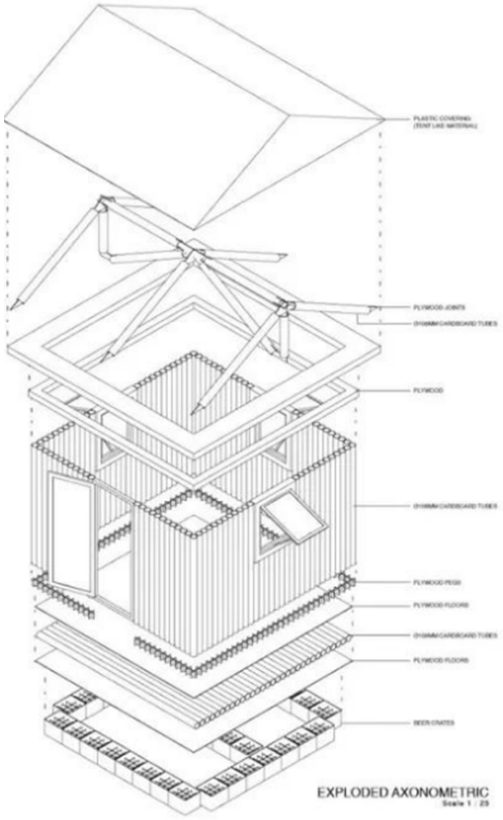


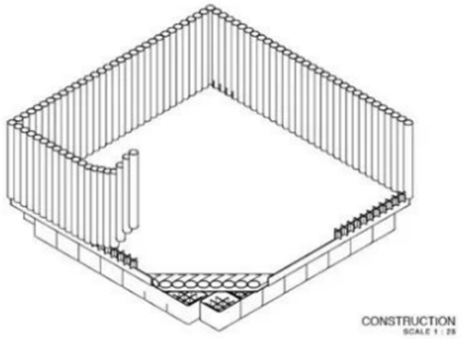












Assignment 5:
Kindly submit your Shelter Proposal sketches which must consider following thoughts
1. Type of disaster you are addressing
2. Weather it is transitional shelter of it is a temporary structure of first 2-3 months of after disaster
3. Shelter capacity - For family of 4-5 people, community of 10-15 people, etc
4. Sketches must include plan, section, elevation, joinery details (as explored in assignment 4)
5. Costing
6. What issue this shelter is going to solve - Explaining Purpose/need, urgency of such design type

SHELTER PROPOSAL

Type of Disaster

This proposal focuses on providing immediate shelter solutions for regions affected by floods, particularly in the mountainous terrains of Uttarakhand. The region is prone to heavy monsoon rains, leading to flash floods, landslides, and river overflows, which cause significant damage to infrastructure and displacement of communities. The proposed shelter design aims to offer a quick and reliable solution for families and communities relocated to higher altitudes during such emergencies.

Nature of the Shelter

The proposed shelter is a transitional structure designed for immediate deployment within 24 hours of a disaster event. The shelter is intended to serve as a temporary solution for up to 3-4 weeks post-disaster, providing safe and secure housing until more permanent solutions can be implemented. It is specifically designed to be rapidly assembled and easily transported, making it ideal for quick rescue operations.

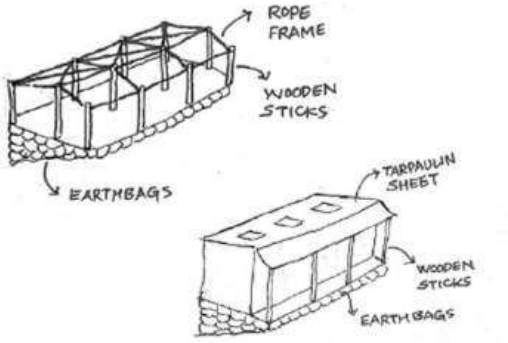
Costing

- Ropes:
  - Quantity Required (for a Family Unit): Approximately 50 meters
  - Cost per Meter: ₹15
  - Total Cost for Ropes: ₹750
- Factory-Made Heavy Duty Canvas Sheet (Waterproof Tarpaulin):
  - Size Required (for a Family Unit): Approximately 60 square meters
  - Cost per Square Meter: ₹60
  - Total Cost for Canvas Sheet: ₹1,800
- Quantity Required (for a Family Unit): 20-30 bags
  - Cost per Bag: ₹5
  - Total Cost for Earth Bags: ₹100- ₹150
- Total Costinng for a Family Unit : ₹3450/-

Shelter Capacity

The shelter design is modular and scalable, allowing for different capacities based on the needs of the affected population. The basic units can accommodate:

- **Family Unit**: Designed to house a family of 4-5 people. This unit provides sufficient space for sleeping, storage of personal belongings, and basic living activities.
- **Community Unit**: Larger units can be assembled to accommodate 10-15 people, particularly in situations where communal living is necessary.



Purpose/Need

In disaster situations like floods, the immediate concern is the safety and shelter of displaced populations. Traditional relief efforts often face delays due to logistical challenges, difficult terrain, and the unavailability of suitable shelter solutions. The proposed design addresses these challenges by offering a solution that can be quickly deployed, even in remote or mountainous regions.

Urgency of Design Type

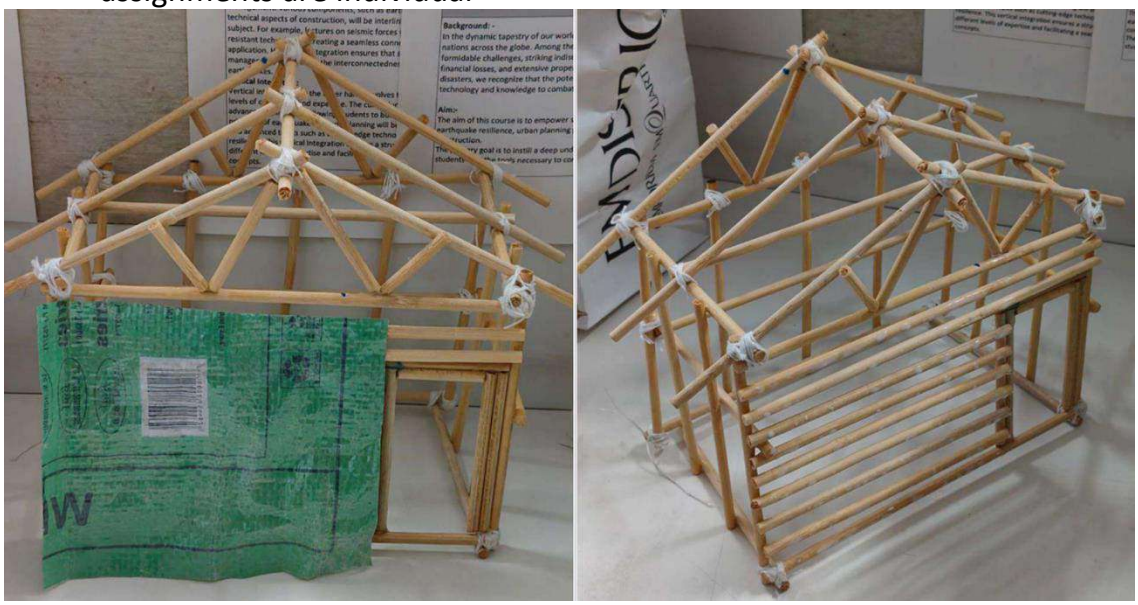
The urgency of such a design is rooted in the need for rapid response to protect lives. With the increasing frequency and intensity of natural disasters due to climate change, there is a pressing need for solutions that can be implemented within hours of an event. This shelter design is crucial for providing immediate protection from the elements, securing personal safety, and maintaining the dignity of those affected by disasters.

Problem Solved

The primary issue this shelter solves is the lack of immediate, safe, and functional housing in the aftermath of a disaster. By using easily accessible materials like debris and bamboo or wooden sticks, and a simple construction process, the shelter can be erected quickly, providing a much-needed refuge. It also addresses the challenge of constructing on uneven or unstable terrain, as the earth bags offer a stable base. This design ensures that families and communities are not left exposed to the elements during the critical period following a disaster.

Assignment 6:

Dear Students, Submit Detailed drawings on A3 / A2 Sheet with title of the project, vision statement (What problem it is going to solve, aim behind the design process), with detail drawings showing dimensions, material specifications, 3d Views. Kindly note that all assignments are individual



9. Scope for improvement in future (next year).
   A guest lecture and a site visit to get in-depth knowledge about the construction details and

how site conditions and available material resources influence the design need to incorporate.

10. Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.
    NA

Course Plan Submitted v/s completed				
Subject: Disaster Relief Shelter			Course Code: BARE 521	
Faculty: Prof. Suvarna Thakare				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1-2	Introduction to elective -Elective methodology, disasters and their types, and few examples	Assignment 1: Find out the 10 examples of disasters that happened all over the world showcasing the impact of distractions	YES	CO1
3-4	Lecture on: Disaster Relief shelters and their types	Assignment 2: Find out 5 examples of relief shelters w.r.t. disaster typology per group and write down brief information about it	YES	
5-6	Lecture on: Various materials used in the designing of relief shelters	Assignment 3: students need to study any one region in detail with respect to the occurrence of the disasters and its impact on people	YES	CO2
7-8	Lecture on: Site selection, anthropometry, Gender in shelter design	Assignment 4: two case studies per student for any one type of disaster relief	YES	CO3, CO4

		work in India and abroad		
9-10	Lecture on: Disaster Management: Prevention and management	Assignment 5: Design a prototype for a selected disaster and making its scaled model	YES	CO3, CO5

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

CO1: Basic understanding about disaster and its impact on settlement.
Assignment 1: Find out the 10 examples of disasters that happened all over the world showcasing the impact of distractions

CO2: To Explore the various architectural intervention stages after a disaster.
Assignment 2: Find out 5 examples of relief shelters w.r.t. disaster typology per group and write down brief information about it

CO3: To study the use of different materials, anthropology and various design considerations for the design of relief shelters.
Assignment 4: Two case studies per student for any one type of disaster relief work in India and abroad
Assignment 5: Design a prototype for a selected disaster and making its scaled model

CO4: To explore the role of gender in disaster relief shelter designing
Assignment 3: students need to study any one region in detail with respect to the occurrence of the disasters and its impact on people

CO5: To use the pre study in prototype design.
Assignment 5: Design a prototype for a selected disaster and making its scaled model

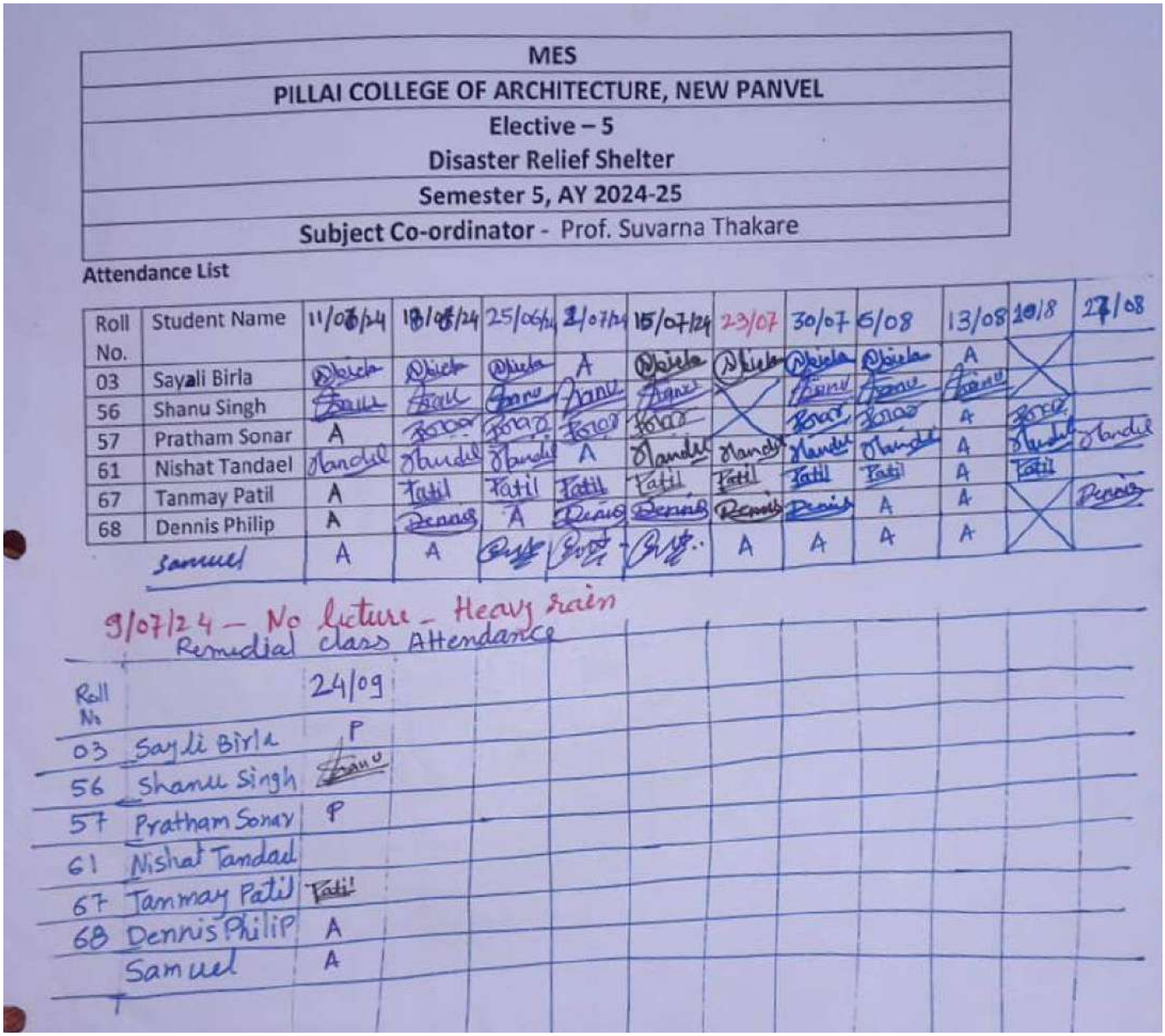
Format 2

PILLAI COLLEGE OF ARCHITECTURE, NEW PANVEL

Term I / II - AY 24-25 - Sem: 5

Subject: Elective : Disaster Relief Shelter | Professor/s Suvarna Thakare

Date	Topics Covered in Lecture	Assignment introduced	Assignment Submitted	Students' Signature	
11/06/24	Introduction of the Subject	Assig. - 1.	17/06/24	Apno	Dbirla
18/06/24	Presentatn by students + Types of Disaster	Assig. - 2	25/06/24	Dbirla	Patil
	relief Shelter				
25/06/24	Lecture on Materials for DBRS + Presentation by students on ASS. 2	Ass. - 3	1/07/24	Apni	
1/07/24	Lecture on guidelines for Shelter Design + Present" by students on ASS. 3.	Ass. - 4	15/07/24		Apni
15/07/24	Discussion on Assignment - 4			Apni	Patil
23/07/24	Discussion on Joinery design for Shelter			Dennis	
30/07	Discussion and presentation on Shelter Design			Nandit	Bhavi
6/08	} Discussion.			Patil	Dbirla
13/08	}			Bhavi	
20/08	Discussion on Disaster Shelter design			Patil	Nandit
27/08	Discussion on final submission				Dennis
24/09	Remedial Studio			Patil	Apni



MES

PILLAI COLLEGE OF ARCHITECTURE, NEW PANVEL

Elective – 5

Disaster Relief Shelter

Semester 5, AY 2024-25

Subject Co-ordinator - Prof. Suvarna Thakare

Attendance List

Roll No.	Student Name	11/07/24	18/07/24	25/07/24	1/07/24	15/07/24	23/07	30/07	6/08	13/08	20/8	27/08
03	Sayali Birla				A					A		
56	Shanu Singh											
57	Pratham Sonar	A								A		
61	Nishat Tandael				A					A		
67	Tanmay Patil	A								A		
68	Dennis Philip	A		A					A	A		
	Samuel	A	A				A	A	A	A		

9/07/24 – No lecture – Heavy rain

Remedial class Attendance

Roll No.		24/09
03	Sayli Birla	P
56	Shanu Singh	
57	Pratham Sonar	P
61	Nishat Tandael	
67	Tanmay Patil	
68	Dennis Philip	A
	Samuel	A

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.

Format 4

M.E.S. **PILLAI COLLEGE OF ARCHITECTURE, New Panvel**				
C O U R S E R E P O RT				
Subject: Electives		**Term: I**	**AY: 2023-24**	
Course Code: 521	**Credits: 3**	**Semester: V**	**No of Periods per week: 2**	
Total Marks: 100	**Internal: 100**	**External: NIL**	**Theory Paper:**	**NIL**

Faculty:	Subject coordinator: Prof. Vrinda Padhye Team Members: Prof. Prakash Shringarpure

INTRODUCTION:

In the dynamic world of architecture and construction, effective Project Management is the cornerstone of successful endeavors. The "Project Management Elective" conducted between June and September 2023 at our esteemed architecture college aimed to equip our students with essential knowledge and skills in this critical field. This session served as a comprehensive introduction to the fundamentals and concepts of Project Management, emphasizing its pivotal role in the architectural community.

Methodology (All the following points must be addressed in ALL subjects)

Aim:

Introduction to Project Management: To introduce students to the fundamentals and concepts of Project Management.

Understanding Architectural Relevance: To enable students to grasp the significance of Project Management in the architecture fraternity, particularly its direct relevance to construction projects.

CPM & PERT Proficiency: To make students proficient in the use of CPM and PERT techniques in project management, with a specific focus on their application in construction projects.

Objectives: -

Comprehensive Project Management: To introduce students to the holistic nature of Project Management, emphasizing its role in overseeing the entire project lifecycle.

Application of CPM & PERT: To ensure that students not only understand but also learnt he application of CPM and PERT techniques, especially in the context of network analysis for construction.

PROCESS: (Please elaborate pointwise)

1. Please explain the methods of Conduction of classes and studios wrt aim and objectives.
   Lecture Content: During lectures, a broader range of concepts and fundamentals in Project Management was discussed, including project lifecycles, the role of a project manager, and the significance of Project Management in architecture. These lectures provided students with a comprehensive understanding of Project Management, covering COs 1 and 2 (understanding the role of Project Management in architecture and understanding of Project & Role & Qualities of a project manager).

   Class Tests: The class tests predominantly focused on assessing students' understanding of network analysis, bar charts (Gantt charts), and event activities. These tests directly addressed COs 3 (understanding Bar/Gantt charts, activities & events with different examples) and CO 4 (understanding the role of CPM & PERT in Project Management).

2. Tools and techniques used for course conduction.
   The tools and techniques used primarily consisted of lectures and class tests. Lectures served as the core method for delivering theoretical knowledge and practical insights related to Project Management, CPM, and PERT. These sessions allowed students to grasp the fundamental concepts and methodologies. Additionally, class tests were used to assess the students' comprehension and application of the learned material. These assessments ensured that students not only gained knowledge but also had the opportunity to apply it, reinforcing their understanding of Project Management and its tools, making the learning experience comprehensive and effective.

3. Which are the innovative approaches adopted in this semester?
   NA

4. Explain the approaches used to encourage library usage by students and faculty.
   NA

5. How and to what extent, the aim and objectives are achieved.
   Skills Development:
   Class tests predominantly focused on assessing students' proficiency in network analysis, bar charts (Gantt charts), and event activities. This directly addressed COs 3 (understanding Bar/Gantt charts, activities & events) and CO 4 (understanding the role of CPM & PERT in Project Management). Students were tested on creating project schedules using Gantt charts and identifying critical paths in architectural projects, ensuring they acquired the specific skills needed for Project Management.

Knowledge Acquisition:
Lectures provided a broader understanding of Project Management principles, including the role of a project manager and the importance of Project Management in architecture, aligning with COs 1 and 2. Class tests focused on related to network analysis tools and techniques. This dual approach ensured students gained both specific and comprehensive knowledge, covering a spectrum of Project Management concepts and fundamentals.

Understanding Development:
The class tests sharpened students' understanding of technical aspects, such as network analysis, bar charts, and event activities. Meanwhile, lectures contributed to a broader comprehension of Project Management as a discipline, encompassing concepts like project lifecycles and the holistic perspective of project management. This linked with COs 1 and 2.

Application of Knowledge:
Class tests directly assessed students' ability to apply their technical knowledge in practical architectural contexts, as they were required to create project schedules and identify critical paths, aligning with COs 3 and 4.

Enhancement of Creativity:
While class tests primarily evaluated technical skills, they indirectly encouraged creativity by prompting students to propose innovative solutions within the framework of Project Management. The practical application of network analysis, bar charts, and event activities allowed students to explore creative solutions to architectural challenges, aligning with COs 1 and 4.

6. Extent of horizontal and vertical integration achieved.
   NA

7. Extent of adherence to the Course Plan and schedule of submission prepared before the course started. Explain with the help of each assignment and students work.

   The course plan emphasized a balanced approach, combining theoretical knowledge through lectures with practical assessments via class tests.

   The session effectively covered the essential elements outlined in the course plan, including network analysis, bar charts (Gantt charts), event activities, and their relevance to

architecture. The lectures provided students with a comprehensive understanding of Project Management principles and their significance in the field, aligning well with the specified Course Outcomes (COs).

The class tests, which predominantly focused on network analysis and related tools, reinforced the practical application of this knowledge, ensuring that students could apply these skills effectively. This combination of theory and practice created a well-rounded learning experience, aligning with the original course plan and providing students with the necessary skills, knowledge, and understanding to excel in the realm of architectural Project Management.

8. Scope for improvement in future (next year).

Guest Lectures: Inviting experienced professionals from the field of architectural Project Management as guest lecturers can provide real-world insights and practical wisdom to students. These experts can share their experiences, challenges, and success stories, adding depth to the theoretical knowledge gained in the course.

Quizzes: Incorporating regular quizzes can promote active learning and engagement. These quizzes can be designed to test students' understanding of key concepts, keeping them on track and reinforcing their knowledge throughout the workshop.

Group Projects: Assigning group projects that require students to plan and execute a small-scale architectural project can offer hands-on experience. This practical approach allows students to apply their knowledge collaboratively, improving teamwork and project management skills.

Workshops and Software Training: Offering workshops on Project Management software commonly used in the industry can equip students with practical skills. Learning to use tools like Microsoft Project or specialized construction management software can be invaluable

9. Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.

NA

Course Plan Submitted v/s completed				
Subject: Electives 5			Course Code 521	
Faculty: Prof. Vrinda Padhye, Prof. Prakash Shringarpure				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	Introduction Session	-	**Yes**	**CO1**
2	Introduction to Project Management	-	**Yes**	**CO1**
3	Introduction to Project Management	-	**Yes**	**CO1.CO2**
4	Introducing CPM & PERT to students	-	**Yes**	**CO3**
5	CPM & PERT Details	-	**Yes**	**CO3, CO4**
6	CPM & PERT Details	-	**Yes**	**CO3, CO4**
7	CPM & PERT Details	-	**Yes**	**CO3, CO4**
8	Class Test 1	Class Test 1	**Yes**	
9	CPM & PERT – Network Analysis	-	**Yes**	**CO4, CO5**
10	CPM & PERT – Network Analysis	-	**Yes**	**CO4, CO5**
11	CPM & PERT – Network Analysis	-	**Yes**	**CO4, CO5**
12	CPM & PERT – Network Analysis	-	**Yes**	**CO4, CO5**
13	CPM & PERT – Network Analysis	-	**Yes**	**CO4, CO5**
14	CPM & PERT – Network Analysis	-	**Yes**	**CO4, CO5**
15	Class Test 2	Class Test 2	**Yes**	

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

The session effectively covered the essential elements outlined in the course plan, including network analysis, bar charts (Gantt charts), event activities, and their relevance to architecture. The lectures provided students with a comprehensive understanding of Project Management principles and their significance in the field, aligning well with the specified Course Outcomes (COs).

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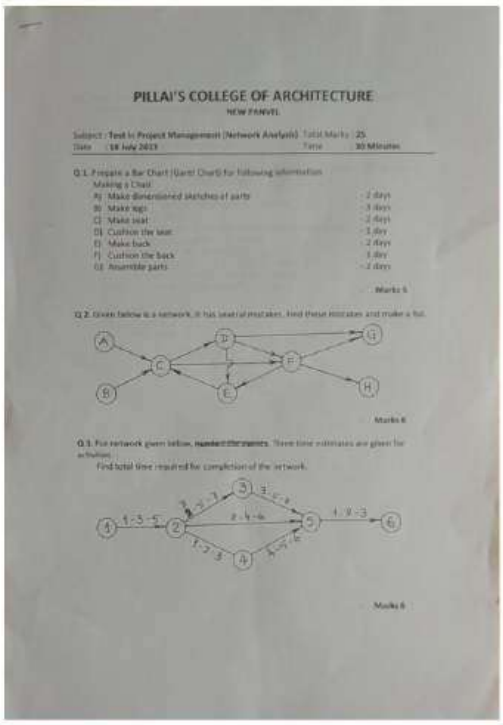
IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.

Class Test 1



PILLAI'S COLLEGE OF ARCHITECTURE

NEW PANVEL

Subject : Test in Project Management (Network Analysis) Total Marks : 25

Date : 18 July 2019 Time : 30 Minutes

Q.1. Prepare a Bar Chart (Gant Chart) for following information

Making a Chair

A) Make dimensioned sketches of parts - 2 days

B) Make legs - 3 days

C) Make seat - 2 days

D) Cushion the seat - 1 day

E) Make back - 2 days

F) Cushion the back - 1 day

G) Assemble parts - 1 days

Marks 6

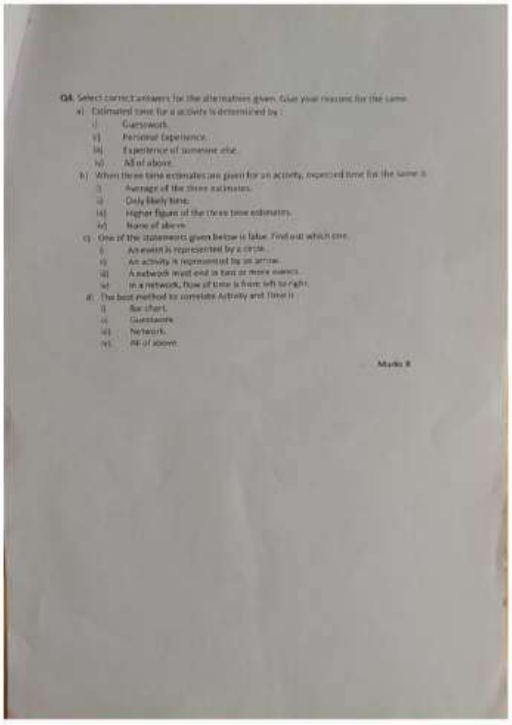
Q.2. Given below is a network. It has several mistakes. Find these mistakes and make a list.

Marks 6

Q.3. For network given below, number the events. Three time estimates are given for activities.

Find total time required for completion of the network.

Marks 6



Q4. Select correct answers for the alternatives given. Give your reasons for the same.

a) Estimated time for a activity is determined by :

i) Guesswork.

ii) Personal Experience.

iii) Experience of someone else.

iv) All of above.

b) When three time estimates are given for an activity, expected time for the same is

i) Average of the three estimates.

ii) Only likely time.

iii) Higher figure of the three time estimates.

iv) None of above.

c) One of the statements given below is false. Find out which one.

i) An event is represented by a circle.

ii) An activity is represented by an arrow.

iii) A network must end in two or more events.

iv) In a network, flow of time is from left to right.

d) The best method to correlate Activity and Time is

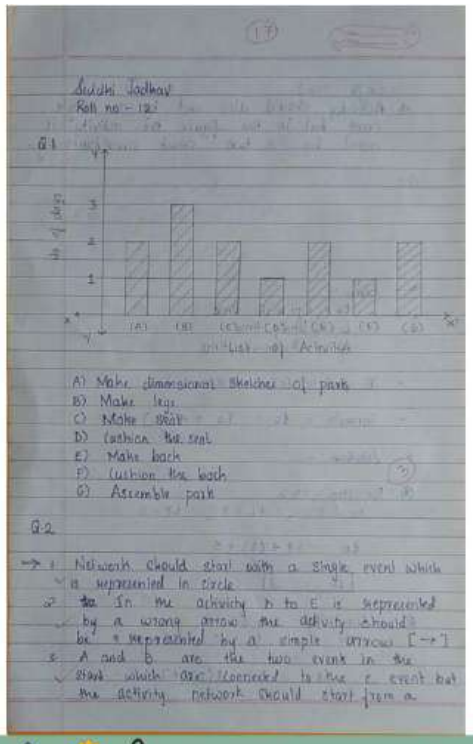
i) Bar chart.

ii) Guesswork

iii) Network.

iv) All of above.

Marks 8



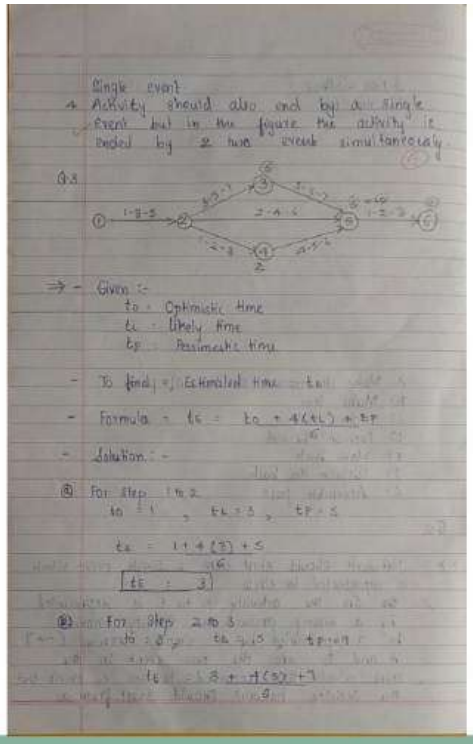
Sudidhi Jadhav
Roll no - 12

Q.1

A) Make dimensional sketches of parts
B) Make legs
C) Make seat
D) Cushion the seat
E) Make back
F) Cushion the back
G) Assemble parts

Q.2

→ 1. Network should start with a single event which is represented in circle
2. If in the activity b to E is represented by a wrong arrow the activity should be represented by a simple arrow [→]
3. A and b are the two events in the start which are connected to the c event but the activity network should start from a



Single event
4. Activity should also end by a single event but in the figure the activity is ended by 2 two events simultaneously

Q.3

⇒ - Given :-
to = Optimistic time
tl = likely time
tp = Pessimistic time

- To find :- Estimated time = te
- Formula = $te = \frac{to + 4(tl) + tp}{6}$
- Solution :-

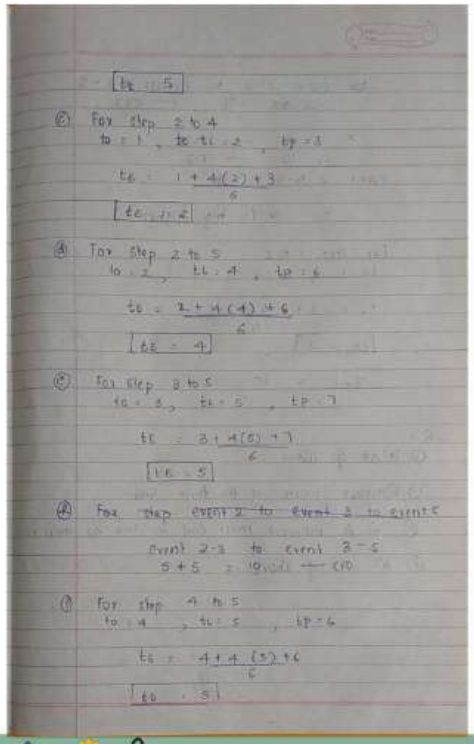
① For step 1 to 2
to = 1 , tl = 3 , tp = 5

$te = \frac{1 + 4(3) + 5}{6}$

te = 3

② For step 2 to 3
to = 3 , tl = 3 , tp = 9

$te = \frac{3 + 4(5) + 7}{6}$



te = 5

③ For step 2 to 4
to = 1 , tl = 2 , tp = 3

$te = \frac{1 + 4(2) + 3}{6}$

te = 2

④ For step 2 to 5
to = 2 , tl = 4 , tp = 6

$te = \frac{2 + 4(4) + 6}{6}$

te = 4

⑤ For step 3 to 5
to = 3 , tl = 5 , tp = 7

$te = \frac{3 + 4(5) + 7}{6}$

te = 5

⑥ For step event 2 to event 3 to event 5
event 2-3 to event 3-5
5 + 5 = 10 — (1)

⑦ For step 4 to 5
to = 4 , tl = 5 , tp = 6

$te = \frac{4 + 4(5) + 6}{6}$

te = 5

For event 2-4 to Event 4-5
2 + 5 = 7 — (2)
∴ 7 — (2)
∴ 10 — (1)
event 2 to 5 = 10
∴ 10 is big higher

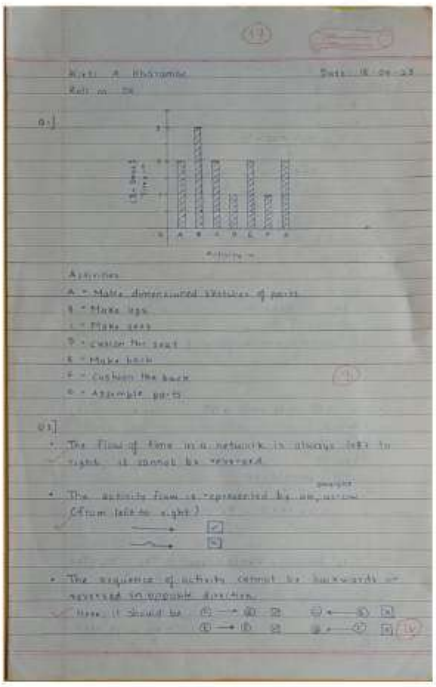
For Step 6 to 6
to = 1 , tl = 2 , tp = 3

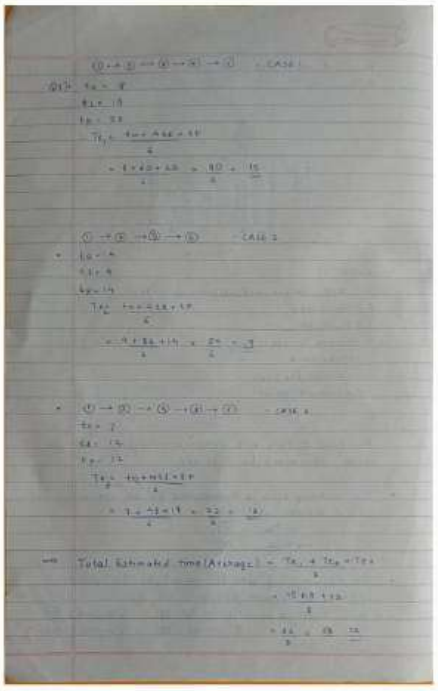
$te = \frac{1 + 4(2) + 3}{6}$

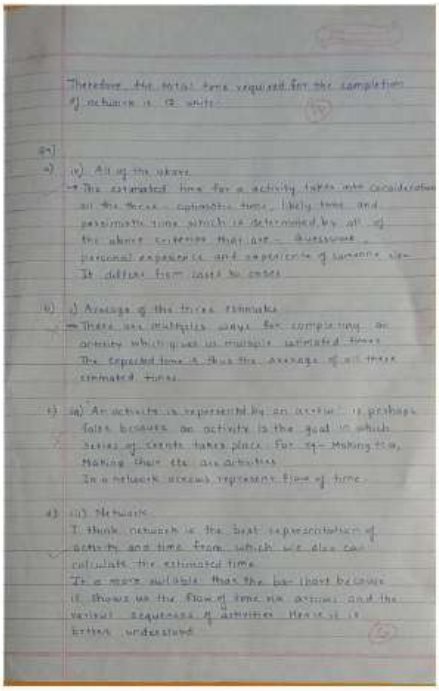
te = 2

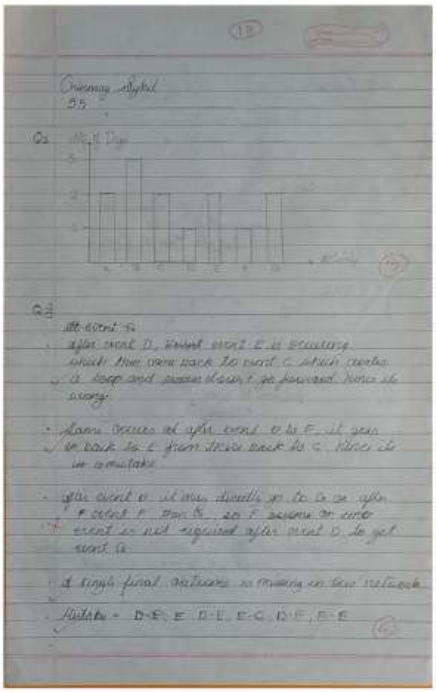
Total = 15

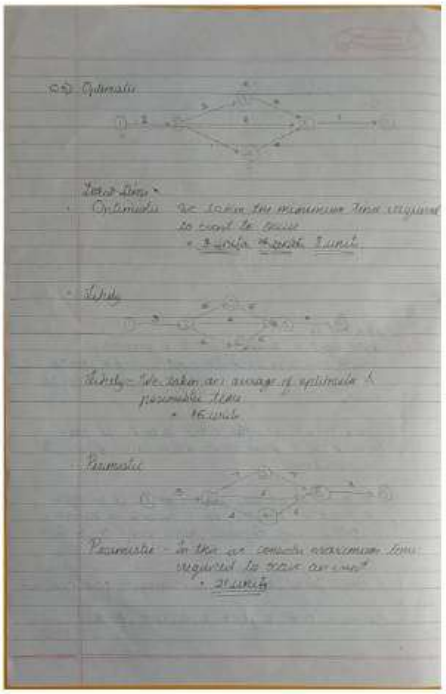
Q.4
① (a) All of above
② a) Higher figure of the three time
③ b) A network must end in two or more event
④ a) All of above

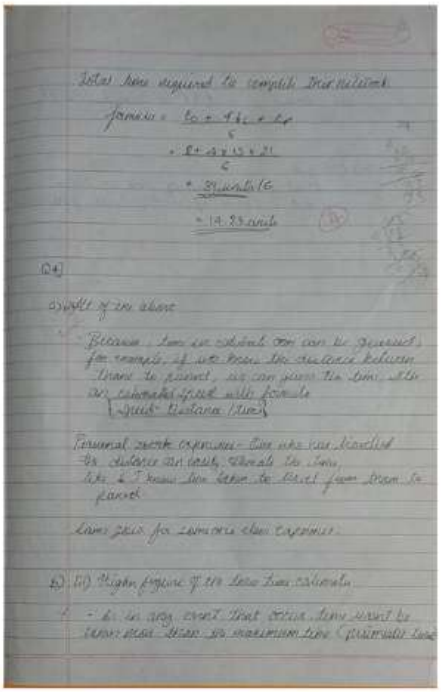


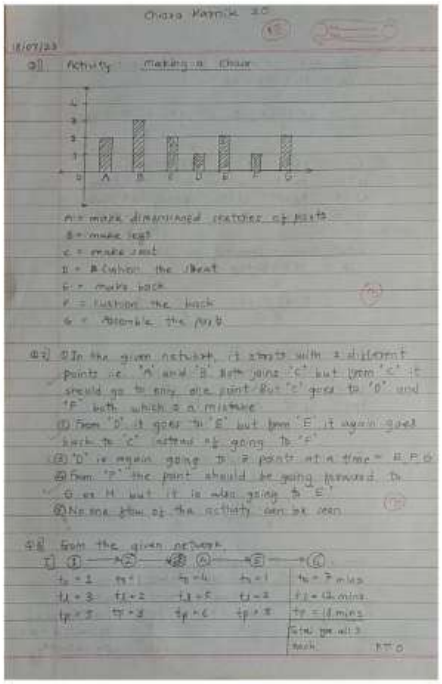
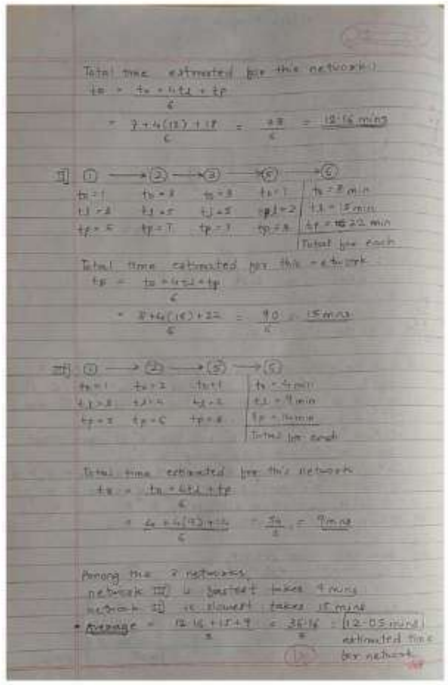
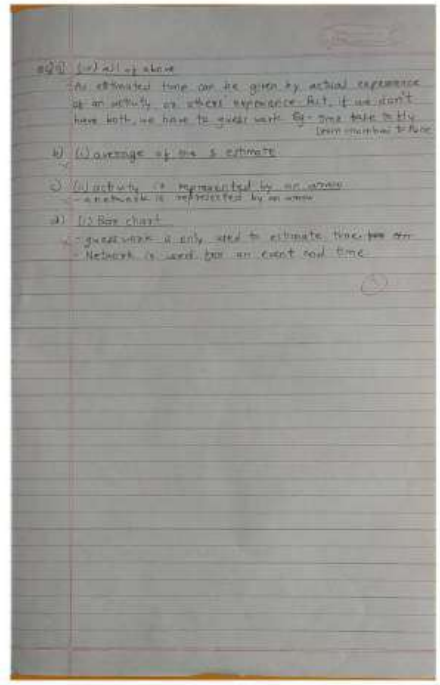


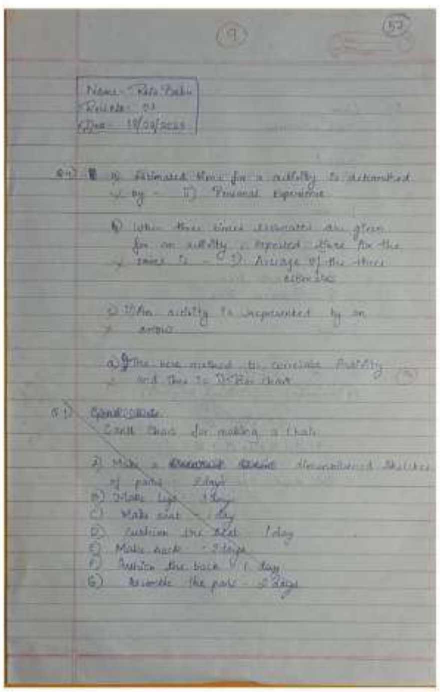
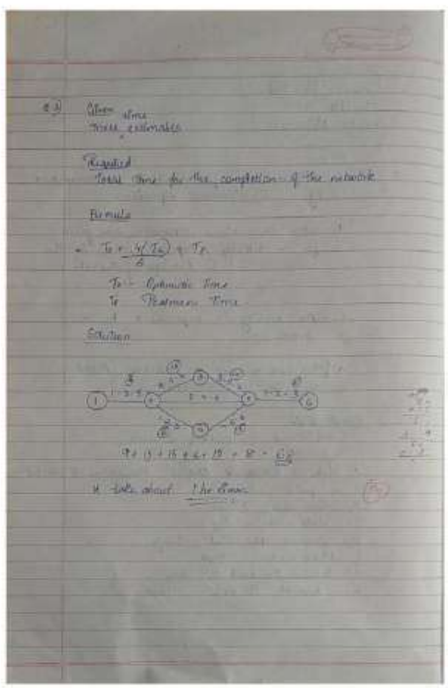
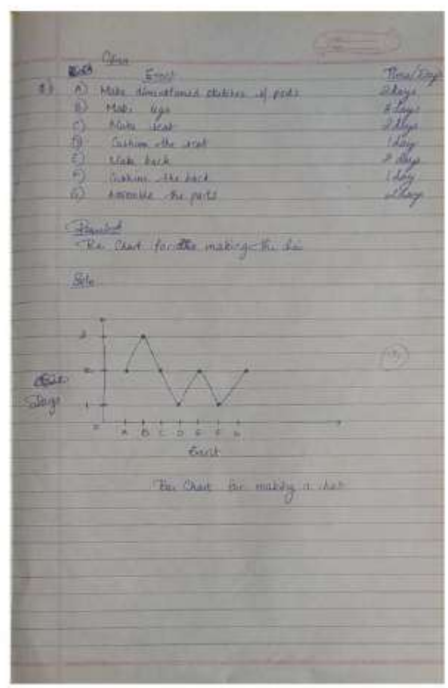




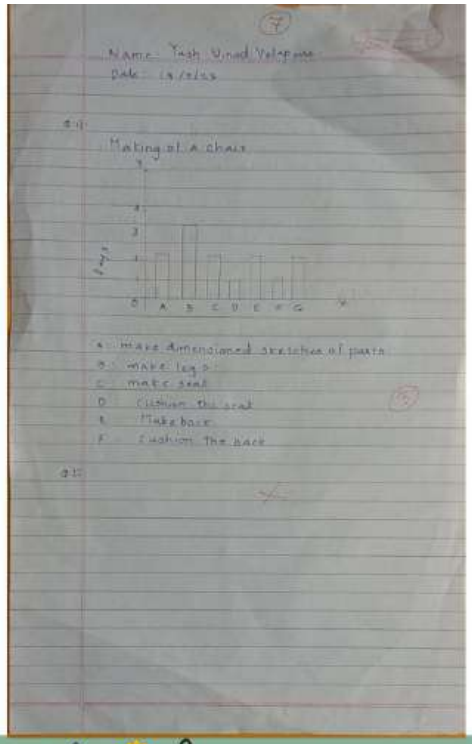




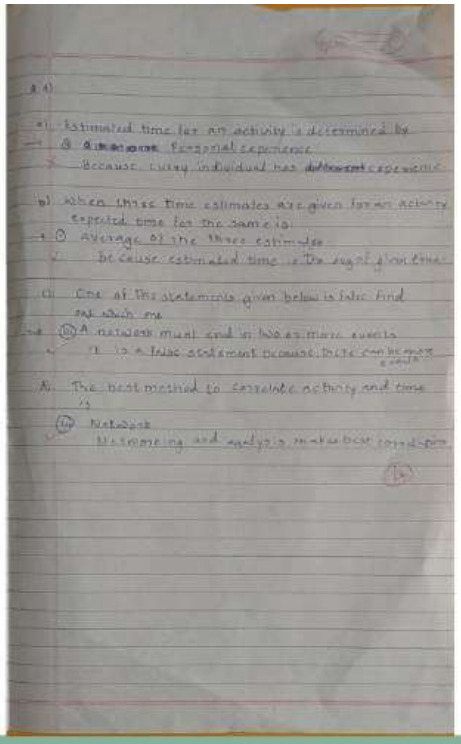
PILLAI COLLEGE OF ARCHITECTURE | STUDENTS' WORK | Elective 5 Project Management | AY 2023-24_YEAR III_SEM V_ELECTIVE



Name: Yash Vinod Velapure
Date: 13/2/24

Making of a chair

a. make dimensioned sketches of parts
b. make legs
c. make seat
d. Cushion the seat
e. Make back
f. Cushion the back



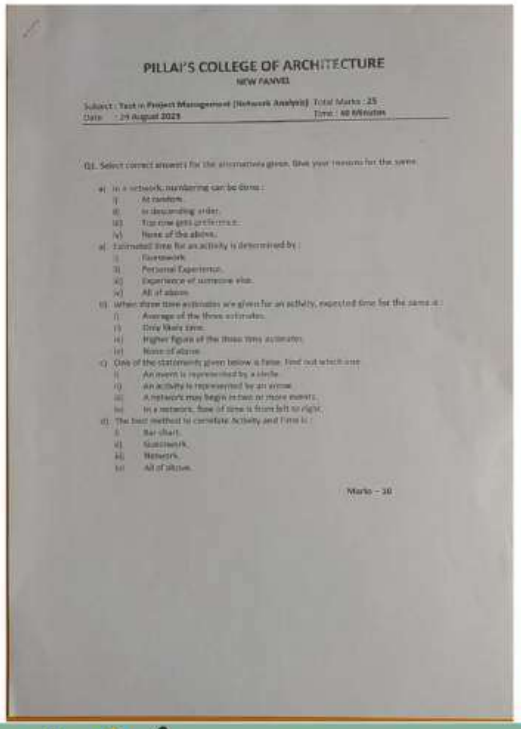
a) Estimated time for an activity is determined by
1) Personal experience
2) Because every individual has different experience

b) When three time estimates are given for an activity expected time for the same is
3) Average of the three estimates
2) Because estimated time is the avg of given time

c) One of the statements given below is false. Find out which one
2) A network must end in two or more events
2) is a false statement because: Data can be more events

d) The best method to correlate activity and time is
1) Network
Determining and analysis make best comparison

Class Test 2



PILLAI'S COLLEGE OF ARCHITECTURE
NEW PANVEL

Subject : Test in Project Management (Network Analysis) Total Marks : 25
Date : 29 August 2023 Time : 60 Minutes

Q1. Select correct answers for the alternatives given. Give your reasons for the same.

a) In a network, numbering can be done :
i) At random
ii) In descending order.
iii) Top row gets preference.
iv) None of the above.

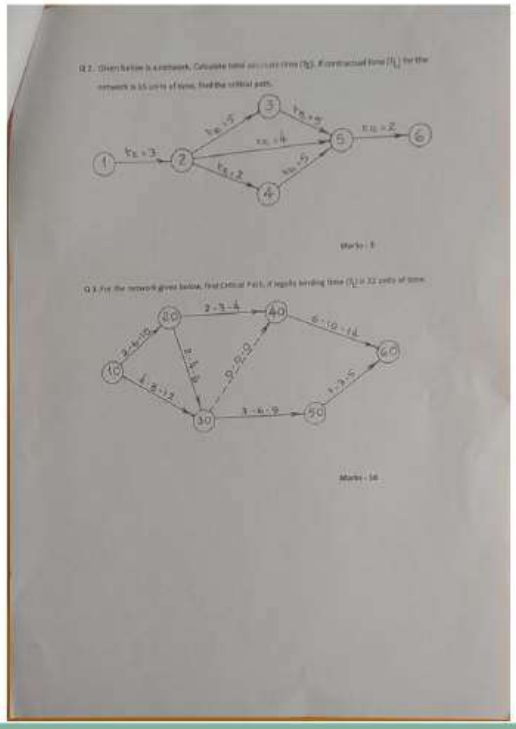
b) Estimated time for an activity is determined by :
i) Guesswork
ii) Personal Experience.
iii) Experience of someone else.
iv) All of above.

c) When three time estimates are given for an activity, expected time for the same is :
i) Average of the three estimates.
ii) Only likely time.
iii) Higher figure of the three time estimates.
iv) None of above.

d) One of the statements given below is false. Find out which one
i) An event is represented by a circle.
ii) An activity is represented by an arrow.
iii) A network may begin in two or more events.
iv) In a network, flow of time is from left to right.

e) The best method to correlate Activity and Time is :
i) Bar chart.
ii) Guesswork.
iii) Network.
iv) All of above.

Marks - 10

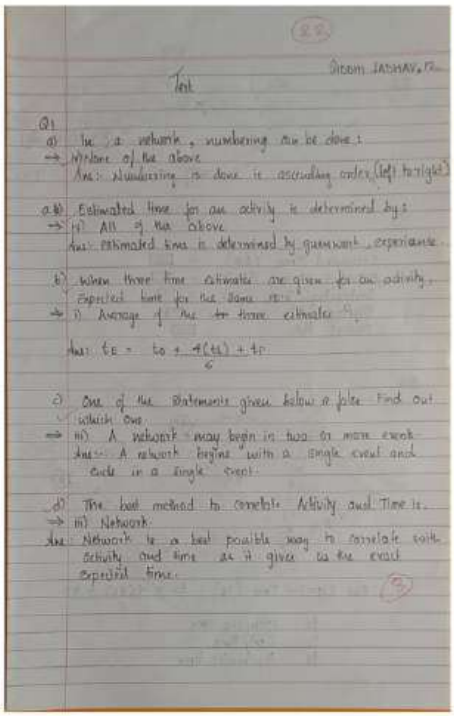


Q2. Given below is a network. Calculate total earliest time (T_E), & contracted time (T_L) for the network is 55 units of time. Find the critical path.

Marks : 9

Q 3. For the network given below, find Critical Path, if regds sending time (T_E) is 32 units of time.

Marks - 16



Test

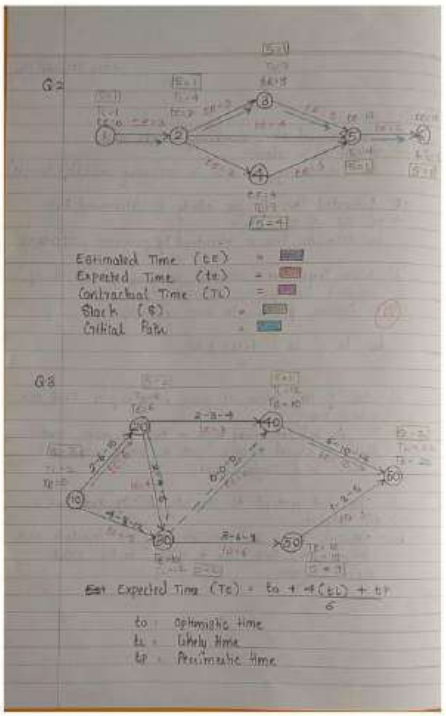
Q1
a) In a network, numbering can be done :
→ i) None of the above
Ans: Numbering is done in ascending order (left to right)

a) Estimated time for an activity is determined by :
→ i) All of the above
Ans: estimated time is determined by guesswork, experience.

b) When three time estimates are given for an activity, Expected time for the same is :
→ i) Average of the three estimates
Ans: $t_E = \frac{t_o + 4(t_L) + t_P}{6}$

c) One of the statements given below is false. Find out which one.
→ iii) A network may begin in two or more event
Ans: A network begins with a single event and ends in a single event.

d) The best method to correlate Activity and Time is.
→ iii) Network
Ans: Network is a best possible way to correlate with activity and time as it gives us the exact expected time.



Q2

Estimated Time (tE) =
Expected Time (TE) =
Contractual Time (TC) =
Slack (S)
Critical Path

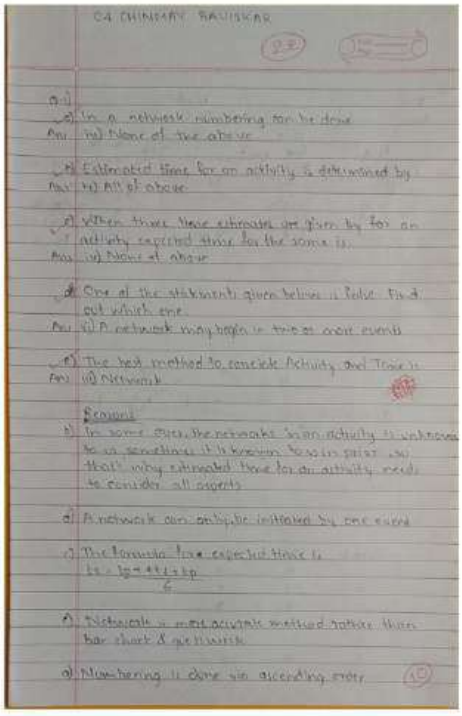
Q3

Est Expected Time (TE) = $\frac{t_o + 4(t_L) + t_P}{6}$

t_o : Optimistic time
t_L : Likely time
t_P : Pessimistic time

Estimated Time (te) :
Expected Time (TE) :
Slack (S)
Contractual Time (TC) :
Critical Path :

9



Q1
a) In a network, numbering can be done
Ans: iv) None of the above

b) Estimated time for an activity is determined by
Ans: iv) All of above

c) When three time estimates are given by for an activity expected time for the same is
Ans: iv) None of above

d) One of the statements given below is false. Find out which one
Ans: ii) A network may begin in two or more events

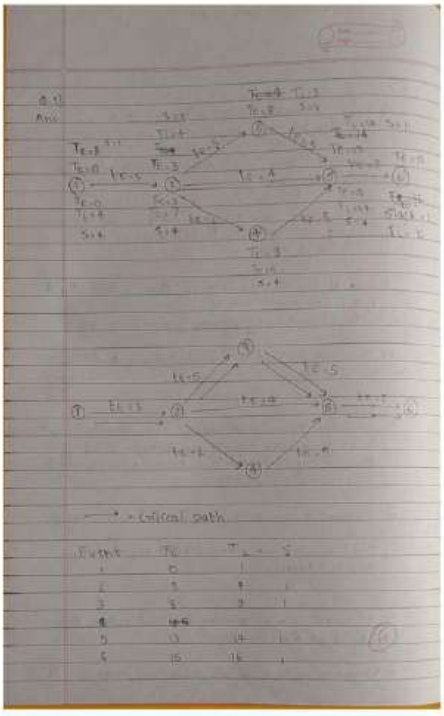
e) The best method to correlate Activity and Time is
Ans: iii) Network

Reasons
b) In some cases, the networks when activity is unknown to us sometimes it is known to us in part, so that's why estimated time for an activity need to consider all aspects

d) A network can only be initiated by one event

f) Network is more accurate method rather than bar chart & gantt chart

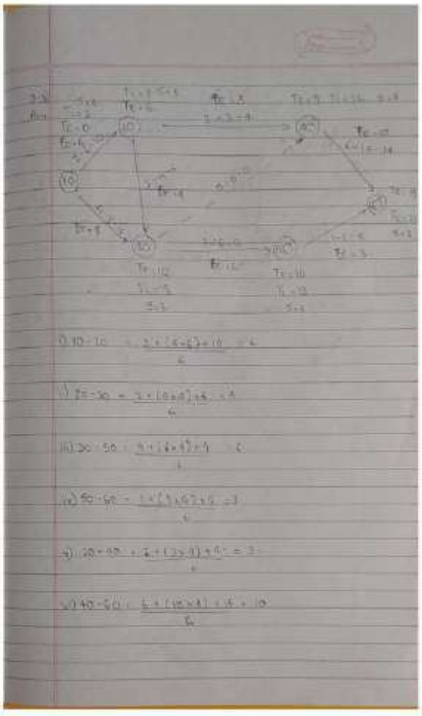
g) Numbering is done in ascending order

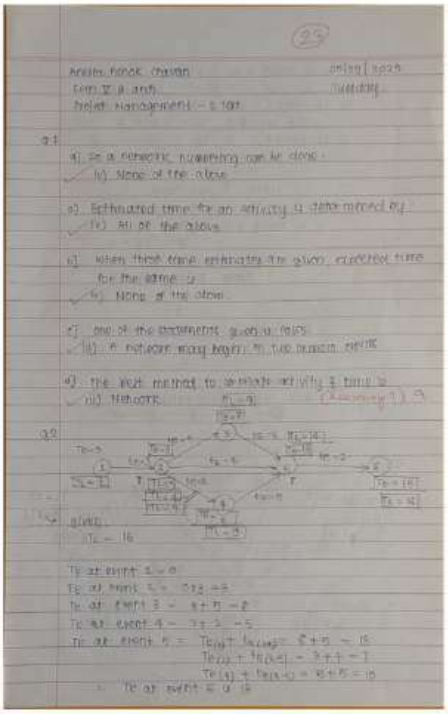


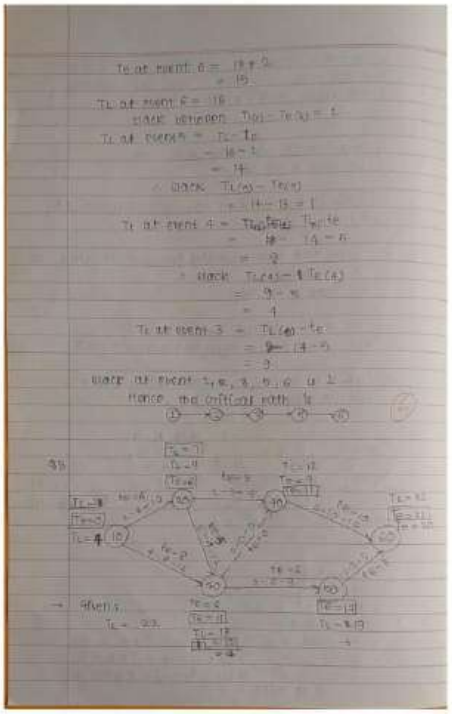
Q2

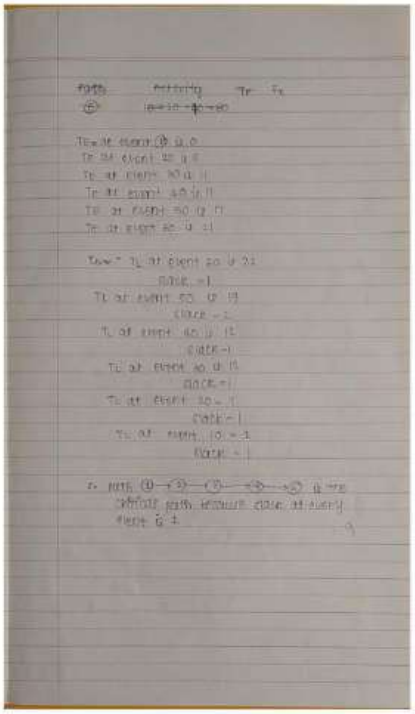
* = Critical path

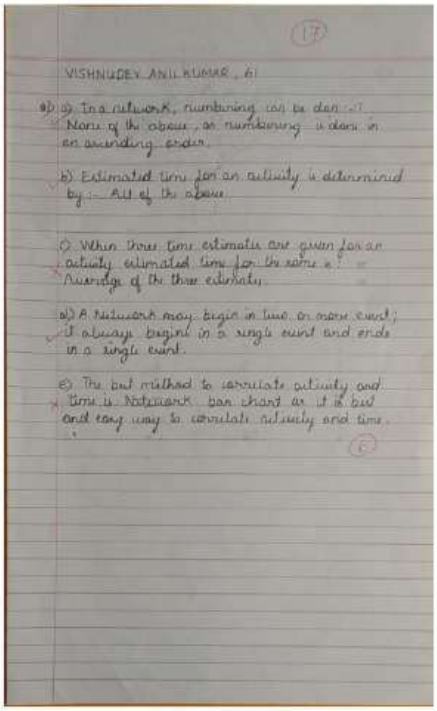
Events	TE	TL	S
1	0	0	0
2	3	3	0
3	5	5	0
4	4+6		
5	13	14	1
6	15	15	0

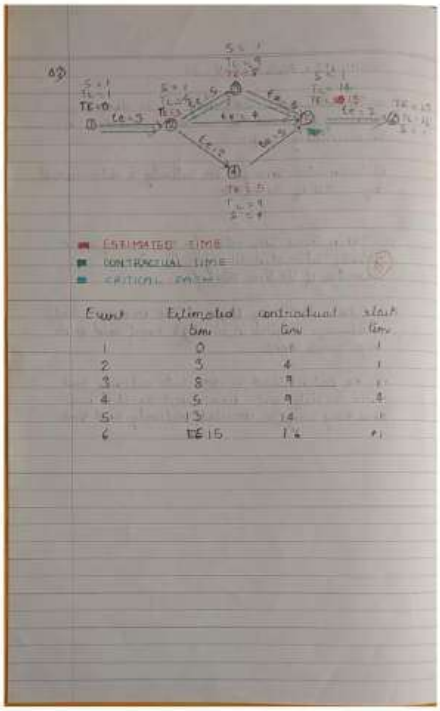


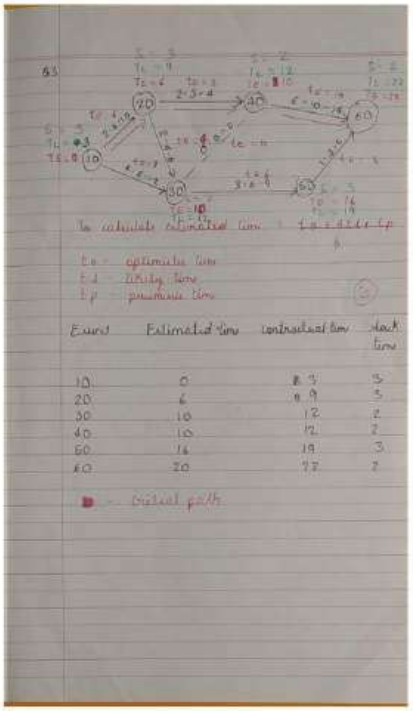


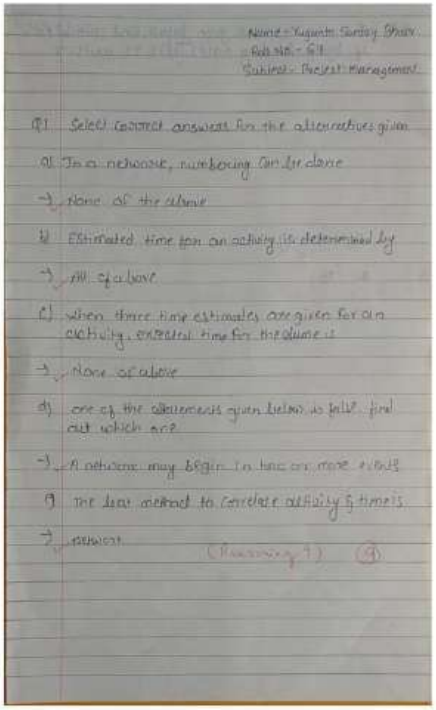












Name - Yuganta Sanjay Bhoir
Roll No. - 61
Subject - Project Management

Q1. Select correct answers for the alternatives given

a) In a network, numbering can be done

→ none of the above

b) Estimated time for an activity is determined by

→ All of above

c) When three time estimates are given for an activity, expected time for the above is

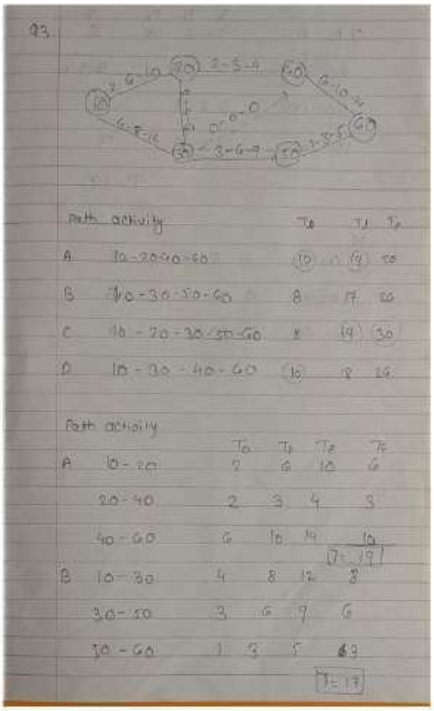
→ None of above

d) One of the statements given below is false? find out which one?

→ A network may begin in two or more events

e) The best method to correlate activity & time is

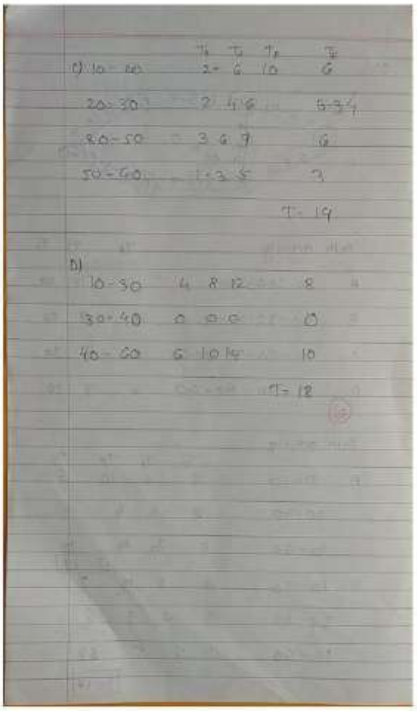
→ PERT (Planning ?) (4)



Q3.

Path	activity	T_o	T_l	T_e
A	10-20-40-60	(10)	(14)	30
B	10-30-50-60	8	17	30
C	10-20-30-50-60	8	14	30
D	10-30-40-60	16	18	34

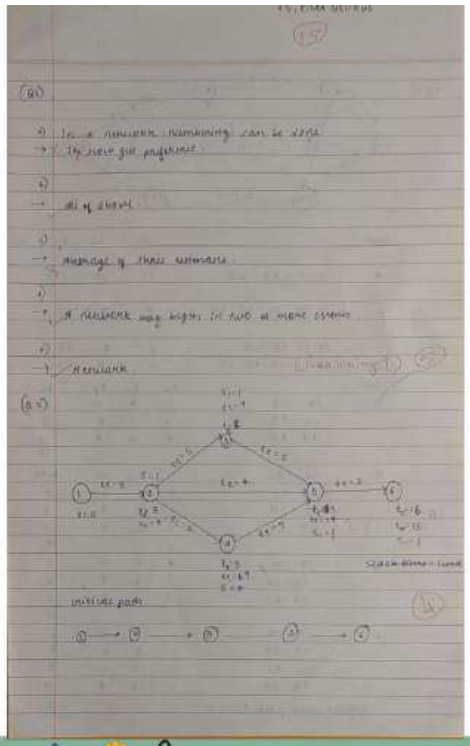
Path	activity	T_o	T_l	T_e	T_f
A	10-20	2	6	10	6
	20-40	2	3	4	3
	40-60	6	10	14	10
					T= 19
B	10-30	4	8	12	8
	30-50	3	6	9	6
	50-60	1	3	5	3
					T= 17



	T_o	T_l	T_e	T_f
a) 10-20	2	6	10	6
20-30	2	4	6	5.34
30-50	3	6	9	6
50-60	1	3	5	3
				T= 19

b)

10-30	4	8	12	8
30-40	0	0	0	0
40-60	6	10	14	10
				T= 18



(Q4)

a) In a network numbering can be done
→ In sieve gin progressive

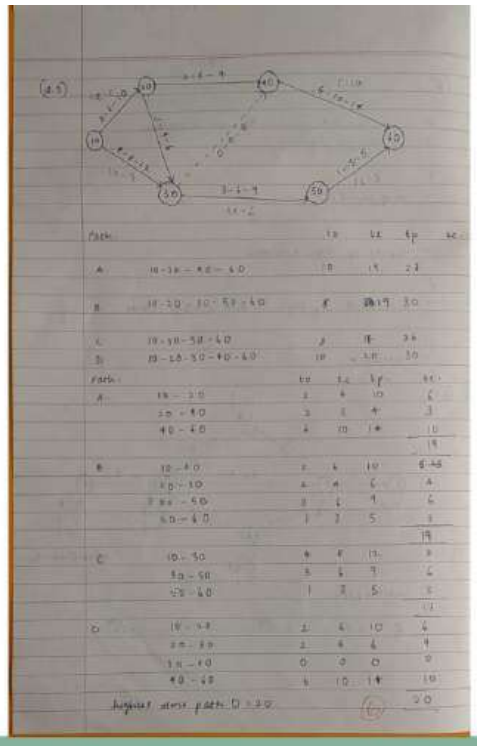
b)
→ all of above

c)
→ Average of three estimates

d)
→ A network may begin in two or more events

e)
→ Heuristic (Planning ?) (5)

(Q5)



Path	T_o	T_l	T_p	T_f
A	10-20-40-60	10	14	24
B	10-20-30-50-60	8	(19)	30
C	10-30-50-60	8	18	34
D	10-30-40-60	16	18	34

Path		T_o	T_l	T_p	T_f
A	10-20	2	6	10	6
	20-40	2	3	4	3
	40-60	6	10	14	10
					19
B	10-20	2	6	10	6.48
	20-30	4	8	12	8
	30-50	3	6	9	6
	50-60	1	3	5	3
					19
C	10-30	4	8	12	8
	30-50	3	6	9	6
	50-60	1	3	5	3
					17
D	10-30	4	8	12	8
	30-40	0	0	0	0
	40-60	6	10	14	10
					18

longest time path D = 30 (6)

Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: Elective(Transportation & Civic Sense)		**Term: I**	**AY:2023-24**	
Course Code:510	**Credits : 3**	**Semester: V**	**No of Periods per week : 1**	
Total Marks: 100	**Internal :100**	**External :00**	**Theory Paper :00**	

Faculty:	Subject coordinator :Avinash Sabhagani Team Members:

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

Introducing them to the road safety & civic sense to the students & its importance.

Methodology (All the following points must be addressed in ALL subjects)

Aim: To introduce the concepts, principles, tools & important; aids of Road Safety & Civic sense to the students. To Acquaint them with the design & safety standards for roads. Also inculcate the practice of safe road behavior &; civic sense among them. What to be done in case of emergency.

Objectives:-
1. To make observations.
2. Recording &apply; analyzing them
3. To make them aware transportation planning basics.

PROCESS: (Please elaborate point wise)

1. Please explain the methods of Conduction of classes and studios wrt aim and objectives.
   The theory classes will be presented first then they will be going for the site visit implementing their ideas for safety for the pedestrians. Then class test will be conducted during the term.
2. Tools and techniques used for course conduction.
   Lecture, presentation & Class test were conducted during the conduction of the classes.
3. How and to what extent, the aim and objectives are achieved.
   The theory classes will be presented first then they will be going for the site visit implementing their ideas for safety for the pedestrians. Then class test will be conducted during the term.
4. Extent of horizontal and vertical integration achieved.
   The students can integrate the knowledge in the architectural design with taking into consideration Traffic Regulations, Laws, Road Safety & Civic Sense, Traffic signal & Control AIDS, Traffic signs & Road Markings, Pedestrian Circulation & Barrier free design, Design of Intersection & typology of roads.
5. Extent of adherence to the Course Plan and schedule of submission prepared before the course started.
   The adherence to the course plan & schedule was most of the times considered but due to technical issues of rain etc. classes were conducted in online.
6. Scope for improvement in future (next year).
   May be we could conduct the guest session on the traffic study observation.
7. Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.
   Site visits were given to the students for understanding the traffic conditions of different kinds of different timings were given to them.

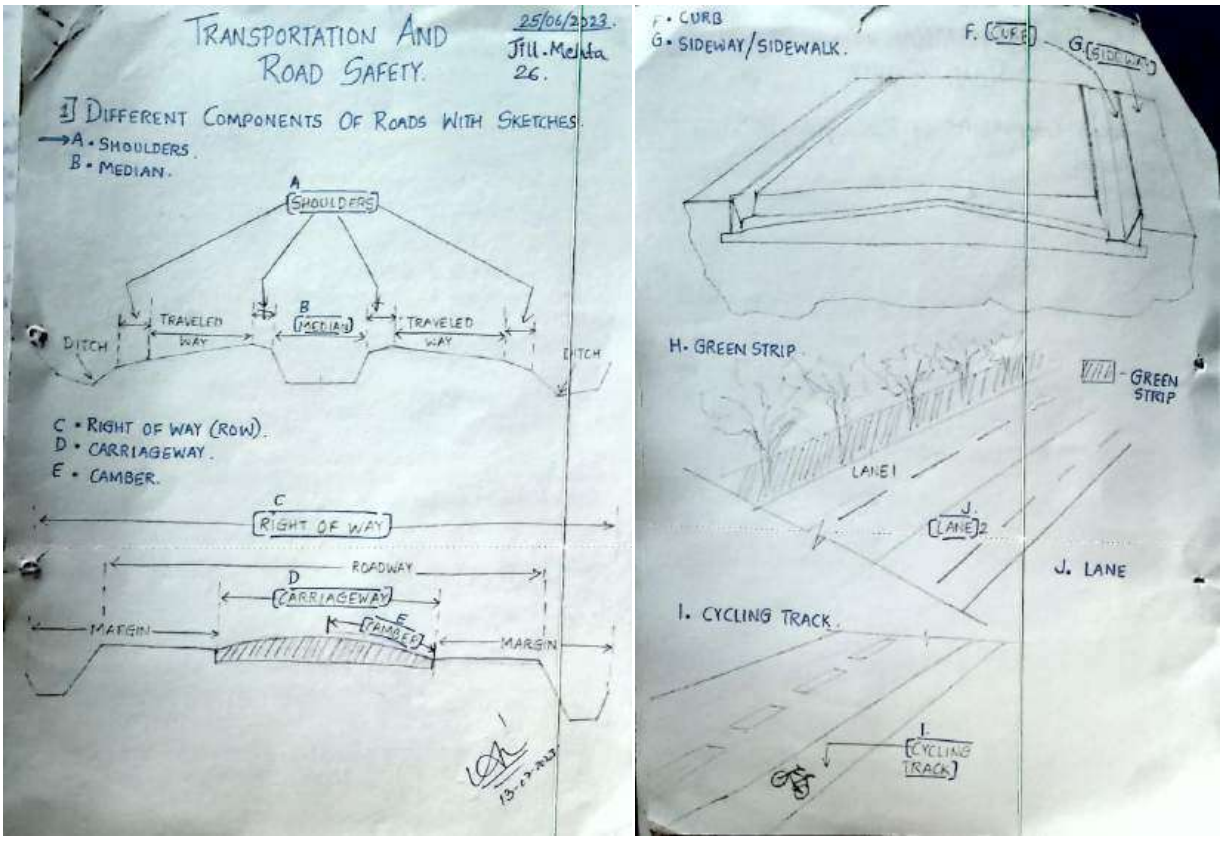
Course Plan Submitted v/s completed				
Subject: **Elective(Transportation & Civic Sense)**			Course Code:510	
Faculty:Avinash Sabhagani				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

1. The concepts will be presented in the classes that can be observed from the site.
2. Then Using this knowledge will be considered for the justifying the considerations for their design.

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.

Assignment 1



WHAT ARE DIFFERENT VEHICULAR CHARACTERISTICS?

- Broadly, there are two types of vehicular characteristics:

A. Static B. Dynamic.

- Under 'static', we have dimensions.
- Under *dimensions, we have -

1. Length of Vehicle: It affects,
   - > road capacity
   - > Parking facilities
   - > overtaking distance
   - > design of horizontal alignment of road.
2. Width of Vehicle: It affects,
   - > Lane width
   - > shoulder width
   - > Parking lot width
   - > Speed of vehicle
   - > road capacity, etc.
3. Height of Vehicle: It affects,
   - > clearance required for structures like under bridges, over bridges, electric service lane, etc.
   - > Height of tunnels.
   - > The height of the driver seat directly affects the visibility distance of the driver.

*Weight (of vehicle).

- Under weight, we have the following elements being affected
  - > Bridge design
  - > Ruling and limiting gradients.
  - > Pavement thickness.
  - > Structural design of pavement

Maximum Turning radius

- The maximum turning radius depends on the wheel base of the vehicle and the steering angle.
- It plays an important role in vehicle manufacturing operations.
- When vehicles turn at low speed the rear wheel presses the front wheel. The difference between rear and front wheels is called off-tracking.
- It is commonly known as mechanical widening.

B. Dynamic

1. Speed of vehicle: It affects,
   - > sight distance
   - > superelevation
   - > radius on horizontal curves
   - > length of transition curve on vertical curves
   - > length of transition curve in horizontal curves
   - > width of pavement
   - > width of shoulders
   - > design gradient
   - > capacity of traffic lane.
2. Braking System of vehicle: It affects the stopping distance and spacing between two consecutive vehicles in a traffic stream.
3. Acceleration of vehicle: Acceleration characteristics of the vehicle are important while designing intersection elements of the road.

DIFFERENT TYPES OF VEHICLES

> The vehicles can be classified under the following categories namely:

- Light vehicles -
  - Almost all cars, come under this category and compact cars come under this category too.
- Heavy duty and commercial vehicles -
  - Trucks: Large vehicles used for transporting goods, varying from light-duty to heavy duty trucks.
  - Buses: Vehicles designed for public transportation, often with a high passenger capacity.
  - Commercial vehicles: Includes various types of vehicles used for commercial purposes, such as delivery vans, food trucks, and utility vehicles.
- Motorcycles and scooters -
  - Two-wheeled vehicles powered by an engine.

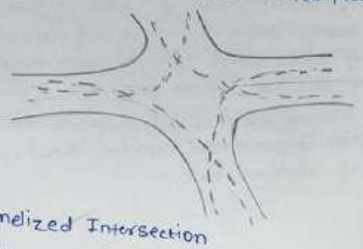
Assignment 2

ASSIGNMENT : 02

Q.1 Types of Intersection of grades

1) Un channelized intersection

- They are the lowest class of intersection, easiest in the design but most complex in traffic operations resulting in maximum conflict area and more number of accidents, unless controlled by traffic signals or police.
- When no additional pavement width for turning movements is provided, it is called plain Intersection



2) Channelized Intersection

- Vehicles approaching an intersection are directed to definite paths by islands, marking, etc. and this method of control is called channelization.
- It provides more safety and efficiency.
- It reduces the number of possible conflicts by reducing the area of conflicts available in the carriageway.

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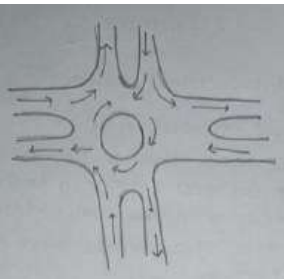
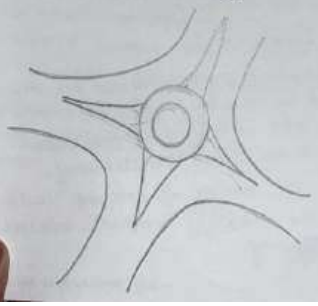


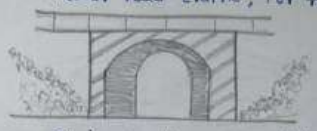
3] Rotary Intersection

- The rotary intersection of roads is also called as traffic rotary which is nothing but enlarged intersection of roads where vehicles cross roads or change their direction without stopping.
- All vehicles coming from different roads move in single direction around the central island and diverges into required exit.



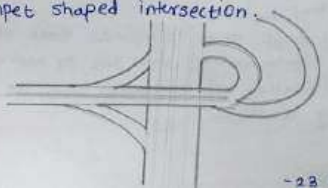
Types of Intersection at Different Grades.

① Underpass :- It is an underground passageway, completly enclosed except at the openings, commonly at each end. A tunnel may be for foot or vehicular road traffic, For rail traffic



② Overpass :- It is also known as a flyover, is a bridge, road, railway or similar structure that crosses over another road or railway. A pedestrian overpass allows pedestrians safe crossing over busy roads without impacting traffic.

③ Trumpet Interchange :- It is used where one highway terminates at another highway. They are trumpet shaped intersection.



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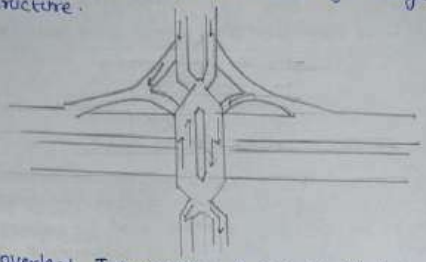
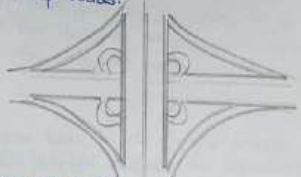
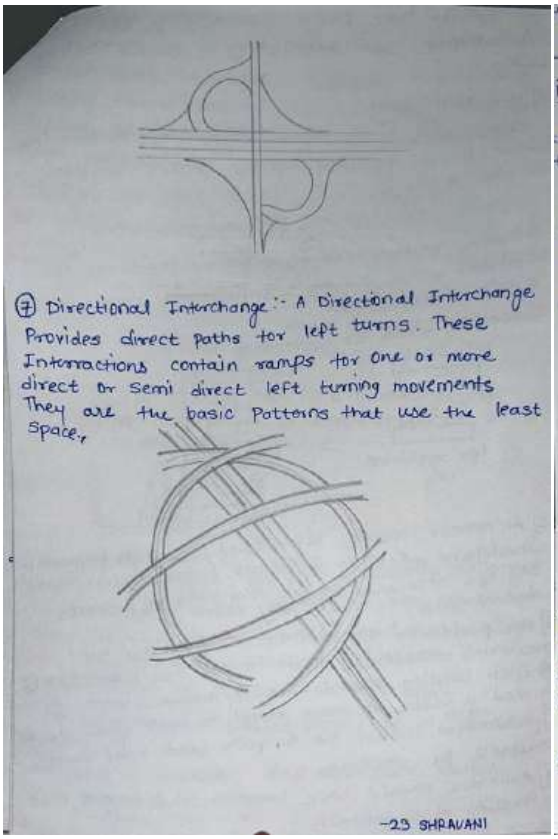
④ Diamond Interchange :- It is the simplest of grade seperated intersection between two roadways. The conflicts between through and crossing traffic are eliminated by a bridge structure.



⑤ Cloverleaf Interchange :- A cloverleaf interchange is a two-level interchange in which left turns are handled by ramp roads.



⑥ Partial cloverleaf Interchange:
It is a modification that combines some elements of a diamond Interchange with one or more loops of a cloverleaf to eliminate only the more critical turning conflicts.



⑦ Directional Interchange :- A Directional Interchange Provides direct paths for left turns. These Interactions contain ramps for one or more direct or semi direct left turning movements They are the basic Patterns that use the least Space.

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Q.3 Barrier Free Design Requirements for non Ambulatory, Semi ambulatory & visually challanged

→

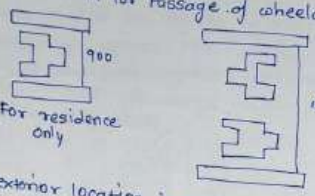
1] Non-Ambulatory

Impairments that regardless of cause or manifestation, for all Practical Process, confine individual to wheels & chairs.

Design requirements for non ambulatory.

A] Persons restricted on wheelchairs should use the facilities within the built environment along without a helper's assistance.

B] Required width for Passage of wheelchair.



• corridors must at least be 900 mm.

c] An exterior location is preferred for ramps to provide wheelchair access to different floors. Indoor ramps are not recommed because they take up a great deal of space.

d] The Preffered slope of ramps is 5% and the maximum acceptable slope is not less than 8% (1:12)

e] Each landing should have a minimum length of 1.20 m. and a width at least equal to that of the ramp walkway

f] A ~~window~~ should be smooth, hard level surface suitable for wheeling.

g] A window should have controls at a height that Persuits of wheelchair.

Semi Ambulatory

Impairments that cause individuals to walk with difficulty or in security. Individuals using braces or crutches, amputees, arthritics, etc. may fall under Semi Ambulatory.

Design Requirements for Semi ambulatory :-

A) width of Passage for crutch use (min 900mm)

B) Finishes of floor surface with non slip floor material

c) Installation of handrail to support the body weight at the centre critical places e.g staircase, toilet, ramps, passage with a change of level (800 - 850mm).

d) To prevent slip of the cone or crutch from the side of the stairs or ramps should be 20mm high tip on the exposed edge.

3] Visually challanged :-

Design requirements for ~~semi and~~ visually challanged persons with impaired vision to guide them ~~without~~ within the buildings and facilities and outside of the building.

1) Use of guiding blocks for

2) Installation of Formation board in braile

3) For persons with limited vision use of contrasting colour arrangements.

4) Removal of any objects and sufficient walking space for safe walking.

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Q.4 Difference between Conflict & Hazard

• CONFLICTS

- 1) Ref Conflicts is an important factor affecting traffic safety.
2) Traffic conflicts is a situation in which a vehicle crosser or turns into the path of a through, right of way vehicle, causing the through vehicle to break or weave.
3) Involves situation that may lead to collisions or accidents.
4) Occurs at specific location where path or users intersect or cross.

• HAZARD

- 1) Refers to potential sources of harm or adverse effect.
2) can be present in various environment, not just traffic related.
3) Includes factors that increase the livelihood of accidents or incidents.
4) Identify hazards allows implementing safety measures to prevent accidents in general.

12.09.2023

Assignment 3

30/08/23

Transportation

Assignment - 03

1] Explain the need of street lighting?

→ 1) Street lighting is provided on side of the road or within median or suspended over wire above the road to provide illumination, lighting should be always kept a signalized intersections and circular intersections.

2) In Order to have safer, more comfortable, more convinient, sufficient movement of Vehicles and Pedestrians at night time, street lighting or highway lighting is needed along road.

3) Lighting should be managed well it should permit night traffic operations with maximum possible safety, comfort, convenience.

4) Street lighting is to authorized road users to view accurately and easily the carriage way and the quick surroundings in darkness

5) Street lightning enhances visibility at night through artificial lightning decreases stress on driving and makes sure comfort.

6) It feels very easy to drive a vehicle in Presence of street lighting.

7) With the help of street lighting traffic speed can be improved and traffic flow conditions can be made better.

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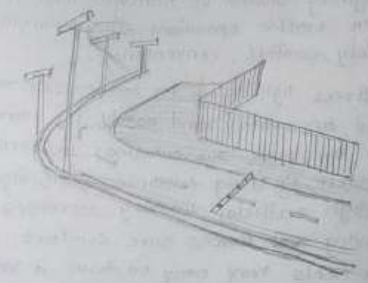
8) Street lightning is very necessary at intersections, bridges sites, level crossings and places where traffic movements are banned.

9) Street lighting is provided along the road sides to make traffic and obstructions on road clearly visible in order promote safety & convinience.

10) It also make traffic and obstructions on road clearly visible in Order promote ~~on~~ street more attractive and improves traffic speed and traffic flow conditions.

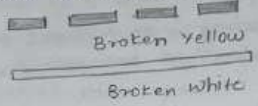


Types of Road Markings

(1) Longitudinal Markings :- Its marked or painted on Same direction as traffic on the Pavement Surface to direct the driver to proper position on Pavement.

(2) These are generally located parallel & adjoining to traffic flow & help to seperate the traffic flow in same direction.

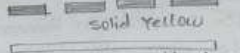
(i) Broken lines :- This lines allows driver to cross between lanes with caution.



Broken Yellow

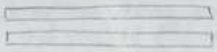
Broken White

(ii) Solid lines :- This lines do not allows drivers to cross between lanes, only entry at initial point & exit at end point is allowed.



Solid Yellow

(iii) Double Solid :- Double solid lines indicate driver not to cross lanes but can be exempted in case of emergency.



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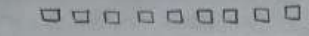
(iv) Dotted lines :- Dotted line provides warning about route variation ahead.



(2) Transverse markings :- Transverse pavement marking band marked along direction of traffic where immidiate action is required by driver.

(i) Stop line marking :- Must marked where traffic lanes approch the traffic control devices, indicate driver to stop Vehicle behind line whenever required.

(ii) Pedestrian crossing :- It indicates the movement or passage of Pedestrian and indicates driver to slow down or stop Vehicle.

(iii) Directional arrow :- These lines are marked to provide direction to drivers & easy traffic flow.

(3) Arrow Marking :- Painted on Pavements of roads to provide right direction to driver & they must take or follow these mandatory turns to avoid traffic confusion.

one direction :- Driver must drive in designated direction.

(11) Two Direction :- Driver can drive in either direction.

(4) Hazard Markings :- This markings used to indicate driver of hazard being the junction up ahead. such prohibiting cross-over, changing of lanes, merging or diverging.

(5) Block Markings :- Block marking are marked in form of block such as zebra-crossing for Pedestrian & chequred & triangular blocks for speed breakers.

(6) Directional Markings :- This markings that is marked / painted in terms of words so it is easy to understand & allows driver to take action accordingly. The character of message are elongate so it is visible to driver looking at lower angle.

- Directional marking words :-
- Stop
- slow
- School
- Exit
- Curve ahead
- speed limit

(7) Facility Marking or Parking

This marking helps facilitate vehicle Parking & giving an idea about parking space limits & restrictions.

Different colours used in Road Marking.

- White :- white mark seperate the traffic flow in same direction.
- Yellow :- Yellow line seperates the traffic flow in opp. direction.
- Red / Purple :- This line is recommended for hazardous junctions.
- Blue :- Blue is generally used for Public transportation & dedicated by lanes.

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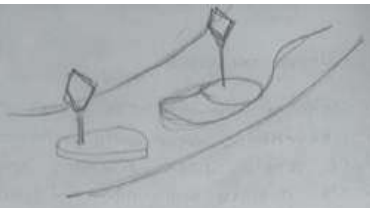
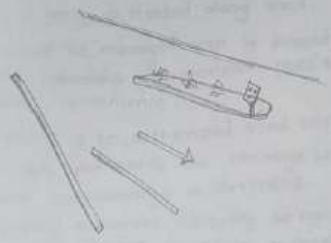


(5) Traffic circles :- This is the raised islands at centre of one lane, unsignalized intersection where traffic circulates around island in order to cross small traffic also minimum boundary. These circles requires drivers to slow down & pay attention to their surroundings in order to maneuver around them.

Lane Narrowing :-

Lane Narrowing also known as road diet is narrowing of travel lanes. Lane narrowing can be accomplished through widening of sidewalks, creating bicycle lanes, landscaping or inserting raised medians in centre of roadway. Narrow lanes encourages driver alertness, and cause motorists to slow down in order to increase driving roadway entries.



– 23 SHRAVANI K.

Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: ELECTIVE (PARAMETRIC DESIGN)		**Term: II**	**AY: 2023-24**	
Course Code: BARC621	**Credits : 03**	**Semester: VI**	**No of Periods per week :01**	
Total Marks: 100	**Internal :100**	**External :-**	**Theory Paper :**	**-**

Faculty:	Subject coordinator :PRASHANT B Team Members:

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

Parametric design is an innovative approach to design that utilizes algorithms and mathematical equations to generate and manipulate digital models. This subject explores the principles and techniques of parametric design, focusing on its applications in various fields such as architecture, engineering, product design, and digital art. Through a combination of theory and hands-on practice, students will learn how to create complex and dynamic designs that respond intelligently to different parameters and constraints.

Methodology (All the following points must be addressed in ALL subjects)

Aim: Understanding parametric modeling software (e.g., Grasshopper for Rhino, Dynamo for Revit). Exploring parametric relationships and dependencies.

Objectives:-
Understand the principles and techniques of parametric design.
Create complex and dynamic designs using parametric modeling software.

Apply parametric design principles to solve real-world design challenges in various fields.
Communicate and present parametric design concepts effectively to peers and stakeholders.
Collaborate with multidisciplinary teams to integrate parametric design into design processes and projects.

PROCESS: (Please elaborate point wise)

1. Please explain the methods of Conduction of classes and studios wrt aim and objectives.
   Lectures and Demonstrations:
   Aim: To provide theoretical foundations and practical demonstrations of parametric design principles and techniques.
   Objective: To ensure students understand the fundamental concepts of parametric design and gain proficiency in using parametric modeling software.
   Method: Conduct regular lectures where instructors explain key concepts, demonstrate software tools, and showcase examples of parametric design projects. Use visual aids, presentations, and live demonstrations to illustrate concepts effectively.
   Hands-on Workshops and Tutorials:
   Aim: To facilitate hands-on learning and practical application of parametric design tools and techniques.
   Objective: To enable students to develop technical skills in creating parametric models and implementing algorithms.
   Method: Organize workshops and tutorials where students work on structured exercises and guided projects under the supervision of instructors. Provide step-by-step instructions, templates, and support materials to help students navigate software tools and complete tasks.
   Studio Sessions:
   Aim: To foster creativity, collaboration, and critical thinking in the context of parametric design projects.
   Objective: To encourage students to explore innovative design solutions and apply parametric principles to real-world design challenges.
   Method: Conduct studio sessions where students work on open-ended design projects individually or in groups. Encourage experimentation, peer collaboration, and constructive critique. Provide opportunities for brainstorming, concept development, and iterative design refinement. Facilitate discussions and design reviews to evaluate progress and provide feedback.
   Guest Lectures and Industry Visits:
   Aim: To expose students to diverse perspectives and real-world applications of parametric design in different fields.
   Objective: To inspire students and broaden their understanding of the potential impact of parametric design in various industries.
   Method: Invite guest speakers from academia, industry, and professional practice to deliver lectures, share case studies, and discuss current trends in parametric design. Organize visits to architectural firms, engineering companies, fabrication labs, or design studios where students can observe parametric design workflows and interact with professionals.
   Project-Based Learning:

Aim: To cultivate problem-solving skills and creativity through hands-on design projects.
Objective: To enable students to apply parametric design principles to address real-world design challenges and produce innovative design solutions.
Method: Assign project-based tasks or design briefs that require students to conceptualize, develop, and present parametric design solutions. Encourage interdisciplinary collaboration and integration of parametric design with other fields such as architecture, engineering, art, or sustainability. Provide opportunities for project presentations, peer feedback, and reflection on the design process.

2. Tools and techniques used for course conduction.
   Parametric Modeling Software:
   Tools such as Rhinoceros (with Grasshopper), Autodesk Revit (with Dynamo), or Autodesk Fusion 360 are commonly used for parametric design.
   Grasshopper: A visual programming language plugin for Rhino, allowing users to create complex parametric models through node-based scripting.
   Dynamo: A visual programming extension for Revit, enabling users to create parametric designs and automate repetitive tasks.
   Computational Design Plugins: Additional plugins and add-ons for software platforms that extend parametric modeling capabilities, such as Ladybug Tools for environmental analysis in Grasshopper.
   Scripting Languages:
   Knowledge of scripting languages like Python, Visual Basic for Applications (VBA), or C# can enhance parametric design workflows, especially for advanced customization and automation.
   Python scripting is particularly useful for extending the functionality of parametric modeling software and integrating with external tools and libraries.
   Physical Computing and Sensors:
   Integrating physical computing components such as Arduino or Raspberry Pi with parametric design projects allows for the creation of interactive and responsive designs. Sensors like proximity sensors, light sensors, or motion sensors can be used to capture real-world data and influence parametric design parameters dynamically.
   3D Printing and Digital Fabrication:
   Utilizing 3D printing, CNC milling, laser cutting, or other digital fabrication technologies allows students to prototype and realize parametric designs in physical form.
   Software tools for preparing 3D models for fabrication, such as Autodesk Netfabb or Ultimate Cura, are also essential for the parametric design process.
3. Which are the innovative approaches adopted in this semester?
   Handling environmental aspect of site and design according to design the façade and roof system of structure.
4. Explain the approaches used to encourage library usage by students and faculty.
   To understanding mathematics and complexity behind the design, doing previous structure case studies.
5. How and to what extent, the aim and objectives are achieved.
   Yes we achieved the targeted aim to fabricate the design of structure as final output.

6. Extent of horizontal and vertical integration achieved.
   Horizontal integration – to incorporate design of architecture design in this topic.
   Vertical integration- to understand the technical aspect like construction and material selection will helpful to the design and its optimization.
7. Extent of adherence to the Course Plan and schedule of submission prepared before the course started.
   Initial Planning Phase:
   Before the course begins, instructors develop a detailed course plan outlining the curriculum, learning objectives, assessment criteria, and schedule of submissions.
   The course plan typically includes a breakdown of topics to be covered each week, along with corresponding assignments, projects, readings, and deadlines.
   Course Implementation:
   During the course, instructors follow the outlined schedule, covering the planned topics through lectures, workshops, studio sessions, and hands-on exercises.
   Assignments and projects are distributed to students according to the predetermined schedule, with clear instructions and deadlines provided for submission.
   Student Engagement and Progress:
   Adherence to the course plan depends on the level of student engagement and their ability to grasp the material within the allocated time frame.
   Instructors monitor student progress through regular assessments, class participation, project reviews, and one-on-one consultations.
   If students encounter difficulties or require additional support, instructors may adjust the pace of instruction or provide supplemental resources to help them stay on track.
   Flexibility and Adaptation:
   Despite careful planning, unforeseen circumstances such as technical issues, scheduling conflicts, or unexpected events may arise during the course.
   Instructors remain flexible and adaptable, making necessary adjustments to the course plan and schedule to accommodate changes while ensuring that learning objectives are met.
   Flexibility may involve rescheduling classes, extending deadlines, modifying assignments, or revising the curriculum based on student feedback and evolving needs.
   Communication and Transparency:
   Effective communication between instructors and students is essential for maintaining adherence to the course plan and schedule.
   Instructors regularly communicate course updates, assignment reminders, and any changes to the schedule through emails, announcements, or class discussions.
   Transparency about expectations, requirements, and evaluation criteria helps students understand their responsibilities and stay organized throughout the course.
   Evaluation and Reflection:
   At the end of the course, instructors evaluate student performance based on the established criteria and provide constructive feedback on their submissions.
   Instructors also reflect on the effectiveness of the course plan and schedule, identifying strengths, areas for improvement, and lessons learned for future iterations of the course.
8. Explain with the help of each assignment and students work.

Assignment 1- understanding of parametric in design.
Assignment 2- case study of parametric design structure.
Assignment3- design of wall or façade of building.
Assignment4- understanding factor affecting (sun and wind) to structure and optimize the shape.
Assignment 5-curvelinear roof design with rhino inside.

9. Scope for improvement in future (next year).
   -to approach for multiple site visits to design office and workshops.
10. Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.
    -yes, site visit of folds design studio, nerul, Navi Mumbai. The visit basically focused on the design and its application and fabrication.

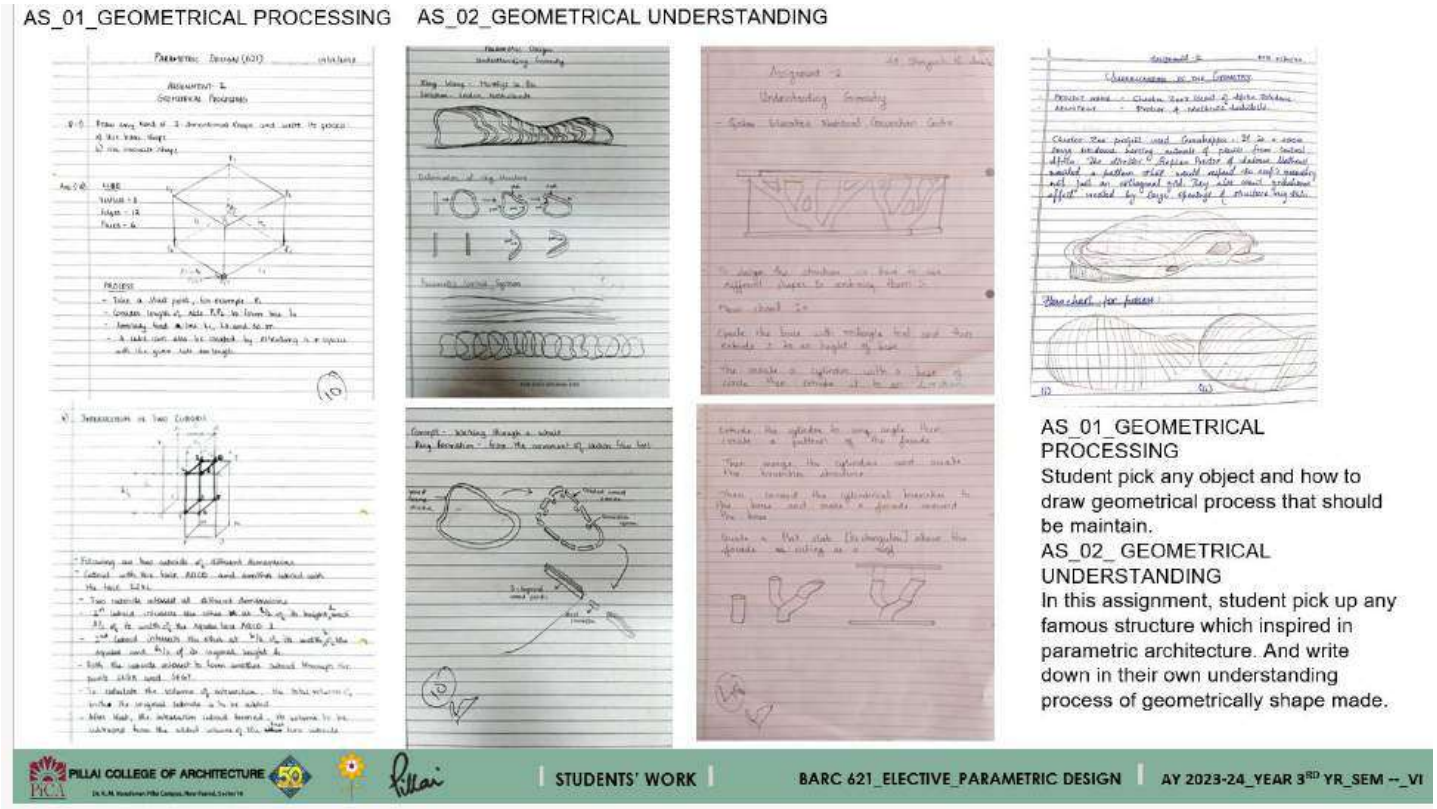
Course Plan Submitted v/s completed				
Subject: electiveBARE 621			Course Code: bare 621	
Faculty:				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	**Introduction of parametric design**	**Assignment 01**	**yes**	**Co1**
2	**Introduction of software tools**	**Assignment 02**	**yes**	**Co3**
3-5	**Understanding of facade**	**Assignment 03**	**yes**	**Co2,co4**
5-8	**Understanding of environmental aspect(wind and sun)**	**Assignment 04**	**yes**	**Co1**
8-12	**Curvilinear roof**	**Assignment 05**	**yes**	**Co5**

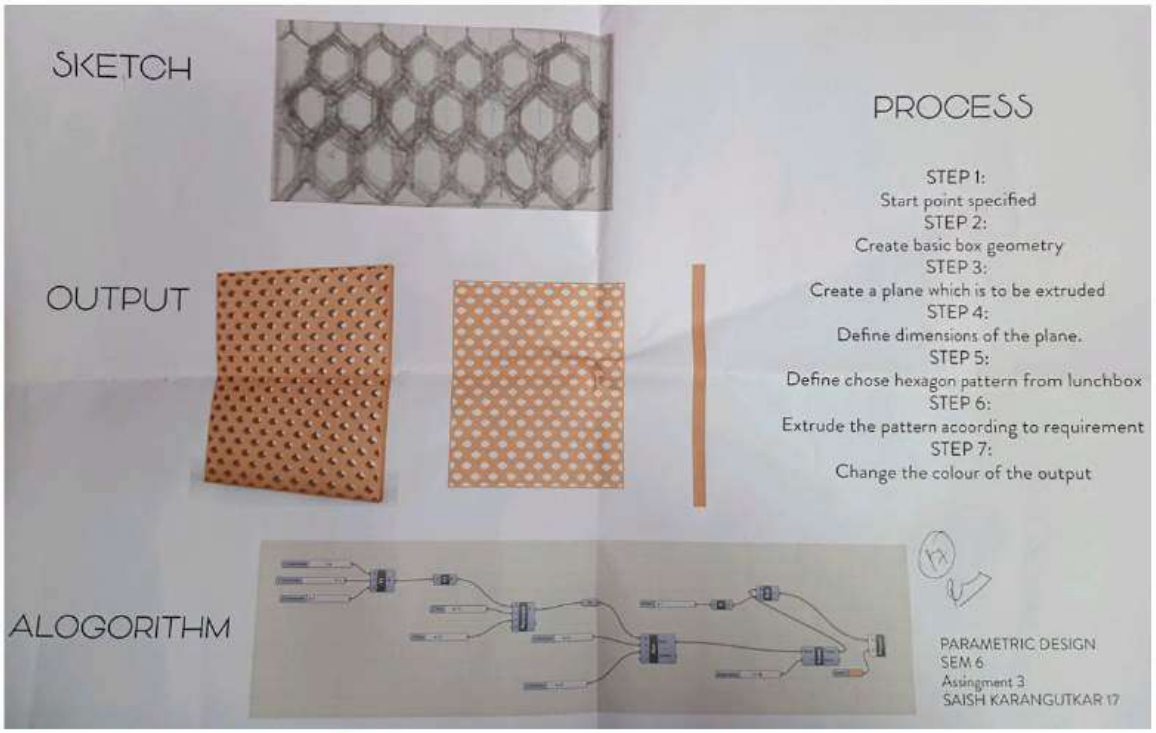
How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

Learning Outcomes:
By the end of the course, students should be able to:

Understand the principles and techniques of parametric design.
Create complex and dynamic designs using parametric modeling software.
Apply parametric design principles to solve real-world design challenges in various fields.
Communicate and present parametric design concepts effectively to peers and stakeholders.
Collaborate with multidisciplinary teams to integrate parametric design into design processes and projects.

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.

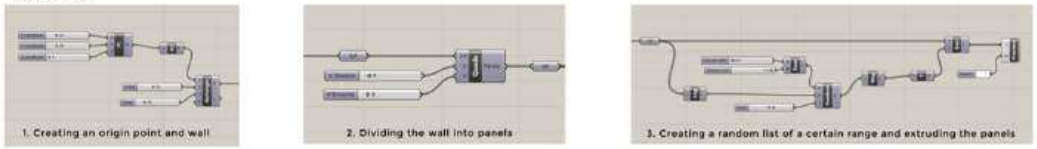




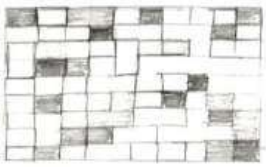
AS_03_WALL/PANEL ASSIGNMENT
In this assignment wall or paneling façade should be consider and design accordingly.

PARAMETRIC DESIGN - WALL

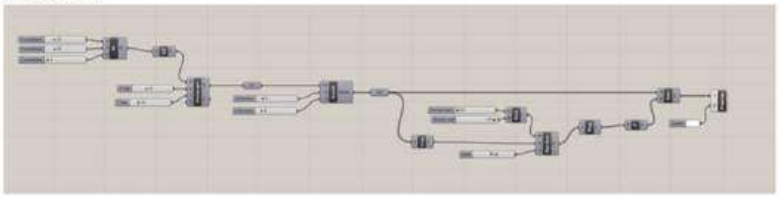
PROCESS:



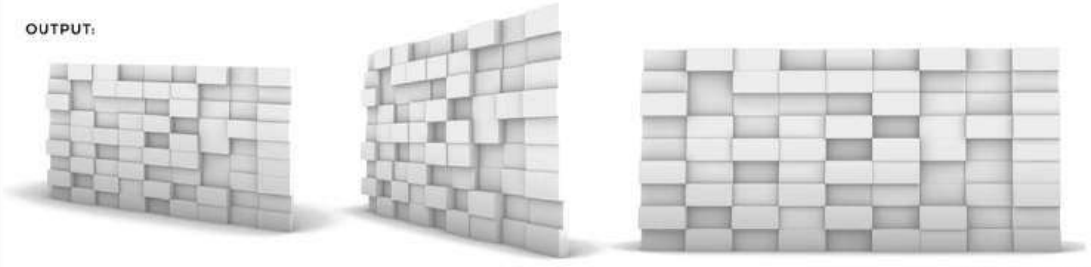
SKETCH:



ALGORITHM:



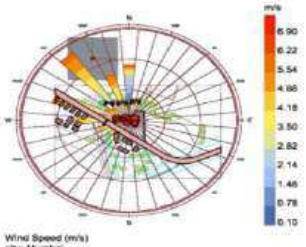
OUTPUT:

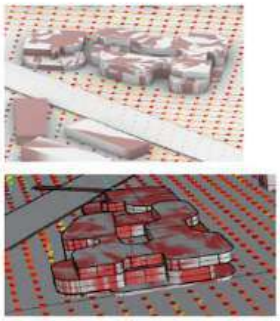


46-SABARI ADHARSH

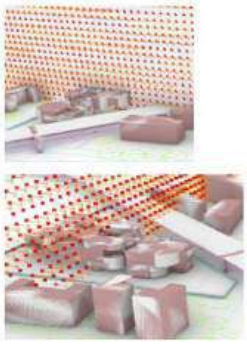
AS_03_WALL/PANEL ASSIGNMENT
In this assignment wall or paneling façade should be consider and design accordingly.

WIND ANALYSIS



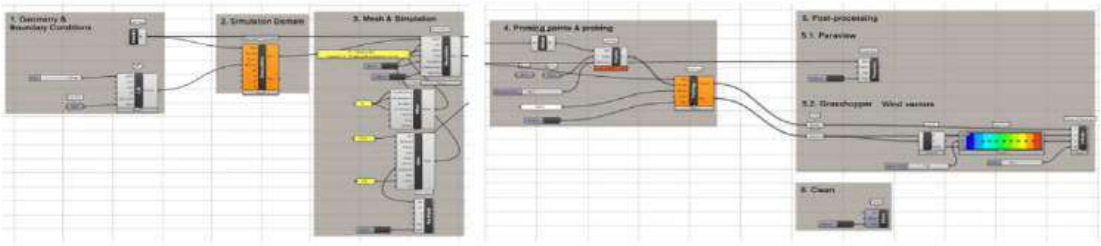


PARALLEL WIND FLOW



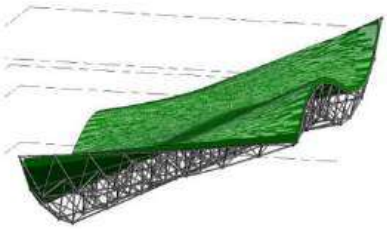
PERPENDICULAR WIND FLOW

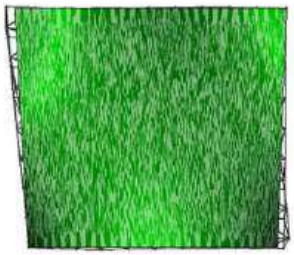
AS_04_ENVIRONMENTAL ANAYLSIS ASSIGNMENT
In this assignment according to site and building block, sun analysis, shadow analysis and wind analysis should be done . To identify the position of façade and solar panels.

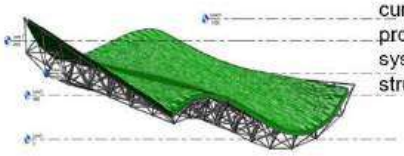


47_AFREEN SABLE_SEM-6_PICA, NEW PANVEL

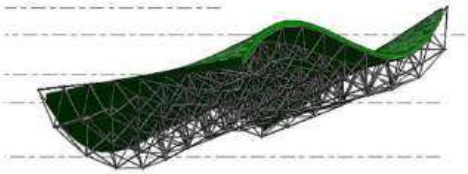
CURVED ROOF- PARAMETRIC DESIGN

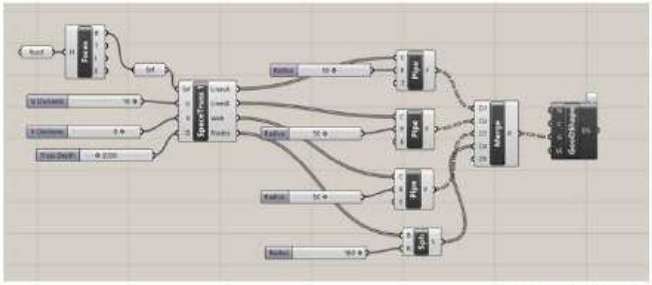






AS_05_CURVED ROOF ASSIGNMENT
In this assignment according to curvature of roof provide appropriate system to roof structure.





PRANAY NAIK41

Format 4

<table>
<tr><td colspan="6">M.E.S.
PILLAI COLLEGE OF ARCHITECTURE , New Panvel</td></tr>
<tr><td colspan="6">C O U R S E R E P O R T</td></tr>
<tr><td colspan="2">Subject: ELECTIVE ORGANIZATIONAL BEHAVIOR MANAGEMENT</td><td colspan="2">Term: II</td><td colspan="2">AY: 2023-24</td></tr>
<tr><td>Course Code: 621</td><td>Credits: 3</td><td>Semester: VI</td><td colspan="3">No of Periods per week: 1</td></tr>
<tr><td>Total Marks: 100</td><td>Internal: 100</td><td>External: NIL</td><td colspan="2">Theory Paper :</td><td>NIL</td></tr>
<tr><td>Subject coordinator</td><td colspan="5">Prof. Neha Deshpande</td></tr>
<tr><td>Team members</td><td colspan="5">Prof. Prakash Shringarpure</td></tr>
</table>

INTRODUCTION:

Organizational Behavior Management (OBM) focuses on assessing and changing the work environment to improve employee performance and workplace culture.

OBM consultants and managers work in a variety of industries (e.g., health care, human services, education, government, nonprofits, manufacturing, financial services, retail) to achieve meaningful and sustainable behavior change and improved business outcomes. OBM practitioners typically facilitate change initiatives,

improve and develop processes and systems, close gaps in employee performance, retain and develop staff, and support business growth.
Organizational results often include reduced accidents and injuries, improved employee retention, improved customer satisfaction and retention, cultural integration after mergers and acquisitions, improved quality standards, and increased revenue and profits.

Methodology

Aim: To understand & explore concepts & different aspects of OBM in depth.

Objectives: -
1. To introduce the concept of Organization Behavioral Management (OBM).
2. To introduce the working and the structure of an organization.
3. To explore different aspects of OBM such as Conflict management, Stress management, Leadership Qualities required & motivational strategies.

PROCESS: (Please elaborate pointwise)

1. **Please explain the methods of Conduction of classes and studios wrt aim and objectives.**

   Skills: The course aimed to help students develop practical skills related to OBM, such as conflict management, stress management, leadership qualities, and motivational strategies. Practical exercises, case studies, and role-playing scenarios were included in the course to help students put their knowledge into practice.

   Knowledge: The course aimed to provide students with a broad understanding of the concept of OBM and its practical applications in the workplace. Lectures, readings, and discussions were used to provide students with a comprehensive overview of the subject, including various models and theories of OBM, as well as best practices and strategies for implementing OBM initiatives.

   Understanding: The course aimed to help students develop a deeper understanding of the complex issues surrounding OBM and its impact on workplace culture and employee performance. In-depth case studies and discussions were used to explore the psychological and behavioral factors that influence employee behavior and performance, as well as the social and cultural factors that can impact workplace dynamics.

2. **Tools and techniques used for course conduction.**

Role-playing is an effective teaching technique used in many courses, including Organizational Behavior Management (OBM). In OBM, role-playing is particularly useful as it allows students to practice and develop the practical skills needed to succeed in a management or

leadership role.

In the OBM course, students were asked to play the role of a manager, employee, or team member in various scenarios. These scenarios were designed to mimic real-world workplace situations, such as conflicts between employees, difficult conversations with clients, or team projects with tight deadlines.

During the role-plays, students were given the opportunity to apply the concepts and theories they learned in class to real-world situations. They had to use their knowledge of OBM to manage conflicts, motivate team members, and effectively communicate with colleagues. Through these exercises, students were able to develop a range of practical skills, including active listening, effective communication, leadership and conflict resolution.

Role-playing also allowed students to gain a deeper understanding of the challenges and complexities of managing or leading in the workplace. They were able to experience first-hand the challenges of motivating employees, navigating difficult conversations, and managing competing priorities. By practicing in a safe and supportive environment, students were able to develop their skills and build confidence in their ability to handle real-world workplace situations.

3. **Which are the innovative approaches adopted in this semester?**

   Enacting & roleplay helped students to understand subject content in depth.

4. **Explain the approaches used to encourage library usage by students and faculty.**

   Not applicable

5. **How and to what extent, the aim and objectives are achieved.**

   The OBM course has successfully achieved its aims and objectives in terms of skills, knowledge, and understanding. Through practical exercises, role-playing scenarios, and in-depth discussions, students were able to develop a range of practical skills, broad knowledge, and deeper understanding related to OBM. The course provided students with a comprehensive and practical understanding of OBM and its applications in the workplace, enabling them to effectively manage and lead teams in a variety of industries.

   Skills: The course aimed to help students develop practical skills related to OBM, such as conflict management, stress management, leadership qualities, and motivational strategies. The role-playing exercises conducted in the course provided a practical opportunity for students to apply their theoretical knowledge of OBM in real-world scenarios. Through these exercises, students were able to develop their skills in active listening, effective communication, conflict resolution, and leadership. Additionally, the course included practical exercises, case studies, and role-playing scenarios, which allowed students to put

their knowledge into practice.

Knowledge: The course aimed to provide students with a broad understanding of the concept of OBM and its practical applications in the workplace. The course utilized a range of teaching methods, including lectures, readings, and discussions, to provide students with a comprehensive overview of the subject. Lectures covered various models and theories of OBM, as well as best practices and strategies for implementing OBM initiatives. Students were also given a range of readings and articles to supplement their understanding of the subject. Through these methods, students were able to develop a broad knowledge of OBM and its applications in the workplace.

Understanding: The course aimed to help students develop a deeper understanding of the complex issues surrounding OBM and its impact on workplace culture and employee performance. In-depth case studies and discussions were used to explore the psychological and behavioral factors that influence employee behavior and performance, as well as the social and cultural factors that can impact workplace dynamics. Through these exercises, students were able to gain a deeper understanding of the challenges and complexities of managing or leading in the workplace. They were able to experience first-hand the challenges of motivating employees, navigating difficult conversations, and managing competing priorities.

Various case studies are discussed in details to understand the topics, day to day life examples are narrated while explaining the concepts and solve students doubts. Group discussions were encouraged to involve students to communicate their thoughts.

6. Extent of horizontal and vertical integration achieved.

Not applicable

7. Extent of adherence to the Course Plan and schedule of submission prepared before the course started.

The adherence to the Course Plan was a critical component of the OBM course. The Course Plan and schedule were prepared before the course started and were designed to ensure that students received a comprehensive understanding of the subject matter and met the course's learning objectives.
The adherence to the Course Plan and schedule was efficient throughout the course.

8. **Scope for improvement in future (next year).**

While the OBM course was successfully implemented this year, there is always room for improvement. Here are some areas that can be improved in the future:

Involving more case studies and real-life examples: Although role-play activities were conducted in the class, incorporating more real-life examples and case studies can help students better understand the application of OBM in real-world situations.

Encouraging more student participation: While the role-play activities were effective, more opportunities for student participation could be created in the future. For instance, small group discussions, debates, and case analysis can encourage students to think critically and develop a deeper understanding of the subject.

Incorporating more technology-based tools: Technology-based tools like simulations, virtual reality, and gamification can enhance the learning experience and make it more engaging for students. These tools can also help students develop a better understanding of complex concepts and theories.

Providing more hands-on experience: Providing more hands-on experience can help students develop practical skills that can be applied in real-life situations. For instance, conducting mock interviews, performance appraisals, and conflict resolution sessions can help students develop essential managerial skills.

Incorporating more diversity and inclusion: Incorporating more diversity and inclusion can help students better understand the challenges of managing a diverse workforce. This can be done by incorporating case studies and real-life examples of managing diversity and inclusion.

9. **Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.**

Not Applicable

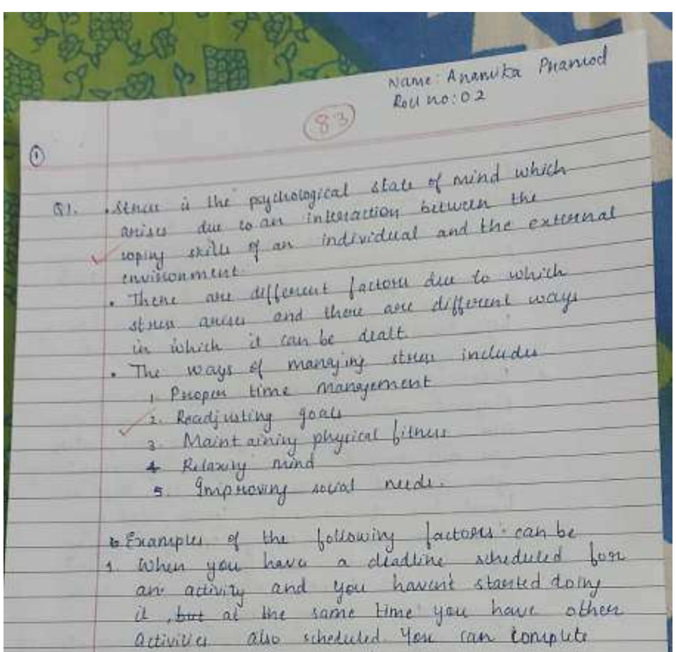
Class test was conducted as a part of internal marking.
Students who were not able to attend the test, and those who failed to clear the test attempted were asked to take a retest as a part of remedial assessment.

Those who could not clear the retest were marked as defaulters for the semester.

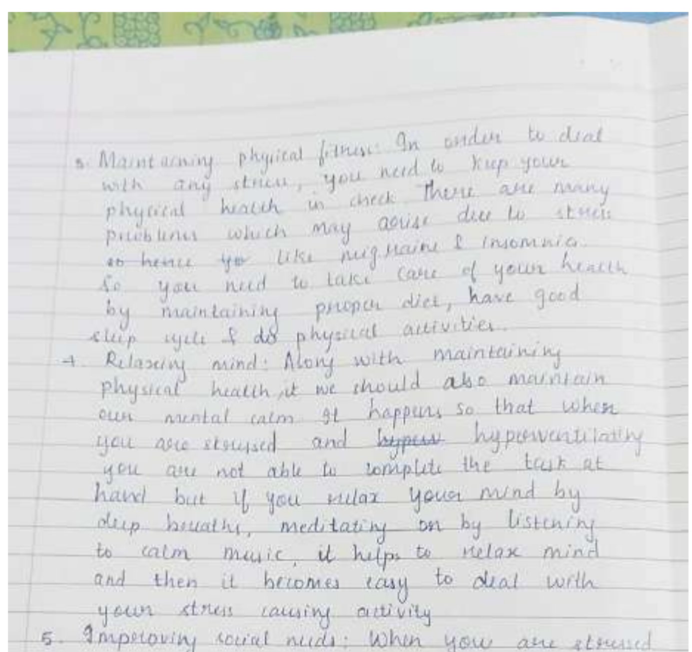
Course Plan Submitted v/s completed	
Subject: **ELECTIVE ORGANIZATIONAL BEHAVIOR MANAGEMENT**	Course Code: 621
Faculty: Prakash Shringarpure, Neha Deshpande	

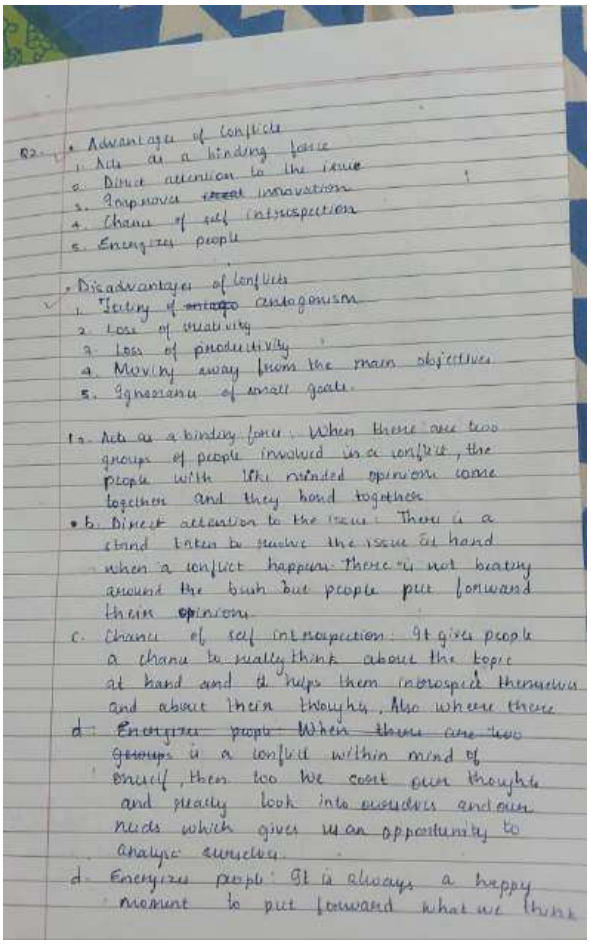
WEEK	TOPIC TO BE COVERED	ASSIGNMENT	Adhered to the schedule or not	Which COs are aligned to each lecture and assignment
1	Introduction session	-	**yes**	**CO1**
2	Conflict management	-	**yes**	**CO2**
3	Conflict management	-	**yes**	**CO2**
4	Organization Structure & its types	-	**yes**	**CO1**
5	Stress Management	-	**yes**	**CO3**
6	Stress Management	-	**yes**	**CO3**
7	Stress Management	-	**yes**	**CO3**
8	Stress Management	-	**yes**	**CO3**
9	Leadership Qualities	-	**yes**	**CO4**
10	Motivational Strategies	-	**yes**	**CO5**
11	Motivational Strategies	-	**yes**	**CO5**
12	**Class test**	-	**yes**	

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.


Name: Ananvika Pramod
Roll no: 02
(83)
①
Q1. • Stress is the psychological state of mind which arises due to an interaction between the coping skills of an individual and the external environment.
• There are different factors due to which stress arises and there are different ways in which it can be dealt.
• The ways of managing stress includes
1. Proper time management
2. Readjusting goals
3. Maintaining physical fitness
4. Relaxing mind
5. Improving social needs.

• Examples of the following factors can be
1. When you have a deadline scheduled for an activity and you haven't started doing it, ~~but~~ at the same time you have other activities also scheduled You can complete


3. Maintaining physical fitness: In order to deal with any stress, you need to keep your physical health in check. There are many problems which may arise due to stress like migraine & insomnia. ~~so hence yo~~ So you need to take care of your health by maintaining proper diet, have good sleep cycle & do physical activities.
4. Relaxing mind: Along with maintaining physical health it we should also maintain our mental calm. It happens so that when you are stressed and ~~hypers~~ hyperventilating you are not able to complete the task at hand but if you relax your mind by deep breaths, meditating or by listening to calm music, it helps to relax mind and then it becomes easy to deal with your stress causing activity
5. Improving social needs: When you are stressed



Q2. • Advantages of conflict
1. Acts as a binding force
2. Direct attention to the issue
3. Improves ~~creat~~ innovation
4. Chance of self introspection
5. Energizes people

• Disadvantages of conflict
1. Feeling of ~~enmity~~ antagonism
2. Loss of creativity
3. Loss of productivity
4. Moving away from the main objectives
5. Ignorance of small goals.

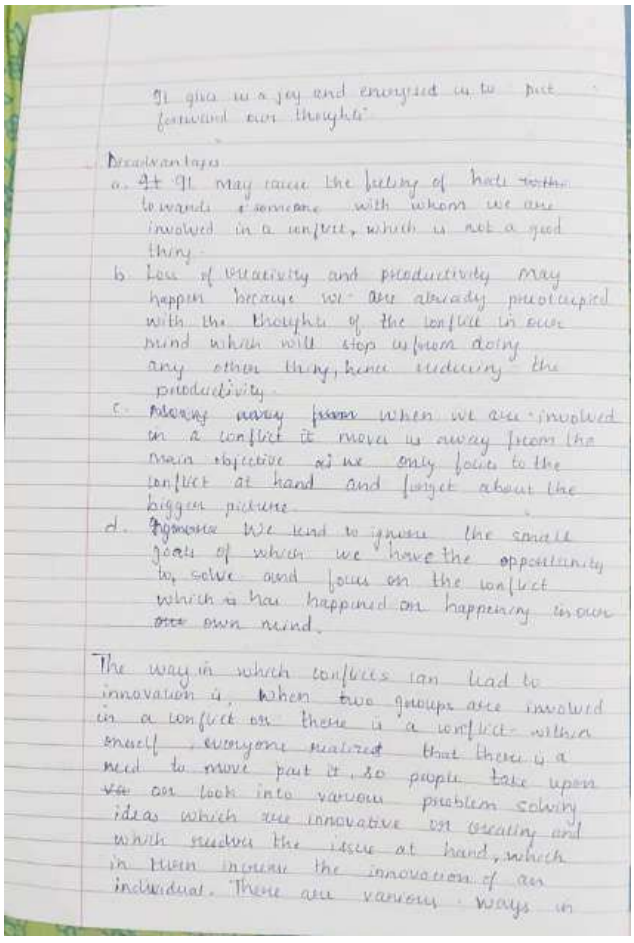
1a. Acts as a binding force: When there are two groups of people involved in a conflict, the people with like minded opinions come together and they bond together.

• b. Direct attention to the issue: There is a strong intent to resolve the issue at hand when a conflict happens there is not beating around the bush but people put forward their opinions.

c. Chance of self introspection: It gives people a chance to really think about the topic at hand and it helps them introspect themselves and about their thoughts. Also where there

d. ~~Energizes people: When there are two~~ groups is a conflict within mind of oneself, then too we count our thoughts and really look into ourselves and our needs which gives us an opportunity to analyse ourselves.

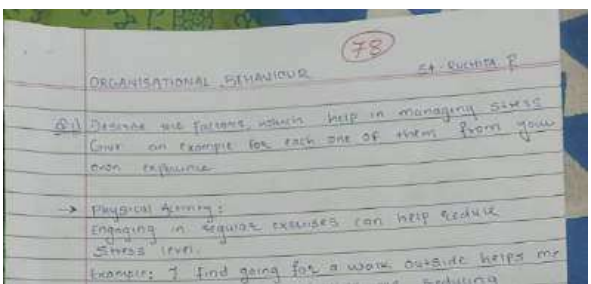
d. Energizes people: It is always a happy moment to put forward what we think



It gives us a joy and energized us to put forward our thoughts.

Disadvantages:
a. It may cause the feeling of hate ~~to the~~ towards someone with whom we are involved in a conflict, which is not a good thing.
b. Loss of creativity and productivity may happen because we are already preoccupied with the thoughts of the conflict in our mind which will stop us from doing any other thing, hence reducing the productivity.
c. ~~Moving away from~~ When we are involved in a conflict it moves us away from the main objective as we only focus to the conflict at hand and forget about the bigger picture.
d. ~~Ignorance~~ We tend to ignore the small goals of which we have the opportunity to solve and focus on the conflict which is has happened or happening in our ~~our~~ own mind.

The way in which conflicts can lead to innovation is, when two groups are involved in a conflict or there is a conflict within oneself, everyone realized that there is a need to move past it, so people take upon ~~the~~ or look into various problem solving ideas which are innovative or creative and which resolves the issue at hand, which in turn improves the innovation of an individual. There are various ways in

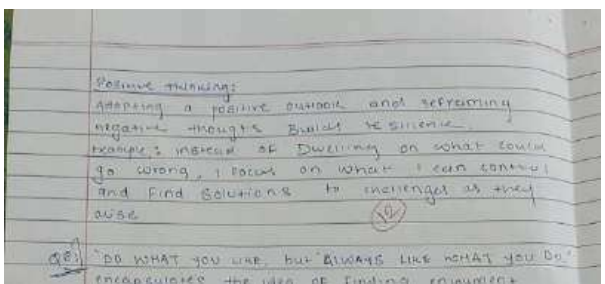


78

ORGANISATIONAL BEHAVIOUR — S+ SUCHITA P

Q1) Discuss the factors which help in managing stress. Give an example for each one of them from your own experience.

→ Physical Activity:
Engaging in regular exercises can help reduce stress level.
Example: I find going for a walk outside helps me



Positive thinking:
Adopting a positive outlook and reframing negative thoughts. Builds resilience.
Example: instead of dwelling on what could go wrong, I focus on what I can control and find solutions to challenges as they arise.

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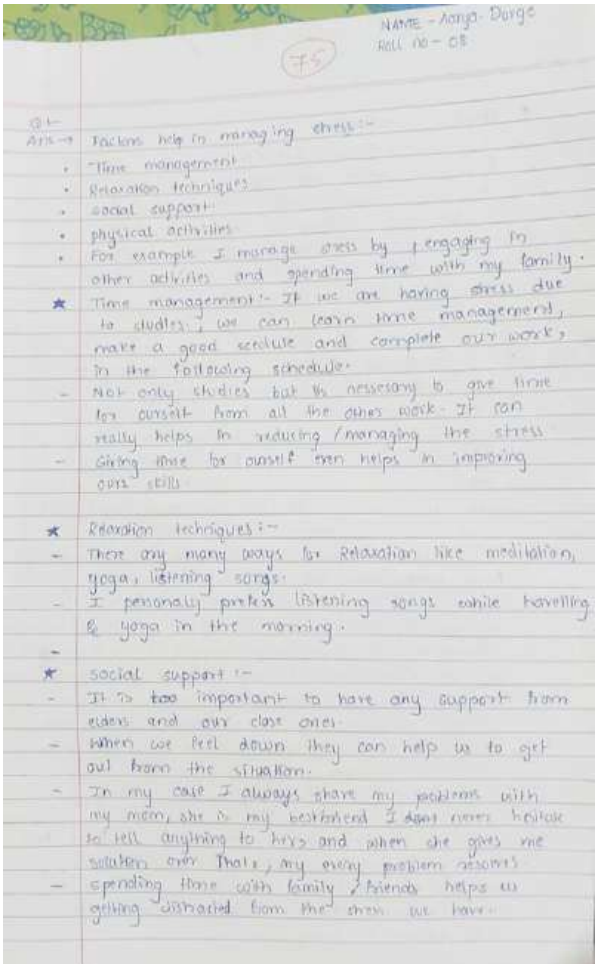
Q1) "DO WHAT YOU LIKE, but 'ALWAYS LIKE WHAT YOU DO'" ENCOMPASSES the idea of finding enjoyment



NAME - Aanya Dorge
Roll no - 05

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Q1-
Ans → Factors help in managing stress :-

- Time management
- Relaxation techniques
- Social support
- physical activities
- For example I manage stress by engaging in other activities and spending time with my family.

★ Time management :- If we are having stress due to studies, we can learn time management, make a good routine and complete our work, in the following schedule.

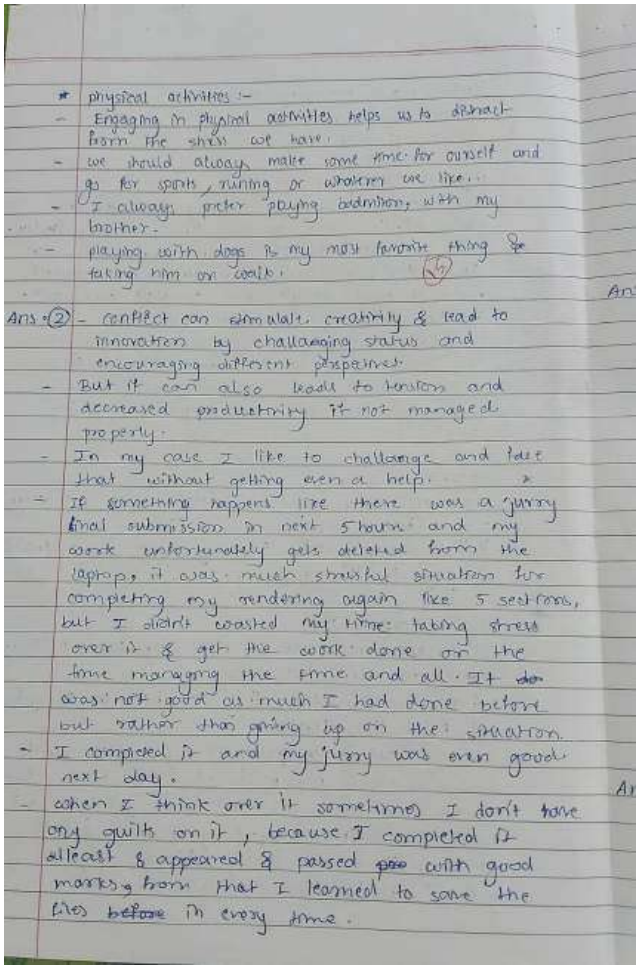
- Not only studies but its nessesary to give time for ourselt from all the other work. It can really helps in reducing / managing the stress
- Giving time for ourself even helps in improving ours skills

★ Relaxation techniques :-

- There are many ways for Relaxation like meditation, yoga, listening songs.
- I personally prefer listening songs while travelling & yoga in the morning.
-

★ social support :-

- It is too important to have any support from elders and our close ones.
- When we feel down they can help us to get out from the situation.
- In my case I always share my problems with my mom, she is my bestfriend I don't evers hesitate to tell anything to hers and when she gives me solutions over that, my every problem resolves
- spending time with family & friends helps us getting distracted from the stress we have.

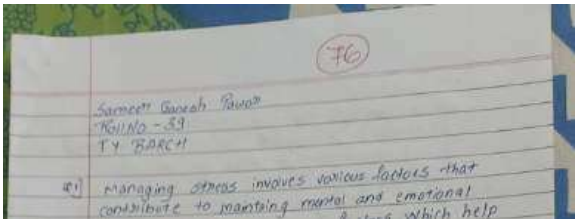


★ physical activities :-

- Engaging in physical activities helps us to distract from the stress we have.
- we should always make some time for ourself and go for sports, running or whatever we like.
- I always prefer playing badminton with my brother.
- playing with dogs is my most favorite thing & taking him on walk.

Ans ② - Conflict can stimulate creativity & lead to innovation by challenging status and encouraging different perspectives.

- But it can also leads to tension and decreased productivity if not managed properly.
- In my case I like to challenge and take that without getting even a help.
- If something happens like there was a jurry final submission in next 5 hours and my work unfortunately gets deleted from the laptop, it was much stressful situation for completing my rendering again like 5 sec rons, but I didn't wasted my time taking stress over it & get the work done on the time managing the time and all. It ~~do~~ was not good as much I had done before but rather than giving up on the situation.
- I completed it and my jurry was even good next day.
- when I think over it sometimes I don't have any guilts on it, because I completed it atleast & appeared & passed ~~pass~~ with good marks & from that I learned to save the files ~~before~~ in every time.



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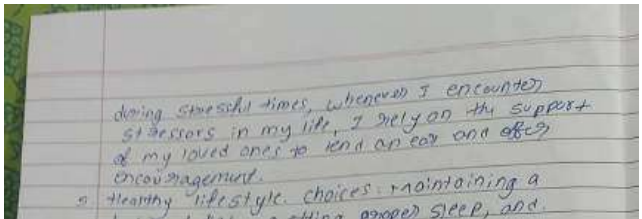
Sameer Ganesh Pawar
Roll No - 39
TY BARCH

Q1) Managing stress involves various factors that contribute to maintain mental and emotional



doing stressful times, whenever I encounter stressors in my life, I rely on the support of my loved ones to lend an ear and offer encouragement.

- Healthy lifestyle choices: maintaining a

Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject – Electives 721 – Digital Tools and Techniques		**Term: I**	**AY: 2023-24**	
Course Code: 721	**Credits : 3**	**Semester: VII**	**No of Periods per week : 4**	
Total Marks: 100	**Internal : 100**	**External : 0**	**Theory Paper : N.A**	

Faculty:	Subject coordinator : Jayraj Ghatge Team Members: Vrinda Padhye, Tusha

INTRODUCTION:

Autodesk Revit is a building information modeling (BIM) software that has become an industry standard for architects, engineers, and construction professionals. With its advanced tools for designing, documenting, and analyzing building projects, Revit has revolutionized the way the AEC (Architecture, Engineering, and Construction) industry works.

The software enables designers to create a digital model of a building that includes both its physical and functional characteristics. This means that every element of the building, from its walls and windows to its mechanical, electrical, and plumbing systems, can be modeled and coordinated in a single platform.

Revit's collaborative features allow multiple team members to work on the same project simultaneously, reducing errors and improving efficiency. It also has a robust set of analytical tools that can be used to simulate various building performance metrics, such as energy consumption, lighting, and thermal comfort. Given the widespread adoption of Revit in the AEC industry, it is essential for architecture students to have a strong foundation in the software. This course aims to equip students with the skills necessary to create complex building models and produce high-quality construction documentation using Revit.

The course will cover a range of topics, from basic terminology and interface navigation to creating custom families and walkthroughs. By the end of the course, students should be able to confidently use Revit for their design projects and be well-prepared to enter the AEC industry.

Methodology (All the following points must be addressed in ALL subjects)

Aim: The aim of this course is to provide students with a comprehensive understanding of Autodesk Revit, a widely used building information modeling (BIM) software, and its applications in the AEC (Architecture, Engineering, and Construction) industry. The course will focus on building the skills necessary to create complex building models and produce high-quality construction documentation using Revit. By the end of the course, students should be able to confidently use Revit for their design projects and be well-prepared to enter the AEC industry.

Objectives: - 1. To introduce students to the basic concepts and terminology of Autodesk Revit, including its interface and navigation tools.
2. To familiarize students with the various types of elements and families available in Revit, and how to customize them to suit their design needs.
3. To teach students how to create 2D and 3D building models using Revit, including massing and contouring.
4. To enable students to generate construction documentation such as floor plans, elevations, and sections using Revit.
5. To teach students how to use Revit's collaborative features to work with multiple team members on the same project.
6. To provide students with the skills necessary to create walkthroughs and animations of their building models in Revit.
7. To introduce students to Revit's analytical tools and enable them to simulate building performance metrics such as energy consumption and lighting.
8. To provide students with a solid foundation in Revit that will prepare them for further study and work in the AEC industry.

PROCESS:

Methods of Course Conduction: The Revit course was conducted using a combination of lectures, assignments, and studio projects. The lectures covered the theoretical aspects of Revit, while the hands-on workshops helped students apply what they had learned in the lectures. Assignments were given to reinforce the learning and studio projects provided students with real-world application of Revit.

Achievement of Aim and Objectives: The aim and objectives of the Revit course were achieved through the completion of the assignments and studio projects, as well as the assessment of the student's performance. Furthermore, a final portfolio was used to measure the student's overall understanding of Revit.

Extent of Horizontal and Vertical Integration: Horizontal integration was achieved by aligning the Revit course with other courses in the semester, such as building materials or structural systems. This helped students see the connections between different aspects of the building design and construction process. Vertical integration was achieved by incorporating real-world examples and projects from industry professionals to demonstrate the application of Revit in practice.

Adherence to Course Plan and Schedule: To ensure the achievement of the course objectives, adherence to the course plan and schedule was crucial. The instructor tracked the progress of the students and made adjustments to the plan as needed to ensure that the course objectives were being met.

Scope for Improvement: To improve the course for the next year, the instructor can incorporate new techniques and tools, such as virtual reality or augmented reality, to enhance the student's learning experience. Additionally, incorporating more real-world examples and case studies can help students better understand the practical application of Revit in the AEC industry.

Guest Lectures, Site Visits, and Workshops: To increase the student's understanding of Revit, guest lectures, site visits, and workshops were conducted under this subject. Guest lectures from industry professionals provided students with insights into the latest trends and innovations in the field. Site visits provided students with a real-world context to apply their Revit skills, and workshops helped students develop specific skills related to Revit.

Course Plan Submitted v/s completed				
Subject: Electives - BIM			Course Code - 721	
Faculty:				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Learnings / take away for faculty if any**
1	Introduction to BIM		Yes	
2	Introduction to BIM and Revit Tools		Yes	
3	Walls, Doors, Windows Introduction	Submission of Plans with doors and windows	Yes	
4	Floors, Roofs		Yes	
5	Revising of Walls Doors and Windows and Roof, floor	Submission of Complete structure at the end of studio	Yes	
6	Properties of walls, doors, windows, floors and roof	Progressive submission	Yes	
7	Plan Development, Stairs and Ramps	Submission of application of staircase and ramp	Yes	

8	Topography	Submission of structure on contours	Yes	
9	Revision and Massing I	Working studio Submission at the end of the studio	Yes	
10	Revision and Massing II	Working studio Submission at the end of the studio	Yes	
11	Walkthrough and Project		Yes	
12	**Final Submission**	Submission of Final portfolio	Yes	

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

Course Outcomes:

1. **Understanding of Revit Interface and Navigation:**
    - Lectures: The initial lectures would focus on introducing students to the Revit interface, including components like the Ribbon, Project Browser, Properties Palette, and Viewport Navigation. These sessions provide theoretical knowledge on how to navigate through the software effectively.
    - Assignments: Early assignments could involve tasks like basic navigation exercises and interface exploration to ensure that students are gaining practical experience in utilizing these tools.

2. **Creation of Building Elements:**
    - Lectures: Following the introduction, lectures would delve into the creation of fundamental building elements such as walls, floors, roofs, stairs, and ramps. Students would learn the theoretical aspects of how to construct these elements.
    - Assignments: Subsequent assignments would involve hands-on tasks where students apply their knowledge to create these elements within Revit. This provides practical experience in modeling architectural components.
    -
3. **Creation of Massing and Site Components:**
    - Lectures: Specific lectures would be dedicated to teaching students how to create massing and site components using Revit's Massing and Site tools. This includes theoretical knowledge on the tools and techniques for creating these larger-scale elements.
    - Assignments: Corresponding assignments would challenge students to apply this knowledge by incorporating massing and site components into their Revit models. This ensures they gain practical experience in working with larger-scale elements.

4. **Construction Documentation:**
    - Lectures: Lectures would cover the theoretical aspects of creating construction documentation, including floor plans, elevations, sections, and schedules. Students would learn the principles behind generating accurate and detailed documents.
    - Assignments: Subsequent assignments would involve tasks that require students to create these types of construction documents within Revit. This ensures they gain practical experience in producing essential documentation for architectural projects.

5. **Presentation and Visualization:**
    - Lectures: Lectures on presentation and visualization would focus on theoretical knowledge, including the use of rendering and animation tools in Revit.
    - Assignments: Assignments would challenge students to create presentations and visualizations of their building projects using Revit's Rendering and Animation tools. This practical application allows them to effectively communicate their design concepts.

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.

Assignment 3

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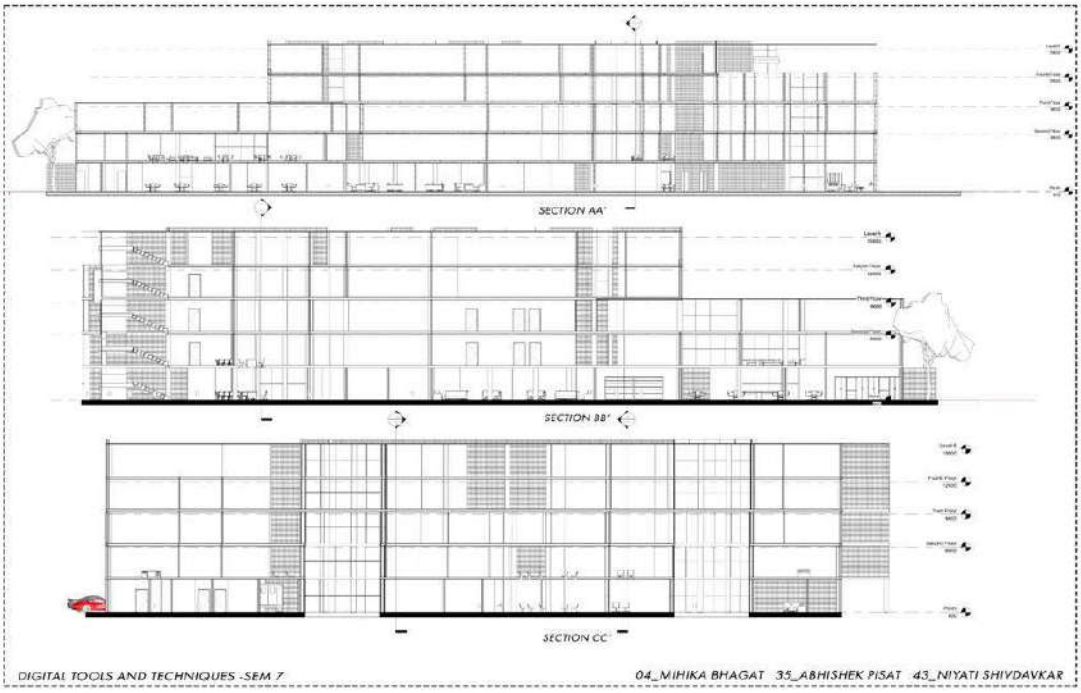
Assignment 3



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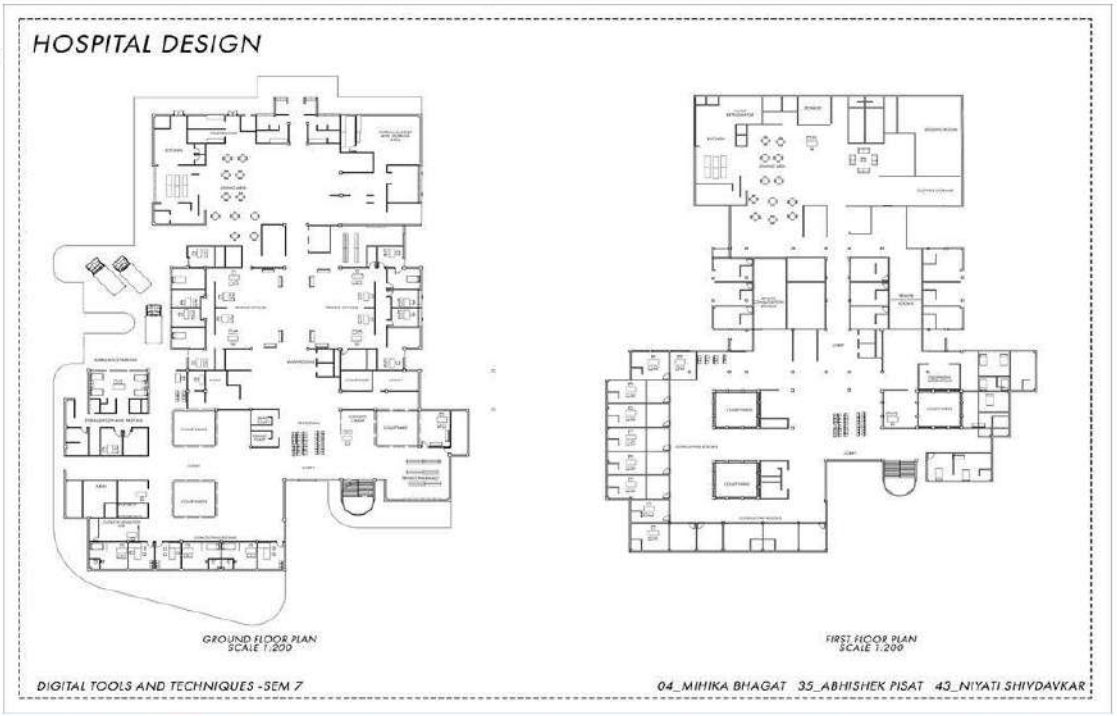
Assignment 3



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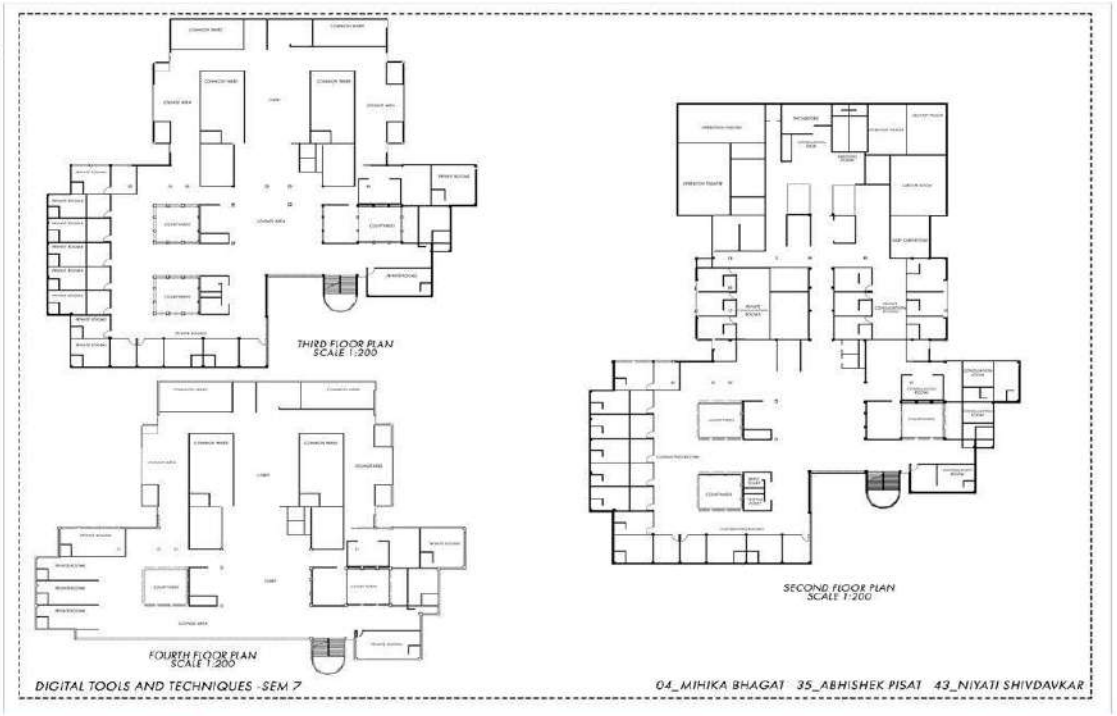
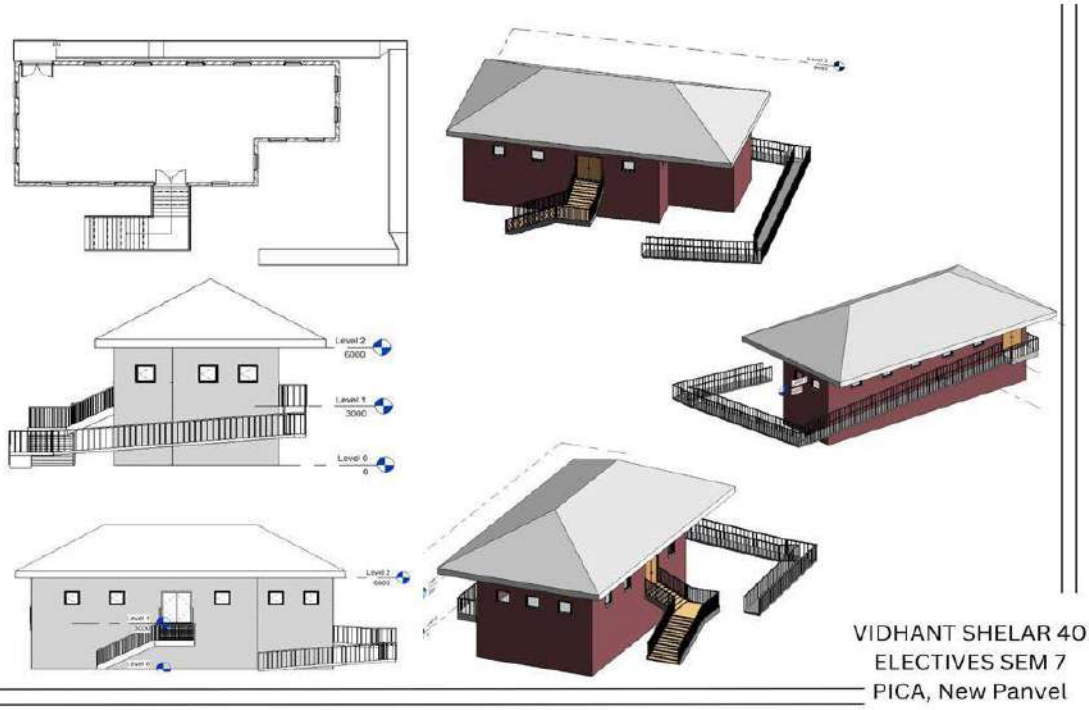


Assignment 2



VIDHANT SHELAR 40
ELECTIVES SEM 7
PICA, New Panvel

Assignment 2

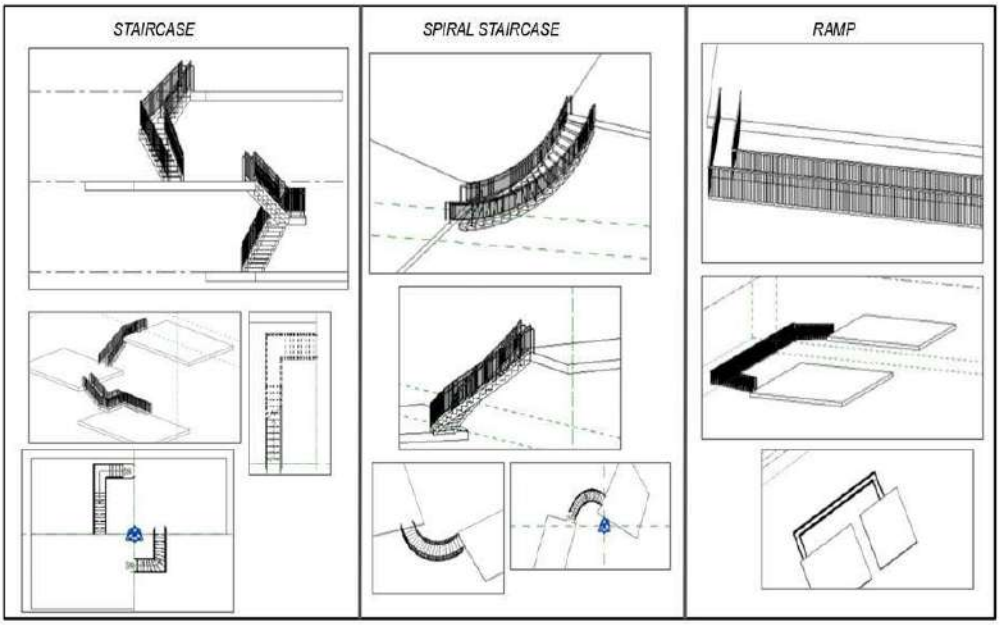
STAIRCASE, RAILINGS AND RAMP

SHIVANGI TALVALKAR 51

Assignment 2

ASSIGNMENT 2 - STAIRCASE AND RAMP

SIMRAN ADHIKARI, 58

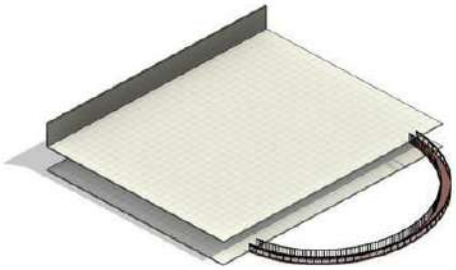


Assignment 2

RAMP

ELEVATION

PLAN



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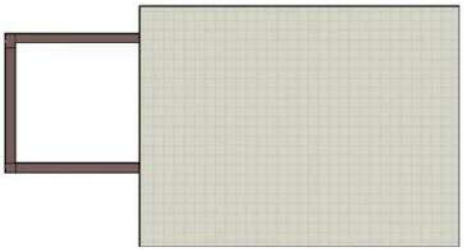
RAMP

Assignment 2

ELEVATION



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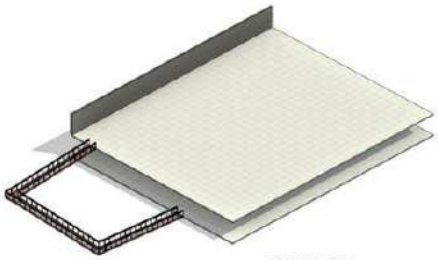

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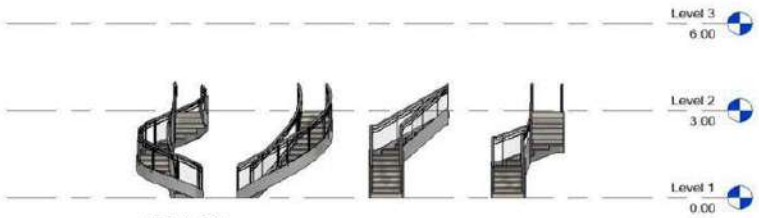
STAIRCASE

Assignment 2



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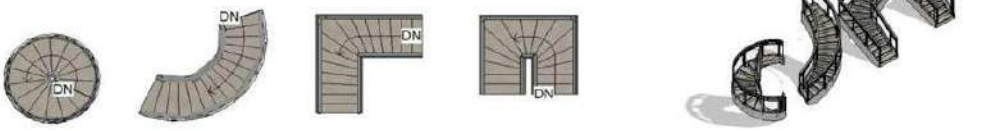

PLAN

ISOMETRIC

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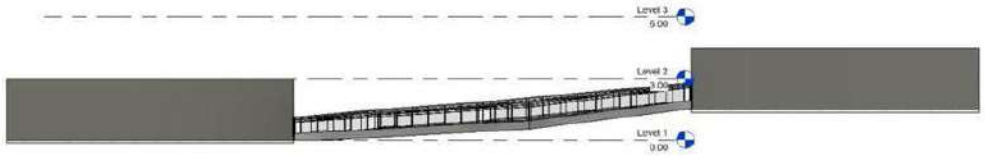
STAIRCASE

Assignment 2



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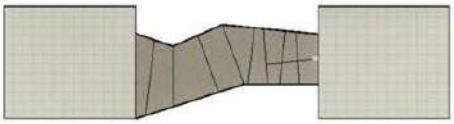

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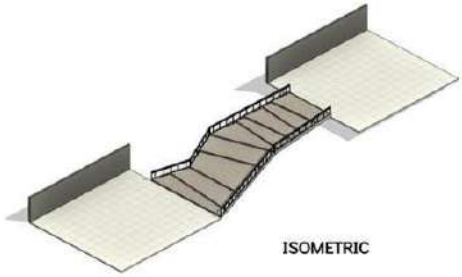

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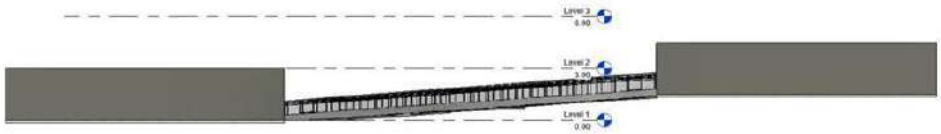
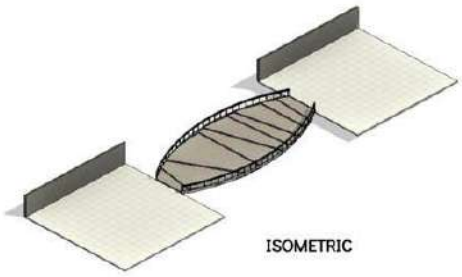
STAIRCASE

Assignment 2



ELEVATION

PLAN



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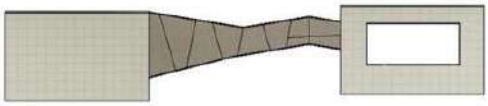
PILLAI COLLEGE OF ARCHITECTURE | STUDENTS' WORK | 721 Electives | AY 2023-24_YEAR IV_SEM VII_DIGITAL TOOLS & TECHNIQUES

STAIRCASE

Assignment 2

ELEVATION



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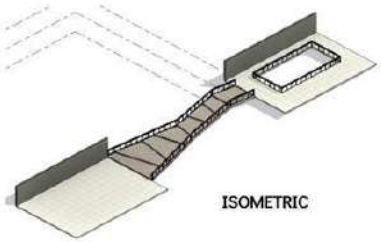

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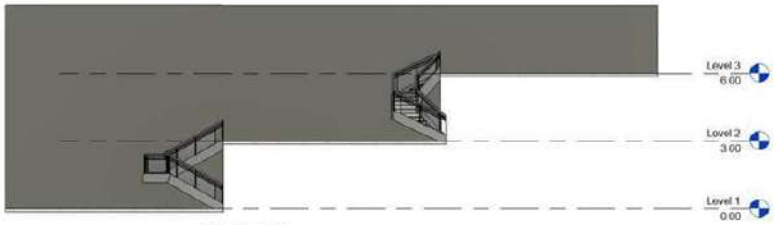
STAIRCASE

Assignment 2



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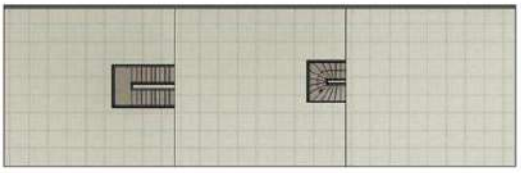

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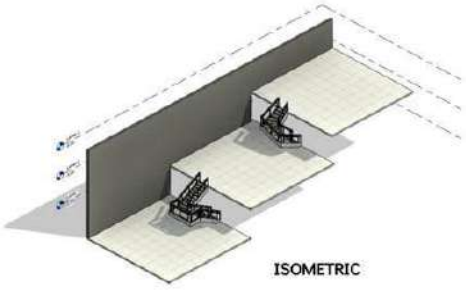

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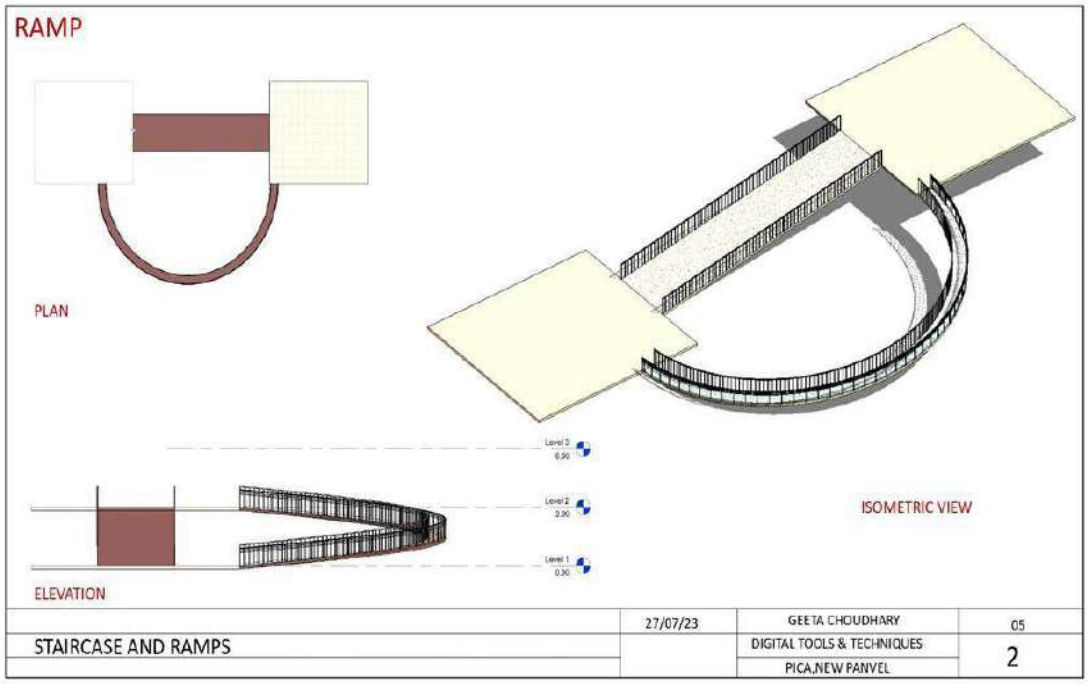
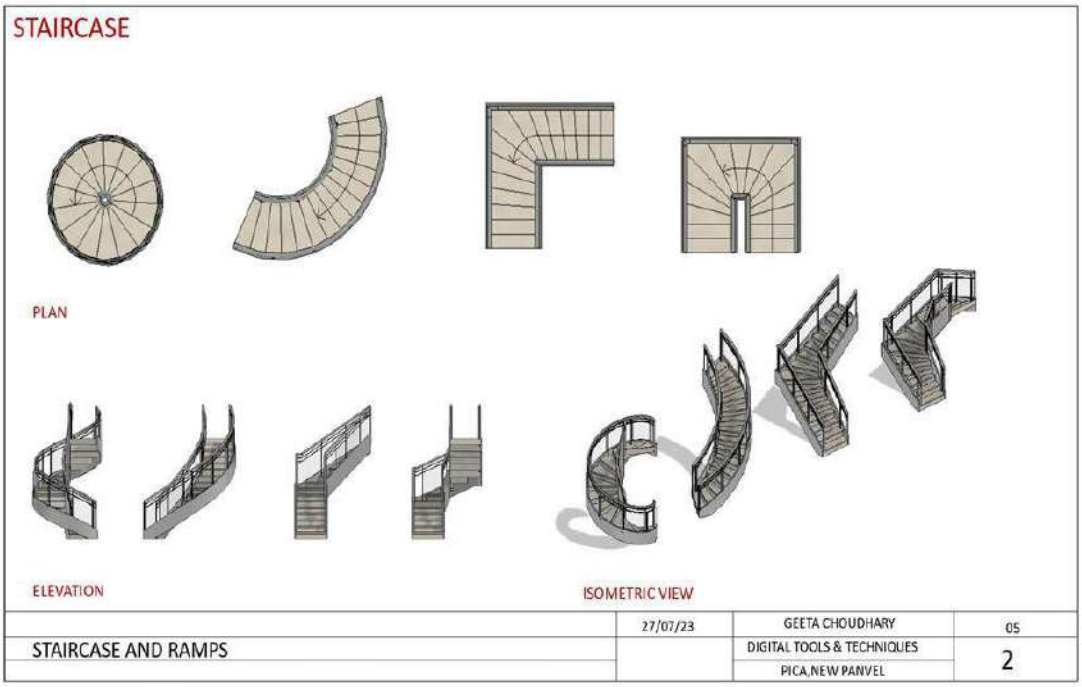
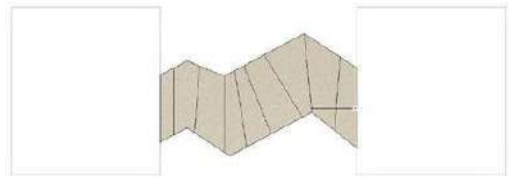


Assignment 2

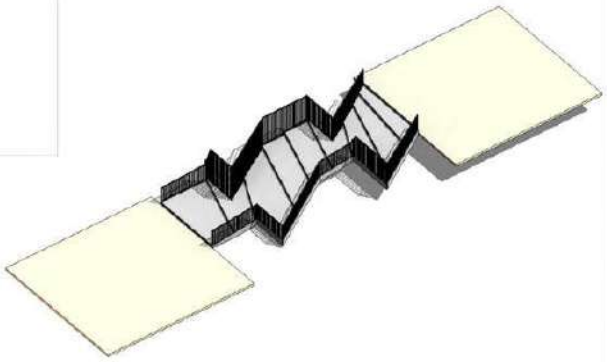


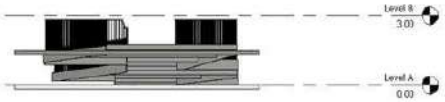
Assignment 2

STAIRCASE



PLAN





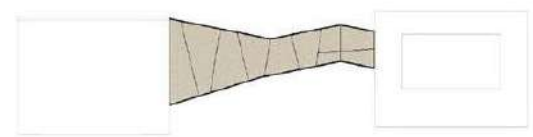
ELEVATION

ISOMETRIC VIEW

STAIRCASE AND RAMPS	27/07/23	GEETA CHOUDHARY	05
		DIGITAL TOOLS & TECHNIQUES	2
		PICA,NEW PANVEL	

Assignment 2

STAIRCASE



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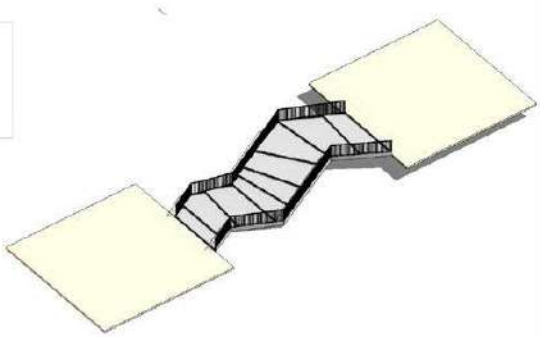
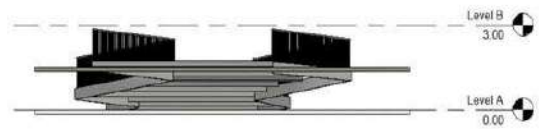




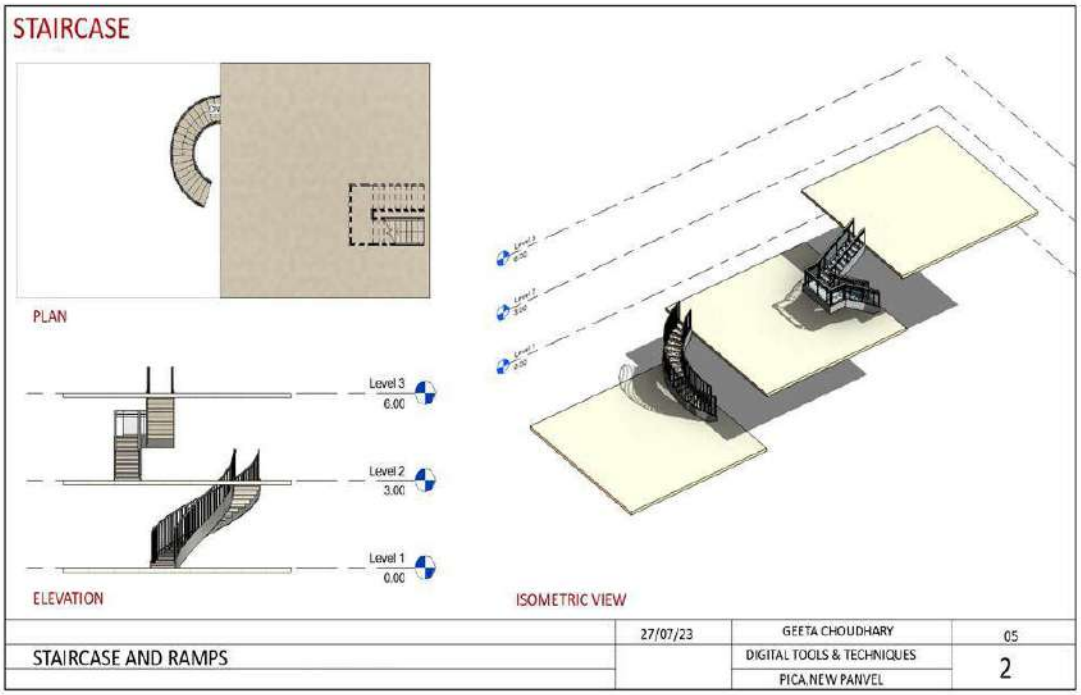
ELEVATION

ISOMETRIC VIEW

STAIRCASE AND RAMPS	27/07/23	GEETA CHOUDHARY	05
		DIGITAL TOOLS & TECHNIQUES	2
		PICA,NEW PANVEL	

PILLAI COLLEGE OF ARCHITECTURE | STUDENTS' WORK | 721 Electives | AY 2023-24_YEAR IV_SEM VII_DIGITAL TOOLS & TECHNIQUES

Assignment 2



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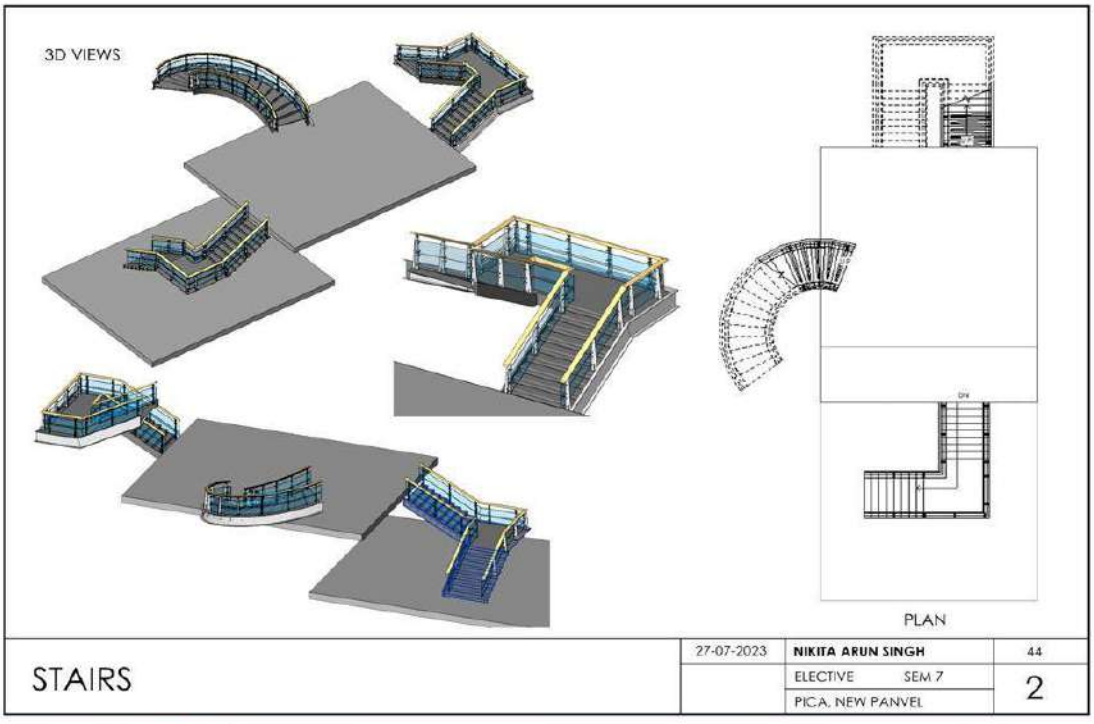
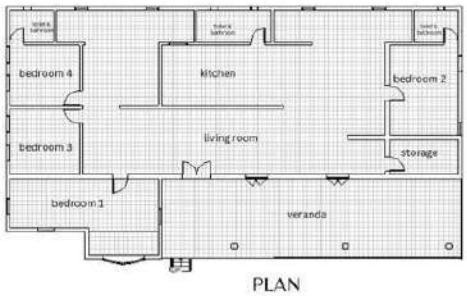


Assignment 1

Assignment 1

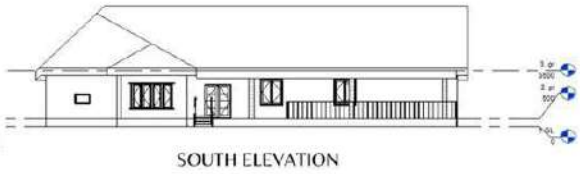
Assignment 1



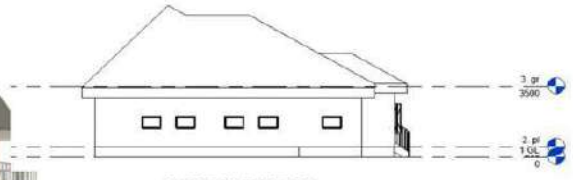
PLAN

EAST ELEVATION

3D



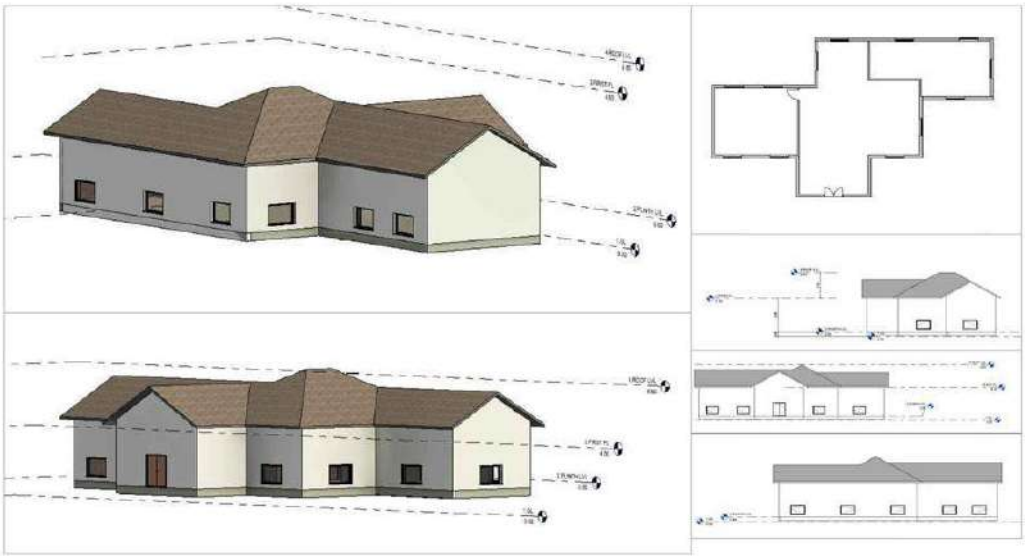
SOUTH ELEVATION



WEST ELEVATION

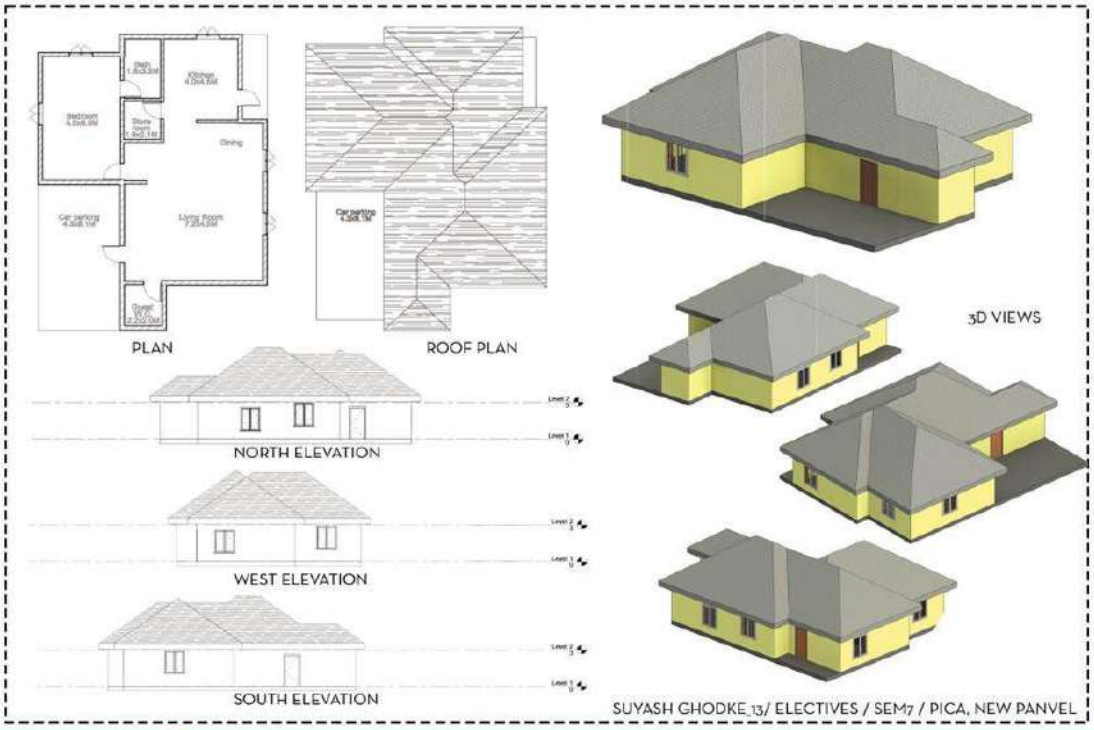
PRACHI PATIL 33

Assignment 1

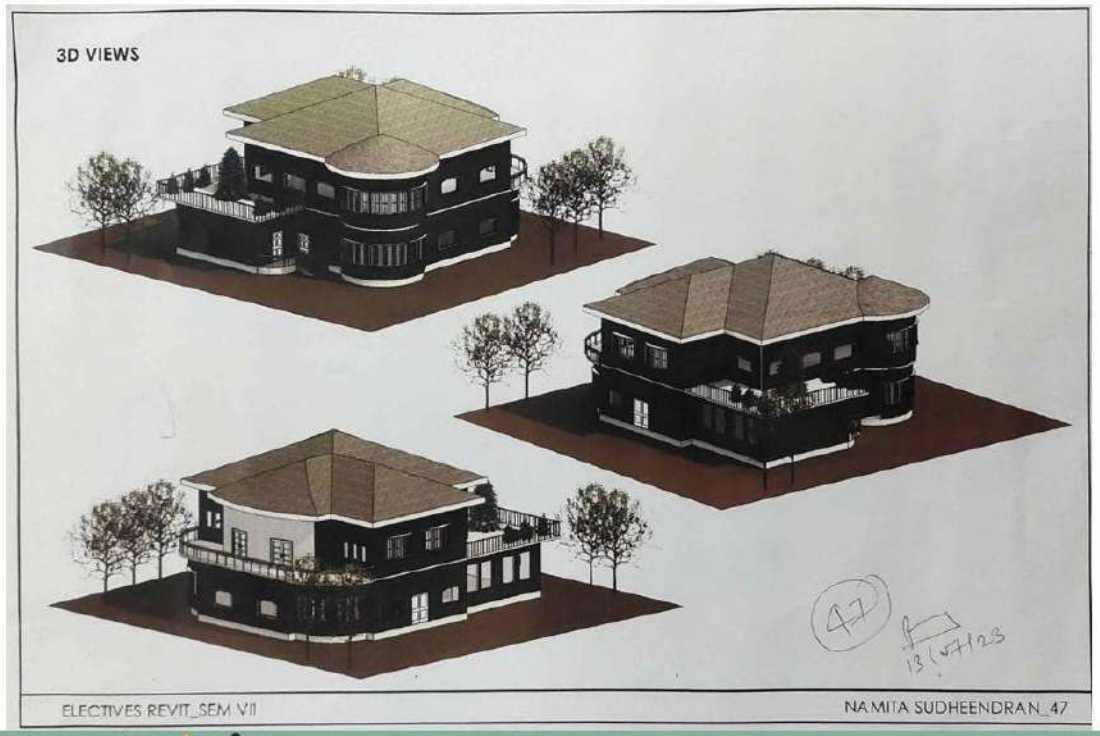


ASSIGNMENT 1: BUNGALOW

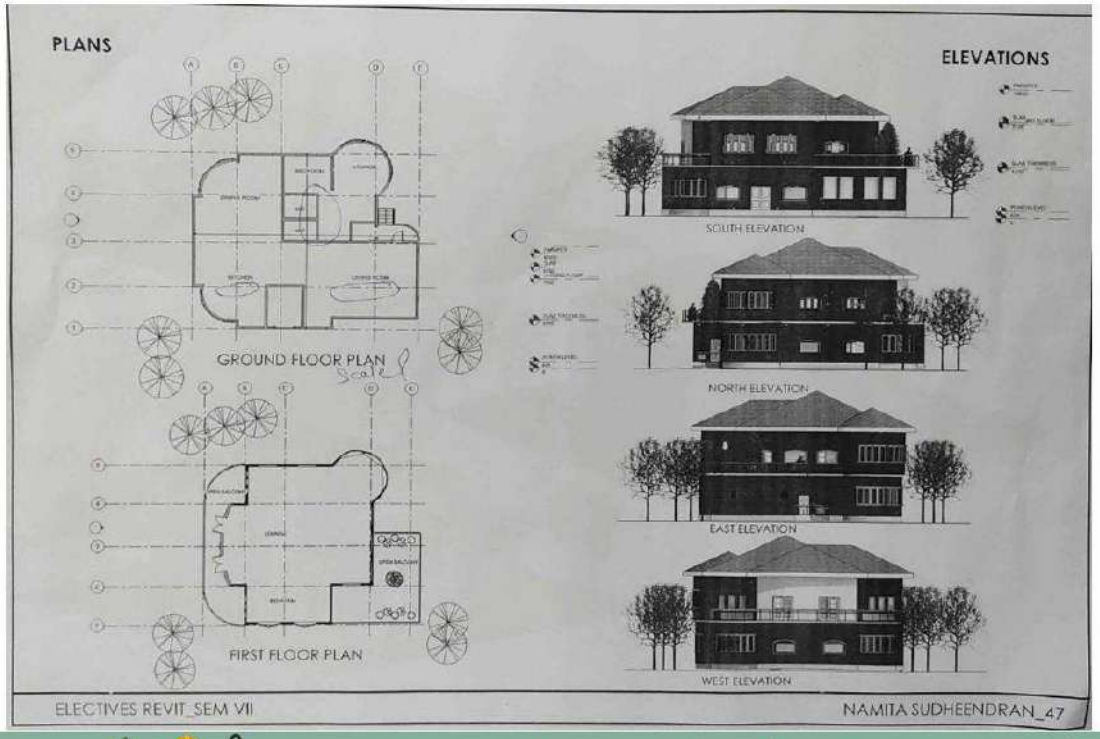
Assignment 1



Assignment 1



Assignment 1



Assignment 1

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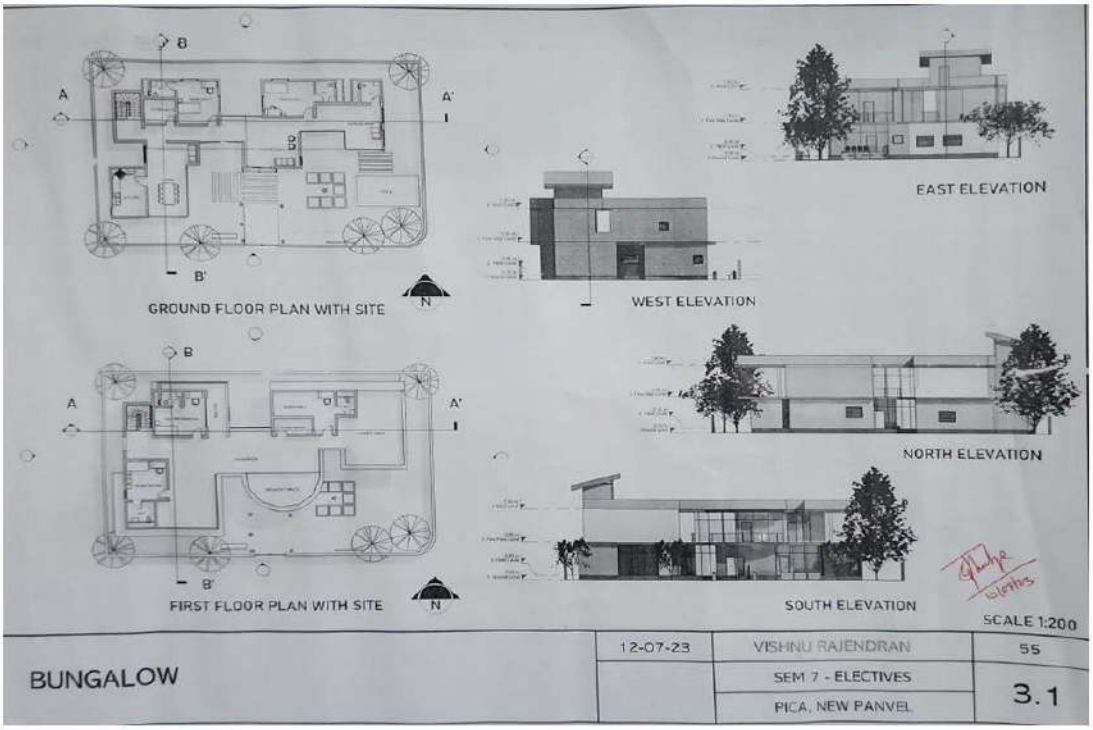
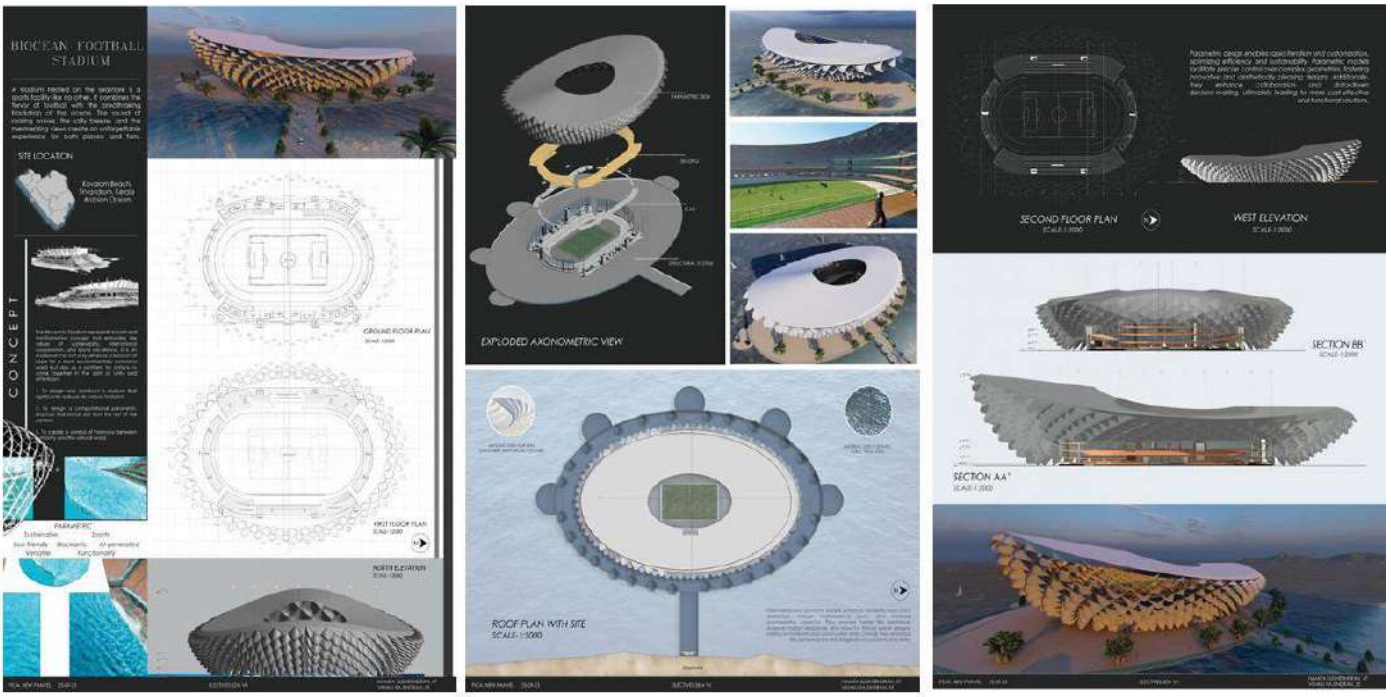


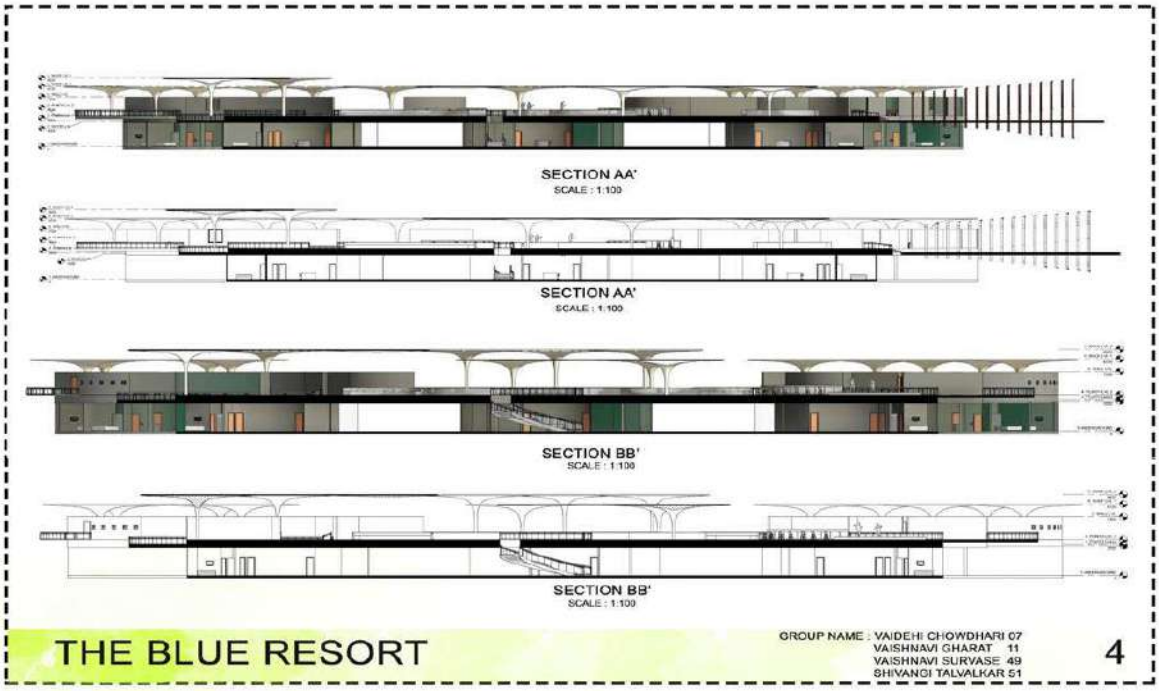


Assignment 4

PILLAI COLLEGE OF ARCHITECTURE | STUDENTS' WORK | 721 Electives | AY 2023-24_YEAR IV_SEM VII_DIGITAL TOOLS & TECHNIQUES

Assignment 4

Assignment 4



Assignment 4

THE BLUE RESORT

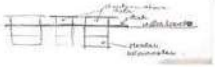
GROUP NAME : VAIDEHI CHOWDHARI 07
VAISHNAVI GHARAT 11
VAISHNAVI SURVASE 49
SHIVANGI TALVALKAR 51

3

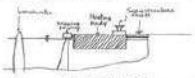
Assignment 4

CONCEPT

Our concept is derived from body od a jellyfish. We initially had an idea of a floating structure so we took inspiration from a jelly fish. At the initial stage,the head was considered as the floating part of the structure or the roof and main part of the structure and the tentacles in the water was considered as the structure underwater. It eventually got evolved.This structure is a hotel resort. The part of the structure which is floating or is above the water is the administration area and the deck area and restaurant or dining area is also included into it. The structure under water has hotel rooms for stay.

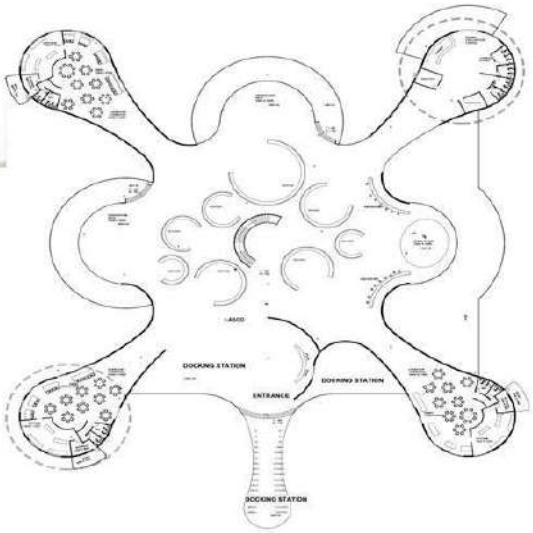


Current VLFS (Very Large Floating Structures) designs fall into two categories:
semi-submersible, and pontoon.
The pontoon-type VLFS platform rests on the water surface and is intended for deployment in calm waters such as a cove, a lagoon or a harbor. Its basic element is a simple box structure; it usually offers high stability, low manufacturing cost and easy maintenance and repair. the components of a typical pontoon-type very large floating structure, which consist of the floating structures, access-bridge, breakwater and mooring facility. Breakwaters are constructed around the floating structure to attenuate the wave forces that impact the floating structure. The VLFS is usually moored by the delphin-frame guide mooring system that restrains the horizontal movement of the floating structure but allows the structure to freely move in the vertical direction according to the tidal variation and varying payload. The problem at hand is to determine the hydroelastic response of a VLFS under wave action. Also we aim to show the reduction of the hydroelastic responses of floating structures with the attachment of submerged plates and the appropriate design of semi-rigid connections .



Pontoon TYPE VLFS

LOCATION : Between Italy and Malta in Mediterranean sea



DECK PLAN LVL 2 (ABOVE WATER)
SCALE : 1:300

THE BLUE RESORT

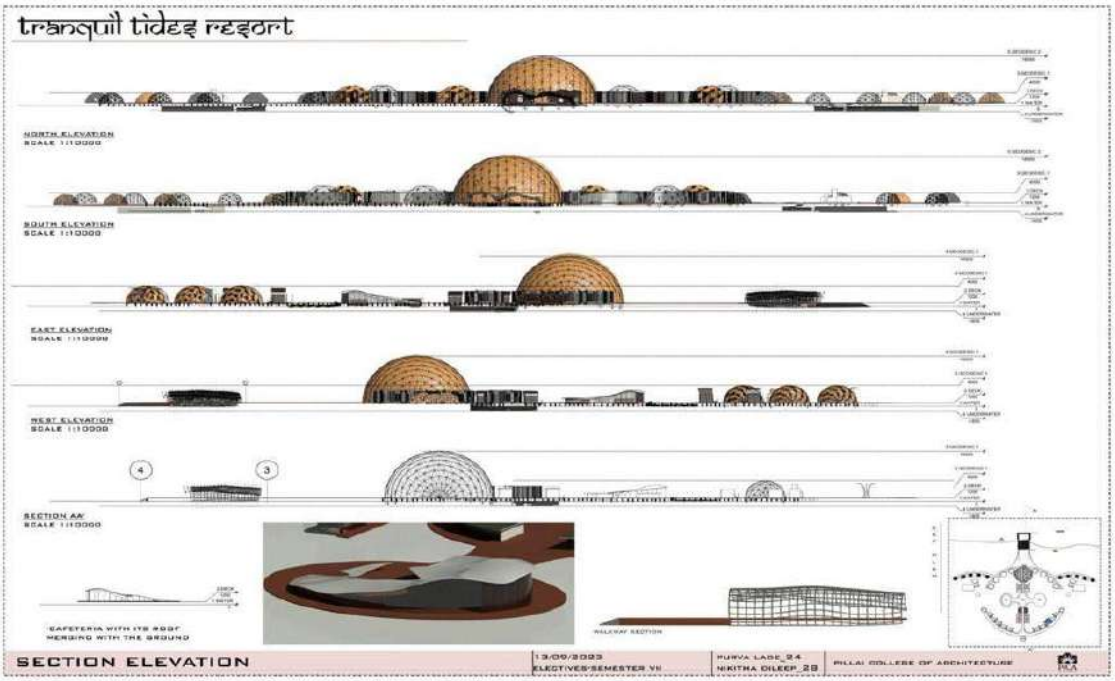
GROUP NAME : VAIDEHI CHOWDHARI 07
VAISHNAVI GHARAT 11
VAISHNAVI SURVASE 49
SHIVANGI TALVALKAR 51

1

Assignment 4

Assignment 4

Assignment 4



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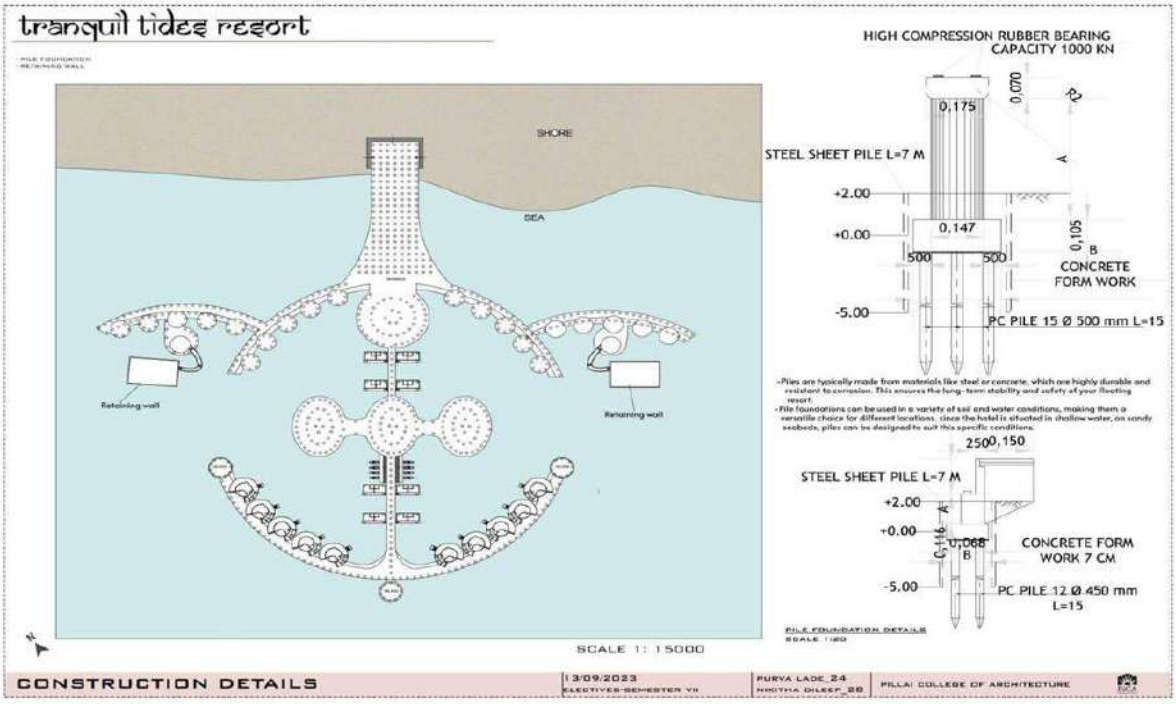

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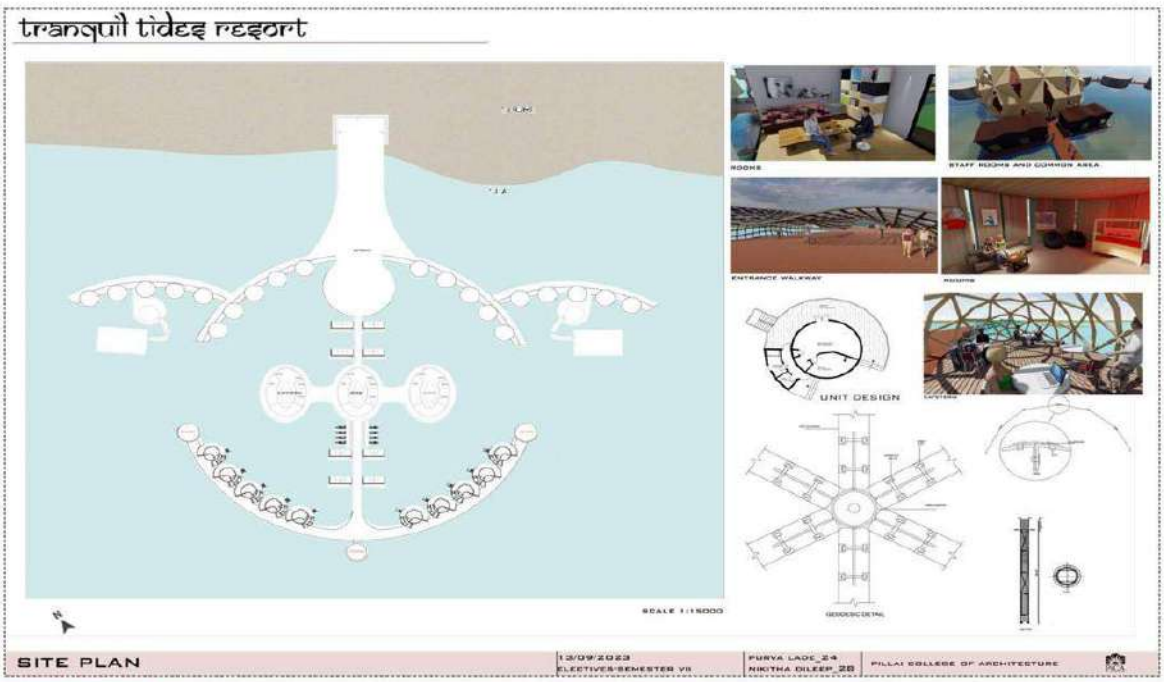

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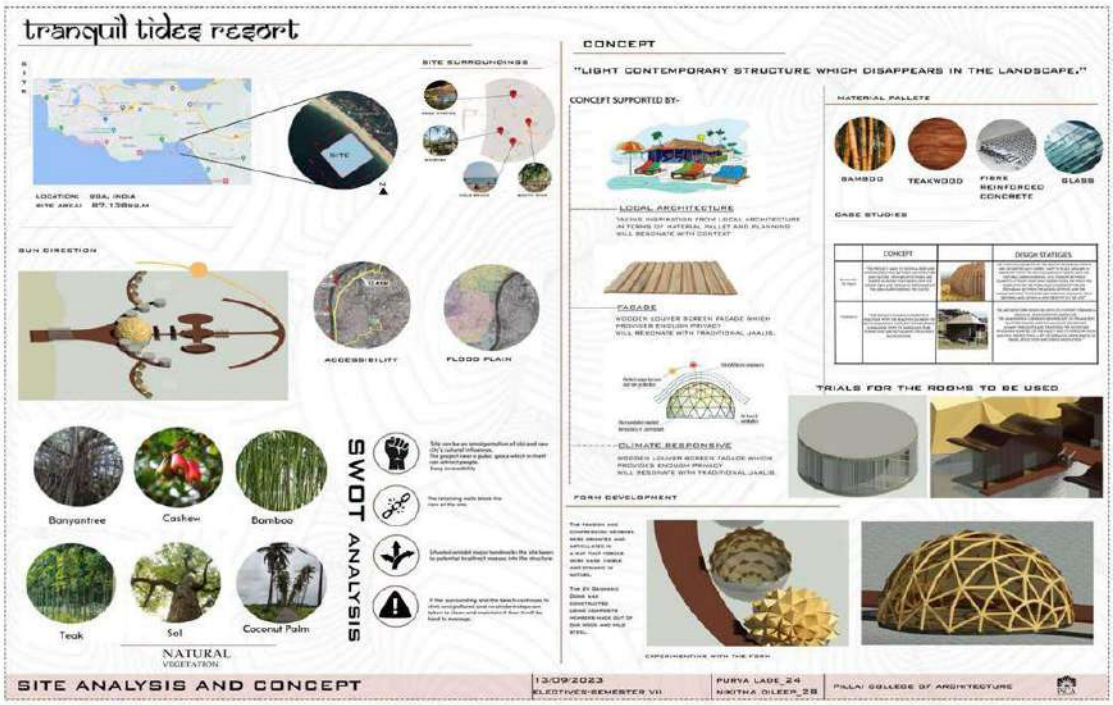

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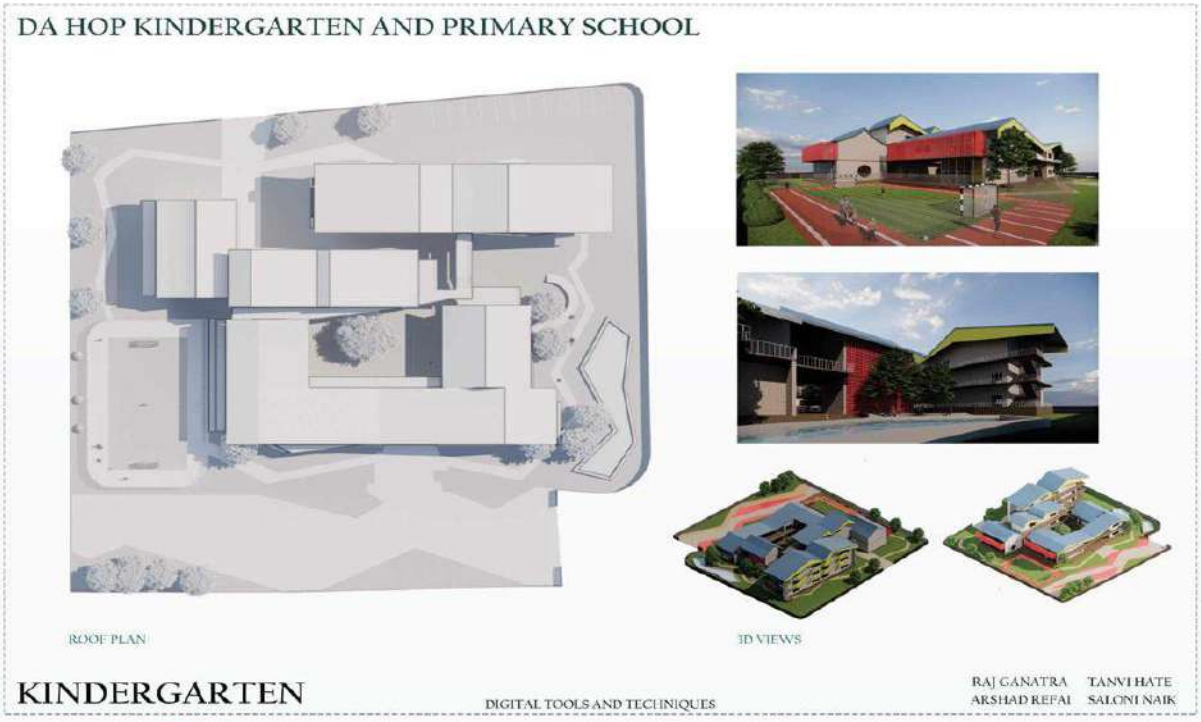


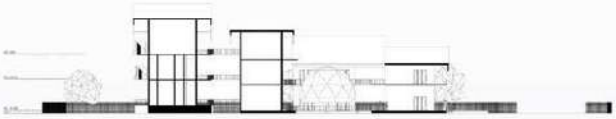
Assignment 4

DA HOP KINDERGARTEN AND PRIMARY SCHOOL

FIRST FLOOR PLAN

3D VIEWS

SECTION AA'



SECTION BB'

KINDERGARTEN

DIGITAL TOOLS AND TECHNIQUES

RAJ GANATRA TANVI HATE
ARSHAD REFAI SALONI NAIK

Assignment 4

DA HOP KINDERGARTEN AND PRIMARY SCHOOL

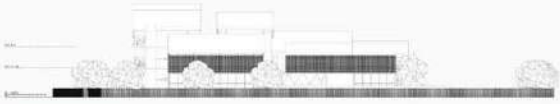
GROUND FLOOR PLAN

3D VIEW

NORTH ELEVATION

EAST ELEVATION

SOUTH ELEVATION



WEST ELEVATION

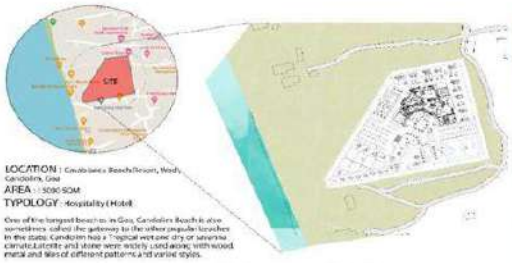
KINDERGARTEN

DIGITAL TOOLS AND TECHNIQUES

RAJ GANATRA TANVI HATE
ARSHAD REFAI SALONI NAIK

PILLAI COLLEGE OF ARCHITECTURE | STUDENTS' WORK | 721 Electives | AY 2023-24_YEAR IV_SEM VII_DIGITAL TOOLS & TECHNIQUES

Assignment 4



USER ANALYSIS

SITE PLAN

PRACHI PATIL_33, ADVAITAA_27, VEDIKA_17, ANKIT_2

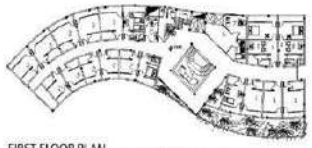
Assignr

SOUTH ELEVATION

NORTH ELEVATION

EAST ELEVATION

EAST ELEVATION



FIRST FLOOR PLAN

SECOND FLOOR PLAN

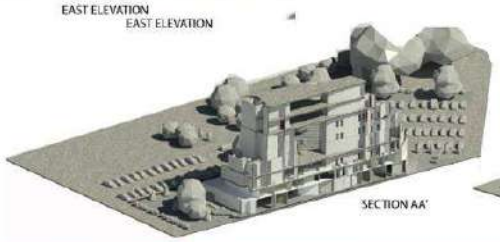
THIRD FLOOR PLAN

FOURTH FLOOR PLAN

FIFTH FLOOR PLAN

SIXTH FLOOR PLAN

SEVENTH FLOOR PLAN

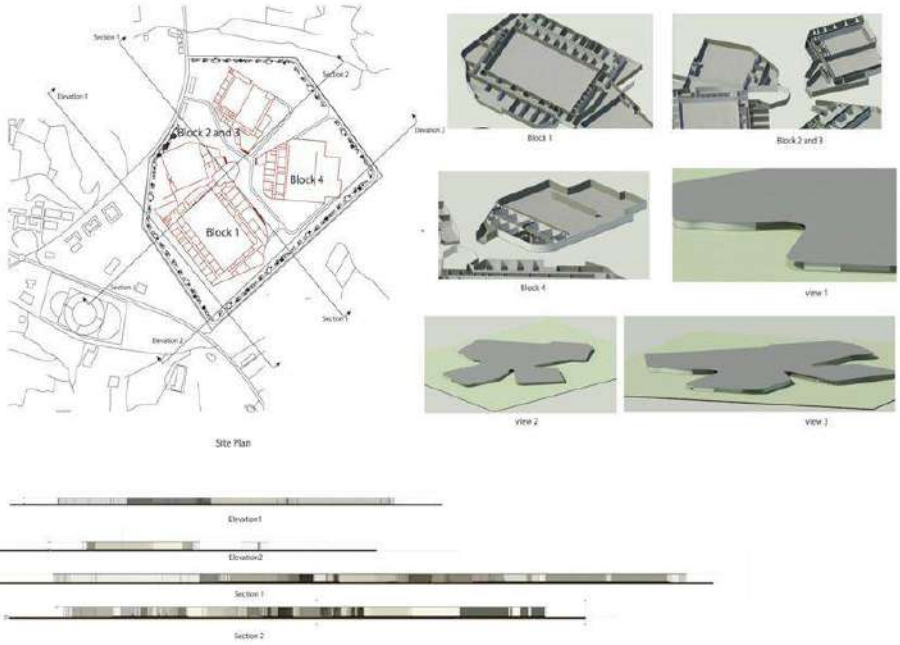


SECTION AA'

SECTION BB'

PRACHI PATIL_33, ADVAITAA_27, VEDIKA_17, ANKIT_2

Assignment 3



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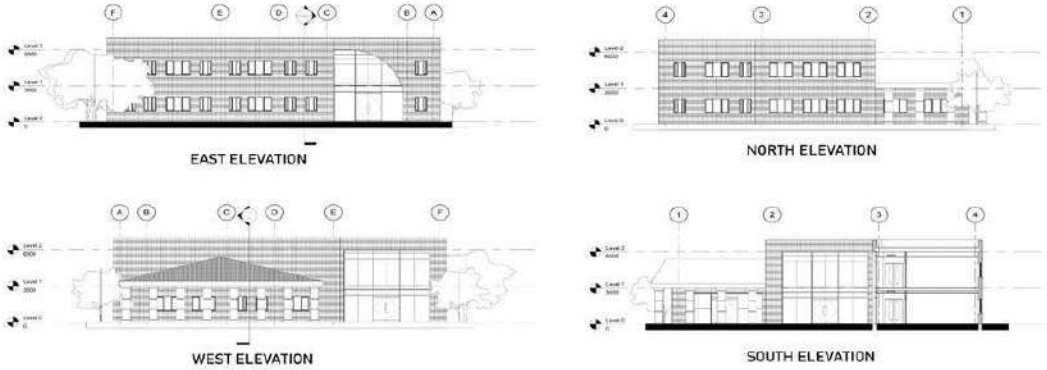
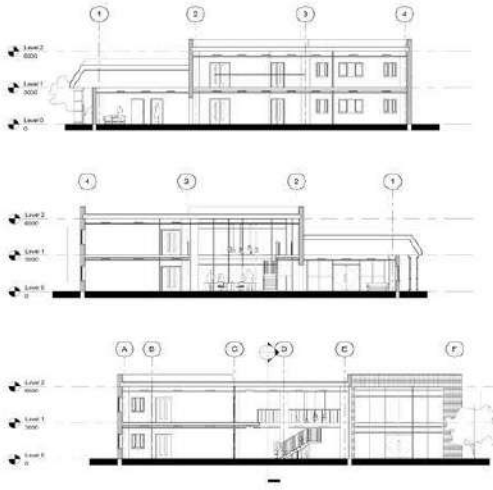


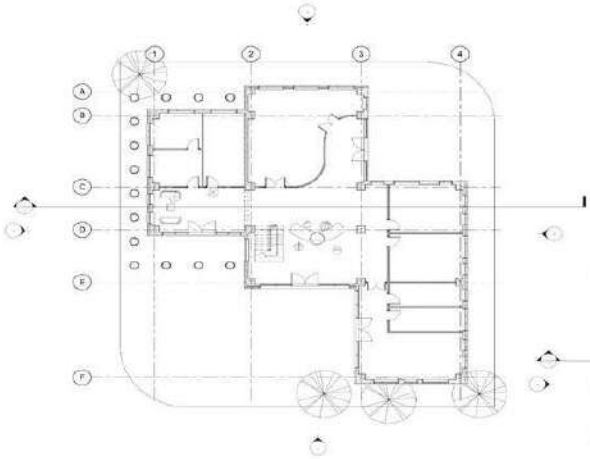
PRASHANI DALVI 07
ELECTIVE SEM7

Assignment 3

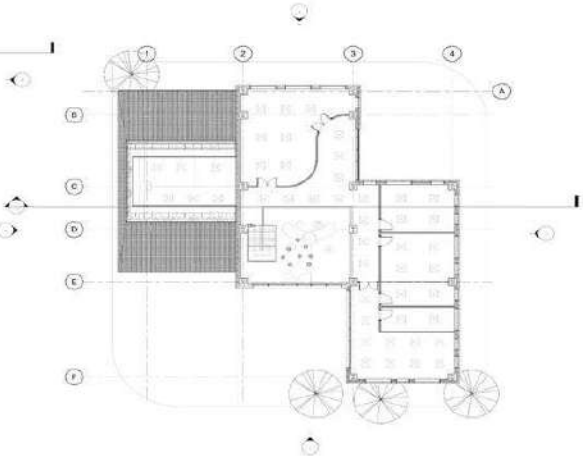


PRASHANI DALVI 07
ELECTIVE SEM7

Assignment 3

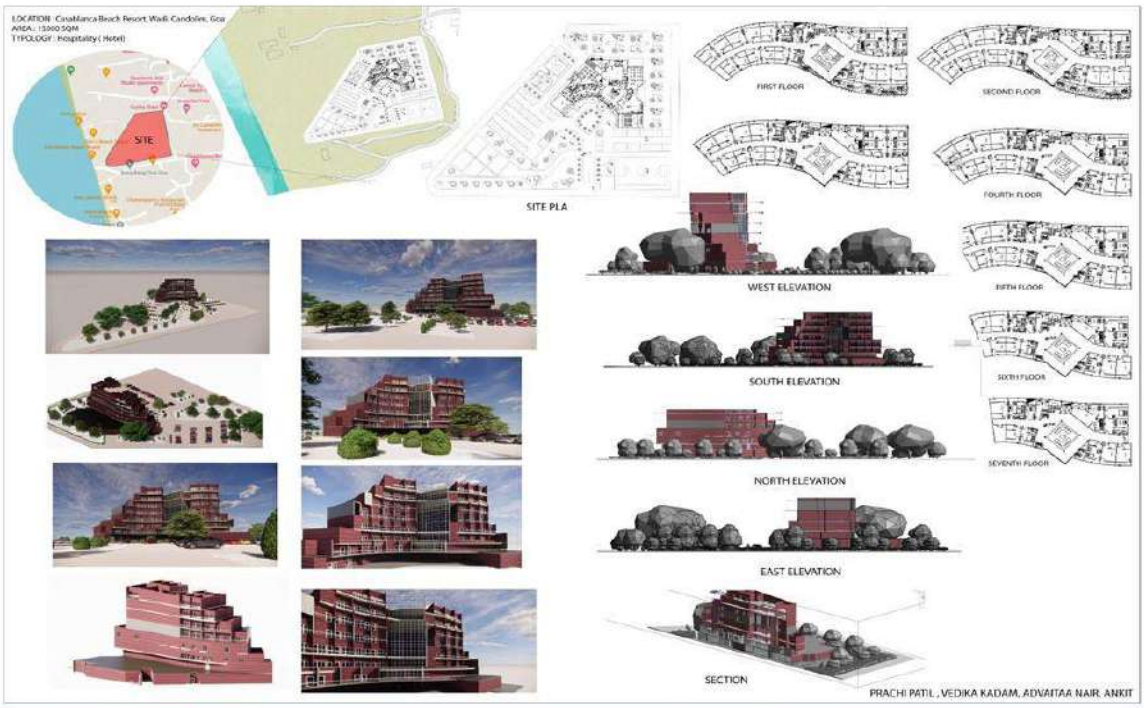


GROUND FLOOR PLAN



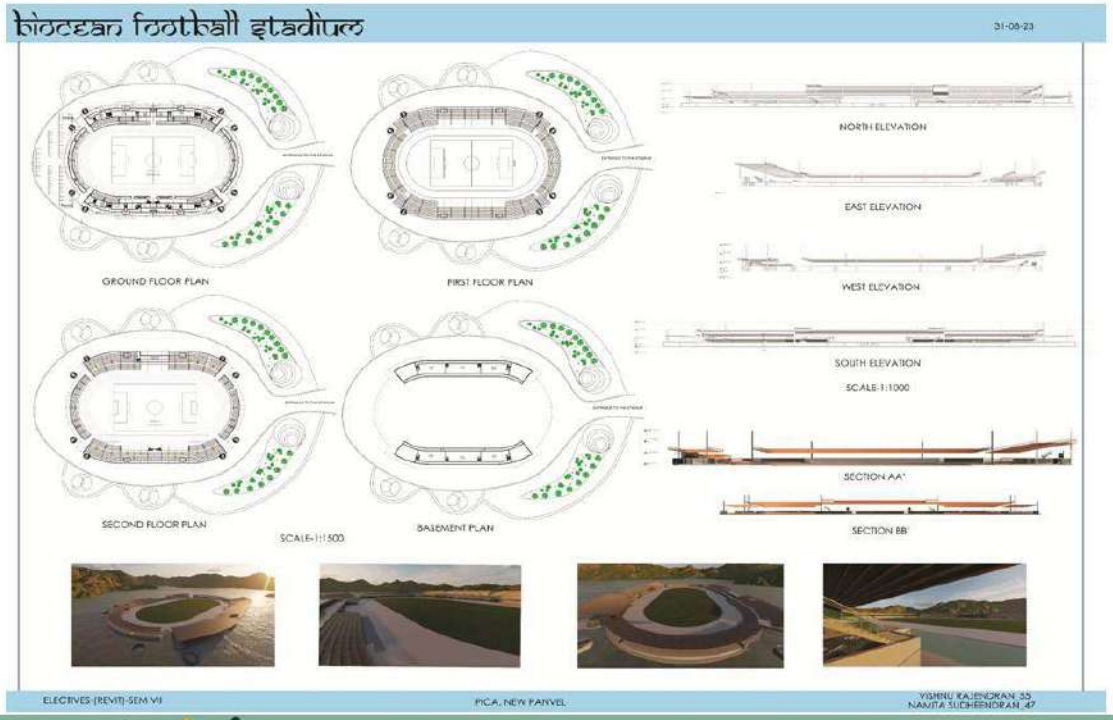
FIRST FLOOR PLAN

Assignment 3



Assignment 3

Assignment 3



M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject : Architectural and Heritage Conservation		**Session :** 2023-24	**Year :** 5th year	
Course code: 921	**Credits:** 03	**Semester : 9**	**No of Periods per week : 02**	
Examination Scheme		**Sessional Marks -** **Theory Paper** - NA	**Internal :** 50 **External Jury :** NA **Theory Paper :** NA	**Total Marks** 50

Faculty	Subject coordinator :
Faculty team:	
Prof. Ajita Deodhar	

Course Aim and objective :

Background: -
A heritage structure is a representation of the past, the historical values, events, the structural materiality, integrity and construction knowledge of the time period. Architectural and heritage conservation is the discourse that lies at the intersection of architectural design with history, sociology and anthropology, linking them together to further distinguish the idea of preservation, conservation and restoration.

Aim:- The course aims to provide a brief introduction to the discourse of Architectural Heritage conservation and establish a sensitive understanding of the process of conservation.

Objectives:-

1. To establish a broad understanding of the definitions, discourses and processes of architectural conservation.
2. To examine the role of an architectural conservationist and its integration in practice.
3. To inculcate a sensitivity towards heritage values and ethics of conservation.
4. To be able to systematically identify, access and provide critical strategies to conserve a heritage structure.

Process:- *Please explain the methods of Conduction of classes and studios wrt aim and objectives.*

Tools and techniques to be used for course conduction.

The course will be conducted through discussions of case-examples, live case-studies and theory-based lectures. The course is scheduled to conduct a guest lecture by an architectural conservation practitioner. The students will learn about the process and practice of conservation in Mumbai through site visits and case-study documentation. In the second half, the students will be examining the nature of the building through documentation, analysis and a brief design/strategy and ideation project.

Horizontal Integration approach with other subjects in the semester:-

The course is set alongside the thesis semester 09, where the students are undertaking the initial stages of thesis literature review and site selection. This course aims to sensitize the students to the aspects of heritage in relationship to the development context. Therefore, supplementing thesis research and justification.

Expected outcomes in terms of students understanding and skills:-

Skills- Students will develop practical skills in site documentation, condition mapping, and structural analysis through hands-on exercises and field visits. They will learn to draft and refine conservation proposals, enhancing their project planning and critical thinking abilities. Presentation skills will be honed through student presentations and peer discussions, fostering effective communication of ideas and findings.

Knowledge- The course imparts comprehensive knowledge of architectural conservation terminologies, historical context, and key discourses. Students will gain insights into classifying heritage values (cultural, age, material) and learn about various conservation processes and strategies. They will also become familiar with the roles and ethical considerations of conservationists and the functions of national and international conservation organizations.

Understanding- The course cultivates a deep understanding of the significance and ethics of heritage conservation. Through lectures, case studies, and expert insights, students will appreciate the importance of preserving architectural heritage. They will understand the challenges and methodologies involved in conservation projects, enabling them to critically assess and propose effective conservation strategies.

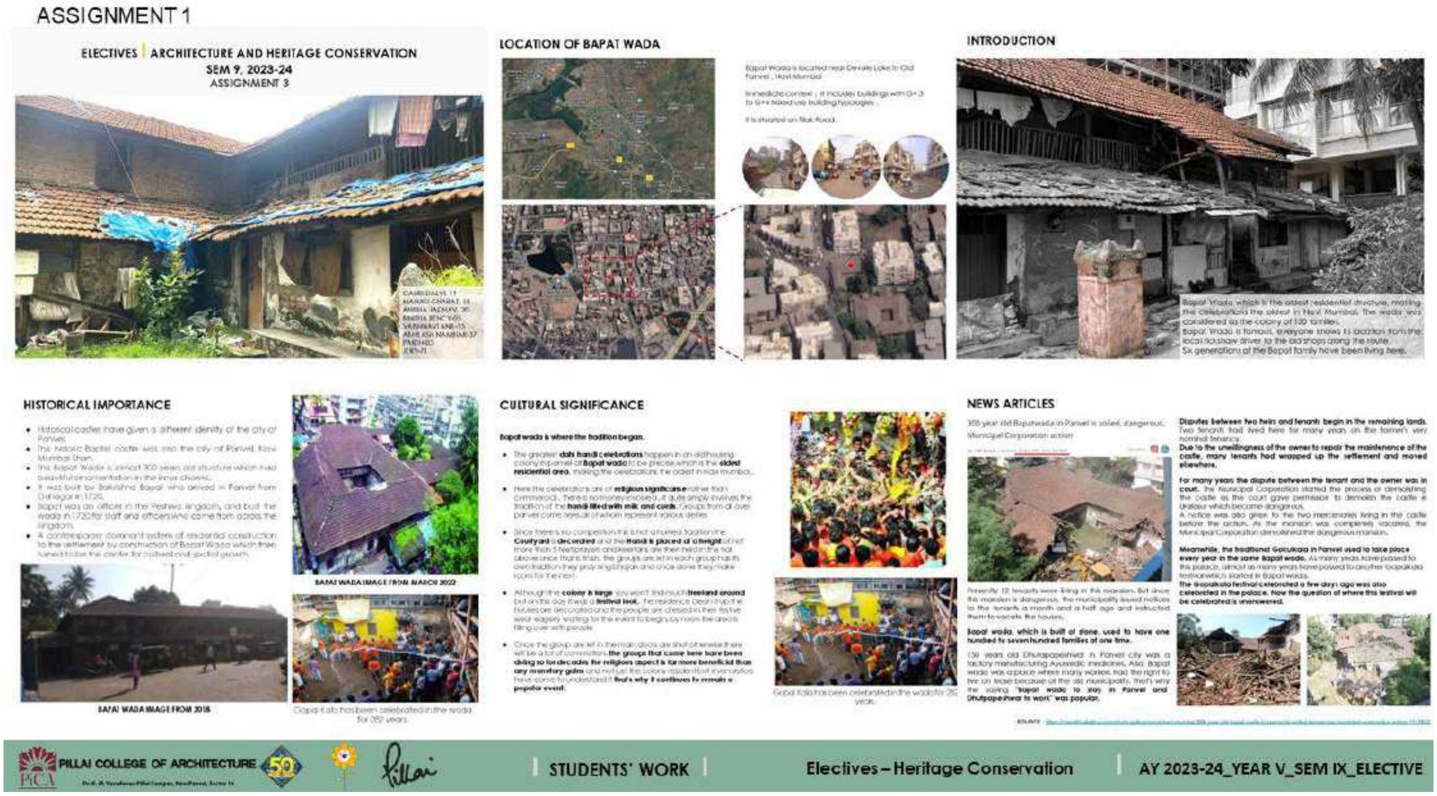
Suggested Reading Books/ Links/Research Journals	
S.No.	Name of the reference
1	A History of Architectural Conservation by Jukka Jokilehto
2	Identification and Documentation of Built Heritage in India – Divay Gupta (INTACH)
3	Conservation Procedures (INTACH)
4	Burra Charter, Athens Charter, INTACH Charter
5	Conservation of Building Stone – Anuradha Kumar
6	Studies in Biodeterioration of Materials – 1 - by O.P Agrawal
7	Cultural Resource Mapping – Upper Ganga Region – Lokesh Ohri
8	Traditional Water Structures of Rajasthan - INTACH

LINKS:

1) INTACH WEBSITE: http://www.intach.org/index.php
2) ASI WEBSITE: https://www.india.gov.in/official-website-archaeological-survey-india
3) UNESCO WEBSITE: https://whc.unesco.org/en/list/
4) BRITISH LIBRARY WEBSITE: https://www.bl.uk/

Course Plan Submitted v/s completed				
Subject : Architectural and Heritage Conservation			**Course code: BARC 921**	
Faculty: Prof. Ajita Deodhar				
Week	**Topic**	**Related Assignments**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	Introduction to Architecture and Heritage Conservation, historical overview, terminologies.	**Exercise 1.1:** Identify any structure that you would qualify as heritage. Present a broad overview of why.	YES	CO3, CO4
2	Student Presentations and discussion:	**Exercise 1.2:** Identify any structure that you would qualify as	YES	CO3, CO4
	Examining heritage value classification - culture, age, material (tangible and intangible)	heritage. Present a broad overview of why.		
3	Introduction to Condition Mapping, grading criteria.	Student Presentations Ex:1.2		
4	Case-Study Visit and analysis: Discussion	**Exercise 2:** Examine ongoing or completed Architectural conservation projects. Examine the process followed, challenges and various approaches undertaken.		CO1, CO2
5	Student Presentations	**Exercise 2: (Final Review)**		

6	Introduction to conservation organisations and structure, Charters, Ethics in conservation	**Exercise 3:** Essay on Organizations, ethics.	NO	
7	Structural Analysis, Condition Mapping: Site Visit and Documentation	**Exercise 4:** Site Documentation and Condition Mapping	YES	CO4, CO5
8	Site Visit and Documentation			
9	Guest Lecture			
10	Structure Evaluation and Proposals (draft)	**Exercise 5:** Strategies/conservati on and/or adaptive reuse		CO4, CO5
11	Strategies and Proposals (draft)			
12	Final Review			


ASSIGNMENT 1
ELECTIVES | ARCHITECTURE AND HERITAGE CONSERVATION
SEM 9, 2023-24
ASSIGNMENT 3
LOCATION OF BAPAT WADA
INTRODUCTION
Bapat Wada which is the oldest residential structure, making the celebrations the oldest in Navi Mumbai. The wada was considered as the colony of 120 families.
Six generations of the Bapat family have been living here.
HISTORICAL IMPORTANCE
BAPAT WADA IMAGE FROM MARCH 2022
BAPAT WADA IMAGE FROM 2018
CULTURAL SIGNIFICANCE
Bapat wada is where the tradition began.
NEWS ARTICLES
Disputes between two heirs and tenants begin in the remaining lands.
Bapat wada, which is built of stone, used to have one hundred to seven hundred families at one time.
PILLAI COLLEGE OF ARCHITECTURE
STUDENTS' WORK
Electives – Heritage Conservation
AY 2023-24_YEAR V_SEM IX_ELECTIVE


ASSIGNMENT 1
DATAR WADA
PEN,MAHARASHTRA
Shreya Alangekar 02
Sanskar Chavan 08
Sagar Dhole 15
Shubham Moghe 33
Arati Patil 41
Varsha Pradeep 44
Aishwarya Sawant 52
Anirudh Sharma 54
Swati Singh 57
Ashwin Ramesh 74
LOCATION :-
ARCHITECTURAL DETAILS:-
Front facade
Before
After
Openings
EFFECT OF BUILDING ON SURROUNDING CONTEXT :
One of the very few surviving structures in Pen dating back to the time of its establishment. The Datar family had connections with powerful Peshwa rulers and hosted the Peshwas in their journeys in this part. Also this family was active in the freedom struggle.
As a result, the Datar Wada holds Landmark Value and is considered The Historical Building of Pen.
One can observe various Kala Kendra's and Ganpati workshops have developed around the Datar Wada as a result of its Historical and Cultural importance.
CULTURAL SIGNIFICANCE :
HISTORICAL SIGNIFICANCE :
This wada belonged to the Datar family and was originally built in c.1725.
Datar Wada and the town of Pen itself have historical significance in the context of the Peshwa era of Maratha history.
Datar Wada also holds significance as it is believed to be the birthplace of the Marathi poet-saint Eknath Maharaj.
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ASSIGNMENT 2


(Listing Name): Datar wada

Serial No.:

(NAME): Datar wada
Location: Pen,Raigad
Latitude: 18.7313°
Longitude: 73.130
Address: Datar Ali Sorgaon Rd, Buddha Nagar
District: Raigad
Approach: Datar Ali Sorgaon Rd

Typology: Residential
Property type: Wada
Subtype: -

Date of Construction : ~1725

Ownership
Single/Multiple: Single
Name of owner: Datar family

Property Use
In use / Not in use: in use
Present use: Residential
Past use: Residential

Significance

Architectural Description

Building Material& Construction Technique

Associated Intangible value

Condition Description

Courtyard of Datar Wada

Location

State of Conservation

Grade
Archaeological: A/B/C - B
Architectural: A/B/C - B
Historical: A/B/C -
Associational: A/B/C - IIA
Social/Cultural: A/B/C - A
Final Grading: I*/I/IIA/IIB/III- IIA

Sources

(Month, Year)

(Page Number)


(Listing Name): Laxmi Ratan Sunglow

Serial No.:

(NAME): Laxmi Sunglow

Location: New Panvel, Navi Mumbai
Latitude: 14.997
Longitude: 73.113
Address: Shraddha Shitaladevi Apartment, Mahatma
District: Raigad
Approach: Mahatma Phule road

Typology: Residential
Property type: Wada
Subtype: -

Date of Construction

Ownership
Single/Multiple: Single
Name of owner: Laxmi Family

Property Use
In use / Not in use: in use
Present use: Residential
Past use: Residential

Significance

Architectural Description

Building Material& Construction Technique

Associated Intangible value

Condition Description

Courtyard of Datar Wada

Location

State of Conservation

Grade
Archaeological: A/B/C - I
Architectural: A/B/C - A
Historical: A/B/C - I
Associational: A/B/C - I
Social/Cultural: A/B/C - I
Final Grading: I*/I/IIA/IIB/III- IIA

Sources

(Page Number)


(Architectural Built Heritage)

Serial No: I

(Ganapati Mandir, Chawadi Naka)

Location
Latitude: 18°43'17"N
Longitude: 73°7'57"E
Address: Chawadi Naka, Tal. - Khopoli Rd, Tm.
Maharashtra 402107
District: Raigad
Approach: Chawadi Naka Road

Typology
Property type: Religious
Subtype : G

Date of Construction : 1913

Ownership
Single/Multiple: Trust
Name of owner: Brahmin Community

Property Use
In use / Not in use: In Use
Present use: Temple
Past use: Temple

Significance

Architectural Description

Building Material & Construction Technique

Associated intangible value

Condition Description

Sources

(Front Elevation)

(Site Map)

State of Conservation

Grade
Archaeological: A/B/C -
Architectural: A/B/C - Architectural A
Historical: A/B/C -
Associational: A/B/C -
Social/Cultural: A/B/C - Cultural A
Final Grading: I*/IIA/IIB/I I- IIA

Sources

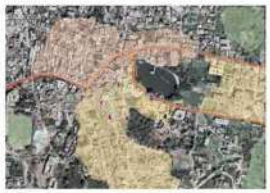
(August 2023)

(1)

ASSIGNMENT 3

Introduction:

Datar Wada is a historical site located in Pen which is a town in the Raigad district of the Indian state of Maharashtra. Pen is situated in the Konkan region of Maharashtra. Was Built in 1725, the Wada belonged to the Datar family who had connections with powerful Peshwa rulers and hosted the Peshwas in their journeys in this part. Pen was the stockyard of the region of Konkan.

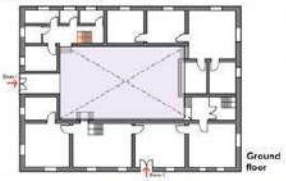



2015 2018 2020

Site Context:

The wada is located near t the kasar Talav and surrounded by cultural center like Kala Kendra's and Ganpati workshops around the Datar Wada as result of its Historical and Cultural importance .

Condition Analysis


Ground floor

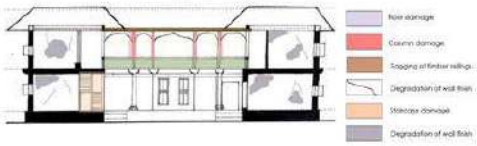

Floor damage

Degradation of staircase

STRUCTURAL CONDITION:-

	Description	Problem / Threat	Condition	Intervention
Structural system	Timber structure on stone plinth with brick walls that are partly load bearing.	NA	Good	No need
Plinth	Basalt stone finish dressed.	NA	Good	No need
Walls	Fine dressed cut stone masonry till ground floor cill level, brick masonry above and on upper floors Mud and lime plaster to masonry.	Cracks are seen in internal walls.	Fair	Filling of cracks
Floors	Timber Floors: Original stone flooring at ground floor replaced with polished kota tiles. Timber floors on upper storeys replaced by Shahabad flooring.	Lack of landscape in courtyard which can be a problem during rainy season.	Good	Hardscaping in courtyard
Stairs	Original stairs embedded in walls. Timber stairs with timber balustrades in verandas and later addition. Stone steps in courtyard.	Signs of sagging and ageing of timber member	Fair	Replace
Openings	Solid timber shutters for doors and windows with heavy ornamentation. Main door has a wicket shutter.	NA	Good	No need
Roof	Mangalore tiles over timber purlins and rafters. Originally country tiles were used.	Lack of water drainage	Fair	Gutter provision
Articulation	Exquisitely carved timber members like column capitals, brackets cornices, door frames, arches, medallions Example of very fine workmanship. Very good quality lime stucco work is also seen at places to make patterns that are typical of the Islamic influence during the period.	NA	Good	No need
Finishes	Lime wash to plaster. Some painting at a few places may be original. Stone flooring on ground floor, timber flooring on the upper. Woodwork is oiled.	Originality is being lost	Fair	Minor Repair

Condition Analysis

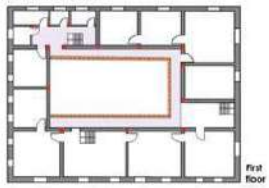



Lack of drainage system for roof

Degradation of wall finishes

Minor Cracks in the wall

Condition Analysis


First floor


Sagging and ageing of railings.

Deterioration of Column

Deterioration of floor

Conservation strategy

Methodology

1.Polishing and painting

Cleaning and polishing of wooden members including footing and stairs.

Cleaning and repairing of walls.

2.Landscaping

Redesigning of internal courtyard to develop water drainage channel and segregating staircase and hardscape.

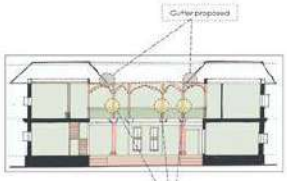
2.Repair

Timber structure on stone plinth with brick walls that are partly load bearing and needs repairs.

Timber purlins holding the mangalore tiles are failing and sagging, hence they need care.

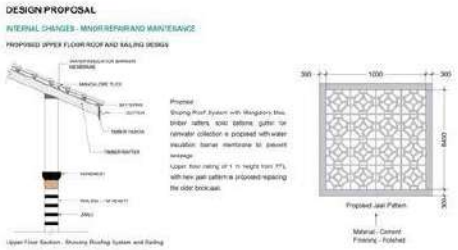
Timber slabs with timber balustrades in veranda show signs of sagging and ageing and needs repair.

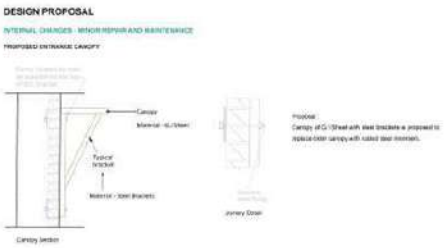
Re-plastering with water proofing materials on internal walls to prevent dampling of walls.


Gutter proposed

Timber structure(repair)

ASSIGNMENT 4





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ASSIGNMENT 5

1. Aga Khan Trust for Culture (AKTC) - India

1. **Overview:**

- The Aga Khan Trust for Culture (AKTC) is an organization that plays a significant role in **India's cultural preserva and development**.
- The trust is part of the Aga Khan Development Network (AKDN), a global network of institutions founded by His Highness the Aga Khan, **focused on improving the quality of life for people in various regions and promoting social, economic, and cultural development.**
- The AKTC's role in India primarily revolves around **cultural conservation, restoration, and revitalization of histori sites, monuments, and urban spaces.** The trust works in collaboration with local communities, government agencies, and other stakeholders to implement projects that aim to:

OBJECTIVES

- **Conservation of Cultural Heritage**: AKTC aims to safeguards and restores significant cultural sites in India, preserving historical and architectural treasures of cultural importance.
- **Urban Renewal and Revitalization:** AKTC re-vitalizes urban areas, improving economic, social, and cultural aspects through restoration projects and infrastructure development for sustainable urban growth.
- **Promoting Cultural Diversity:** Supporting traditional artforms and craft traditions, celebrating cultural diversity and helping artisans pass on their skills to future generations.
- **Promotion of Education and Outreach**: Promoting awareness about cultural heritage and sustainable development through educational programs like workshops and seminars for the public and students.
- **Livelihood Enhancement**: AKTC empowers local communities around heritage sites through community-based initiatives, that involve them in conservation and tourism-related activities, improving livelihood opportunities.
- **Promotion of Tourism and Responsible Tourism:** Encourage responsible and sustainable tourism at cultural heritage sites, respecting their integrity and contributing positively to the local economy.
- **Cultural Diplomacy and Collaboration:** AKTC fosters cultural diplomacy and collaboration among different communities and countries, facilitating the exchange of knowledge and expertise in cultural heritage conservation.

MAJOR PROJECTS / INITIATIVES

The Aga Khan Trust for Culture (AKTC) has been involved in several major projects and initiatives in India. The AKTC's initiatives in India primarily focus on preserving and promoting cultural heritage, revising historic buildings and sites, and improving the quality of life in urban areas.

1.Urban Renewal of the Nizamuddin Basti, Delhi:

AKTC has been extensively involved in the urban renewal and conservation of the historic Nizamuddin Basti in Delhi. The project includes the restoration of heritage structures, creation of public spaces, and socio-economic development initiatives in the area surrounding the Nizamuddin Dargah.

2.Restoration of Humayun's Tomb Complex, Delhi:

AKTC has been instrumental in the restoration and revitalization of the Humayun's Tomb Complex, a UNESCO World Heritage Site in Delhi. The project involved the restoration of the main tomb and other historical structures within the complex.

3.Conservation of Qutb Shahi Tombs, Hyderabad:

AKTC has been involved in the conservation and restoration of the Qutb Shahi Tombs complex in Hyderabad, a significant historical site dating back to the Qutb Shahi dynasty.

IMPACT ON ARCHITECTURAL CONSERVATION IN INDIA

The Aga Khan Trust for Culture (AKTC) has made a considerable impact on architectural conservation in India through its various projects and initiatives. The organization's focus on restoring historical monuments, urban regeneration, community engagement, and capacity building has positively influenced India's cultural heritag preservation.

- Promoting ethical and sustainable tourism in culturally significant locations, maintaining their integrity has impacted the local economy.
- AKTC has undertaken significant restoration projects to several historical monuments in India.
- AKTC has revitalized the monuments and their surroundings, transforming them into vibrant cultural spaces.
- AKTC emphasizes urban regeneration and holistic development around historical sites.
- By improving the infrastructure and public spaces surrounding these monuments, AKTC has not only enhanced their preservation but also contributed to the overall quality of life for local residents.
- The organization also promotes heritage walks and cultural events for locals as well as for the students.

CHALLENGES FACED & CONTRIBUTION TO PRESERVING THE COUNTRY'S ARCHITECTURAL HERITAGE

Challenges Faced by Aga Khan Trust for Culture in India:

1. Deterioration and Neglect: Many historic structures in India suffer from deterioration due to age, weathering, and neglect. Lack of proper maintenance and inadequate funds for restoration pose significant challenges for AKTC's conservation efforts.
2. Urban Development Pressure: In rapidly developing urban areas, there is often pressure to demolish historic buildings to make way for modern infrastructure. Balancing development needs with heritage preservation can be challenging.
3. Population and Traffic: Historic sites located in densely populated areas face challenges related to managing large crowds and vehicular traffic, which can impact the structural integrity of the monuments.
4. Funding and Resources: Preservation projects require substantial financial resources, and securing funding can be difficult. AKTC often relies on partnerships with governments, private organizations, and donors to carry out its conservation initiatives.
5. Legal and Administrative Hurdles: Dealing with complex legal frameworks, obtaining necessary permits, and navigating bureaucratic procedures can slow down or hinder restoration projects.

CHALLENGES FACED & CONTRIBUTION TO PRESERVING THE COUNTRY'S ARCHITECTURAL HERITAGE

Contributions to Preserving India's Architectural Heritage:

1. Restoration and Conservation: AKTC undertakes extensive restoration work to revitalize historic buildings and sites. Through careful research, documentation, and conservation techniques, they help preserve India's architectural heritage for future generations.
2. Adaptive Reuse: The trust often explores adaptive reuse options, converting historic structures into functional spaces like museums, cultural centers, or community spaces. This approach ensures the building remain relevant and accessible to the public.
3. Community Engagement: AKTC actively involves local communities in their conservation efforts. By raising awareness, providing training, and engaging with the community, they build a sense of ownership and responsibility towards heritage preservation.
4. Capacity Building: The trust invests in training and capacity-building initiatives for local craftsmen and artisans, passing on traditional skills and techniques essential for maintaining historic structures.
5. Sustainable Development: AKTC incorporates sustainable practices in their restoration projects, considering factors like energy efficiency, water management, and environmentally friendly construction materials.
6. Advocacy and Research: The trust engages in advocacy efforts to raise awareness about the value of cultural heritage and the need for its preservation. They also conduct research to better understand the historical significance of the sites they work on.
7. Public-Private Partnerships: AKTC collaborates with governments, private organizations, and other stakeholders to pool resources and expertise for successful conservation projects.

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ASSIGNMENT 5

2. UNITED NATIONS EDUCATIONAL, SCIENTIFIC and CULTURAL ORGANIZATION (UNESCO)

BRIEF OVERVIEW OF ITS ROLE

United Nations Educational Scientific & Cultural Organization UNESCO was established after the end of the world wars. In 1942, the Conference of Allied Ministers of Education (CAME) brought together the governments of the European nations to fight Nazi Germany and its allies in the United Kingdom.

- There are 1154 World Heritage Sites of exceptional cultural and natural value.
- 600 Intangible Heritage Elements in 139 countries.
- In 134 countries, there are 738 Biosphere reserves.
- There are 177 UNESCO Clubs/Centres in 86 countries.
- As part of the UNESCO Chairs network, there are 650 higher education and research institutions in 117 countries.
- More than 200 UNEVOC (International Centre for Technical and Vocational Education and Training) Centres exist in more than 140 UNESCO Member States worldwide.

The Vision of UNESCO

- To achieve lasting peace and economic and political agreement among States.
- To bring people together and strengthen humankind's intellectual and moral solidarity through mutual understanding and dialogue between cultures.

MAJOR PROJECTS / INITIATIVES

4.Red Fort, Delhi: The Red Fort, also known as Lal Qila, is another UNESCO World Heritage Site in India. UNESCO has been involved in efforts to preserve and maintain this historic fort.

5.Chhatrapati Shivaji Terminus (formerly Victoria Terminus), Mumbai: This historic railway station is a UNESCO World Heritage Site and a prime example of Victorian Gothic and Indian architectural styles.

6.Rani ki Vav (Queen's Stepwell), Gujarat: Rani ki Vav is an intricately designed stepwell that was added to the list of UNESCO World Heritage Sites in 2014.






OBJECTIVES


- The aim of the database is to protect the cultural heritage as a whole by combating the looting, theft, illegal export and import and illicit trafficking of cultural property as well as the degradation and all other forms of deterioration of the heritage.

The following are the objectives of UNESCO

- Work towards quality education throughout the world. This is done to attain quality education and lifelong learning.
- To mobilize scientific knowledge and have key policies for sustainable development across the nations.
- Working towards changing and coping with the social and ethical challenges.
- Foster cultural diversity and work towards cultural sustainability.
- Foster intercultural dialogue and peace toward cultural sustainability.
- Build inclusive knowledge societies. This can be through communication and information across the nations.
- UNESCO works on global priorities like Gender Equality and Africa-related issues.

IMPACT ON ARCHITECTURAL CONSERVATION IN INDIA

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has played a significant role in promoting and supporting architectural conservation in India. Through its World Heritage program, UNESCO recognizes and protects cultural and natural sites of outstanding universal value, including important architectural landmarks.

- It provides finance, technical advice and equipment for the preservation of monuments and other important works of art.
- It provides encouragement to artistic creations in literature and fine arts.
- It works towards the cultural development through the medium of fine arts.
- It sends cultural missions. This helps in promoting peace and prosperity.
- It helps the developing and underdeveloped countries in developing communication.
- It improves the quality of the Press, films, and video devices.
- It conducts workshops, training programs, and capacity-building initiatives for local professionals and communities involved in heritage conservation.


Labourers work to restore the Seth Ram Lal Khemka Haveli in Old Delhi.


Provides finance, technical advice and equipment for the restoration.


Conducting workshops,capacity building initiatives for local professionals

MAJOR PROJECTS / INITIATIVES

UNESCO has been involved in various architectural projects and initiatives in India. These projects are primarily aimed at preserving and promoting India's cultural heritage and diverse architectural traditions.

1.The Qutub Minar, Delhi: Qutub Minar is a UNESCO World Heritage Site and one of the most iconic historical landmarks in India. UNESCO has been actively involved in the conservation and preservation of this ancient minaret and the surrounding archaeological complex.

2.Taj Mahal, Agra: The Taj Mahal, a UNESCO World Heritage Site and one of the Seven Wonders of the World, is an architectural masterpiece that UNESCO has been committed to protecting and conserving for future generations.

3.Mahabodhi Temple Complex, Bodh Gaya: The Mahabodhi Temple, where Gautama Buddha is said to have attained enlightenment, is a UNESCO World Heritage Site. UNESCO has been working to safeguard the ancient temple complex and its cultural significance.






CHALLENGES FACED & CONTRIBUTION TO PRESERVING THE COUNTRY'S ARCHITECTURAL HERITAGE

Challenges faced by UNESCO in India:

1. Urbanization and Development Pressure: Rapid urbanization and development projects often encroach upon or threaten historical sites and cultural heritage. Balancing modern development needs with the preservation of ancient structures poses a significant challenge.
2. Limited Financial Resources: Adequate funding for conservation and restoration projects can be scarce. UNESCO faces challenges in securing sufficient financial resources to undertake comprehensive preservation efforts for all the deserving sites.
3. Lack of Infrastructure and Expertise: Many heritage sites lack proper infrastructure and skilled conservation experts. This can hinder effective preservation efforts and lead to the deterioration of important historical structures.
4. Environmental Risks: India's diverse climate and environmental factors, such as natural disasters and pollution, can have adverse effects on heritage sites. Ensuring protection against environmental risks is a constant challenge.
5. Unregulated Tourism Impact: While tourism can support heritage sites, unregulated or excessive tourism can lead to physical damage and degradation of structures. Managing the balance between promoting tourism and preserving the integrity of the sites is essential.


Archaeological site and monument

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject : ELECTIVE 8 - Illustration as Design Narratives		**Session : I**	**Year : 2023-24**	
Course code: 921	**Credits: 03**	**Semester : 9**	**No of Periods per week : 1**	
Examination Scheme		**Sessional Marks -**	**Internal : 100**	**Total**
		Theory Paper -	**External Jury : 00** **Theory Paper : 00**	**Marks 100**

Faculty	Subject coordinator : Prof. Tushara Kaliyath

INTRODUCTION

The ELECTIVE 8 - Illustration as Design Narratives course equips students with essential skills to create compelling design narratives using illustrations. Through a blend of theory and hands-on assignments, students explore the power of visual communication, typography, and graphic design in conveying complex ideas. The course delves into the art of storytelling through images and words, emphasizing the role of illustrations in architectural narratives. Students learn to craft visually engaging content for their thesis projects, honing their abilities to communicate effectively in the realm of design. This introduction sets the stage for a creative journey where students transform concepts into captivating visual narratives.

AIM:

To provide students the skill and ability to create successful design narratives for their thesis projects through illustrations

OBJECTIVE :

1. To gain the fundamental skills and understanding needed for designing through Illustration
2. To study and understand how illustrations are effective design narratives
3. To enable the student the skills of Illustration – Infographics, Visual Communication, Communication Design
4. To learn how to Communicate design through Illustration, Typography, Graphic Design etc.

PROCESS - METHODS OF CONDUCTION OF CLASSES AND STUDIOS WRT AIM AND OBJECTIVES.

Objective: 1 Develop fundamental skills and comprehension required for designing through Illustration.

Method: Utilize a structured curriculum covering basic principles of drawing, sketching, and digital illustration techniques. Provide hands-on exercises and projects that allow students to practice and refine their illustration skills. Offer guidance and feedback during studio sessions to ensure students grasp fundamental design concepts.

Objective: 2. Explore and analyze the effectiveness of illustrations as design narratives.

Method: Engage students in case studies and discussions on how illustrations convey complex ideas and narratives. Analyze various illustration styles, techniques, and their impact on storytelling in design. Encourage students to critically evaluate existing design narratives and develop insights into effective visual communication strategies.

Objective: 3. Equip students with skills in Illustration, including Infographics, Visual Communication, and Communication Design.

Method: Integrate modules on Infographics, Visual Communication, and Communication Design into the curriculum. Provide training in software tools like Adobe Illustrator and InDesign for creating infographics and visual presentations. Conduct workshops and assignments focused on developing communication design skills through illustration and graphic elements.

Objective: 4. Learn to communicate design concepts effectively using Illustration, Typography, Graphic Design, etc.

Method: Offer specialized modules on Typography and Graphic Design within the course. Teach students principles of typography, layout design, and graphic composition. Assign projects that require students to apply learned design principles in creating visual narratives and design presentations. Provide opportunities for students to experiment with different design elements and techniques to enhance their communication skills.

Expected outcomes in terms of students understanding and skills:-

As the student works on their design project, they'll learn more about why illustrations are effective, what makes a good illustration, and how to plan and design an illustration for maximum impact. They'll explore various approaches to design visualization, and practice creating visualizations like plans, maps, charts, flow charts, and simple drawings in Photoshop/Adobe Illustrator will help students in their DD.

PROCESS - TOOLS AND TECHNIQUES TO BE USED FOR COURSE CONDUCTION.

The tools and techniques used for course conduction in the ELECTIVE 8 - Illustration as Design Narratives course are carefully selected to align with the course objectives and ensure a comprehensive learning experience. Here are the tools and techniques that will be utilized:

1. **Software Tools:**
    - Adobe Illustrator: For vector-based illustration and graphic design.
    - Adobe Photoshop: For raster-based image editing and digital painting.
    - Adobe InDesign: For layout design, typography, and creating visual presentations.
    - SketchUp: For 3D modeling and visualization.
    - AutoCAD: For architectural drafting and technical drawings.
2. **Traditional Tools:**
    - Drawing Supplies: Pencils, pens, markers, and sketchbooks for hand-drawn illustrations.
    - Painting Supplies: Watercolors, acrylics, and brushes for traditional painting techniques.
    - Model Making Tools: Cutting mats, cutting tools, rulers, and modeling materials for creating physical models.
3. **Digital Tablets and Pen Displays:**
    - Wacom Intuos, Wacom Cintiq, and similar devices for digital drawing and illustration.
4. **Visual Communication Tools:**
    - Infographics Software: Tools for creating visually appealing and informative infographics.
    - Presentation Software: PowerPoint, Keynote, and Prezi for creating engaging visual presentations.
5. **Communication Design Techniques:**
    - Typography: Principles of typography including font selection, hierarchy, and readability.
    - Layout Design: Techniques for organizing visual elements in a cohesive and visually appealing manner.
    - Graphic Design: Use of graphic elements such as icons, illustrations, and color schemes to enhance communication.
6. **Image Making Techniques:**
    - Digital Imaging: Techniques for editing, compositing, and manipulating digital images.
    - Collage: Creating collages using digital or traditional cut-and-paste methods.
    - Image Research: Tools and techniques for conducting image-based research related to design topics.
7. **Visualization and Presentation Techniques:**
    - Rendering: Techniques for creating realistic renderings of architectural designs.
    - Presentation Boards: Designing visually compelling presentation boards for design proposals.
    - Digital Presentations: Creating interactive and multimedia-rich digital presentations for design concepts.
8. **Collaboration and Feedback Tools:**
    - Online Collaboration Platforms: Tools for collaborative work, file sharing, and feedback exchange among students and instructors.
    - Feedback and Critique Sessions: Conducting regular feedback and critique sessions to review student work and provide constructive feedback.

HORIZONTAL INTEGRATION APPROACH WITH OTHER SUBJECTS IN THE SEMESTER:-

The ELECTIVE 8 - Illustration as Design Narratives course adopts a horizontal integration approach with other subjects in the semester to provide students with a holistic learning experience. By connecting with related disciplines such as Architectural Design, Urban Design, Environmental Studies, and Communication Design, this course emphasizes the interdisciplinary nature of design practice. For instance, students will apply their illustration skills to enhance architectural design narratives, incorporating cultural and contextual elements learned from Urban Design and Environmental Studies. Moreover, communication design principles explored in the course are directly applicable to presenting design concepts effectively in various contexts, aligning with Communication Design principles. This integration fosters a deeper understanding of how design disciplines intersect and complement each other, preparing students to tackle complex design challenges with a multidisciplinary perspective.

EXPECTED OUTCOMES IN TERMS OF STUDENTS UNDERSTANDING AND SKILLS:-

Expected outcomes in terms of students' understanding and skills in the ELECTIVE 8 - Illustration as Design Narratives course are aligned with course objectives and assignments, emphasizing proficiency, creativity, critical thinking, and practical application of design skills. These outcomes ensure a comprehensive understanding of the role of illustration in design narratives and its impact on effective communication in architecture.

CO1: Mastery of Fundamental Illustration Skills
CO1 focuses on developing students' proficiency in fundamental illustration skills, including drawing, sketching, and digital illustration techniques. This outcome emphasizes the importance of mastering these skills to create visually compelling design narratives.

CO2: Understanding of Effective Design Narratives
CO2 aims to deepen students' understanding of how illustrations contribute to effective design narratives. This outcome highlights the importance of storytelling, visual hierarchy, and narrative coherence in conveying complex ideas through illustrations.

CO3: Proficiency in Infographics and Visual Communication
CO3 focuses on enabling students to create engaging infographics and visual communication designs. This outcome emphasizes the use of graphic elements, typography, and layout design to effectively communicate design concepts.

CO4: Application of Illustration in Typography and Graphic Design
CO4 is designed to enhance students' skills in integrating illustration with typography and graphic design. This outcome underscores the importance of using illustration as a medium to enhance communication and visual impact in design presentations.

CO5: Practical Application of Design Principles in Thesis Projects
CO5 emphasizes the practical application of design principles learned in the course to thesis projects. This outcome encourages students to incorporate illustration techniques, storytelling, and

visual communication strategies into their design proposals, demonstrating their ability to apply learned skills in real-world design challenges.

List of minimum FIVE Course Outcomes (COs) based on which student's progress will be evaluated.	
1	**CO1: Mastery of Fundamental Illustration Skills**
CO1 focuses on developing students' proficiency in fundamental illustration skills, including drawing, sketching, and digital illustration techniques. This outcome emphasizes the importance of mastering these skills to create visually compelling design narratives.	
2	**CO2: Understanding of Effective Design Narratives**
CO2 aims to deepen students' understanding of how illustrations contribute to effective design narratives. This outcome highlights the importance of storytelling, visual hierarchy, and narrative coherence in conveying complex ideas through illustrations.	
3	**CO3: Proficiency in Infographics and Visual Communication**
CO3 focuses on enabling students to create engaging infographics and visual communication designs. This outcome emphasizes the use of graphic elements, typography, and layout design to effectively communicate design concepts.	
4	**CO4: Application of Illustration in Typography and Graphic Design**
CO4 is designed to enhance students' skills in integrating illustration with typography and graphic design. This outcome underscores the importance of using illustration as a medium to enhance communication and visual impact in design presentations.	
5	**CO5: Practical Application of Design Principles in Thesis Projects**
CO5 emphasizes the practical application of design principles learned in the course to thesis projects. This outcome encourages students to incorporate illustration techniques, storytelling, and visual communication strategies into their design proposals, demonstrating their ability to apply learned skills in real-world design challenges.	

EXPLAIN WHICH
1. SKILLS
2. KNOWLEDGE
3. UNDERSTANDING
ARE EXPECTED TO BE DEVELOPED UNDER THIS SUBJECT AND HOW?
PLEASE EXPLAIN WRT AIM AND OBJECTIVES IN 150 TO 300 WORDS.

The ELECTIVE 8 - Illustration as Design Narratives course aims to develop a range of skills, knowledge, and understanding among students, aligning with its specific aim and objectives.

Skills:
The course expects students to develop proficiency in designing through Illustration, including practical skills in drawing, sketching, and digital illustration techniques using software like Photoshop and Adobe Illustrator. They will learn to create aesthetically compelling design narratives, infographics, and visual communication materials. Hands-on studio sessions, workshops, and assignments are designed to foster these skills, providing opportunities for students to practice, experiment, and refine their illustration techniques.

Knowledge:
Students are expected to gain a deep understanding of how illustrations function as effective design narratives, conveying complex ideas and messages. They will explore design theories related to visual communication, typography, and graphic design, understanding their significance in creating impactful design narratives. The course also covers knowledge areas such as Infographics, Communication Design, and Visual Communication techniques, providing students with a comprehensive understanding of how to apply these concepts in their design projects.

Understanding:
The course cultivates critical thinking and analytical skills, prompting students to analyze and evaluate the effectiveness of illustrations in conveying design concepts. They develop a conceptual understanding of design principles, narrative coherence, and aesthetic appeal, ensuring their illustrations contribute meaningfully to their thesis projects. Through discussions, critiques, and case studies, students gain a deeper understanding of the role of illustration in design narratives and its impact on effective communication in architecture.

Overall, the course aims to equip students with practical skills in illustration, theoretical knowledge of design principles, and a deep understanding of how illustrations contribute to design narratives. This comprehensive approach prepares students to create visually compelling and impactful design narratives that enhance their thesis projects' narrative coherence and aesthetic appeal.

HOW AND TO WHAT EXTENT, THE AIM AND OBJECTIVES ARE ACHIEVED IN ALIGNMENT WITH THE COS.
PLEASE EXPLAIN IN DETAILS WRT THE
1. SKILLS
2. KNOWLEDGE
3. UNDERSTANDING DEVELOPED IN STUDENTS
4. APPLICATION

5. CREATIVITY
IN 200 TO 400 WORDS.
PLEASE DISCUSS EACH ASSIGNMENT TO EXPLAIN THE SAME WRT ABOVE POINTS AND COS.

The assignments in the ELECTIVE 8 - Illustration as Design Narratives course are strategically designed to achieve specific aims and objectives aligned with Course Outcomes (COs), focusing on developing skills, knowledge, understanding, application, and creativity in students.

Skills Development:
Assignment 1 introduces core visual design principles through exercises in drawing, sketching, and digital illustration techniques. This cultivates proficiency in CO1 (Mastery of Fundamental Illustration Skills) by emphasizing the importance of mastering these skills for creating visually compelling design narratives.
Assignment 2 delves deeper into visual elements and design theories, promoting critical analysis and adaptation of design principles. This reinforces CO2 (Understanding of Effective Design Narratives) and CO3 (Proficiency in Infographics and Visual Communication) by encouraging students to apply graphic elements, typography, and layout design effectively.
Knowledge Acquisition:

Each assignment contributes to students' knowledge acquisition by applying principles of design philosophies such as Modernism, Minimalism, and Gestalt Theory. For example, Assignment 3 focuses on transforming 2D to 3D forms, deepening students' understanding of design philosophies and promoting critical analysis of design movements, aligning with CO1 and CO3.
Assignment 4 emphasizes 2D to 3D transformation and the application of Gestalt Theory, fostering critical understanding and creative problem-solving skills. This addresses CO1 and CO4 (Application of Illustration in Typography and Graphic Design).
Understanding Development:

Assignments encourage students to critically analyze and synthesize design theories in practice. Assignment 4, for instance, fosters critical understanding and creative problem-solving skills by applying Gestalt Theory principles to design compositions, addressing CO1 and CO4.
Assignment 5 emphasizes practical application skills by having students create models based on visual compositions, aligning with CO1 and CO3.
Application Skills:

Practical application of visual design principles is emphasized in Assignment 5, where students create models based on visual compositions, aligning with CO1 and CO3.
Assignment 6 extends this application by exploring spatial and perceptual design principles in exhibition space design, fostering effective communication and rational assessment (CO5).
Creativity Enhancement:

Throughout the assignments, students are encouraged to think creatively and integrate diverse design elements. Assignment 6, in particular, focuses on holistic creativity by transforming 2D compositions into immersive exhibition spaces, aligning with CO4 and CO5.
In conclusion, each assignment in the course significantly contributes to achieving the aim and objectives. Students develop proficiency in visual design principles, critical thinking, application of design theories, creativity in problem-solving, and effective communication skills, aligning with the Course Outcomes and preparing them for the complexities of architectural design and visual arts.

EXTENT OF ADHERENCE TO THE COURSE PLAN AND SCHEDULE OF SUBMISSION PREPARED BEFORE THE COURSE STARTED. EXPLAIN IN 150 TO 300 WORDS.

In future iterations of the ELECTIVE 8 - Illustration as Design Narratives course, improvements can be made to enhance the learning experience. This includes integrating more hands-on workshops, fostering collaboration among students, incorporating sustainability principles into design narratives, and leveraging technology for virtual learning. These enhancements aim to provide students with a comprehensive understanding of illustration techniques, prepare them for real-world challenges, promote innovation, and facilitate effective learning and assessment.

PROCESS

Which are the innovative approaches adopted in this semester?

This semester in the ELECTIVE 8 - Illustration as Design Narratives course, several innovative approaches were adopted to enhance the learning experience. One such approach was the incorporation of virtual design studios, where students collaborated remotely using advanced design tools and digital platforms. This allowed for real-time feedback, interactive design critiques, and collaborative project work, fostering a dynamic and engaging learning environment despite physical distance. Additionally, guest lectures from industry experts provided valuable insights into current trends, best practices, and professional perspectives, enriching students' understanding and preparing them for the challenges of the design industry. Furthermore, the use of interactive simulations and multimedia content in lectures and assignments added a layer of interactivity and experiential learning, making complex concepts more accessible and engaging for students. Overall, these innovative approaches not only enhanced the quality of education but also prepared students for the digital age and evolving practices in design and illustration.

How and to what extent, the aim and objectives are achieved.

The aim and objectives of the ELECTIVE 8 - Illustration as Design Narratives course were achieved through a comprehensive and multifaceted approach. Firstly, the aim of providing students with the skill and ability to create successful design narratives through illustrations was realized by structuring the course around fundamental illustration skills, understanding effective design narratives, and applying skills in infographics, visual communication, and communication design. Secondly, the objectives were achieved through a combination of theoretical lectures, hands-on workshops, practical assignments, and industry collaborations. Students gained proficiency in using software like Photoshop and Adobe Illustrator, analyzed and evaluated the effectiveness of illustrations, applied skills in various design aspects, and synthesized their learning into content-rich illustrations for their thesis projects. Regular feedback, critique sessions, and assessments ensured that students met the course outcomes and demonstrated a high level of understanding, application, and creativity in their design narratives. Overall, the course effectively aligned its aim and objectives with teaching methodologies, assignments, and assessments, resulting in successful achievement of learning outcomes.

Extent of adherence to the Course Plan and schedule of submission prepared before the course started.

The adherence to the Course Plan and schedule of submission in the ELECTIVE 8 - Illustration as Design Narratives course was commendable, reflecting a well-structured and organized approach to course delivery. The course plan, devised before the course commencement, outlined clear objectives, topics, teaching methodologies, assignments, and submission deadlines. Throughout the semester, students consistently met the schedule of submission, completing and submitting assignments, projects, and presentations within the specified timelines. This adherence

demonstrated students' commitment, discipline, and time management skills, ensuring a smooth progression of learning activities and allowing for timely feedback and assessment. Additionally, faculty members' proactive monitoring and support further facilitated adherence to the course plan, resulting in an effective and successful learning experience for all participants.

Course Plan Submitted v/s completed				
Subject: Allied Design 1			Course Code: 102	
Faculty: Prof. Tushara Kaliyath				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	Topic - Introduction – Illustration as design narratives through type, color, and an underlying grid structure		YES	**CO1: Mastery of Fundamental Illustration Skills -** Developing proficiency in fundamental illustration skills like typography, color usage, and layout structure. **CO2: Understanding of Effective Design Narratives -** Exploring how different design elements contribute to effective design narratives, including typography and color choices. **CO3: Proficiency in Infographics and Visual Communication -** Introducing students to the basics of visual communication and how design elements convey messages effectively.
2	Visual Communication – through Expression Type i.e. Typography	Typographic Space and Conventions - Form and proportion of letters/words relate to the practical concerns of selecting and combining typefaces.	YES	**CO1: Mastery of Fundamental Illustration Skills -** Developing proficiency in typography and understanding its formal elements. **CO2: Understanding of Effective Design Narratives -** Studying how typography contributes to design narratives and **characterizes design expressions.** **CO4: Application of Illustration in Typography and Graphic Design -** Applying typography skills to create visually impactful design narratives.
3	Visual Communication – Typefaces and their Stories		YES	**CO1: Mastery of Fundamental Illustration Skills -** Continuation of developing proficiency in typography and understanding typefaces. **CO2: Understanding of Effective Design Narratives -** Deepening understanding of how typefaces convey stories and contribute to design narratives.

				CO4: Application of Illustration in Typography and Graphic Design - Further application of typography skills in design contexts.
4	Visual Communication – Putting Expression Type to Design Narrative	Typefaces and their Narratives - Tell stories through their association with different concepts, aesthetics, and ideas.	YES	**CO2: Understanding of Effective Design Narratives -** Focusing on how typefaces express meaning and contribute to design narratives. **CO4: Application of Illustration in Typography and Graphic Design -** Applying typefaces creatively in design narratives. **CO5: Practical Application of Design Principles in Thesis Projects -** Linking typefaces and narratives to thesis project themes for practical application.
5	Visual Communication – Making Meaningful Type	Typographic Poster	YES	**CO1: Mastery of Fundamental Illustration Skills -** Continuation of developing proficiency in typography and understanding typefaces. **CO2: Understanding of Effective Design Narratives -** Deepening understanding of how typefaces convey stories and contribute to design narratives. **CO4: Application of Illustration in Typography and Graphic Design** - Further application of typography skills in design contexts.
6 and 7	Communication Design - Fundamentals of Image making	Image making - Create their own series of images relating to their DD topic, experimenting with formal techniques AND to redesign the images to enhance their ability to communicate an idea through connotation	YES	**CO1: Mastery of Fundamental Illustration Skills -** Developing proficiency in fundamental illustration skills like typography, color usage, and layout structure. **CO2: Understanding of Effective Design Narratives -** Exploring how different design elements contribute to effective design narratives, including typography and color choices. **CO3: Proficiency in Infographics and Visual Communication -** Introducing students to the basics of visual communication and how design elements convey messages effectively.
8	Communication Design - Fundamentals of Shape, Design and Color	Image making - Abstract design from shapes, and use that element to create a repeating pattern design that will fit in the DD theme	YES	**CO1: Mastery of Fundamental Illustration Skills -** Continuation of developing proficiency in typography and understanding typefaces. **CO2: Understanding of Effective Design Narratives -** Deepening understanding of how typefaces convey stories and contribute to design narratives. **CO4: Application of Illustration in Typography and Graphic**

				Design - Further application of typography skills in design contexts.
9	Communication Design - Fundamentals of Composition	Image making - Create own abstract compositions according to DD topic that demonstrate knowledge and control of visual contrast and form of a poster	YES	**CO1: Mastery of Fundamental Illustration Skills -** Continuation of developing proficiency in typography and understanding typefaces. **CO2: Understanding of Effective Design Narratives -** Deepening understanding of how typefaces convey stories and contribute to design narratives. **CO4: Application of Illustration in Typography and Graphic Design** - Further application of typography skills in design contexts.
10	Illustration and Narratives – Image-based Research	Image making - Choose a Topic/subject based on their DD topic to research that will become the basis for their experiments and designs	YES	**CO1: Mastery of Fundamental Illustration Skills -** Utilizing research and investigation skills in image-based research. **CO2: Understanding of Effective Design Narratives -** Linking research findings to design narratives. **CO5: Practical Application of Design Principles in Thesis Projects -** Applying research insights to thesis project development.
11	Illustration and Narratives – Making Perceptions	Try different modes of representation, and try a hand at creating their own ranges of representation	YES	**CO1: Mastery of Fundamental Illustration Skills -** Experimenting with different modes of representation to convey narratives effectively. **CO4: Application of Illustration in Typography and Graphic Design -** Applying various representation modes in design narratives. **CO5: Practical Application of Design Principles in Thesis Projects** - Exploring diverse representation methods for thesis project development.
12 to 15	Illustration and Narratives – Composition is Relational	Compose simple spreads for their DD book and panel and make spreads using 10-20 of their best narratives from their assignments and compile them into an 8-10 pages book.	YES	**CO1: Mastery of Fundamental Illustration Skills -** Continuation of developing proficiency in typography and understanding typefaces. **CO2: Understanding of Effective Design Narratives -** Deepening understanding of how typefaces convey stories and contribute to design narratives. **CO4: Application of Illustration in Typography and Graphic Design** - Further application of typography skills in design contexts.
16 and 17	Discussion and Pre-Final		YES	**CO1: Mastery of Fundamental Illustration Skills -** Utilizing

				research and investigation skills in image-based research. **CO2: Understanding of Effective Design Narratives -** Linking research findings to design narratives. **CO5: Practical Application of Design Principles in Thesis Projects -** Applying research insights to thesis project development.

Structure for the process is detailed as below:

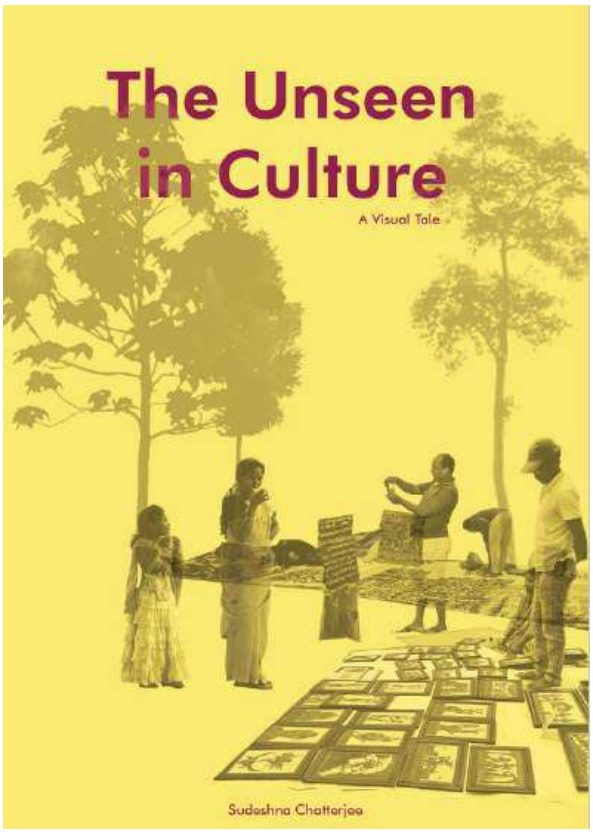
1. VISUAL COMMUNICATION
   i. Typographic Space and Conventions - form and proportion of letters/words relate to the practical concerns of selecting and combining typefaces.
   ii. Typefaces and their Narratives - —tell stories—through their association with different concepts, aesthetics, and ideas.
   iii. Final output was in the form of Typographic Poster

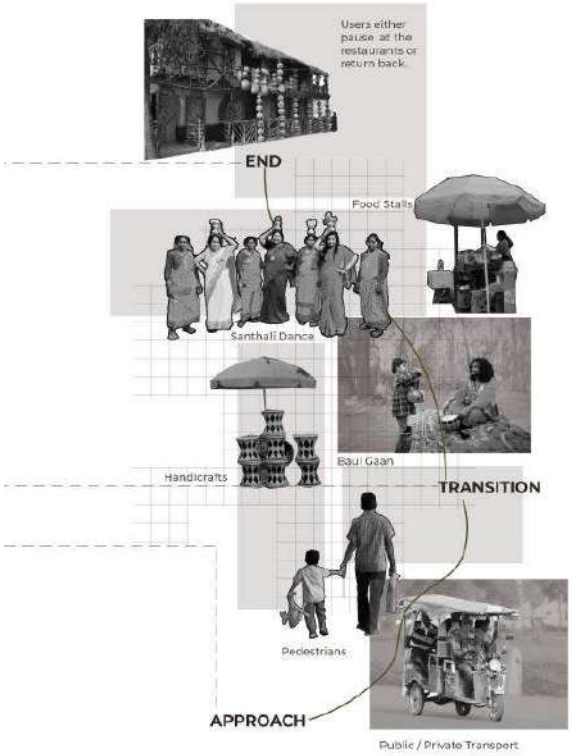
2. COMMUNICATION DESIGN
   i. Image making - creating their own series of images relating to their DD topic, experimenting with formal techniques
   ii. Image making - redesigning the images to enhance their ability to communicate an idea through connotation
   iii. Image making - Abstract design from shapes, and use that element to create a repeating pattern design that will fit in the DD theme
   iv. Image making – creating their own abstract compositions according to DD topic that demonstrate knowledge and control of visual contrast and form of a poster

3. ILLUSTRATION AND NARRATIVES
   i. Image making - Choosing a Topic/subject based on their DD topic to research that will become the basis for their experiments and designs
   ii. Try different modes of representation, and try a hand at creating their own ranges of representation with images

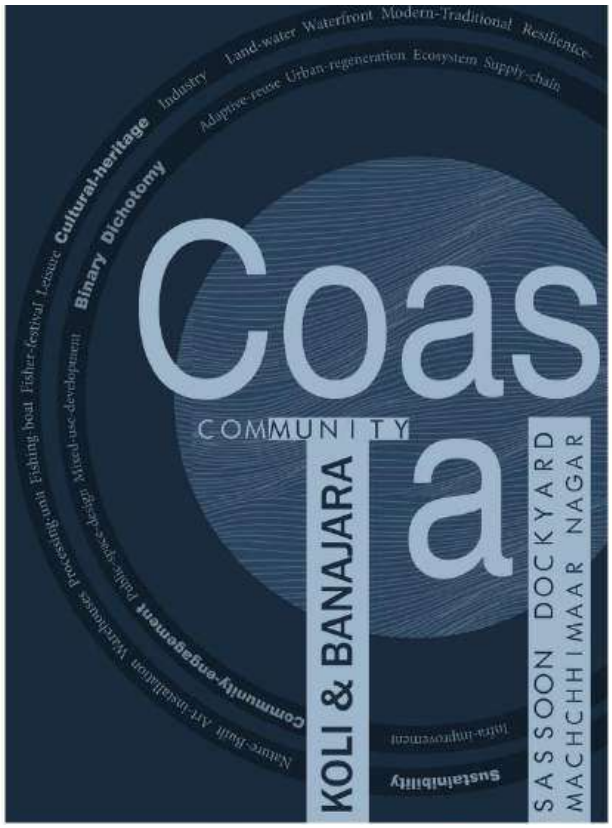
4. DD BOOK AND PANEL
   i. composing simple spreads for their DD book and panel making spreads using 10-20 of their best narratives from their assignments and compile them into an 8 -10 pages book.
   ii. In the course of the entire semester this elective Illustration as Design Narratives provided a guidance and basis to the DD research and book. The Elective Studio was divided into smaller topics/assignments wherein the students were progressively working towards the main booklet design.

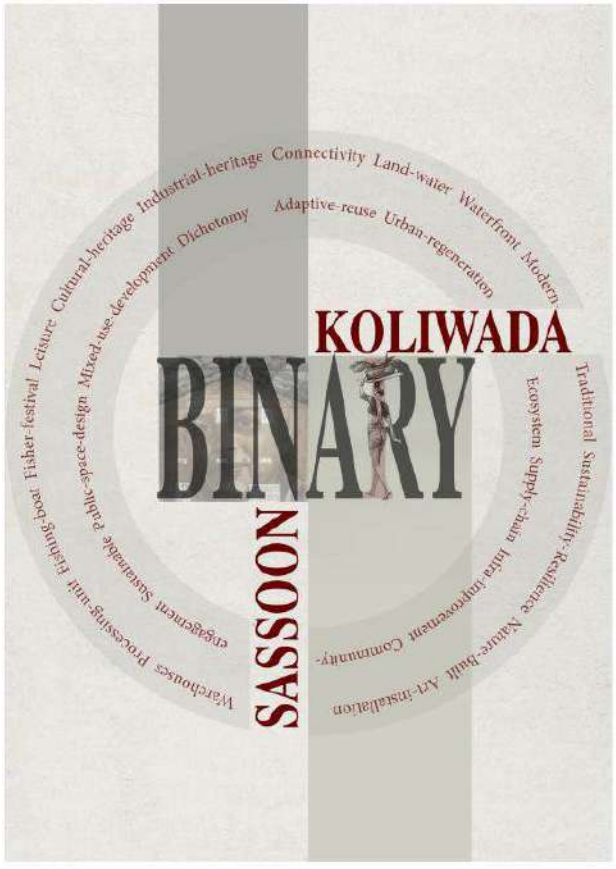
STUDENTs WORK
FINAL BOOKLET
Student - SUDESHNA CHATTERJEE

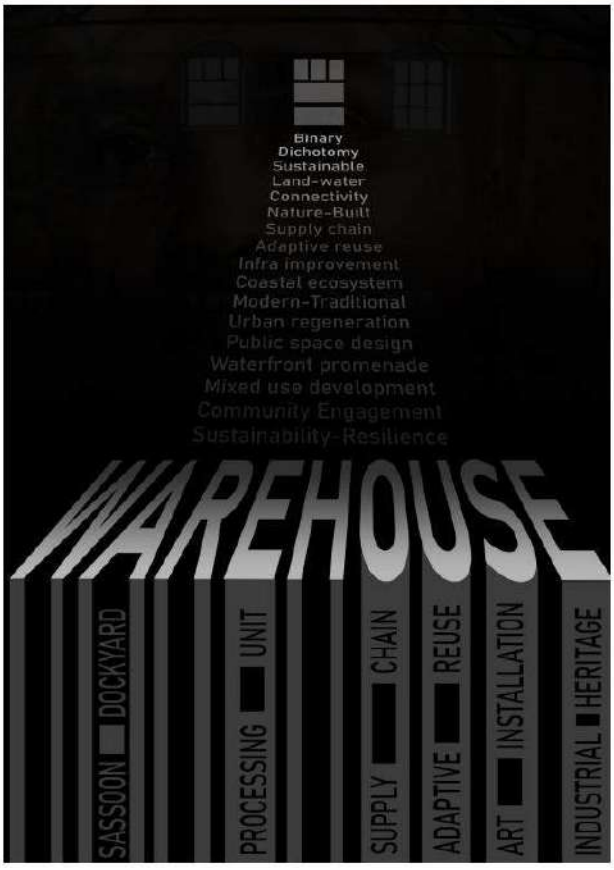




Student – MUDRA DHURI





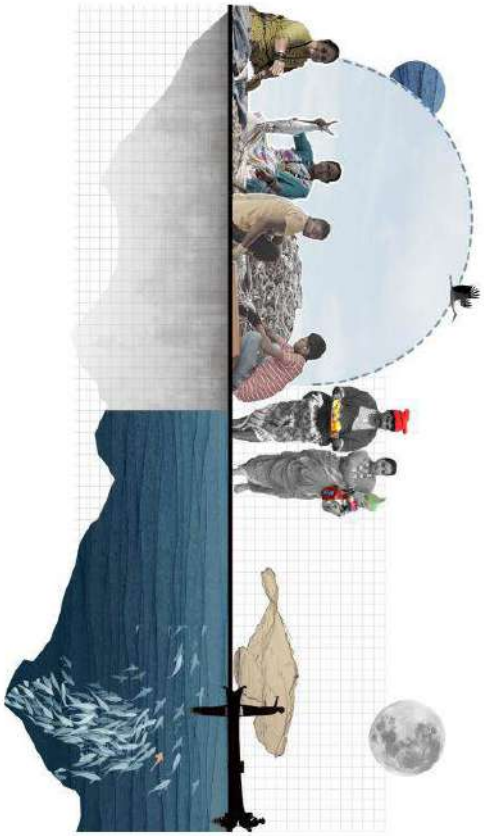


04

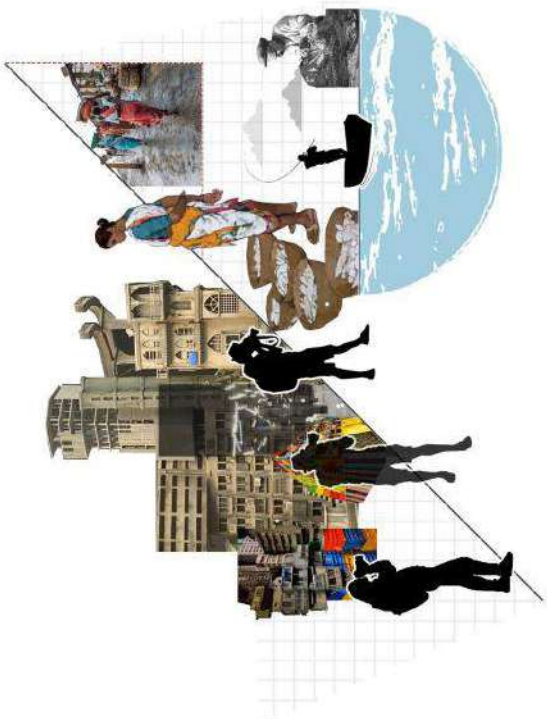
Montage Magic

Typography's Evolution in Poster Design

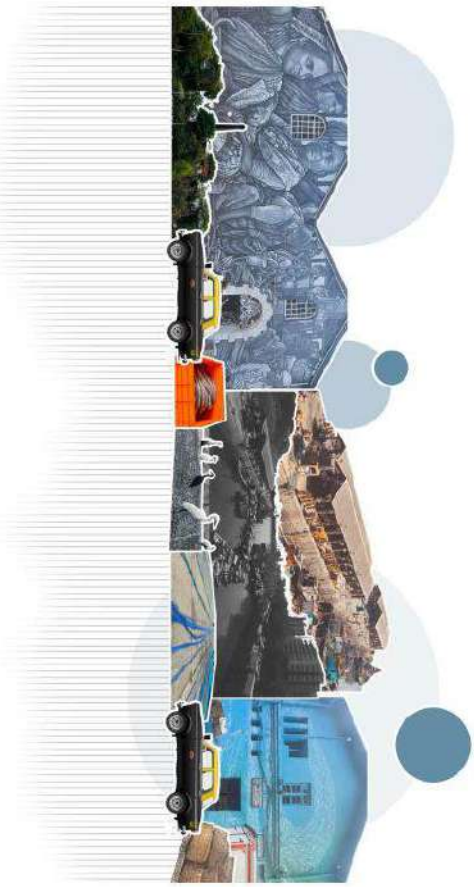
Through strategic placement, layering, meticulous attention to detail and usage of images, typographic posters seamlessly merge into a harmonious visual mosaic.



COMMUNITY - Showcasing various activities and culture w.r.t different times

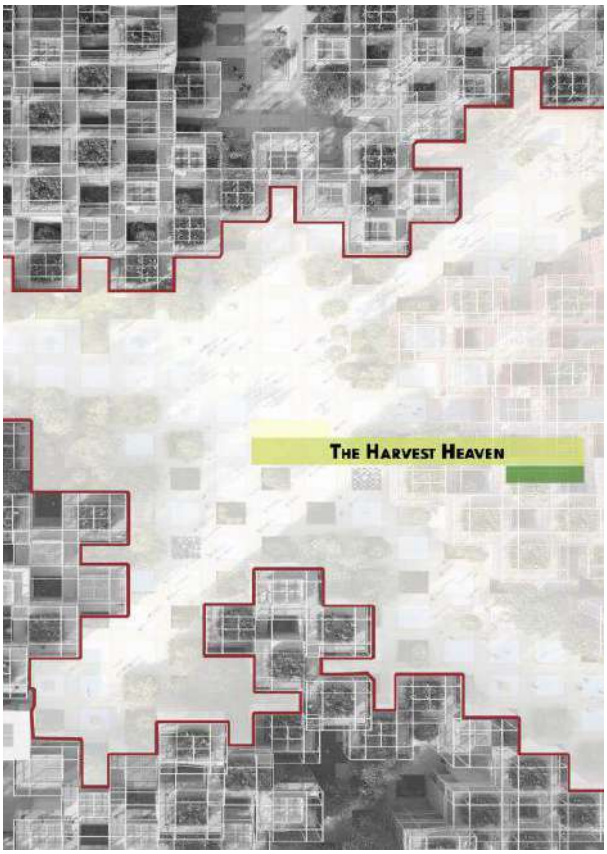


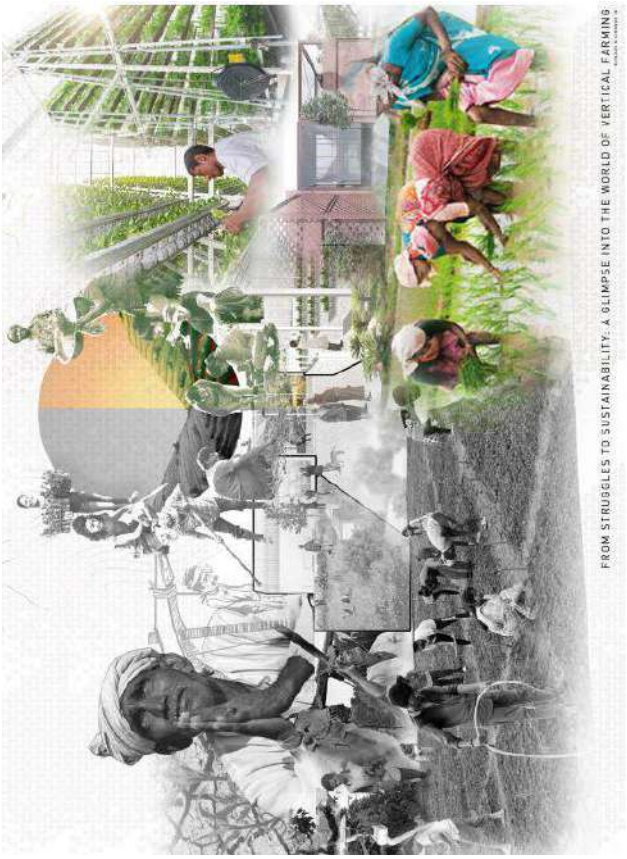
USER - Typologies w.r.t to locations and purposes

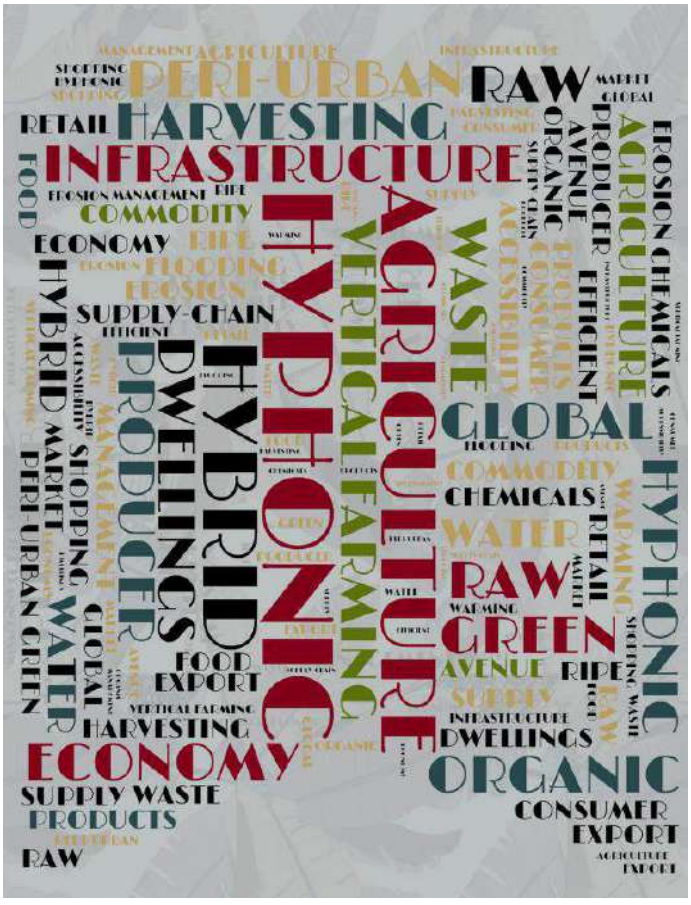


LOCATION

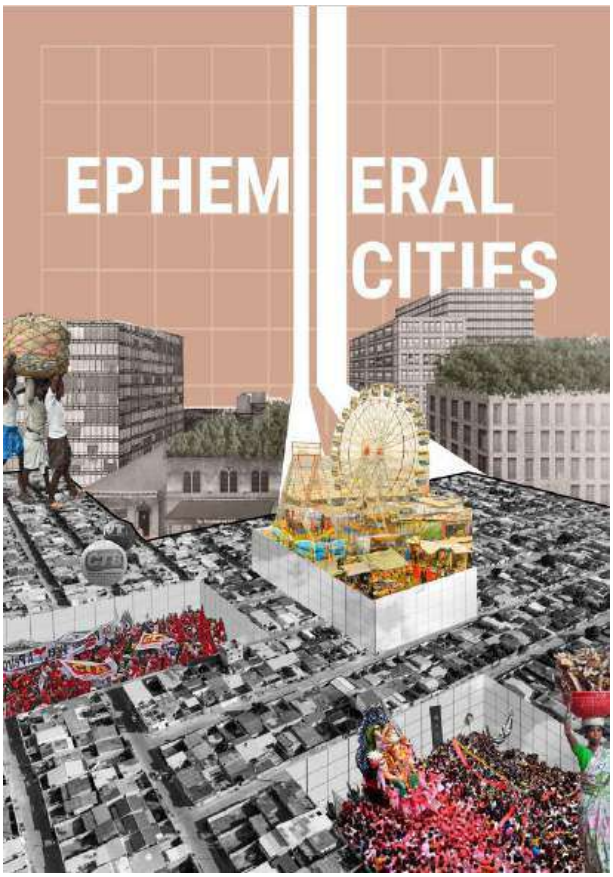
Student – Kundan N Kirange

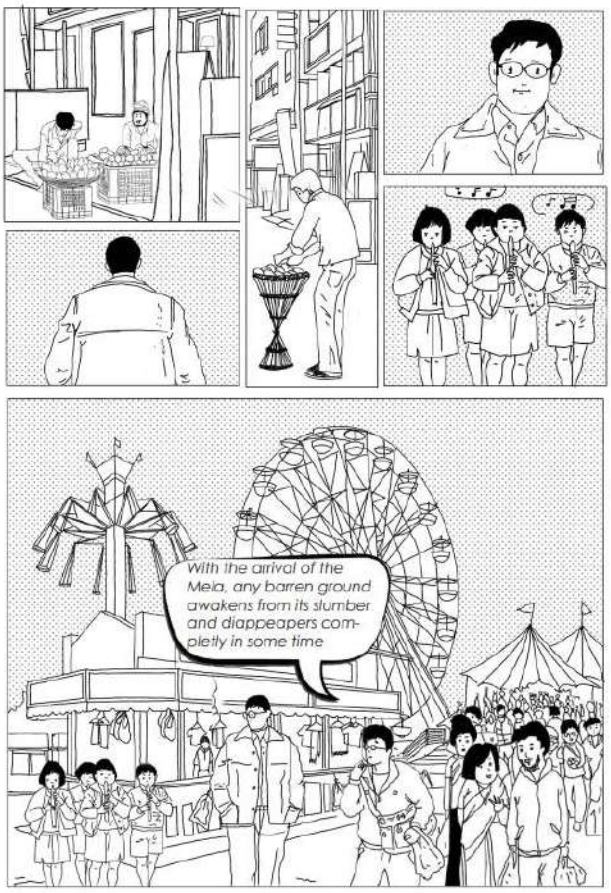


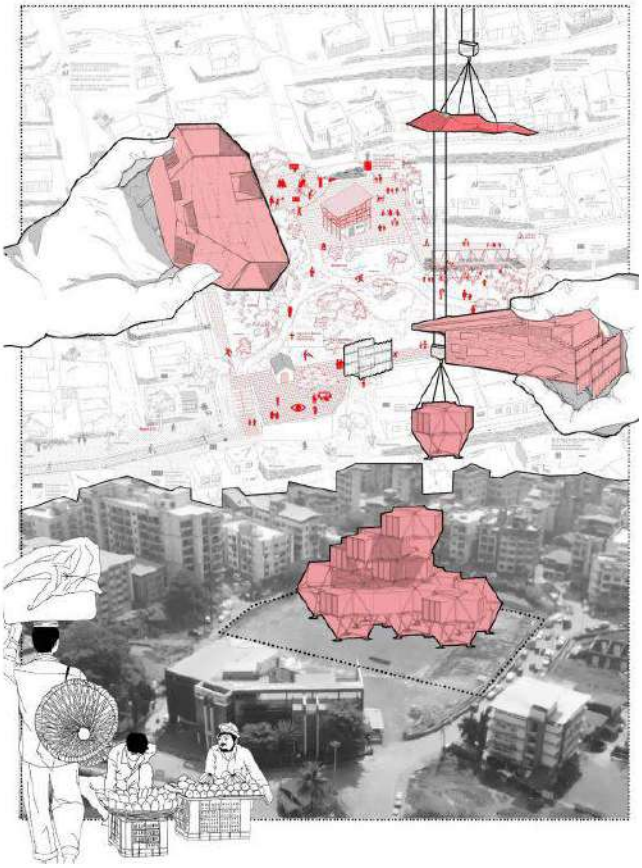




Student – SHRAVYA KARUTUR





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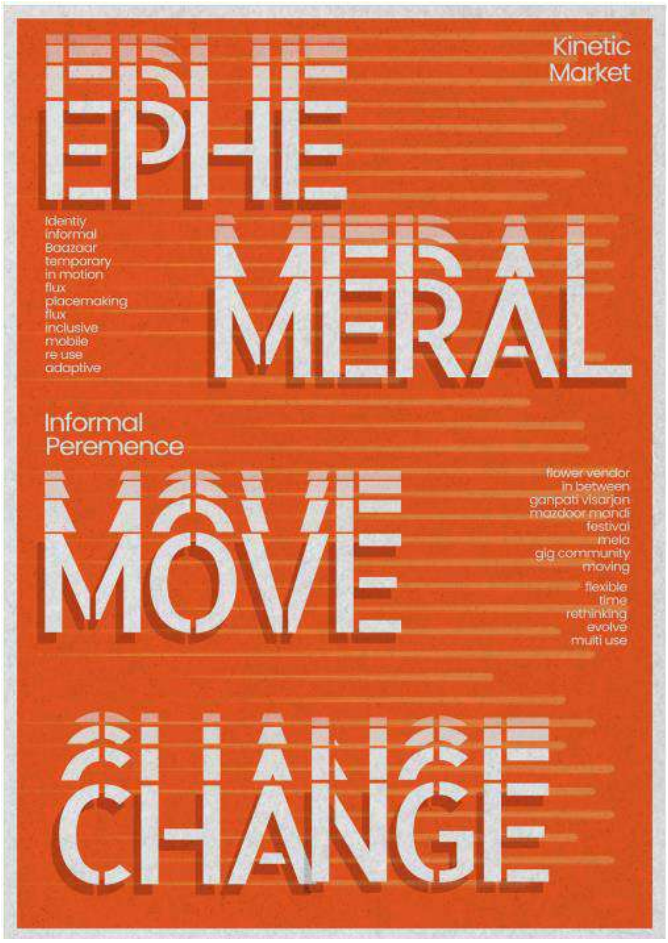
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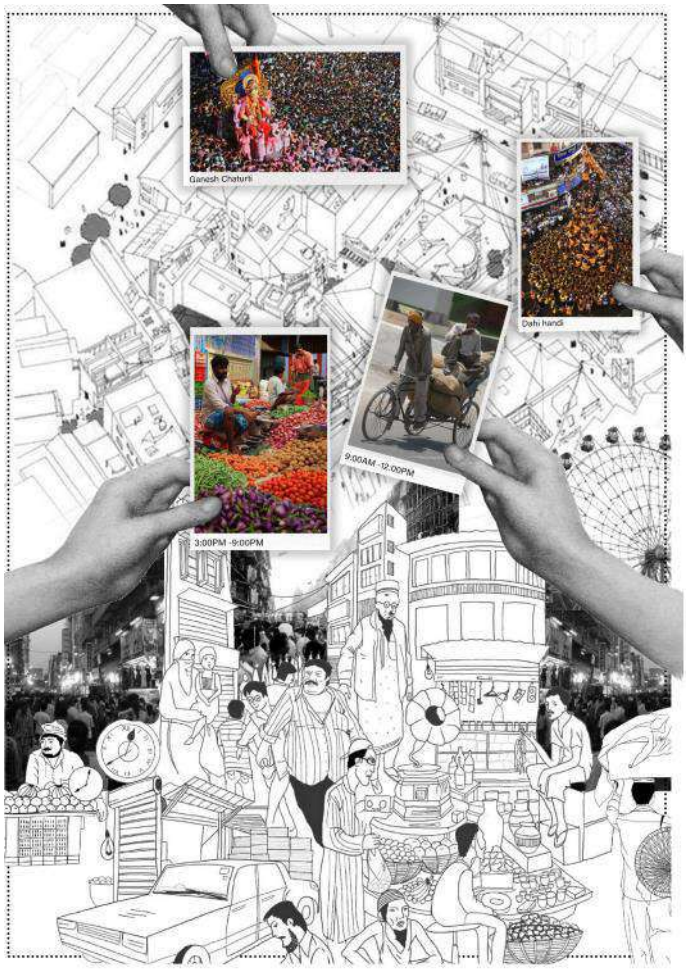
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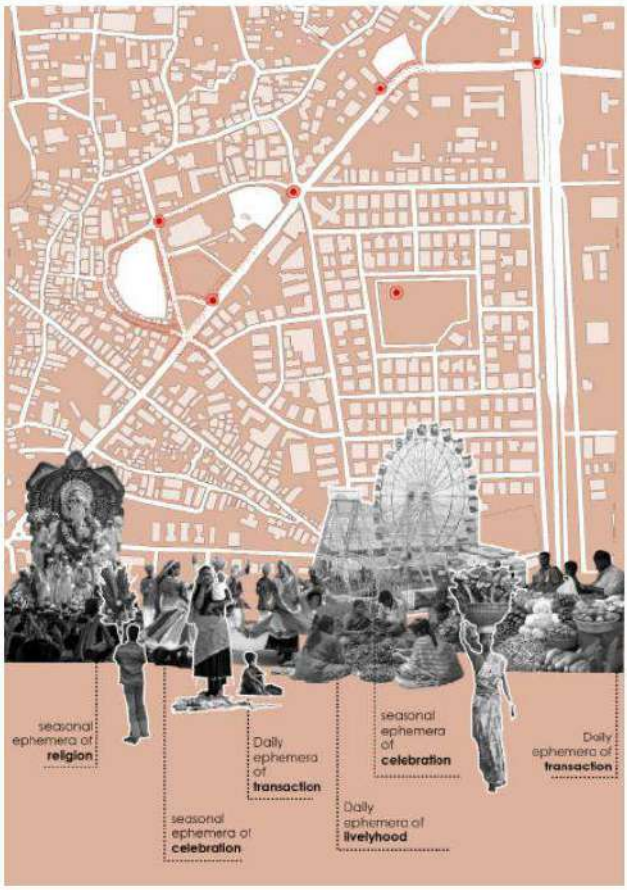
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Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject Elective 10 (BIM)		**Term: II**	**AY: 2023-24**	
Course Code: BARE 1021	**Credits : 4**	**Semester: X**	**No of Periods per week : 4**	
Total Marks: 100	**Internal : 100**	**External : 0**	**Theory Paper :**	**0**

Faculty:	Subject coordinator : Prof. Prashant Borge Team Members: Prof .Neha Deshpande Prof. Prathamesh Deshpande

Attach Following documents:

Photographs of students work wrt each assignment
Format 12 - SWD ppt in given format - 2 best works and 4 average works of each assignment
Students attendance of semester scanned
Format 3 -Topics Covered format scanned

INTRODUCTION:

BIM, or Building Information Modeling, is a digital method that facilitates collaboration among architects, engineers, and construction experts to develop precise and intelligent 3D models of buildings and infrastructure. These models are enhanced with extensive data like material details, cost projections, and construction timelines, aiding in informed decision-making throughout a project's lifespan.
Revit stands out as a leading BIM software, offering a robust platform for creating, assessing, and simulating building designs within a virtual realm. It's a crucial tool for both aspiring architects and seasoned professionals, empowering them to craft accurate and intricate building models suitable for design analysis, construction documentation, and project oversight.

Methodology

Aim:
The course will focus on developing the essential skills required for working with BIM and Revit, including model creation and management, data extraction and analysis. The aim is to equip students with the knowledge and tools necessary to work effectively in a professional environment.

Objectives:-

- To understand the principles and concepts of Building Information Modeling (BIM) and its role in the architecture industry.
- To develop skills in creating accurate, detailed, and intelligent 3D models of buildings using Revit software.
- To learn how to generate construction documentation and collaborate with other stakeholders in the building process using BIM.
- To become proficient in data extraction and analysis for making informed decisions throughout the project's lifecycle.
- To learn about project timeline and costing.
- To develop an understanding of the advantages and limitations of BIM and Revit in architecture and how to apply them to different project scenarios.

PROCESS:

Methods, Tools and techniques used for course conduction.
The course followed a structured approach that combined theoretical concepts, hands-on exercises, and real-world examples to ensure that students had a comprehensive understanding of the subject.
The course began by introducing the students to the concepts of BIM and Revit software. They explained the history of BIM, its advantages over traditional CAD software, and the different BIM software available in the market. The lectures covered the basics of Revit, including the interface, tools, and basic modeling techniques.
The lectures were designed to provide a strong theoretical foundation, hands-on experience with the software, and real-world examples to help students understand how BIM and Revit are used in the industry. The combination of these approaches helped ensure that students had the necessary skills, knowledge, and understanding required for a successful career in architecture.

Innovative approaches adopted in this semester.
Active Learning:
The active learning strategies were incorporated, such as group discussions, case studies, and problem-based learning activities. These approaches helped students apply their knowledge to real-world scenarios, promoting deeper learning and a better understanding of the subject.

Collaborative Assignments:

The instructor included a few collaborative assignments in the course to promote teamwork and collaboration. These assignments required students to work in teams and collaborate on design projects, helping them develop essential project management and communication skills

Approaches used to encourage library usage by students and faculty.

The library provided access to a vast range of online resources, including e-books, journals, databases, and research tools. These resources were available 24/7, and students and faculty could access them

How and to what extent, the aim and objectives are achieved.

The BIM course using Revit had a significant impact on students' thesis projects. By providing students with a comprehensive understanding of BIM software and its application in the architecture industry, the course helped them to develop the necessary skills and knowledge required for successful thesis projects.

One way in which the course helped students in their thesis projects was by providing them with the skills to create complex building models. Revit's modeling tools enabled students to create detailed and intricate models, which could be used to explore design options and test ideas. This allowed students to create more ambitious and innovative designs for their thesis projects, which could then be refined and improved using BIM software.

The course helped students in their thesis projects by providing them with the skills to create construction documentation using BIM software. This enabled students to create accurate and detailed construction documents, which could be used to communicate design intent to contractors and construction teams. This helped to ensure that their thesis projects were constructed accurately and to the desired specifications.

Extent of horizontal and vertical integration achieved.

Thesis project Building construction and services part are to be covered as per technical aspect. Initial digital tools and techniques subject helpful to going into details in BIM.

Extent of adherence to the Course Plan and schedule of submission prepared before the course started.

Adherence to the course plan and schedule of submission was an essential aspect of the BIM course using Revit. The course plan was prepared before the course started and included the topics to be covered in each lecture, the assignments to be completed, and the schedule for submission of assignments. The schedule of submission was designed to ensure that students had enough time to complete each assignment and submit it before the deadline.

The adherence to the course plan and schedule of submission was high throughout the course. Lectures were conducted as per the course plan, and all the topics were covered within the allocated time. The assignments were also completed within the given time frame, and students submitted their assignments on or before the deadline.

To ensure that students adhered to the course plan and schedule of submission, reminders and updates were provided regularly. Students were informed of upcoming assignments, deadlines, and any changes in the course plan through announcements in class. This helped to keep students

on track and ensure that they met the requirements of the course.
In cases where students were unable to meet the deadlines, they were required to submit a request for an extension in advance. The requests were reviewed on a case-by-case basis, and extensions were granted only for genuine reasons.

Explain with the help of each assignment and students work.
Assignment 1: Understanding of BIM model with technical aspects
Assignment 2: Effects of miscellaneous activities on the timeline of the project
Assignment 3: How virtually construct model to avoid the real life clashes on site. Also co working on the model.
Assignment 4: Introduction to LOD and the impact of LOD drawings in the project.
Assignment 5: Timeline of the project, cost of the project, and BIM execution plan. This aspect decides the overall progress of the project. E.g. Thesis project study and trajectory of construction.

Scope for improvement in future (next year).
To take the example of live project with detail LOD. Incorporating more practical examples:
Although the course included hands-on assignments, incorporating more practical examples of BIM software's application in real-life construction projects can help students understand its importance in the industry better.
Providing more individualized feedback: While feedback was provided on the assignments, providing more individualized feedback on students' strengths and areas of improvement can help them improve their skills better.
Including more industry experts as guest speakers: Inviting more industry experts as guest speakers can help students gain insights into the latest trends and practices in the industry, and how BIM software is being used in real-world construction projects.

Mention if any guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject.
Not applicable

Course Plan Submitted v/s completed				
Subject: Elective SEM 10			**Course Code** : BARE 1021	
Faculty:				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**

1	Introduction to BIM	Assignment - 1 – Report on BIM	Yes	CO1
2	Waste of Non Value added works	Assignment – 2 - Thesis project (identification of wastage activities)		CO1
3	Virtual Design and construction	Assignment – 3 Thesis project flow chart of construction		CO5
4	Level of Detail	Assignment – 4 LOD 300 to 400 fenestration, roof or other exclusive building component detailing.		CO4,CO3
5	Flow of construction	Assignment – 5 Estimation of time period required for real life construction of thesis project and record of activities for the same.		CO2

How COs are aligned to each lecture and assignment and assess the outcomes w.r.t the same: (Explain in detail)

Assignment - 1 – Report on BIM (CO2) – Report on Building helps students the nuances of BIM therefore making them understand the basics of BIM. Through BIM, students gain invaluable benefits such as improved collaboration skills by working closely with peers and industry professionals. Additionally, BIM aids in visualizing complex designs and construction processes, fostering creativity and a deeper understanding of the subject matter. The ability to simulate real-world scenarios using BIM further hones students' problem-solving skills, preparing them for challenges in their future careers. Moreover, BIM facilitates data-driven decision-making processes, teaching students to analyze information effectively and make informed choices.
CO2

Assignment - 2 - Identification of wastage activities through BIM (CO1) - BIM enables better planning and optimization of construction workflows. Through simulation and scheduling features, BIM allows project managers to identify potential bottlenecks and optimize resource allocation, thereby reducing downtime and material wastage. Therefore assignment 2 helps in understanding the concept of wastage during construction.

Assignment – 3 - Thesis project flow chart of construction (CO5) **–** Students had to work upon their own thesis project therefore understanding the flow of construction activities and decide the timeline of the project. This assignment makes them ready for the visualization of their thesis project timeline.

Assignment – 4 - LOD 300 to 400 fenestration, roof or other exclusive building component detailing. (CO4, CO3)**-** To develop detailed drawings and specifications for fenestration, roofs, or exclusive building components at LOD 300-400.
To understand the technical considerations, material choices, and construction methods relevant to these building elements.
To explore industry standards, best practices, and regulations governing the design and development of fenestration, roofs, or exclusive components.
To enhance your skills in CAD software, BIM tools, and technical documentation for architectural detailing.

Assignment – 5 – (CO2) **Estimation of time period required for real life construction of thesis project and record of activities for the same. -** This assignment focuses on estimating the construction time required for a thesis project and creating a detailed activity record. Students will define the project scope, develop a Work Breakdown Structure (WBS), identify construction activities, estimate durations, sequence tasks, allocate resources, and create a project schedule using a Gantt chart or similar tool. The submission includes a comprehensive report detailing the time estimation process, activity record, schedule, and reflective analysis on challenges and lessons learned. The assignment aims to enhance students' project management skills, time estimation abilities, and understanding of construction scheduling principles within realistic project constraints.

Attendance Record:

SEM X (FIFTH YEAR) B.ARCH 2023-24

Month : December 2023. Subject: Compulsory Elective (BIM) Faculty: Jayaraj, Vrinda, Nehad, Prathamesh.

Assignment (Topic) : Attendance.

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
			4/12/23	11/12/23	18/12/23	8/01/24	17/01	24/01	31/01/24	28/01/24	6/3/24	13/3	20/3
1	2019PA0011	AHALE PRASHANSA PRASANNA	P	P	A	A		A	P	A	A	4	
2	2019PA0018	ALANGEKAR SHREYA VIJAY	A	A(L)	A	P		A	P	A	A	3	
3	2019PA0031	BALSARAF PARTH BALIRAM	A	P	P	A	P	A	P	A	A	4	
4	2019PA0064	BHALINGE SRUSHTI SUDHIR	P	P	A	A		A	P	A	A	4	
5	2019PA0009	BINITHA SUSAN BENCY	A	A	A	P		P	A	A	A	3	
6	2019PA0036	CHATTERJEE SUDESHNA INDRANATH	P	P	A	P		P	P	A	A	6	
7	2019PA0058	CHAUDHARI SHRUTI SANJAY	A	A(L)	P	A		A	P	A	A	3	
8	2019PA0028	CHAVAN SANSKAR JANARDHAN	A	P	A	A		A	P	P	A	4	
9	2019PA0088	CHOUDHARY BHAVANA MANARAM	A	A	P	A		P	A	A	A	2	
10	2019PA0073	DALVI ATHARV PRAKASH	P	P	P	P	P	P	A	P	A	7	
11	2019PA0020	DALVI GAURI SHIVAJI	P	P	P	A		P	P	A	P	7	
12	2019PA0010	DAS SUGANDHA	P	A	P	A		P	A	A	P	5	
13	2019PA0066	DESHMUKH SUSHMITA ANIL	P	A	P(L)	P		P	P	P	A	6	
14	2019PA0025	DESHPANDE SAKSHI TUSHAR	A	P	A	A		A	A	A	A	2	
15	2019PA0022	DHOLE SAGAR SANTOSH	A	A	P	P		A	P	P	A	5	
16	2019PA0052	DHURI MUDRA SUNIL	A	A(L)	P	A		A	P	A	A	3	
17	2019PA0043	FAISAL SHAH	P	P	A	A		A	A	A W.P	A	4	
18	2019PA0006	GHARAT MANASI BALIRAM	P	A	P	A		P	P	A	P	6	
19	2019PA0012	HAJARE SALONI RAVINDRA	P	A	A	P		A	P	A	-	4	
20	2019PA0026	JADHAV ANISHA KRISHNAT	P	A	P	A		P	P	A	P	6	
21	2019PA0044	JADHAV SHARVARI KISHOR	A	P	P	P		A	A	P	P	6	
22	2019PA0078	JAGDALE KIRTI KASHINATH	A	A	P	P		A	P	P	A	5	
23	2019PA0075	JAISWAR SHAILESH CHHOTELEL	P	A	A	A		A	A	P	P	4	
24	2019PA0037	KALE HARSHWARDHAN SITARAM	P	P	A	A	P	A	P	P	A	5	
25	2019PA0007	KANDATHIL VAISHNAVI ANIL KUMAR	P	P	P	P		P	A	A	A	6	
26	2019PA0041	KASU FAIZ NISHAR	P	P	P	A		P	A	P	A	6	

SEM X (FIFTH YEAR) B.ARCH 2023-24

Month : Subject: Faculty:

Assignment (Topic) :

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
				11/12/23									
27	2019PA0057	KHADSE PRAJAKTA SANJAY	A	A(L)	P	A		A	P	A	A	3	
28	2019PA0032	KIRANGE KUNDAN NITIN	A	P	P	A		A	A	P	A	4	
29	2019PA0008	LAKSHMI SAI SHRAVYA KARUTURI	P	P	A	P		A	P	A	A	5	
30	2019PA0079	MALI ANJALI ABASAHEB	A	A	P	P		A	P	A	A	4	
31	2019PA0054	MEHRA SHAGUN SURENDRA	A	P	A	A	P	P	A	A	A	3	
32	2019PA0065	MEHTA RAHUL DHANESHWAR	P	P	P	P		A	P	P	A	7	
33	2019PA0051	MOGHE SHUBHAM ASHWIN	P	P	P	P	P	A	P	P	A	7	
34	2019PA0076	MORBEKAR SUMIT NARESH	P	P	P	P		A	A	P	P	7	
35	2019PA0021	MORYE SIDDHANT MILIND	P	P	P	A		P	A	A	P	6	
36	2019PA0024	NALAWADE VIJAYRAJ NIVAS	P	P	A	P	P	P	A	P	A	6	
37	2019PA0070	NAMBIAR ABHILASH BALAKRISHNAN	P	A	P	A		A	A	A	A	3	
38	2019PA0003	NISHAD NUPUR RAJESH	P	P	P	P		P	A	P	P	7	
39	2019PA0014	PANCHAL HARSH SUHAS	A	A	A	P		A	P	A	A	3	
40	2019PA0056	PATEL DARSHAN ASHVIN	P	A	A	P		A	A	P	P	5	
41	2019PA0040	PATIL ARATI PRAKASH	A	A	P	P		A	A	P	A	4	
42	2019PA0017	PATIL MANASI SURENDRA	P	P	P	A		P	A	A	A	5	
43	2019PA0059	PATIL SHIVAM DEEPAK	P	A	A	P		P	P	P	A	6	
44	2019PA0001	PAZHUMALIL VARSHA PRADEEP	P	P	P	A		P	P	P	P	8	
45	2019PA0048	PICHIKA LAHIRI RAJU लाहिरी	A	A	P	P		P	P	A	A	5	
46	2019PA0039	PRASAD SHUBHAM BIJAY	A	A	A	A		A	A	P	A	2	
47	2019PA0005	PUROHIT ISHA MAHESH	A	A	P	A		A	A	A	A	2	
48	2019PA0034	RITIKA RAMESH (Provisional Admission till Declaration of Sem 8 Examination result)	A	A	P	A		A	A	A	A	1	
49	2019PA0038	SALWATKAR AVANTI DHARMARAJ	A	P	A	A		A	P	A	A	3	
50	2019PA0053	SAMOTA KHUSH RAJENDRA	P	A	A	P		A	A	P	P	5	
51	2019PA0015	SATAM KSHITIJ SANDEEP	P	A	A	P		A	P	P	A	5	

SEM X (FIFTH YEAR) B.ARCH 2023-24

Month : ____________ Subject: ____________ Faculty: ____________

Assignment (Topic) : ____________

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
				11/12/23	18/12/23.								
52	2019PA0023	SAWANT AISHWARYA RAVASAHEB	A	P	·A	P	P	A	P	P	A	5	
53	2019PA0013	SHAH SRUSHTI URMISH	P	P	·P	A		A	A	P	P	6	
54	2019PA0080	SHARMA ANIRUDH PAWAN	P	P	P	A P.		A	P.	A	A	6	
55	2019PA0004	SHIBU ASHWIN	A	A	A	A	P	P	A	A	A	2	
56	2019PA0074	SINGH NIDHI SANJAY	A	A	A	P		A	A	A	A	2	
57	2019PA0027	SINGH SWATI SANJAY	A	P	P	A		P	P.	P	A	6	
58	2019PA0077	SIVASANKARAN SNEHA	A	P	A	P		A	A	P	A	4	
59	2019PA0035	SOMVANSHI NIKHIL GAJANAN	A	P	A	A		A	A	A	A	2	
60	2019PA0060	SURYATEJA MUTTA GURUDATTASAI	P	P	P	P	P	P	A	½ P.	A	7	
61	2019PA0046	TAMBE ATHARVA MADHUKAR	A	P-	P	P	P	A	P	P	A	6	
62	2019PA0019	THAKUR SAKSHI VIKAS	A	A·	P	P		A	P	A	A	4	
63	2019PA0016	THAKUR SHREYA	A	A	A·	A		A	P	P	P	4	
64	2019PA0002	V.S.V.S VINDHYAVALLI DEVI	A	P	P	P		A	A	P	A	5	
65	2019PA0033	VAIDYA ATHARVA RAHUL	P	A	A	P	P	A	P	P	A	5	
66	2019PA0050	VALANJU HARSH RAJENDRA	A	P	P·	P		A	P	A	A	4	
67	2018PA0001	NAIR HARITA RAMESH	P	P	P	A		P	A	A	A	5	
68	2018PA0041	NANNAWARE ABHIRVA VIJAY	A	A	A·	A		A	P	A	A	2	
69	2008PA1300	JERY JOHN	P	P	P	A	P	A	P	A	A	5	
70	2017PA0063	KONDE KAUSTUBH UDAY	·A	A	A	P		A	P	A	A	3	
71	2015PA0043	RAMESH ASHWIN	P	P	A	P		A	P	P	P.	7	
72	2018PA0025	PATKAR AMRITA	P	A	P	P	P	A	A	A	P	6	
73	2017PA0106	SHARMA VAISHALI GANPAT (Provisional Admission till Declaration of Sem 8 Examination result)	A	P	P	A·		A	A P.	P.	A	·4	

4/12/2023. 11/12. 18/12 8/01/24 19/01. 06/02

Assignment 01:BIM Report

ELECTIVE – BIM

BIM REPORT / FIFTH YEAR (SEM 10) / SHRUTI CHAUDHARI / ROLL NO. 07

1. **What is Bim?**
   Ans. Building Information Modeling (BIM) is a digital approach to design, construct, and manage buildings and infrastructure. It involves creating a detailed 3D model that goes beyond geometry to incorporate data about materials, costs, energy performance, and more. BIM facilitates collaboration among stakeholders, allowing real-time sharing of information and reducing errors. It is used throughout the entire lifecycle of a project, supporting decision-making from conception to operation and maintenance. BIM's interoperability enables data exchange between different software platforms, and its visualization capabilities provide realistic representations for better understanding and decision-making. Overall, BIM enhances efficiency, reduces errors, and improves the overall management of construction projects.

2. **How is BIM different from conventional methods of construction?**
   Ans. Building Information Modeling (BIM) deviates from conventional construction by offering a digital, data-rich 3D model that facilitates collaboration among project stakeholders. Unlike traditional methods reliant on 2D drawings, BIM integrates intelligent information about materials and costs, fostering accuracy and efficiency throughout a project's lifecycle. The real-time collaboration and comprehensive data in BIM enhance coordination, reduce errors, and support a more integrated and iterative construction process, setting it apart from the linear nature of conventional construction approaches.

3. **What are the different types of Ds used in Bim?**
   Ans. In Building Information Modeling (BIM), the term "Ds" typically refers to different dimensions, representing various aspects of information associated with a building model. The most used dimensions in BIM are:

   i. 3D (Three-Dimensional): This represents the physical geometry and spatial relationships of building components in a three-dimensional digital model.

   ii. 4D (Time or Scheduling): Adding the dimension of time to the 3D model. 4D BIM integrates project scheduling information. It allows stakeholders to visualize the construction sequence and timeline, aiding in project planning and coordination.

   iii. 5D (Cost): The fifth dimension incorporates cost-related information into the BIM model. It provides a comprehensive view of project costs by associating cost data with the different components in the model, aiding in accurate cost estimation and budget management.

   iv. 6D (Sustainability or Energy Analysis): 6D BIM involves the integration of environmental and sustainability data. It enables analysis of the building's energy performance, environmental impact, and life cycle assessment, supporting sustainable design and construction practices.

   v. 7D (Facility Management): The seventh dimension extends BIM into the facility management phase. It includes data relevant to the ongoing operation and maintenance of the building, such as maintenance schedules, equipment information, and facility documentation.

4. **What software is used in Bim or for Bim?**
   Ans. Several software tools are used in Building Information Modeling (BIM) to create, manage, and analyze digital models. Some of the widely used BIM software include:
   Autodesk Revit, AutoCAD Civil 3D, ArchiCAD, Bentley AECOsim Building Designer, Tekla Structures, Navisworks, Trimble SketchUp, Vector Works Architect, Dynamo, Solibri Model Checker

5. **What is LOD (Level of Detail)?**
   Ans. In Building Information Modeling (BIM), the Level of Detail (LOD) refers to a standardized scale from LOD 100 to LOD 500 that defines the amount of graphical and non-graphical information within BIM elements. This framework helps ensure consistency and communication about the completeness and precision of BIM models at different project stages, guiding the level of detail required for effective collaboration among stakeholders.

6. **What are the different types of LOD?**
   Ans. The different types of Level of Detail (LOD) in Building Information

BIM ELECTIVE ASSIGNMENT

Harshwardhan Kale 24

Q1) What is BIM?

Building Information Modeling (BIM) is a digital process that involves creating and managing a comprehensive 3D model of a building or infrastructure project. BIM is not just a piece of software but a collaborative approach to the design, construction, and management of buildings and infrastructure. The key aspects of BIM include:

1. **Digital Representation**: - BIM involves creating a detailed digital representation of the physical and functional characteristics of a building or infrastructure. This digital model encompasses 3D geometry, spatial relationships, geographic information, and additional attributes of building components.

2. **Collaboration and Coordination**: - BIM facilitates collaboration among different stakeholders in the construction process, including architects, engineers, contractors, and facility managers. The shared model allows for improved coordination and communication, reducing the likelihood of errors and conflicts.

3. **Information Integration**: - BIM goes beyond 3D modeling by integrating various types of information related to the project. This includes data about materials, costs, schedules, performance, and other relevant details. The goal is to have a centralized repository of information that can be accessed and updated by all project participants.

4. **Lifecycle Management**: - BIM covers the entire lifecycle of a building or infrastructure project, from conceptualization and design through construction and operation to eventual renovation or demolition. The digital model serves as a valuable resource for facility management and maintenance.

5. **Interoperability**: - BIM promotes interoperability, allowing different software tools and disciplines to exchange information seamlessly. This is crucial for multidisciplinary collaboration in the architecture, engineering, and construction (AEC) industry.

6. **Visualization and Simulation**: - BIM enables realistic visualizations of the project, aiding in design communication and stakeholder understanding. Additionally, simulations can be performed to analyze aspects like energy

Assignment 01:BIM Report

projects. Various organizations and industry bodies have developed BIM standards to guide practitioners.

8. **Data-Driven Decision Making**: - The wealth of information stored in a BIM model supports data-driven decision-making throughout the project lifecycle. This includes decisions related to design modifications, cost estimates, scheduling, and facility management.

9. **Regulatory Compliance**: - BIM can assist in meeting regulatory requirements and standards. Some countries and regions have implemented BIM mandates for public projects to promote efficiency and collaboration.

BIM is widely adopted in the architecture, engineering, and construction industry due to its potential to improve project outcomes, reduce errors, enhance collaboration, and optimize the entire building lifecycle. It represents a shift from traditional 2D drafting methods to a more integrated and information-rich approach.

Q2) How is BIM different than conventional methods of construction?

BIM differs significantly from conventional methods of construction in its approach to project information and collaboration. Traditional construction methods often rely on 2D drawings and fragmented communication, which can lead to inefficiencies, errors, and misinterpretations. In contrast, BIM involves creating a detailed digital representation of a building or infrastructure in a 3D model that encompasses not only geometric information but also data about materials, components, and systems.

Key differences include:

1. **Collaboration:**

BIM promotes collaboration among different stakeholders, such as architects, engineers, contractors, and facility managers. It facilitates real-time sharing of information, reducing the likelihood of miscommunication and improving

BIM ELECTIVE

Shubham Prasad 46

Sem X

Q1) What is BIM?

Building Information Modeling (BIM) stands out as a digital technique [illegible] on forming and [illegible] a detailed 3D model for construction or infrastructure projects. It goes beyond being just a [illegible] computer program; instead, it represents a cooperative method that spans the complete range of building and infrastructure planning, construction, and oversight. The key aspects of BIM comprise:

1. Digital Depiction:
BIM involves crafting a meticulous digital depiction that captures the physical and functional features of a building or infrastructure. This includes 3D shapes, spatial relationships, geographic data and additional qualities of building elements.

2. Teamwork and Organization:
Acting as a facilitator, BIM encourages teamwork among diverse contributors in the construction process, such as architects, engineers, builders, and facility managers. The shared model boosts coordination and communication, lowering the chance of mistakes and clashes.

3. Information Blend:
Going beyond 3D modeling, BIM blends various forms of project-related information, covering details on materials, expenses, timelines, performance, and other applicable aspects. The goal is to establish a central storage accessible and updatable by all project participants.

4. Lifespan Supervision:
Spanning the entire lifespan, BIM stretches from conceptualization and design through construction and operation to eventual renewal or removal. The digital model transforms into a valuable asset for facility management and upkeep.

- BIM can assist in fulfilling regulatory requirements and standards, with certain countries and regions mandating BIM for public projects to enhance efficiency and collaboration.

Widely embraced in the architecture, engineering, and construction industry, BIM holds potential for enhancing project outcomes, reducing errors, encouraging collaboration, and optimizing the entire building lifespan. It signifies a departure from traditional 2D drafting methods toward a more integrated and information-enriched approach.

Q2) How does BIM differ from traditional construction methods?

BIM differs considerably from conventional construction methods in its approach to project information and collaboration. Traditional construction methods often depend on 2D drawings and fragmented communication, leading to inefficiencies, mistakes, and misunderstandings. In contrast, BIM involves generating a thorough digital representation of a building or infrastructure in a 3D model that encompasses not only geometric data but also information about materials, components, and systems.

Key distinctions include:

1. Collaboration:
- BIM encourages collaboration among diverse participants, such as architects, engineers, builders, and facility managers. It facilitates real-time sharing of information, reducing the likelihood of misunderstandings and enhancing overall project coordination.

2. Data Integration:
- BIM integrates comprehensive data beyond just geometry. It includes information about materials, costs, schedules, and performance characteristics. This data-driven approach enables better decision making throughout the entire lifespan of a project.

3. Visualization:
- BIM provides a 3D visual representation of the project, offering a clearer understanding of the design and construction process. This aids in detecting clashes and conflicts early on, reducing the need for costly corrections during construction.

Assignment 02 :Revit Revision (High Rise Building)

Assignment 02 :Revit Revision (High Rise Building)

Assignment 03: Wastage in construction industry

Mudra Sunil Dhuri
16
Electives- BIM
Wastage Report

INTRODUCTION
As the construction site is in Colaba, this report aims to assess and provide insights into the various aspects of construction wastage, with a focus on material wastage. The Colaba site, situated in a coastal region, poses unique challenges that demand specific attention to resource management and efficient construction practices.

TYPES AND CONSEQUENCES OF WASTAGE
1) Material Wastage
i) Overordering: The construction site exhibited instances of overordering, particularly with regards to steel, bricks, and roofing tiles. This has led to excess material storage and potential weather-related damage.
ii) Cutting Inefficiencies: Poor cutting practices were observed, especially in the fabrication of steel and brick elements. Precision cutting methods need improvement to minimize material wastage.
iii) Damaged Materials: Due to inadequate storage practices, some materials, particularly steel, have shown signs of corrosion. Proper handling and protective measures must be implemented to prevent damage.

2) Time Wastage
i) Poor Project Planning: The project schedule lacks specificity in addressing the coastal environment's impact on construction activities. Delays are evident, and a more detailed timeline is required.
ii) Inefficient Workflow: Communication gaps among team members have resulted in workflow interruptions. Regular meetings and updates are essential for a more coordinated construction process.
iii) Equipment Downtime: The construction machinery on-site has experienced unplanned downtime, affecting project progress. A proactive maintenance schedule is recommended to minimize disruptions.

3) Energy Wastage
i) Inefficient Machinery: Outdated machinery is contributing to higher energy consumption. Considering the coastal location, investing in energy-efficient equipment is crucial for sustainable construction practices.
ii) Inadequate Insulation: The design lacks proper insulation considerations, leading to increased energy consumption for temperature control. Incorporating energy-efficient design principles is essential.

4) Financial Wastage
i) Change Orders: Frequent design changes have resulted in additional costs and material wastage. A more stable and finalized design plan is necessary to prevent financial overruns.

[illegible] 6.0/10

ii) Contract Disputes: Lack of clarity in contractual agreements has led to disputes, causing financial strain. Clear and well-defined contracts with all stakeholders are imperative.

MEASURES TO PREVENT WASTAGE
1. Material Management:
a. Accurate Estimation: Collaborate with experienced quantity surveyors to ensure precise estimations of material requirements based on the project's unique specifications, considering the coastal region's challenges.
b. Local Sourcing: Explore local suppliers to reduce transportation-related wastage and support the regional economy.

2. Project Planning and Management:
a. Detailed Project Schedule: Develop a comprehensive project schedule that incorporates the impact of coastal conditions. Include buffer periods for potential weather-related delays and challenges.
b. Enhanced Communication: Establish a communication protocol to facilitate regular updates and coordination among all stakeholders, ensuring a more streamlined workflow.

3. Training and Education:
a. Specialized Training Programs: Organize training sessions for construction workers focusing on the challenges specific to the coastal environment. Include modules on proper material handling, storage, and cutting techniques.
b. Awareness Campaigns: Conduct awareness programs to instill a sense of responsibility and educate workers about the importance of minimizing wastage.

4. Quality Control:
a. Regular Inspections: Establish a rigorous quality control process with frequent inspections to ensure materials meet specified standards. This includes both incoming materials and those in use on the construction site.
b. Supplier Quality Assurance: Collaborate closely with suppliers, establishing stringent quality assurance measures to ensure the delivery of high-quality materials.

5. Sustainable Practices:
a. Eco-friendly Construction Techniques: Explore and implement green building practices suitable for the coastal environment, such as using sustainable materials and construction methods.
b. Energy-efficient Design: Integrate energy-efficient design principles to reduce the long-term environmental impact and operational costs of the constructed facility.

6. Risk Management:
a. Comprehensive Contingency Plans: Develop detailed contingency plans specific to the coastal region, considering potential disruptions due to weather conditions. Clearly communicate these plans to all stakeholders.
b. Insurance Coverage: Review and enhance insurance coverage to include comprehensive protection against unforeseen circumstances, minimizing financial losses and project delays.

Report: Wastages in Construction
21. Shubham Moghe

Wastage in a building construction project refers to the inefficient use or loss of materials, resources, time, and money. Several types of wastages can occur during the different phases of construction.

1) Material Wastage:
- Cutting and Trimming Losses: Inaccurate measurements or improper cutting of materials can lead to wastage.
- Spoilage and Breakage: Damaged or spoiled materials during handling, transportation, or storage.
- Overordering: Ordering more materials than necessary, leading to excess inventory or unused items.

2) Time Wastage:
- Delays: Unforeseen events, weather conditions, or coordination issues that lead to project delays.
- Inefficient Scheduling: Poorly planned project schedules can result in downtime and idle periods.

3) Energy Wastage:
- Inefficient Construction Practices: Lack of energy-efficient construction methods or use of outdated technologies.
- Unused Energy Sources: Failure to harness renewable energy sources on site when feasible.

4) Design Wastage:
- Redundant Features: Inclusion of unnecessary design elements that do not add value to the project.
- Overdesign: Excessive use of materials or complex designs that surpass project requirements.

5) Financial Wastage:
- Budget Overruns: Poor financial planning or unexpected expenses that exceed the allocated budget.
- Ineffective Cost Control: Lack of effective monitoring and control over project expenditures.

BUILDING CONSTRUCTION WASTAGE

When we talk about waste in the context of Building Information Modeling (BIM), we're talking about mistakes, inefficiencies, or poor management during the modeling and construction phases. Here are a few particular examples of waste in BIM-related architectural construction

1.Model Mistakes Geometry Errors Errors in the geometry of the BIM model might cause misalignments and collisions during construction, necessitating rework. - Data Inconsistencies Inaccuracies in construction can result from data discrepancies, such as inaccurate dimensions or material requirements.

2. Erroneous or incomplete information - Missing Details During the building phase, misunderstandings and rework may arise from incomplete or missing information in the BIM model. - Outdated Information Building on antiquated blueprints can result in waste if the BIM model isn't updated with the most recent modifications.

3.Communication Breakdowns: - Poor Collaboration: Misunderstandings and inaccuracies in the BIM model can result from inadequate communication and collaboration among project stakeholders. - Lack of Coordination: Conflicts and rework may arise from a failure to coordinate various disciplines (architecture, structure, MEP).

4.Ineffective Construction Sequencing: - Poor Phasing: Construction delays and higher expenses might be caused by inaccurate or ineffective sequencing in the BIM model. - Logistical Issues: Inefficiencies during construction may result from a BIM model's failure to account for logistical elements like material delivery and site access.

5. Ignoring Sustainability Considerations: - Energy Inefficiencies: If energy-efficient design elements in the BIM model are overlooked, this might result in higher energy usage and operating expenses. - Material Selection: Neglecting environmentally friendly building materials and techniques can result in waste.

6. Insufficient Experience and Proficiency: - Lack of BIM Proficiency: Poor modeling techniques and mistakes can be caused by a lack of training or experience with BIM technologies.

7. Rework and Redundancy: - Design Changes: Rework and waste can result from frequent design modifications that aren't properly evaluated for how they affect the BIM model. - Redundant Detailing: Adding information to the BIM model that is superfluous or excessively detailed can result in a waste of time and money.

Wastage while constructing a sand stone structure in Jaisalmer

Construction operations can result in a variety of waste products, particularly when they involve sandstone structures in areas like Jaisalmer. Cost effectiveness and environmental sustainability depend on controlling and reducing waste. The following are some probable waste sources and mitigation techniques for sandstone structure construction:

1. **Material Waste:** Shape and Cut: There might be pieces and offcuts from the shape and cutting of sandstone blocks that aren't utilized in the finished building. Mismatched Pieces: Certain pieces could be rejected because they don't match the standards or because they have flaws. Strategies for Reduction Precision Cutting: To reduce the amount of offcuts produced, make use of cutting-edge technologies.

2. **Optimized Design:** Plan the design to use standard-sized blocks efficiently, reducing the need for excessive cutting and shaping.

- Transportation Waste: Breakage During Transit: When being transported from the quarry to the construction site, sandstone blocks or pieces may break or sustain damage.
- Problems with Handling: Poor handling throughout the loading and unloading process might cause waste and breakage.
- Strategies for Reduction: Secure Packaging: To reduce breakage during shipment, use secure packaging and loading techniques.
- Effective Logistics: Arrange transportation routes and logistics in a way that minimizes travel time and distance.

3. Construction Process Waste:
Onsite Shaping and Cutting: If modifications are required while building, on-site shaping and cutting may result in more waste.
Overordering: Placing an excessively large order for materials may result in surplus that is not utilized.
Strategies for Reduction: Prefabrication: To minimize on-site cutting and shaping, prefabricate components offsite.
Ordering Accurately: To prevent overordering, use precise estimates and ordering techniques.

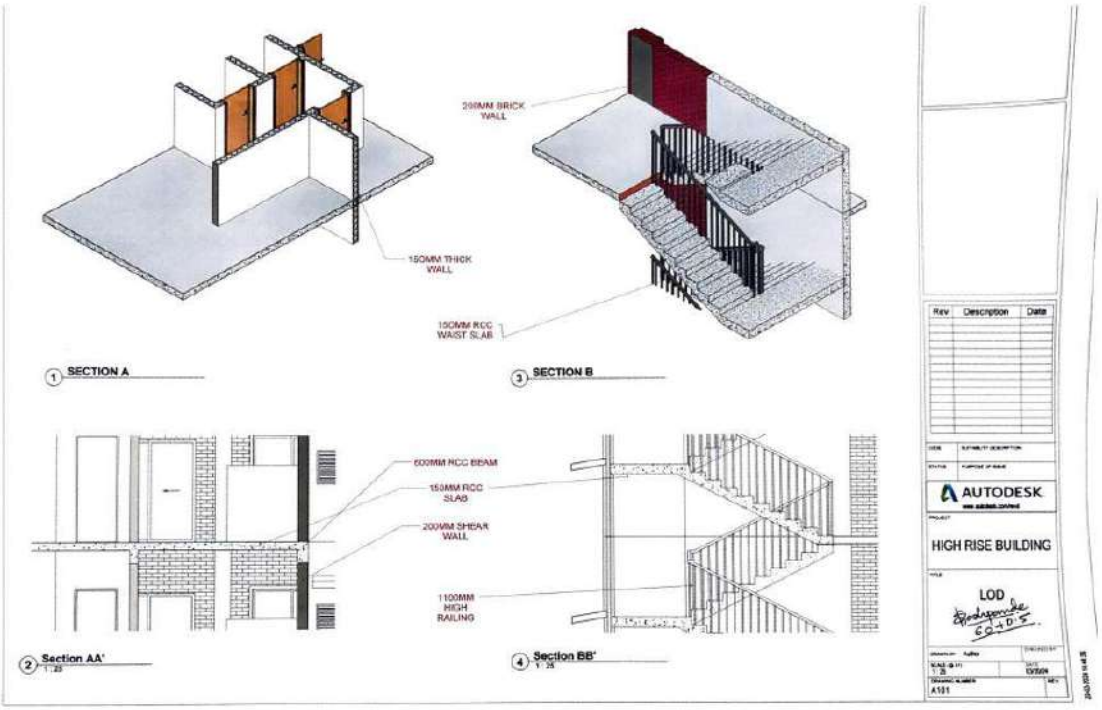
4. Water usage:
Water is a resource that is frequently utilized in the shaping and cutting processes, and using too much of it can be wasteful.
Strategies for Reduction:
Water Recycling: To repurpose water while cutting, install water recycling systems.Effective Cutting Methods: Make use of water-saving instruments and cutting methods.

5. Energy Consumption:
•Machinery Operation: The operation of heavy machinery for cutting and shaping can contribute to energy wastage.
•Transportation Fuel: The fuel used for transporting materials to the construction site.
Reduction Strategies:
•Energy-Efficient Machinery: Invest in energy-efficient cutting machinery.
•Local Sourcing: Source materials locally to reduce transportation distances.

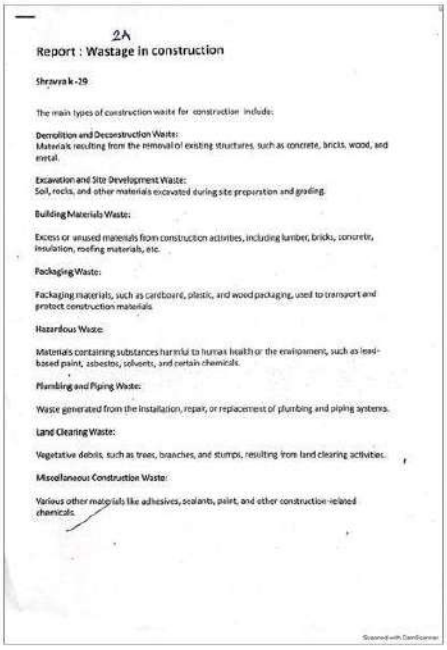
6. Construction Debris:
•Demolition Waste: In cases where existing structures are being modified or replaced, demolition waste can contribute to overall construction wastage.
Reduction Strategies:
•Demolition Recycling: Implement strategies to recycle and repurpose materials from demolished structures.
•Selective Demolition: Conduct selective demolition to salvage reusable components.

PILLAI COLLEGE OF ARCHITECTURE | STUDENTS' WORK | Compulsory Electives: Building Information and Modelling | AY 2023-24_YEAR V_SEM X_ELECTIVE

Assignment 04:
LOD OF PROJECT



Assignment 03: Wastage in construction industry



2A

Report : Wastage in construction

Shravak -29

The main types of construction waste for construction include:

Demolition and Deconstruction Waste:
Materials resulting from the removal of existing structures, such as concrete, bricks, wood, and metal.

Excavation and Site Development Waste:
Soil, rocks, and other materials excavated during site preparation and grading.

Building Materials Waste:

Excess or unused materials from construction activities, including lumber, bricks, concrete, insulation, roofing materials, etc.

Packaging Waste:

Packaging materials, such as cardboard, plastic, and wood packaging, used to transport and protect construction materials.

Hazardous Waste:

Materials containing substances harmful to human health or the environment, such as lead-based paint, asbestos, solvents, and certain chemicals.

Plumbing and Piping Waste:

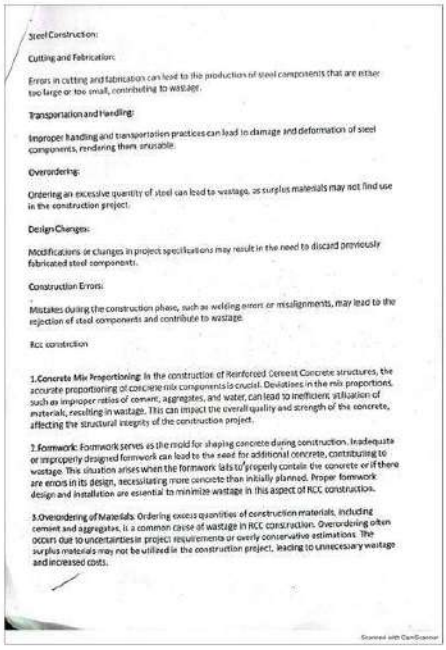
Waste generated from the installation, repair, or replacement of plumbing and piping systems.

Land Clearing Waste:

Vegetative debris, such as trees, branches, and stumps, resulting from land clearing activities.

Miscellaneous Construction Waste:

Various other materials like adhesives, sealants, paint, and other construction-related chemicals.



Steel Construction:

Cutting and Fabrication:

Errors in cutting and fabrication can lead to the production of steel components that are either too large or too small, contributing to wastage.

Transportation and Handling:

Improper handling and transportation practices can lead to damage and deformation of steel components, rendering them unusable.

Overordering:

Ordering an excessive quantity of steel can lead to wastage, as surplus materials may not find use in the construction project.

Design Changes:

Modifications or changes in project specifications may result in the need to discard previously fabricated steel components.

Construction Errors:

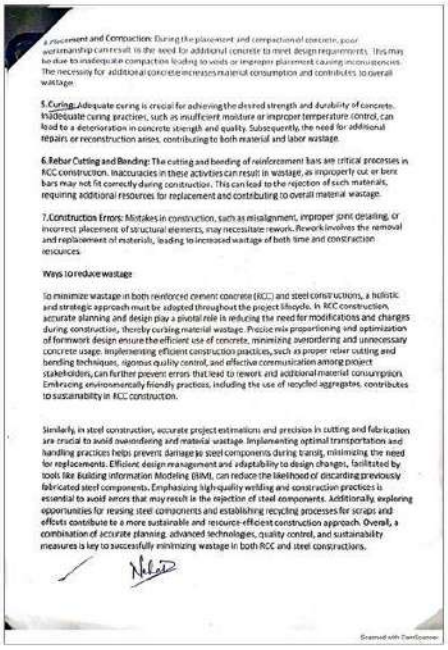
Mistakes during the construction phase, such as welding errors or misalignments, may lead to the rejection of steel components and contribute to wastage.

Rcc construction

1.**Concrete Mix Proportioning:** In the construction of Reinforced Cement Concrete structures, the accurate proportioning of concrete mix components is crucial. Deviations in the mix proportions, such as improper ratios of cement, aggregates, and water, can lead to inefficient utilization of materials, resulting in wastage. This can impact the overall quality and strength of the concrete, affecting the structural integrity of the construction project.

2.**Formwork:** Formwork serves as the mold for shaping concrete during construction. Inadequate or improperly designed formwork can lead to the need for additional concrete, contributing to wastage. This situation arises when the formwork fails to properly contain the concrete or if there are errors in its design, necessitating more concrete than initially planned. Proper formwork design and installation are essential to minimize wastage in this aspect of RCC construction.

3.**Overordering of Materials:** Ordering excess quantities of construction materials, including cement and aggregates, is a common cause of wastage in RCC construction. Overordering often occurs due to uncertainties in project requirements or overly conservative estimations. The surplus materials may not be utilized in the construction project, leading to unnecessary wastage and increased costs.



Placement and Compaction: During the placement and compaction of concrete, poor workmanship can result in the need for additional concrete to meet design requirements. This may be due to inadequate compaction leading to voids or improper placement causing inconsistencies. The necessity for additional concrete increases material consumption and contributes to overall wastage.

5.Curing: Adequate curing is crucial for achieving the desired strength and durability of concrete. Inadequate curing practices, such as insufficient moisture or improper temperature control, can lead to a deterioration in concrete strength and quality. Subsequently, the need for additional repairs or reconstruction arises, contributing to both material and labor wastage.

6.Rebar Cutting and Bending: The cutting and bending of reinforcement bars are critical processes in RCC construction. Inaccuracies in these activities can result in wastage, as improperly cut or bent bars may not fit correctly during construction. This can lead to the rejection of such materials, requiring additional resources for replacement and contributing to overall material wastage.

7.Construction Errors: Mistakes in construction, such as misalignment, improper joint detailing, or incorrect placement of structural elements, may necessitate rework. Rework involves the removal and replacement of materials, leading to increased wastage of both time and construction resources.

Ways to reduce wastage

To minimize wastage in both reinforced cement concrete (RCC) and steel constructions, a holistic and strategic approach must be adopted throughout the project lifecycle. In RCC construction, accurate planning and design play a pivotal role in reducing the need for modifications and changes during construction, thereby curbing material wastage. Precise mix proportioning and optimization of formwork design ensure the efficient use of concrete, minimizing overordering and unnecessary concrete usage. Implementing efficient construction practices, such as proper rebar cutting and bending techniques, rigorous quality control, and effective communication among project stakeholders, can further prevent errors that lead to rework and additional material consumption. Embracing environmentally friendly practices, including the use of recycled aggregates, contributes to sustainability in RCC construction.

Similarly, in steel construction, accurate project estimations and precision in cutting and fabrication are crucial to avoid overordering and material wastage. Implementing optimal transportation and handling practices helps prevent damage to steel components during transit, minimizing the need for replacements. Efficient design management and adaptability to design changes, facilitated by tools like Building Information Modeling (BIM), can reduce the likelihood of discarding previously fabricated steel components. Emphasizing high-quality welding and construction practices is essential to avoid errors that may result in the rejection of steel components. Additionally, exploring opportunities for reusing steel components and establishing recycling processes for scraps and offcuts contribute to a more sustainable and resource-efficient construction approach. Overall, a combination of accurate planning, advanced technologies, quality control, and sustainability measures is key to successfully minimizing wastage in both RCC and steel constructions.

M.E.S. **PILLAI COLLEGE OF ARCHITECTURE , New Panvel**				
COURSE REPORT				
Subject: Compulsory Electives -2 (Geospatial Techniques)		**Term: : 1st Year M.Arch**	**AY: 2023-2024**	
Course Code: MUDE102	**Credits :** 2	**Semester: 1**	**No of Periods per week : 1**	
Total Marks:	**Internal : 50**	**External :**	**Theory Paper :**	

Faculty:	Subject coordinator : **Prof. Dr. Priam Pillai** Team Members: Prof. Prathamesh Deshpande

Introduction

Geospatial Techniques operates as an elective to create linkages between unreferenced data which is observed and created by students with the cardinal systems of earth with the help of software called QGIS. QGIS is an open source software majorly used for geospatial analysis. Induction to QGIS is extremely necessary for Urban Design Students as it incorporates methods and tools of mapping the data that is required for analysis and processing.

Methodology

Aim: The elective aims to identify techniques of basic database management at a level that extends somewhat beyond the basic thematic mapping and data generation skills on a geospatial level of understanding with the help of QGIS.

Objectives:-

1. Presentation and case studies which introduced students to existing database, thus introduced students to QGIS on a broader scale and relevantly teach them about the practical applications.
2. Existing QGIS shape files and database is used for referencing and teaching toolsets for the students.
3. Horizontal Integration of QGIS to increase application of QGIS in various knowledge sets.

The following subject will be integrated with the current subject course:

1. Landscape Design and Urban Ecology
   Students generated contour data for the respective site. Georeferencing various map sets for analysis and understanding.
2. Urban Design Studio I
   Students created vector data and noted down the observations with the help of qgis and site visits. The students integrated that data in order to produce the output for analysis of the Urban Design studio Site.

Course Plan Submitted v/s completed				
Subject: Compulsory Electives -2 (Geospatial Techniques)			Course Code MUDE102	
Faculty:				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
14th October 2023	Introduction of the software, Commands, Interface , Significance of Qgis and its uses	Working studio for getting used to the interface and the software	Yes	CO1
21st October 2023	Introduction to vector tools, vectorization of data, polygons, fields, point, and shape files.	Vector mapping exercise	Yes	CO4
26th October 2023	Extraction of Contours and DEM data.	Contour Extraction for Urban Landscape and Ecology Studio.	Early covered Term Plan Schedule: 28th October 2023	CO3, C05
26th October 2023	Introduction to Print layout , Introduction to Raster Images, Georeferencer , Field Classifications	Region Analysis and DP analysis. (Khopta Town)	Yes	CO2
4th Nov. and 11th November	Class cancelled	Class cancelled	Class cancelled	Class cancelled
25th Nov.	Progressive Discussions and Working studio	Progressive review and updates.	Yes	CO5
29th Nov.	Review Meeting and Final Marking	Final Review and Discussion	Yes	CO5

How CO s are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

C01-Students identify the basic concepts, interface and terminologies of QGIS thus enhancing smooth navigation through the software while working.
14th October 2023 – Alignment – Students get the basic idea of the software and its interface.

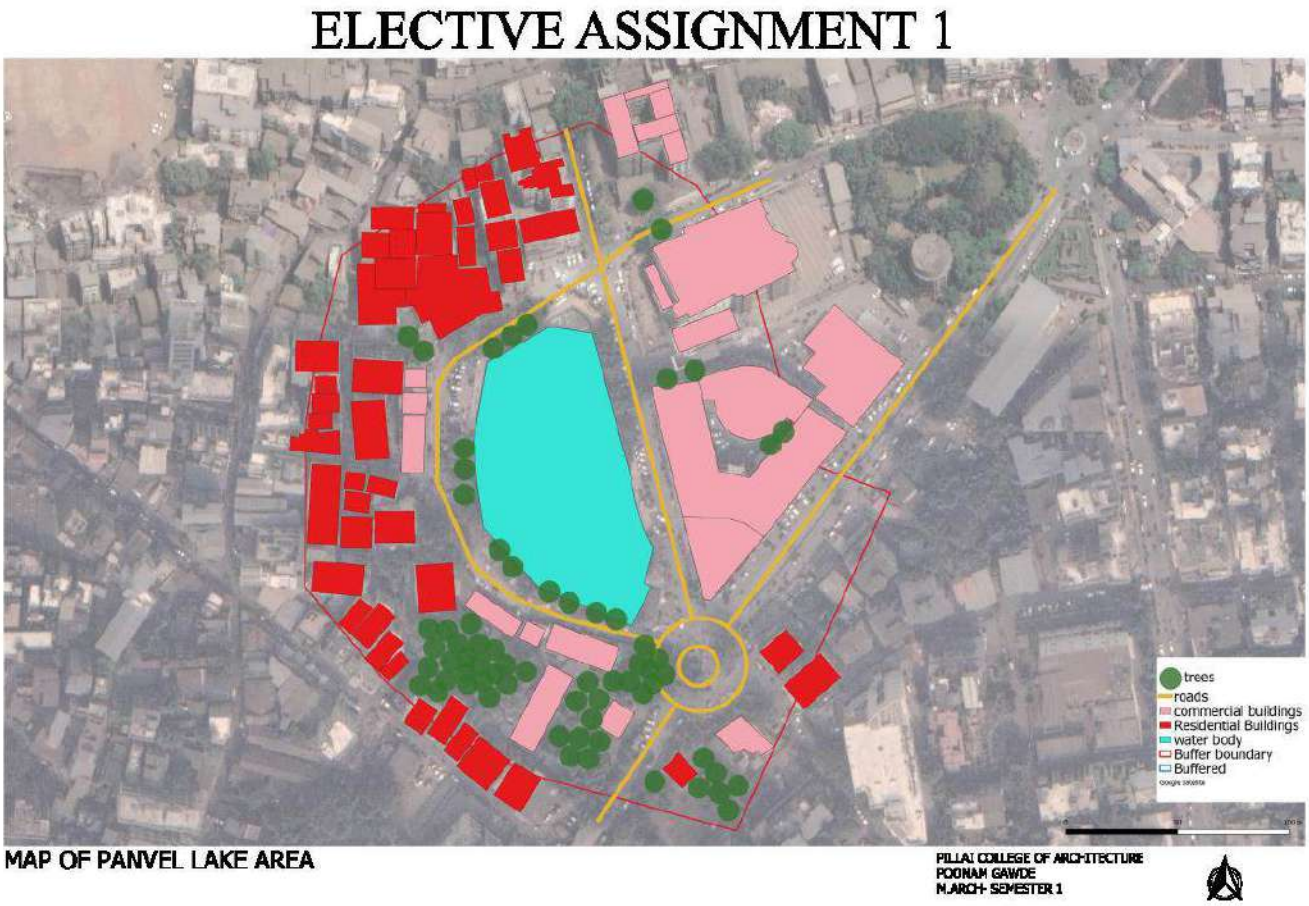
CO2-Students learn and apply tools required for **vector data mapping** for various coursework.
21st October 2023 – Alignment – Students learn to draw vector data on the software interface and therefore understand different layers and its attributes.

CO3- Students acquired knowledge of the tools required for **Raster data** mapping for various coursework related assignments.
26th October 2023 - Contour Extraction **for Urban Landscape and Ecology Studio** has been conducted as a part of **Horizontal Integration.**

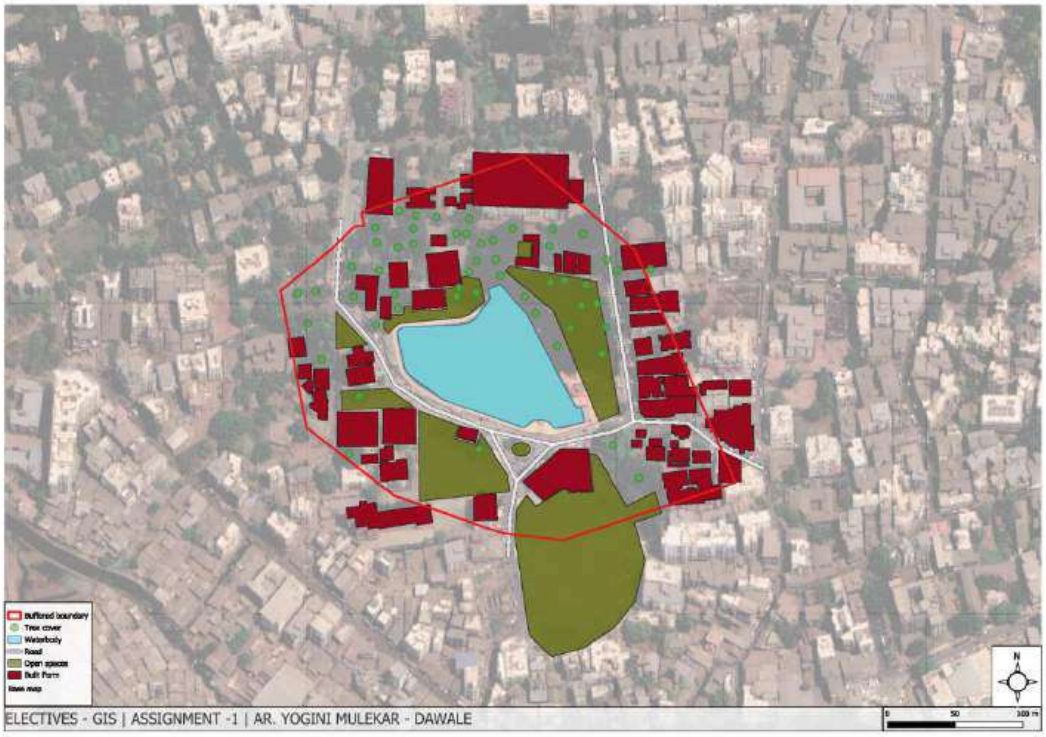
CO4- Students should integrate multiple data sets and georeference the data on the software interface thus making it ready for analysis.
26th October 2023- Introduction to Print layout, Introduction to Raster Images, Georeferencer , Field Classifications

CO5- Students should create and **assimilate map sets and other datasets** related to various horizontal integration subjects with the help of QGIS.
26th October 2023- **Region Analysis** and DP analysis. (Khopta Town)

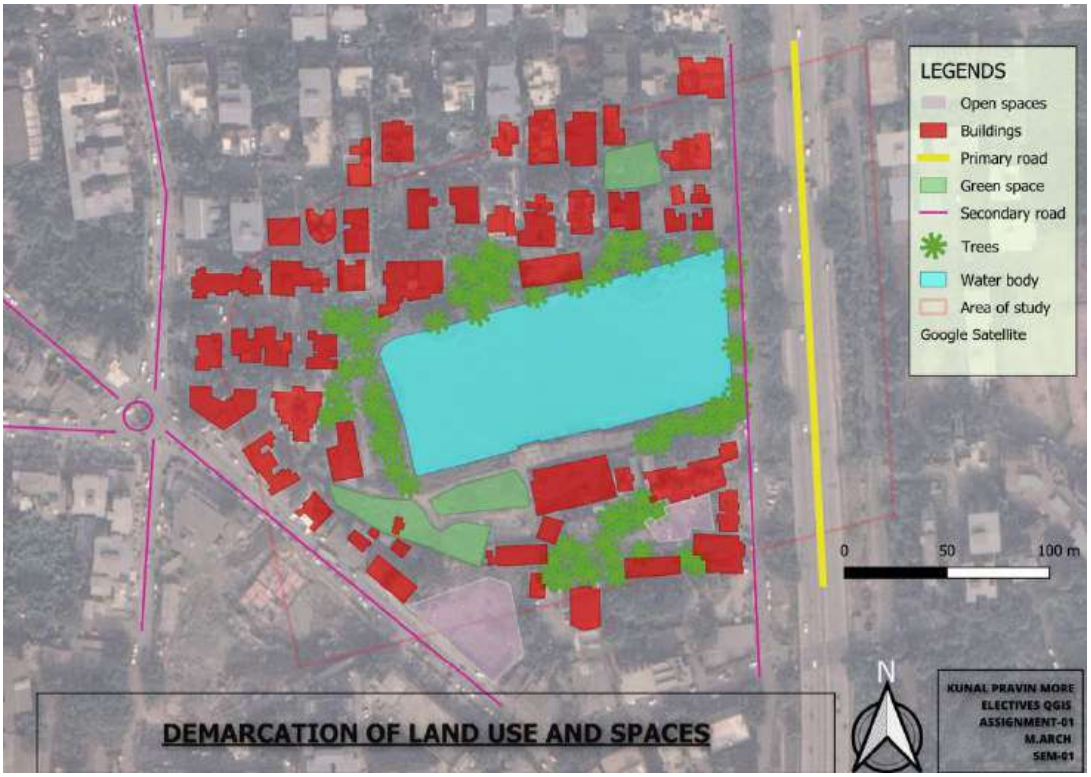
Assignment based student work documentation:



Assignment 01 Work 02:

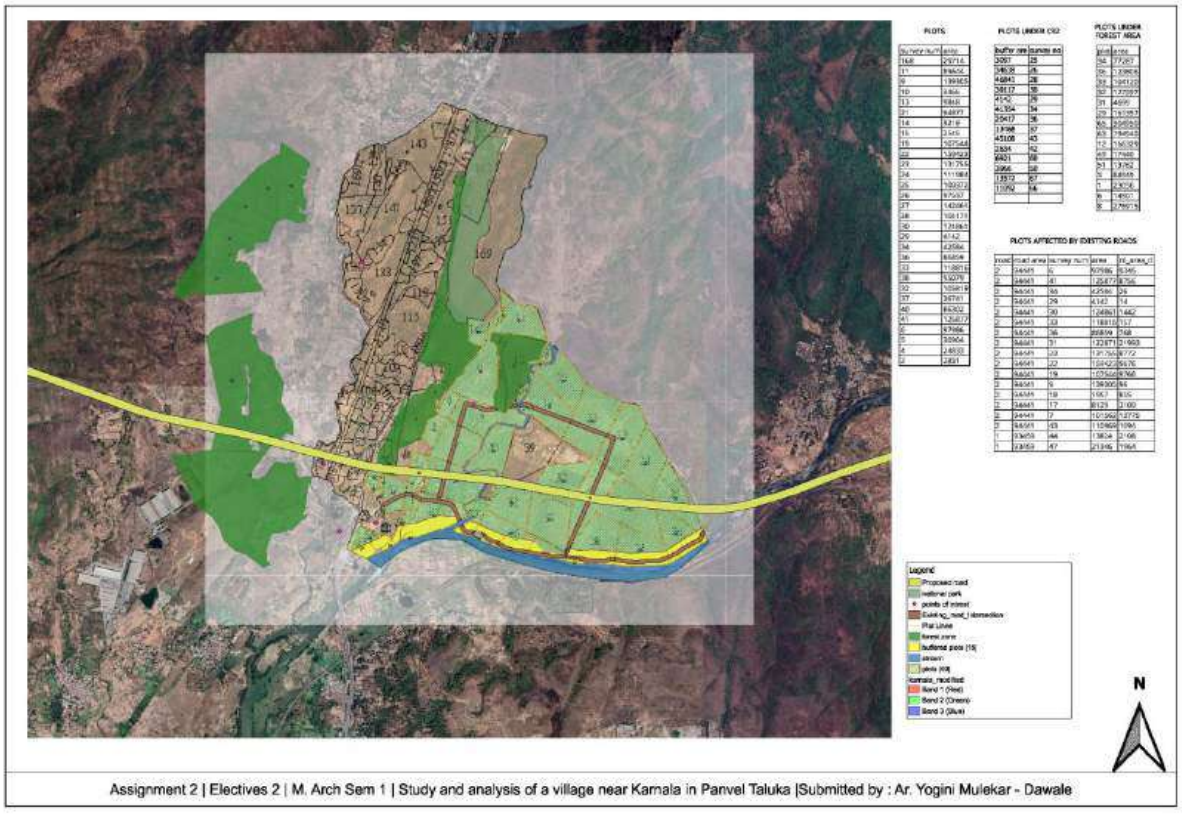


Assignment 01 Work 03:

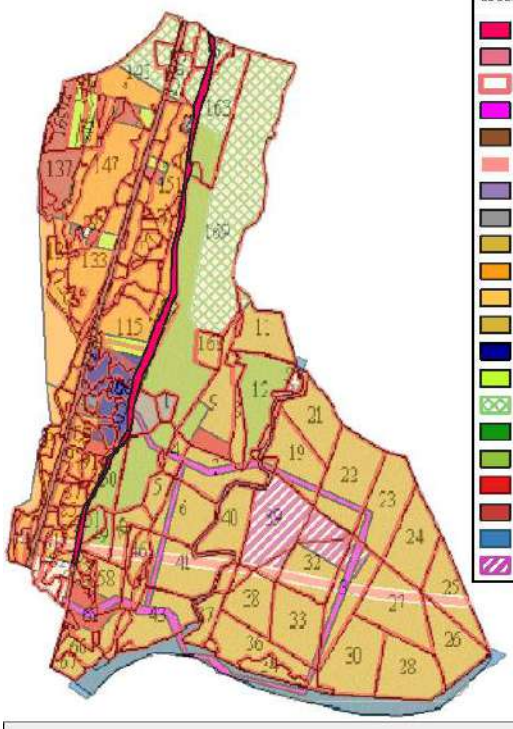


Assignment 02 : Work 01

Assignment 02 : Work 02



Assignment 2 | Electives 2 | M. Arch Sem 1 | Study and analysis of a village near Karnala in Panvel Taluka |Submitted by : Ar. Yogini Mulekar - Dawale



LEGEND

- ROAD_1
- AREA
- KARNALA
- DPP_ROAD
- ROAD_2
- HIGHWAY
- KARNALA_
- SRZ
- RTDZ
- RESIDENTIAL
- RESI_FIX
- COMMUNITY CENTER
- COMMERCIAL_ZONE
- GARDEN
- NATIONAL PARK
- FG_GREEN_ZONE
- GREEN ZONE
- EDUCATIONAL ZONE
- HEALTH CARE
- RIVER
- EXISTING INDUSTRY

0 250 500 m

DP ROAD AND INTERSECTIONS

FID	area	3	id
23		130626	
22		154718	
19		103715	
31		114856	
33		117198	
34		33167	
36		104824	
39		148919	
43		108115	
37		37451	
41		122337	
6		97630	
7		95918	
17		5934	
12		122638	
8		41061	
63		5315	
62		70518	
47		24985	
44		10993	
58		49420	
55		12976	
71		7857	
4		22230	
2		3171	
3		102414	
3		35061	

SURVEY NUMBER AND HIGHWAY INTERSECTIONS

ROAD	FID_2	area	3
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168836	31	114884	114856
168836	32	107491	107491
168836	38	81063	81063
168836	39	148919	148919
168836	41	122055	122337
168836	47		24985
168836	46		26952
168836	45		5860
168836	44		10993
168836	58		49420
168836	54		9565
168836	76		9155
168836	78		12154
168836	74		12397
168836	81		18586
168836	82		21377
168836	79		4148
168836	83		14538
168836	48		44617
168836	49		27086
168836	51		21110
168836	40		83682
168836	38		12938
168836	39		9910
168836	26	100700	100700
168836	27	135582	135582
168836	781		12154
168836	711		8578
168836	80		10886

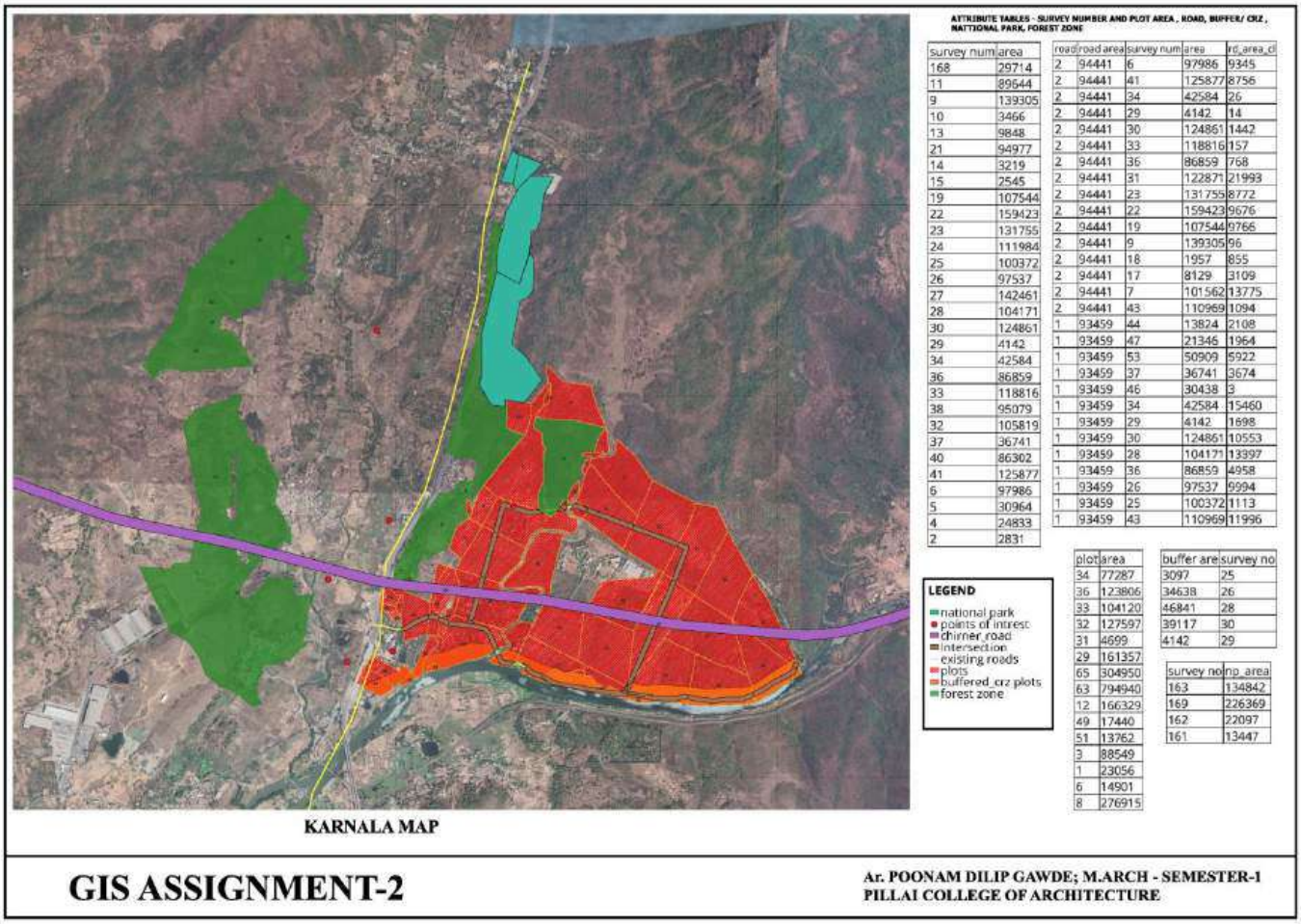
SURVEY NUMBER AND AREAS

FID	area	3
26	100700	100700
25	91993	92039
24	115121	115121
23	130598	130626
22	154718	154718
21	96314	96314
19	103715	103715
27	135582	135582
28	122368	122368
30	137630	137630
31	114884	114856
32	107491	107491
33	117198	117198
34	33167	33167
36	104824	104824
38	81063	81063
39	148919	148919
43	108110	108115
42	3197	3197
35	5132	5132
37	37451	37451
41	122055	122337
59	13630	13463
6	98332	97630
7	95918	95918
17	5934	5934
18	2807	2839
16	4683	4431
15	3830	3830
14	3560	3560

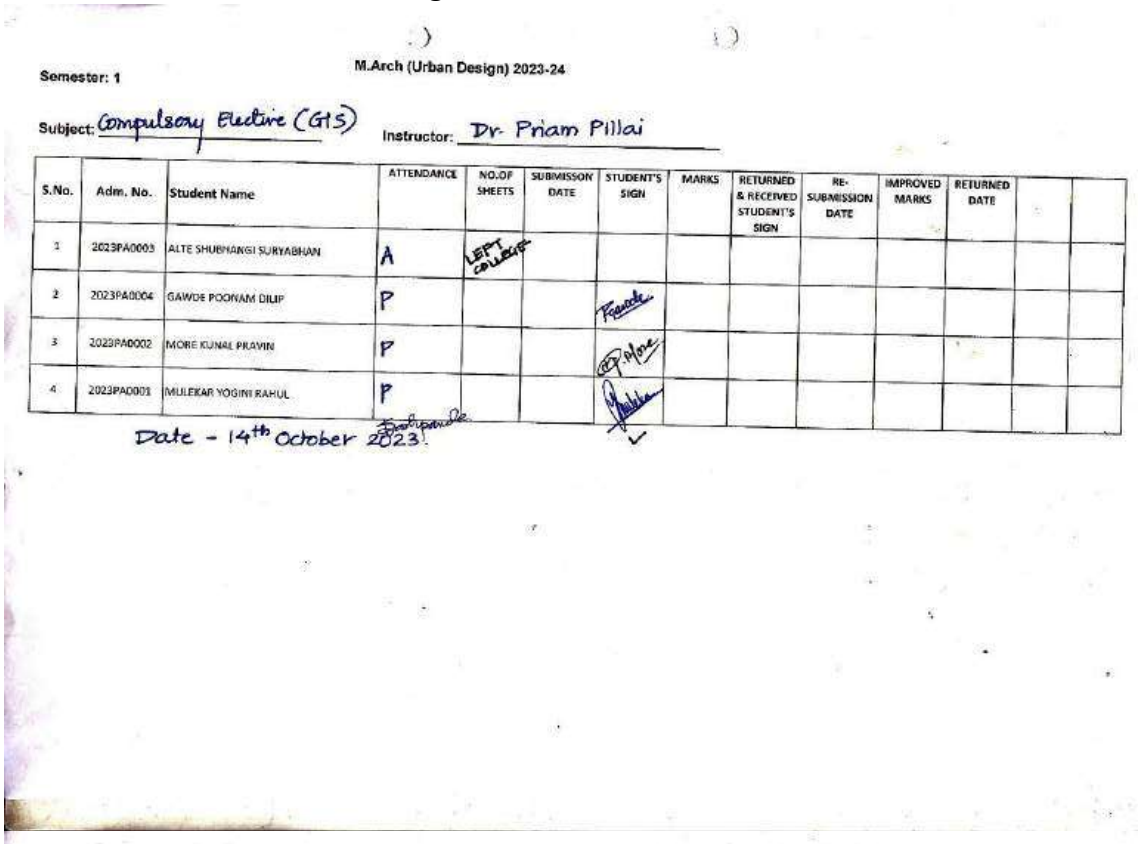
STUDY AND ANALYSIS OF VILLEGE NEAR KARNALA

KUNAL PRAVIN MORE
ASSIGNMENT_2
GIS
SEM_1 M.ARCH

Assignment 02: Work 03



Attendance record Scanned Images:



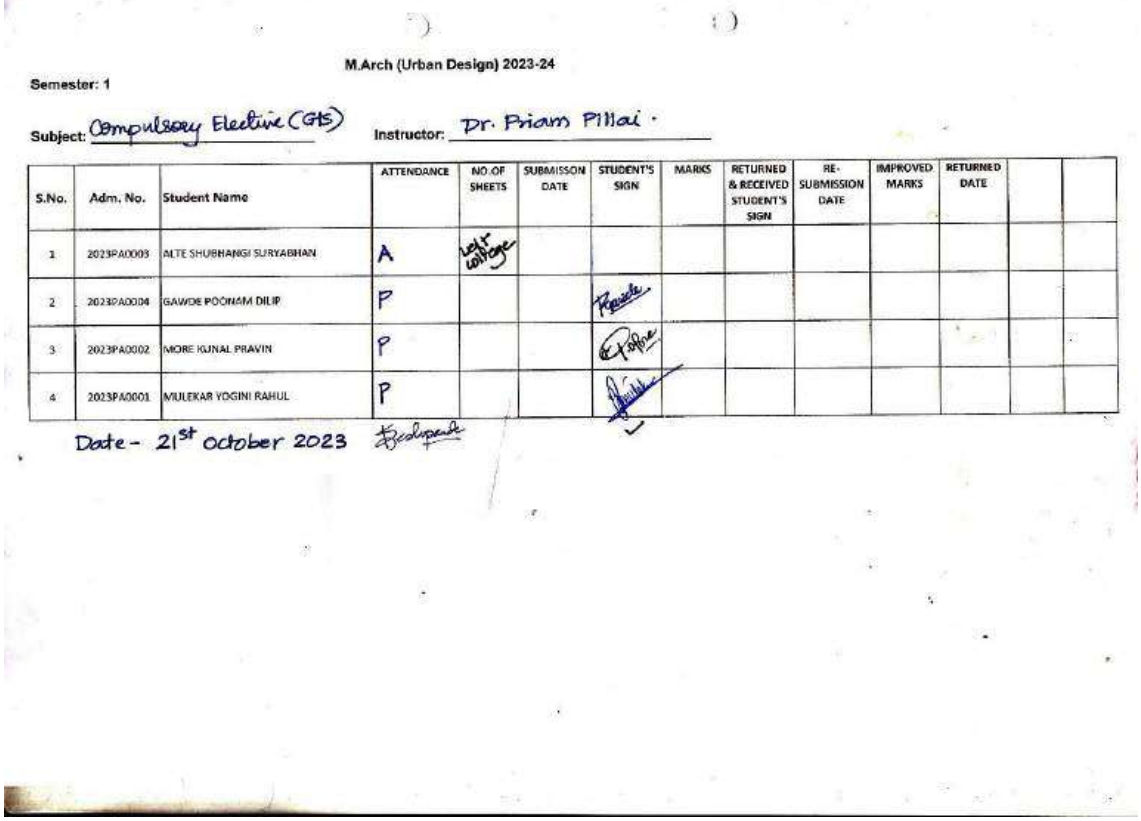
M.Arch (Urban Design) 2023-24

Semester: 1

Subject: Compulsory Elective (GIS) Instructor: Dr. Priam Pillai

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
1	2023PA0003	ALTE SHUBHANGI SURYABHAN	A	LEFT COLLEGE									
2	2023PA0004	GAWDE POONAM DILIP	P			Poonam							
3	2023PA0002	MORE KUNAL PRAVIN	P										
4	2023PA0001	MULEKAR YOGINI RAHUL	P										

Date - 14th October 2023



M.Arch (Urban Design) 2023-24

Semester: 1

Subject: Compulsory Elective (GIS) Instructor: Dr. Priam Pillai.

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
1	2023PA0003	ALTE SHUBHANGI SURYABHAN	A	Left college									
2	2023PA0004	GAWDE POONAM DILIP	P			Poonam							
3	2023PA0002	MORE KUNAL PRAVIN	P										
4	2023PA0001	MULEKAR YOGINI RAHUL	P										

Date - 21st October 2023

M.Arch (Urban Design) 2023-24

Semester: 1

Subject: GIS Instructor: PRATHAMESH SIR

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
1	2023PA0003	ALTE SHUBHANGI SURYABHAN	A	LEFT COLLEGE									
2	2023PA0004	GAWDE POONAM DILIP	P										
3	2023PA0002	MORE KUNAL PRAVIN	P										
4	2023PA0001	MULEKAR YOGINI RAHUL	P										

26/10/23

M.Arch (Urban Design) 2023-24

Semester: 1

Subject: G.I.S. Elective. Instructor: Dr. Priam Pillai, Prof. Prathamesh.

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSON DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
1	2023PA0003	ALTE SHUBHANGI SURYABHAN	A	LEFT COLLEGE									
2	2023PA0004	GAWDE POONAM DILIP	P										
3	2023PA0002	MORE KUNAL PRAVIN	P										
4	2023PA0001	MULEKAR YOGINI RAHUL	P										

25- 11- 2023

25/11/2023

M.Arch (Urban Design) 2023-24

Semester: 1

Subject: GIS. Elective Instructor: Dr. Priam Pillai, Prof. Prathamesh.

S.No.	Adm. No.	Student Name	ATTENDANCE	NO.OF SHEETS	SUBMISSION DATE	STUDENT'S SIGN	MARKS	RETURNED & RECEIVED STUDENT'S SIGN	RE-SUBMISSION DATE	IMPROVED MARKS	RETURNED DATE		
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2	2023PA0004	GAWDE POONAM DILIP	P										
3	2023PA0002	MORE KUNAL PRAVIN	P										
4	2023PA0001	MULEKAR YOGINI RAHUL	P										

29/11/2023.

Topic Covered Sheet scanned:

2023-2024.

PILLAI COLLEGE OF ARCHITECTURE, NEW PANVEL

Term I / II - AY 2023 24 - Sem: I

Subject: Professor/s Dr. Priam Pillai. Prathamesh D.

Date	Topics Covered in Lecture	Assignment introduced	Assignment Submitted	Students' Signature	
14th	Introduction to GIS, GIS Interface, commands, user panel etc. Uses of GIS, significance,				
21st	Introduction to vector tools, vectorization of data, polygons, fields, point, shape files.	Vector Mapping			
26th	Extraction of contours, and DEM data.		Submitted assgn. 01.		
28th	Induction to Print Layout, Introduction to Raster images, georeferencing, fields.	Region (Khopta). analysis DP.			
25th.	Progressive discussions. and working studio-review meeting	? Review			
29th.	Review meeting (discussions) and submission.				

Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject : ELECTIVE (Mapping & Representations)		**Term: I**	**AY: 2023-24**	
Course Code: MUDE102	**Credits : 2**	**Semester: 1**	**No of Periods per week : 2**	
Total Marks:	**Internal : 100**	**External :00**	**Theory Paper :00**	

Faculty:	Subject coordinator : Prof.Harshada Katkar Team Members: Prof.Harshada Katkar

INTRODUCTION:

Maps and representations are essential tools for understanding spatial relationships, patterns, and phenomena in cities. Mapping enable the visualization of complex data sets, making information more accessible and comprehensible for analysis. Effective maps and representations facilitate communication between stakeholders, experts, and the public more effective. This elective will train students for the mapping and representation skills.

Methodology (All the following points must be addressed in ALL subjects)

Aim: The aim of the elective is to provide students with the knowledge and skills necessary to analyze urban spaces for tangible and intangible parameters.

Objectives:-

- To analyze various urban contexts, including historical, cultural, economic, and environmental factors.
- To learn methods for spatial analysis to identify patterns, problems, and opportunities within urban areas.
- Develop effective communication skills through visual presentations, written reports, and verbal discourse.
- Acquire skills in conducting comprehensive site analysis using spatial data to identify opportunities, constraints, and spatial relationships relevant to urban design projects.
- Cultivate critical thinking skills to evaluate complex urban issues and propose innovative solutions.

PROCESS:

Techniques for analyzing urban contexts, including site visits, surveys, and archival research would be

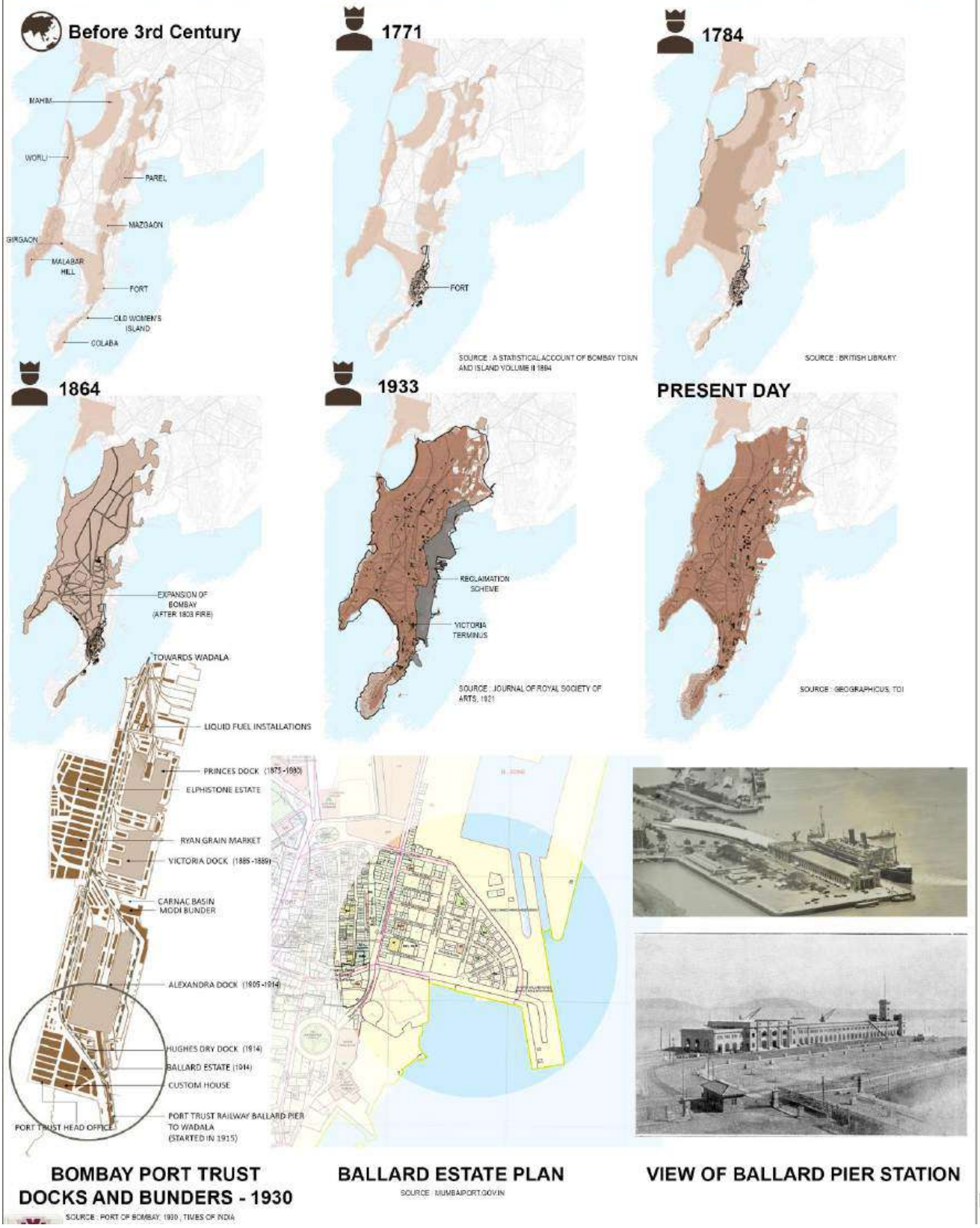
introduces to students and innovative ways are developed for urban design analysis.

Course Plan Submitted v/s completed				
Subject: Elective (Mapping & Representations)			Course Code : MUDE102	
Faculty: Prof. Harshada Katkar				
WEEK	**TOPIC COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	Site visit at Ballard Estate	Site visit video	Yes	CO 1
2	Urban Design Mapping	-	Yes	CO 2
3	Spatial Analysis Techniques	-	Yes	CO 2 & 3
4	Mapping Urban Morphology	-	Yes	CO 3 & 4
5	Site Analysis and surveys	-	Yes	CO 1
6	Discussions and review	-	No	CO 4 & 5
7	Overlay Analysis	Assignment 1	Yes	CO 4 & 5
8	Analyze urban environments and identify patterns	-	Yes	CO 3 & 5
9	Appropriate framework for Urban Design Issues	-	Yes	CO 5
10	Communication skills	-	Yes	CO 3
11	Discussions and review	-	No	-
12	Analysis techniques and finding opportunities and challenges	Assignment 2	Yes	CO 3 & 5
13	Review	-	No	-

This subject is planned in such way that it supplements Urban Design studio, which is why sequence of topics was interchanged according to the studio progress whenever necessary.

STUDENTS WORK

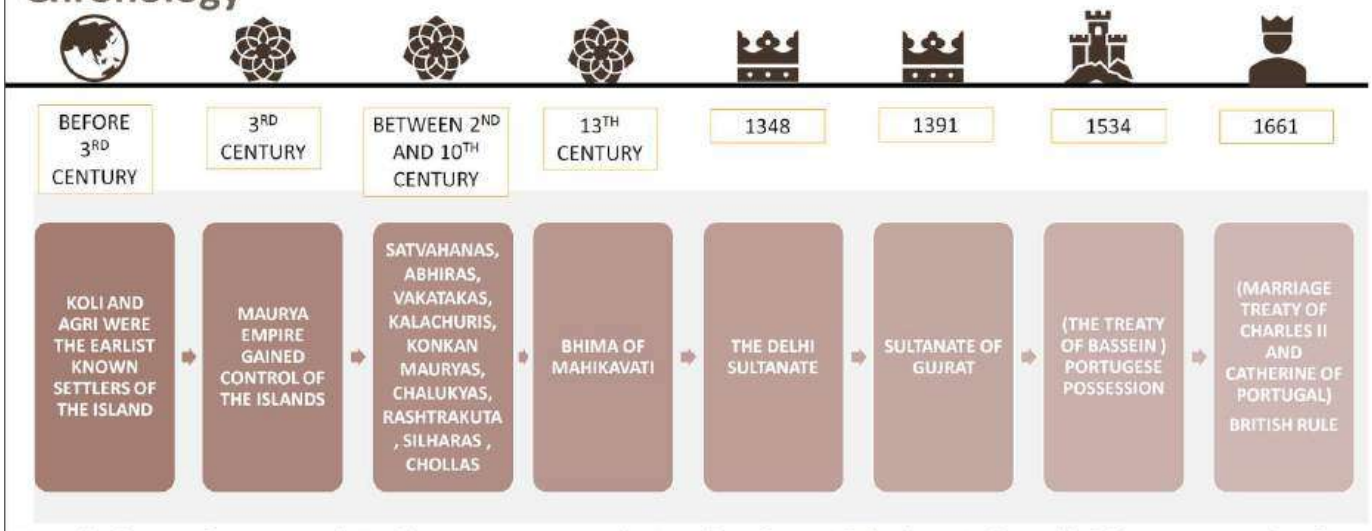
Reclaimation and Infrastructural Evolution Of the Island City Mumbai.



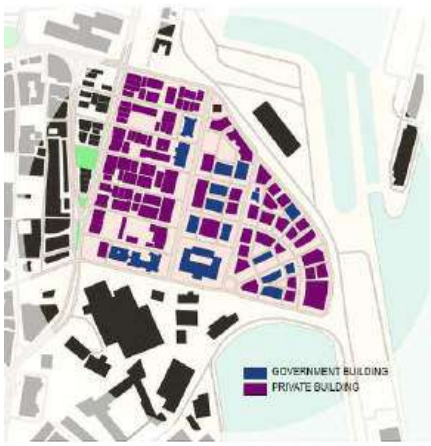
BALLARD ESTATE MUMBAI

HISTORY AND EVOLUTION OF MUMBAI

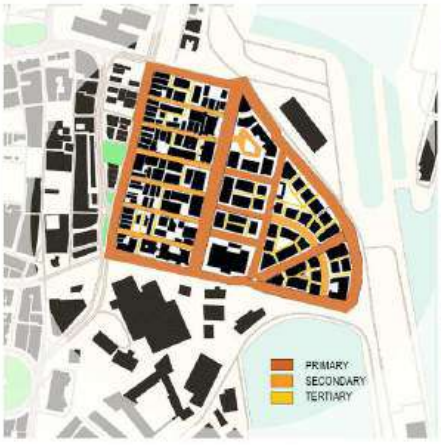
Chronology



Reclaimation and Infrastructural Evolution Of the Island City Mumbai.

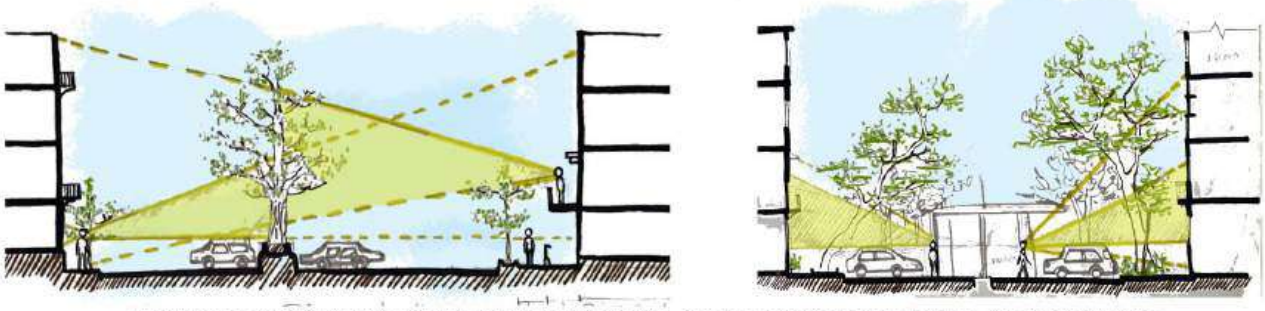


BUILDING USE



ROAD NETWORK

GREEN COVER



ROAD SECTIONS SHOWING THE VISUAL QUALITY OF THE BALLARD ESTATE

HOTOGRAPHS SHOWING THE HINDRANCE IN THE VISUAL QUALITY DUE TO THE PARKING AREAS AND ENCROACHMENTS IN AND AROUND BALLARD ESTATE.

Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: Theory and Methods of Urban Design		**Term: II**	**AY: 2023-24**	
Course Code: MUDE202	**Credits :** 2	**Semester: II**	**No of Periods per week : 02**	
Total Marks: 100	**Internal : 100**	**External : - N. A.**	**Theory Paper : N.A.**	

Faculty:	Subject coordinator : Prof. Harshada Katkar Team Members: Prof. Snehal Ghag

INTRODUCTION:

Urban Design theories are critical while developing understanding about cities and its complexities. Various tangible, intangible layers in the cities and its intricacies need to be analyzed through various methodologies dependent on context, temporal factor and user. These intricacies can be expanded through methodological understanding of the theories and further finding out the lacunas between reality and utopia. Here, 'utopia' is term largely referred for the theories originated in different timeline. So, the focus of this course would expand the spectrum of theories relates to present urban issues, gradually land in to an urban design project and will be playing vital role in providing insights into Urban Design theories and ground realities which motivate students to evolve in methodical solutions.

Methodology

Aim:

To evolve theoretical background for developing systematic relationship between the mapping of city and specific intervention strategies for it.

Objectives:-

- To evaluate spectrum of theories with respect to Urban Issues present in cities.
- To evolve theoretical understanding of various multidisciplinary theories for all types of Urban Design Issues in city.
- To establish relevance between theories related to birth, growth, death and intervention theories.
- To train students for developing strategic theoretical knowledge which is directly applicable in urban design project.

PROCESS:

Evolution of framework for study of theories related to Urban Design and City Planning.

Framework would be formulated thorough understanding of comparative theories and parameters.
Reading and analyzing theories is crucial part of this course.
Application of theories to cities needs to be formulated through detailed valuation of parameters.

Tools and techniques used for course conduction
Presentations, debates, discussions, site visits and case studies, application framework and toolkit.

Innovative approaches adopted in this semester
Theory of Urban form elective conducted with an integration of interdisciplinary perspectives from various domains such as sociology, economics, ecology and environment as parallels to urban design. And also student's learnt why to study these domains and their role of shaping an urban form.

Encouragement for library usage by students
To encourage library usage, the faculties conducted library orientation sessions by incorporating library resources in the assignments.

Horizontal Integration approach with other subjects in the semester:-
This course would be providing theoretical base for Urban Design studio project in mapping, analyzing, evaluating and providing design solution.

Adherence to the Course Plan and schedule of submission
Adherence to the Course Plan and schedule of submission is significant from smooth and effective progression of the course. To ensure that the faculty team initiated planning before the start of semester and maintained regular communication with the students for clearing their doubts. The flexibility was maintained throughout the course as per the topic grasping by the students and regular discussions helped to be on schedule.

Expected outcomes in terms of students understanding and skills:-
Analytical Understanding for Urban theories
Application of theories in practice, in mapping and design.
Evaluation of Urban Areas on basis of theoretical framework

Scope for improvement in future:-
We realized during the course, the pool of theories help students to have exposure to various concepts and theories. And hence students can narrow down the area of interests to deal with Urban design thesis. So, in the next course we will go deep down and dissect the theories.

Guest lectures, site visits or workshops conducted under this subject to increase general or focused understanding of the subject:-
In this semester three workshops conducted out of which two were relevant to boost writing, analytical, representation skills which encouraged reading and an extension to the theory of urban form and UD studio.

Course Plan Submitted v/s completed				
Subject: Compulsory elective- **Theory and Methods of Urban Design**			Course Code: MUDE 202	
Faculty:				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	**Introduction:-** Terminologies in urban design Nature and scope of urban design and the role of theories in UD	Terminologies and theories in urban design	**Yes**	CO 1
2	Discussion session	-	**-**	-
3	Imageability and Mapping in Urban Design	Urban design theories and projects	**Yes**	CO1, CO2
4	Urban design theories and various lenses	-	**Yes**	CO2 & CO4
5	Discussion session	-	**-**	-
6	Urban Design principles and parameters	Environmental theories	**Yes**	CO 3 & CO 5
7	Interventions methods	-	**Yes**	CO2 & CO 3
8	Evolution of cities	Urban Planning and Economic theories	**Yes**	CO 3 & CO5
9	Cities evolve through historic significance	Social and cultural Theories	**Yes**	CO 1 & CO3
10	Analytical framework derivation through theories	-	**Yes**	CO2 & CO 3
11	UD surveys and analysis tools	-	**Yes**	CO 2 &CO 4

How COs are aligned to each lecture and assignment and assess the outcomes wrt the same: (Explain in detail)

Course outcomes (COs) are typically aligned with the broader goals and objectives of a course. Each CO may encompass several learning objectives. Assessments such as exams, projects, papers,

and presentations are designed to measure whether students have achieved the intended COs.

Attendance and topics covered

Subject: THEORY & METHODS OF UD Instructor: Prof Harshada Kathkar & Prof Srishal Chhaya

S.No.	Adm. No.	Student Name	ATTENDANCE 05·12·23	NO.OF SHEETS 19·12·23	SUBMISSON DATE 02·01·24	STUDENT'S SIGN 16·01·24	MARKS 23·01·24	RETURNED & RECEIVED STUDENT'S 30·01·24	RE-SUBMISSION DATE 06·02·24	IMPROVED MARKS 05·03·24	RETURNED DATE 05·03·24	12·03·24	26·03·24
1	2023PA0003	ALTE SHUBHANGI SURYABHAN						X					
2	2023PA0004	GAWDE POONAM DILIP											
3	2023PA0002	MORE KUNAL PRAVIN											
4	2023PA0001	MULEKAR YOGINI RAHUL											

Format 2

PILLAI COLLEGE OF ARCHITECTURE, NEW PANVEL

Term I / II - AY 2023-24 - Sem: II

Subject: THEORY & METHODS FOR URBAN DESIGN Professor/s

Date	Topics Covered in Lecture	Assignment introduced	Assignment Submitted	Students' Signature	
05·12	Terminologies in Urban design Nature & Scope of Urban Design				
19·02	Discussion on submissions				
02·01	Discussion on submission & Imageability & Mapping in Urban Design				
16·01	Urban Design Theories for various parameters				
23·01	—— 11 ——				
30·01	UD Principals & Discussion				
06·02	Intervention methods & the supporting theories				
05·03	Evolution of Cities				
05·03	City evolved through Historic Significance				
12·03	Analytical framework derivation through theory				
26·03	UD surveys & Analysis tools				

IMAGES OF STUDENTS WORK (EACH ASSIGNMENT) TO EXPLAIN THE ACHIEVEMENTS TO BE COMPOSED BY IN-CHARGES IN THE PPT - FORMAT 12.

Assignment 1: Terminologies and theories in urban design

Urban Design theories/ concepts

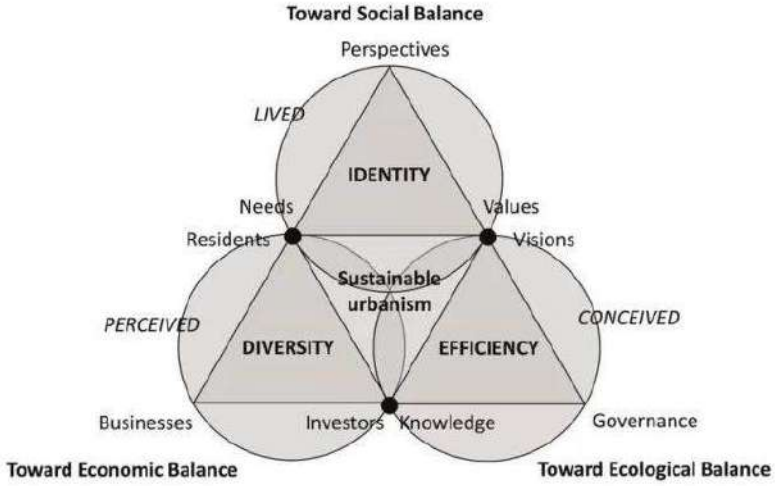
- Yogini Mulekar

Assignment 2: Environmental theories

SUSTAINABLE URBANISM

Sustainable Urbanism promotes environmentally friendly urban development with an emphasis on green spaces, renewable energy, and reduced carbon emissions. Reducing pollution, such as air, water, and sound, is important to maintain the quality of life.

Example: The Suzlon One Earth Campus in Pune is an eco-friendly corporate campus that incorporates various sustainable features. It includes passive cooling techniques, rainwater harvesting, solar energy utilization, green rooftops, and extensive landscaping.



NEW URBANISM

A movement popularized by **Andrés Duany** centred on organized building blocks with livable streets and housing options for people of all income groups. Walking distance to civic amenities, all streets connecting to form a network, and prominent public spaces are some of the characteristics of Urban Movement.

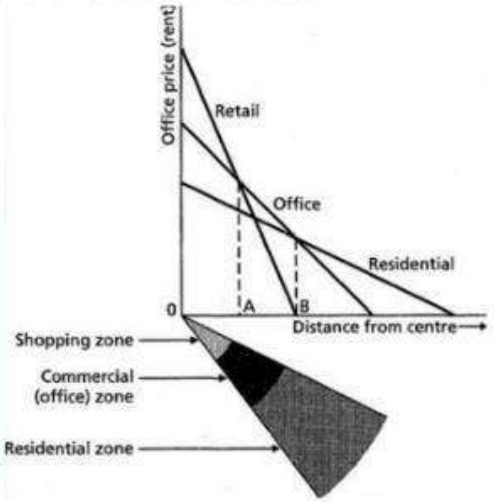
Example: Bhartiya City in Bengaluru incorporates New Urbanism principles by integrating residential areas with commercial spaces, parks, and community amenities. This integration fosters a sense of community and promotes a pedestrian-friendly environment.

Image Credits: bettercities.net

- POONAM GAWDE

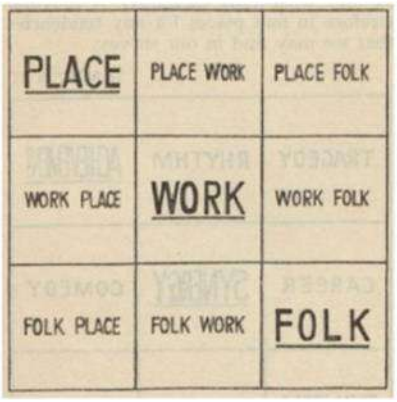
Assignment 03: Urban Planning Theories

8. Bid Rent Theory: different land uses have different spatial requirements and are willing to pay different amounts for land depending on its location and accessibility. For example, a high-density residential development may be willing to pay more for land in a central location with good access to transportation and amenities, while a low-density residential development may be willing to pay less for land in a less accessible location.



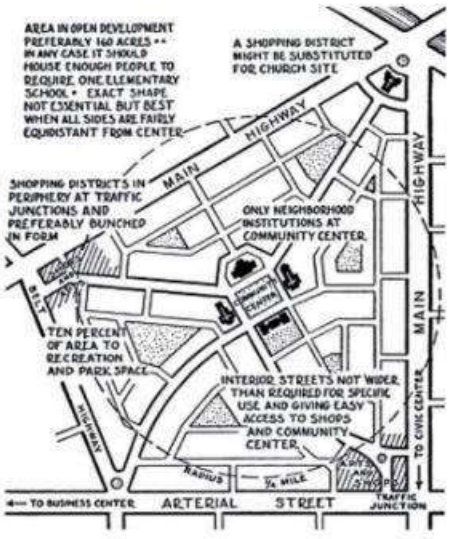
10.Geddesian triad : the concept of region and gave power to human life more than anything, His values lied on emphasizing human life and energy than to beautify them.

"Work, Place, Folk" and gave a theory of urban planning. Giving importance to local surveys and human centric designs, depending on an inhabitant's workstyle, their culture, heritage, beliefs, the region's topography, climatic changes, networks and everything, the geddian trio concept came into existence.



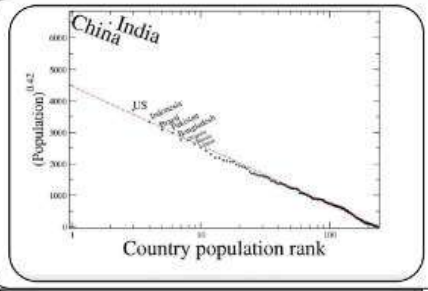
9. Nebourhood unit concept : The neighborhood unit theory was an initiative to bring everything in a single unit. Catering to the need of a single family on the basis of six factors:

1. A child can reach to school without crossing a street traffic
2. Each and every dwelling has access to centrally located elementary school, and doesn't exceed the distance more than one and a half mile
3. A departmental store to be located on a walking distance from a house.
4. Workplace to have convenient transportation.
5. 10% of a single unit should have greens with parks and playgrounds.
6. The infrastructure should cater to the needs.



-Kunal More

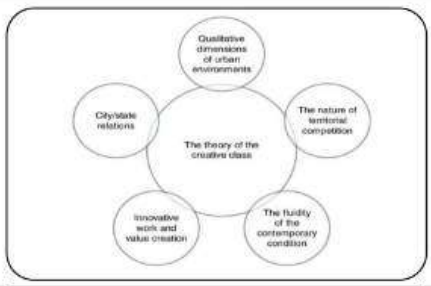
Assignment 04: Economic Theories



RANK SIZE RULE

The theory of Rank Size Rule, developed by **American linguist George Zipf in the 1930s**, is a framework for understanding the distribution of population and economic activity across urban areas. According to the theory, **there is a regular and predictable relationship between the size of a city and its ranking within a region or country.**

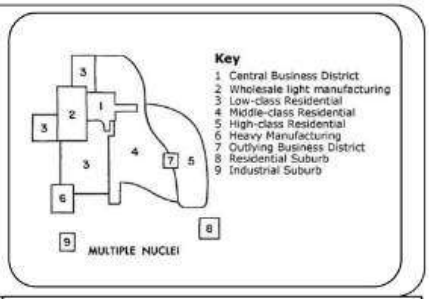
The Rank Size Rule proposes that the **population of a city is inversely proportional to its rank**. This means that the largest city in a region will be about twice the size of the second largest city, three times the size of the third largest city, and so on. This pattern is thought to hold true for cities around the world, regardless of their cultural, economic, or political context.



THEORY OF CREATIVE CLASS

The Theory of Creative Class, **developed by American economist and urbanist Richard Florida in the early 2000s**, is a framework for understanding the role of creativity and innovation in driving economic growth and development in cities. According to the theory, **cities that are able to attract and retain a talented and creative workforce will be more successful in attracting new businesses, generating new ideas, and driving economic growth**.

Florida defines the **creative class as "professionals, knowledge workers, and creative people"** who work in fields such as science, technology, engineering, the arts, and design. He argues that the creative class is a key driver of economic development, as they are more likely to generate new ideas, start new businesses, and drive innovation and growth.



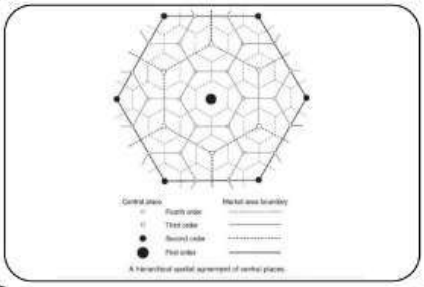
THE MULTIPLE NUCLEI MODEL

This theory, **developed by Chauncy Harris and Edward Ullman in the 1950s, challenges the idea of a single central business district and proposes that cities have multiple centers of economic and social activity.**

The model suggests that cities are more complex and dynamic than the Concentric Zone and Sector models suggest.

The multiple-nuclei model assumes **that similar economic activities are mutually attracted**, whereas dissimilar activities are mutually repelled, creating clusters of activities separated from other activities.

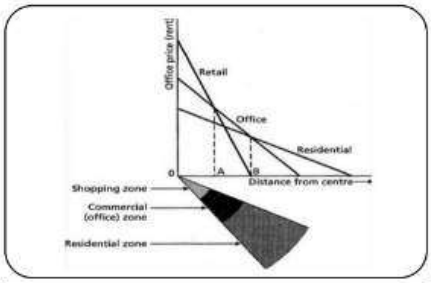
Most large US cities have multiple nuclei; the most iconic examples are Chicago and Los Angeles.



CENTRAL PLACE THEORY

The Central Place Theory is a framework for understanding the spatial distribution of cities and the factors that influence the location and size of urban centers. **Developed by German geographer Walter Christaller in the 1930s**, the theory proposes that cities are organized in a hierarchical pattern, with larger cities serving as centers for the surrounding smaller towns and villages.

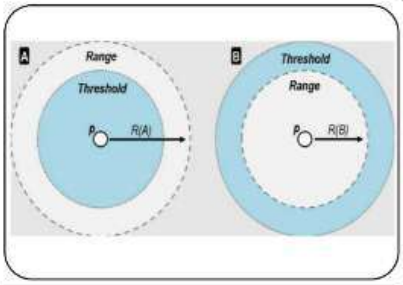
According to the Central Place Theory, **the size and location of a city is determined by its "market area," or the geographical region it serves as a center for goods and services.** Larger cities are thought to have larger market areas and to serve a greater number of smaller settlements, while smaller cities are thought to have smaller market areas and to serve a smaller number of settlements.



BID RENT THEORY

The theory of Bid Rent, **developed by American economist William Alonso in the 1960s**, is a framework for understanding the factors that influence the use and value of land in urban areas. According to the theory, the value of land is determined by the "bid rent" that different land uses are willing to pay for it.

The concept of bid rent is based on the idea that **different land uses have different spatial requirements and are willing to pay different amounts for land depending on its location and accessibility**. For example, a high-density residential development may be willing to pay more for land in a central location with good access to transportation and amenities, while a low-density residential development may be willing to pay less for land in a less accessible location.

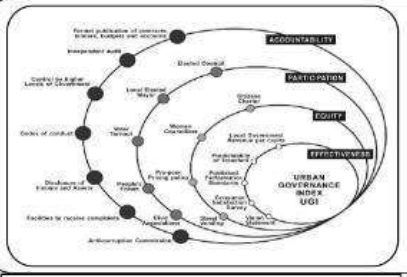


RANGE AND THRESHOLD

The theory of Range and Threshold, developed by **American geographers Brian Berry and Ronald Garrison in the 1960s and 1970s**, is a framework for understanding the spatial structure of cities and the processes that shape urban growth and development. The theory of Range and Threshold is **based on the idea that cities are not static, but rather dynamic and constantly evolving.** As cities grow and change over time, new ranges and thresholds are created, while others disappear or shift. The theory suggests that the location and configuration of ranges and thresholds are influenced by a range of social, economic, and physical factors, including transportation networks, land values, and cultural and demographic patterns and it provides a valuable tool for planners and policy makers working to shape the future of our cities.

Assignment 05: Social and Cultural Theories

URBAN DESIGN- SOCIAL AND CULTURAL THEORIES

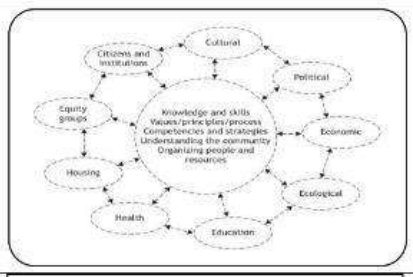


RIGHT TO THE CITY

The right to the city is an idea and a slogan first **proposed by Henri Lefebvre in his 1968** book Le Droit à la Ville.

This idea has been taken up more recently: a place for life detached from the growing effects that commodification and capitalism are proposed to have had over social interaction and the rise of posited spatial inequalities in worldwide cities throughout the last two centuries

Adequate housing; Water and sanitation; Basic services, including electricity; Work/livelihood; Food; Health and healthcare; Sustainable transport and energy; Education; A clean and a healthy environment; Social security; Equality, including gender equality; Information; Participation; and, Safety, security, privacy, and freedom from violence;



THE THEORY OF COMMUNITY DEVELOPMENT

This theory, **developed in the 1960s**, emphasizes the importance of community involvement and empowerment in the planning process.

The theory advocates for a bottom-up approach to planning, where the needs and desires of local residents are taken into account.

Community development involves the principles of sustainable development, empowerment, inclusivity, social justice, human rights, participative democracy, and equality.

These community-led programs led by specific communities aim to address the challenges and gaps oppressing the community members.

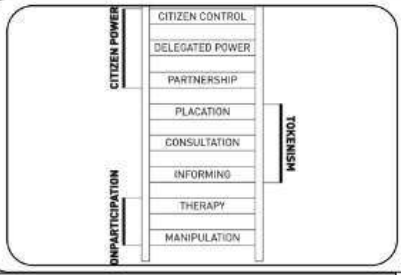
THE DEATH AND LIFE OF GREAT AMERICAN CITIES

The Death and Life of Great American Cities is **a 1961 book by writer and activist Jane Jacobs**.

The book is a critique of 1950s urban planning policy, which it holds responsible for the decline of many city neighborhoods in the United States.

Jacobs frames the **sidewalk as a central mechanism in maintaining the order of the city**. "This order is all composed of movement and change, and although it is life, not art, we may fancifully call it the art form of the city and liken it to the dance." To Jacobs, the sidewalk is the quotidian stage for an "intricate ballet in which the individual dancers and ensembles all have distinctive parts which miraculously reinforce each other and compose an orderly whole."

URBAN DESIGN- SOCIAL AND CULTURAL THEORIES

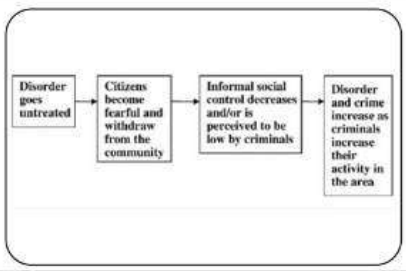


THEORY OF LADDER OF CITIZEN PARTICIPATION

The theory of Ladder of Citizen Participation, developed by **American social scientist Sherry Arnstein in the 1970s**, is a framework for understanding the different levels and forms of citizen engagement in the planning and decision-making processes.

According to the theory, citizen participation can take many different forms, ranging from non-participation and manipulation to partnership and citizen control.

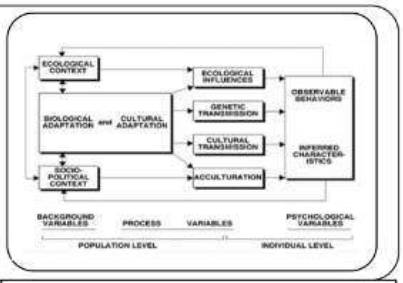
Arnstein's Ladder of Citizen Participation consists of eight rungs, each representing a different level of citizen engagement:



THEORY OF BROKEN WINDOW

The Broken Window theory, first proposed by **James Q. Wilson and George Kelling in 1982**, suggests that visible signs of crime, anti-social behavior, and neglect in a community can contribute to an increase in these types of behaviors. The theory is based on the idea that if a window is broken and left unrepaired, people walking by will get the impression that no one cares and that no one is in charge. This can lead to more windows being broken and more vandalism and crime occurring in the area.

The theory has been influential in shaping policing strategies, particularly in the areas of community policing and problem-oriented policing. According to the theory, addressing small problems, such as graffiti and vandalism, can help prevent more serious crimes from occurring. This approach focuses on the maintenance of order and the creation of a sense of community ownership and responsibility..



THEORY OF DRIVE IN CULTURE

he Theory of Drive in Culture, developed by **sociologist Gerard Saucier**, proposes that human behavior is motivated by two basic drives: the drive for autonomy and the drive for relatedness. These drives are thought to be universal and to influence all aspects of human life, including cultural and social behaviors.

According to the Theory of Drive in Culture, different cultures may prioritize these drives differently, leading to variations in cultural behaviors and norms.

The Theory of Drive in Culture has been influential in understanding how cultural values and behaviors are shaped by basic human needs. It offers a useful perspective on how different cultures may prioritize and express these drives in different ways, and how these drives may influence cultural practices and norms.

- POONAM GAWDE

Assignment 06: A combined report of all the assignments above

Format 1

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject : Urban and Architectural Conservation		**Session : 2023-2024**	**Year : 1st Year**	
Course code: MUDE 201	**Credits:** 2	**Semester : II**	**No of Periods per week : 1**	
Examination Scheme		**Sessional Marks -**	**Internal : 100**	**Total**
		Theory Paper - NA	**External Jury : NA** **Theory Paper : NA**	**Marks** 100

Faculty	Subject coordinator : Prof. Sasmit Acharekar

Course Aim and objective :

Background: -

Our cities are layered with historic built and unbuilt environments, often complexly interwoven within new urban growth. Their values, meaning and inherent significance of heritage is constantly changing with respect to its changing context. The challenges of urban conservation, therefore, lies within the understanding of the inherent meaning of heritage in the built environment. Within the Indian context, centuries of inherited histories have left behind with us an onus of preservation, conservation and challenges of interpreting the meaning of the old with the new. The practice of urban conservation therefore is centered around interpreting the embedded socio-cultural values of historical significance in urban heritage via sensitive approaches of conservation practices.

Aim:-

The course aims to provide a conceptual overview of the practice of urban conservation through various theoretical positions and practical applications. The course aims to allow for the development of independent, critical thinking and ethical positions, and to develop a sensitive lens in evaluating heritage.

Course Objectives:-

1. To provide a conceptual understanding of values of urban heritage, ethics and definitions

2. To provide an overview of the structure of urban conservation organizations, their roles and objectives.
3. To provide a theoretical framework demonstrated within an existing site context.

Process:-

Students were introduced to the fundamental of understanding heritage conservation as a discipline. Theory session covered topic related Heritage charters, value classification and grading. Topics related to process of evaluation of heritage sites. Classification and proposals for world heritage sites, various government and non-government bodies working towards awareness and protection of urban heritage in India.

The course follows a discussion-based lecture within thematic sessions, where contemporary urban issues are evaluated through the lens of various theoretical approaches. The learning of theory session were integrated with the UD Studio site to further the site-based activity and community analysis to interpret the heritage built environment.

Course Outcome.

1- Students will be able to Understand and review existing policy framework and fundamental of heritage asset identification methods for Conservation in India.
2- Students will Learn and analyze policy framework and conservation approached over the world.
1. Students will Analyze and evaluate potential heritage assets in Area / town / region identified in Urban Design Studio. Mapping and documenting heritage values, delineation of heritage precincts, socio-cultural values.
3- Students will propose list of heritage assets and guidelines for Identified assets in study area.
4- Study and analyze Charter of conservation.

Suggested Reading Books/ Links/Research Journals

S.No.	Name of the reference
1	Architectural Conservation: Principles and Practice by Aylin Orbasli
2	Historic Cities: Issues in Urban Conservation
3	Conservation of Historic Buildings By Bernard Fielden
4	Heritage and environment by Shyam Chainani

5	English Heritage: https://www.english-heritage.org.uk/learn/conservation/buildings-conservation/
6	Handbook of Conservation of Heritage Buildings: https://cpwd.gov.in/Publication/ConservationHertbuildings.pdf
7	Design from Heritage: Strategies for Conservation and Conversion by Marieke Kuipers and Wessel de Jonge
8	Architectural Conservation in Asia: National Experiences and Practice by Robert G. Thomson and John H. Stubbs
9	A conservation manual for owners and occupiers. Heritage buildings and precincts of Mumbai by Nayana K and Abha N. Lambah
10	Urban Planning Conservation And Preservation By Nahoum Cohen
11	Design of Cities by Edmund Bacon
12	'Townscape' and 'The Concise Townscape' by Gordon Cullen

Course Details :

Week	Topic	Objectives	Date	Related Assignments	Marks weightage %
1	**Advocating Urban Conservation:** Establishing the values of conservation	-to be able to establish the values of conserving the built environment with respect to the pressures of development and stakeholder perspective.	Week -01	Present arguments for and against the conservation of the selected structure/s, while establishing the values of conservation.	10
2	**What is heritage?** Origins of Urban conservation in the Indian context; definitions and ethics of conservation. Site discussion.	-to provide a foundational framework of understanding key definitions and ethics	Week -02	Identify of potential heritage buildings within the UD site-	10
3	**Introduction to an overview of Charters.**	-to develop a critical understanding of the what and why of conservation.	Week -03 % Week -04	To identify potential heritage precincts and list their classification	20

	Value classifications; What is Heritage listing? What is a Precinct/Heritage Precinct?			by applying the theories.		
4	**Methods of Condition mapping** Introduction to Case-studies		Week -05	Presentation: Condition mapping of potential identified assets		20
5	**Introduction to Conservation Organizations** Grading systems	To examine the different roles, procedure and implementation of approach to conservation –at an architectural + urban scale	Week -06 Week -07	**Student Presentations:** Condition Mapping		
6	**Discussion on Strategies**		Week -09	Final Presentation on case-studies, strategies and guidelines		40
7	**Student Presentation**: Case-studies, Strategies and Guidelines		Week -10			

The Venice Charter

Kunal pravin more
Heritage and conservation
Sem-02 M.arch
PICA

The Venice Charter consists of 16 articles:

- This articles provide detailed guidance on the preservation and restoration of cultural heritage.
- 1. Definition of Cultural Heritage: The charter defines cultural heritage as including monuments, groups of buildings, and sites with artistic, historic, scientific, or cultural value.
- 2. Responsibility for Conservation: It stresses the responsibility of nations to safeguard their cultural heritage, recognizing the importance of international cooperation in conservation efforts.
- 3. Respect for Cultural Value: Conservation work should respect the cultural value and authenticity of heritage sites, avoiding any alterations that could diminish their significance.

The Burra Charter

The Australia ICOMOS Charter for Places of Cultural Significance

Conservation Charter

The Burra Charter - an Australian 're-invention' of the Venice Charter.

M.Arch | Urban Design | Sem II | Urban Conservation | Ar. Yogini Mulekar

Australia ICOMOS

INTERNATIONAL COUNCIL ON MONUMENTS AND SITES

SUBMITTED BY: AR. POONAM DILIP GAWDE
M.ARCH- SEM 2 | PICA
SUBJECT: URBAN CONSERVATION
ASSIGNMENT: 03
Sources: https://australia.icomos.org/wp-content/uploads/Collaboration-for-Conservation-A-brief-history-of-Australia-ICOMOS-and-the-Burra-Charter, ResearchGate, Google, Wikipedia

Australia ICOMOS

- Australia ICOMOS (International Council on Monuments and Sites) is a non-government, non-for-profit organization of cultural heritage professionals formed as a national committee of ICOMOS in 1976.
- Australia ICOMOS' mission is to lead cultural heritage conservation in Australia by raising standards, encouraging debate and generating innovative ideas.
- Australia ICOMOS has a Mission Statement, Ethical Principles and a Code of Ethics.
- Australia ICOMOS is also bound by the ICOMOS Statutes (these are the Statutes set by ICOMOS International). Nationally, Australia ICOMOS is bound by the Australia ICOMOS Rules 2013.

The strategic priorities for Australia ICOMOS are:

- Advance and promote national standards and best practice
- Engage with contemporary issues in cultural heritage
- Be an influential voice to government
- Enhance recognition of Australia ICOMOS
- Empower a diverse membership

Steps in Planning for and managing a place of cultural significance

UNDERSTAND THE PLACE	Define the place and it's extent Investigate the Place; History, use, associations, fabric
ASSESS THE CULTURAL SIGNIFICANCE	Assess all values using relevant criteria Develop a statement of significance
IDENTIFY ALL FACTORS AND ISSUES	Identify obligations arising from significance Identify future needs, resources, opportunities, and constraints and conditions.
DEVELOP POLICY	
PREPARE A MANAGEMENT PLAN	Define priorities, resources, responsibilities and timing Develop implementation actions
IMPLEMENT THE MANAGEMENT PLAN	
MONITOR THE RESULTS AND REVIEW THE PLAN	

Australia ICOMOS

INTERNATIONAL COUNCIL ON MONUMENTS AND SITES

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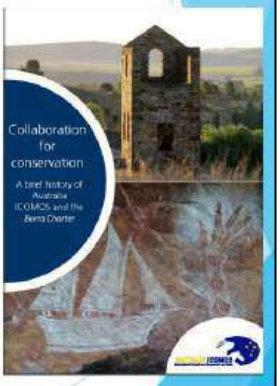
Australia ICOMOS HISTORY

- Australia ICOMOS has been an active and influential heritage conservation organization for forty years. As part of its 40th Anniversary (in 2016), Australia ICOMOS prepared a concise history of its origins and significant achievements, in particular the evolution of the Burra Charter.
- In this document we find more information about Australia ICOMOS and its role, nationally and internationally. The history of the organization and its achievements is presented in the context of the evolution of heritage practice in Australia and with reference to international development. It provides an overview of the work done by Australia ICOMOS with our international colleagues and partner organizations.
- This publication will be useful for current and future members of Australia ICOMOS, for governments, organizations, project collaborators, students and for community members with an interest in heritage.



Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: (Choice Base Elective -I) Real Estate and Land Management in Urban Design		**Term: I**	**AY:2023-24**	
Course Code: MUDE 301	**Credits : 2**	**Semester: III**	**No of Periods per week : 1**	
Total Marks: 100	**Internal :100**	**External :**	**Theory Paper :**	

Faculty:	Subject coordinator : Ar. ANAND SAHASRABUDDHE Team Members:

Attach Following documents:

INTRODUCTION:

This Elective is based on developing an understanding of the key aspects / factors that shape urban development which influence by real estate. While designing urban context planner need to keep in mind the relation between the impacts of urbanization on real estate. This elective will help to understand the real-estate approach towards urban design and urban land use.

Methodology (All the following points must be addressed in ALL subjects)

Aim: -

1) Understand the Importance of real estate in urban design
2) Understand the different urban bylaws, development control regulations, land use and types in real estate
3) The role of respective planning authorities and planning schemes in the urban design which impact on real estate.
4) To develop the basic understanding of land economics and real estate value through the study of project feasibility report and land valuation

Objectives: -

1) To focuses on developing an understanding of the key aspects / factors that shape and influence for real estate.
2) To study how to create an approach towards the urban design and planning with respect to urban bylaws, development control regulations, real estate properties, land use planning, also study the land economic activities, demographic trends, transportation and local government behavior as they affect real estate.
3) To identify and evaluate the real estate value of urban context by doing critical analysis on urban development in previous years.

Process: -

The studio was divided in five sections

1st Section is majorly focus on introduction of topic and its relevant of urban development. In this session students should realize the and understand the Importance of real estate in urban design. Also, students should have an introduction of ownership documents required for real estate development etc.

In the 2nd section: focus on types of properties & the outline basic principles of economic theories of urban areas and land economics etc. also another topic cover: Development control regulations, and various tools such as FSI, premium FSI, TDR and their application in urban development

In 3rd section: Legal approach towards real estate, terminologies and theories Property rights and instruments of transfer of property rightsTo understand the legal framework urban planning process and roles and responsibilities of various authorities under the law.Legal framework of urban planning Acts related to real estate.

4th section: Concepts of various asset class and their characteristics impact on real estate. Definitions of various asset class Measurement of performance of asset class Basic information of Market principles of trading of various asset classes such as sale, lease rent, revenue share etc.

5th section Definition and Basic Role of Valuation in Real estate, Types Of valuation, Basic Introduction of Project feasibility Report. How valuation and project feasibility report can make an important role in real estate development.

Course Plan Submitted v/s completed				
Subject: **Real Estate and Land Management in Urban Design**			Course Code 301	
Faculty:				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	To study the fundamental concept of Real Estate.			
2	Definition of real estate, measurements of areas, frequently used terms			
3	To understand types of properties & the outline basic principles of economic theories of urban areas and land economics etc.			
4	To develop an understanding of urbanization, population growth and land use planning	Submit a report on role of various planning authorities in urban development		
5	Development control regulations, and various tools such as FSI, premium FSI, TDR and their application in urban development			
6	Property rights and instruments of transfer of property rights To understand the legal framework urban planning process and roles and responsibilities of various authorities under the law. Legal framework of urban planning Acts related to real estate			

7	Definitions of various asset class Measurement of performance of asset class Basic information of Market principles of trading of various asset classes such as sale, lease rent, revenue share etc.	Submit a report on role of land use types and reservation in urban development.		
8	Definition and Basic Role of Valuation in Real estate, Types Of valuation, Basic Introduction of Project feasibility Report. How valuation and project feasibility report can make an important role in real estate development.			

Format 4

M.E.S.

PILLAI COLLEGE OF ARCHITECTURE , New Panvel

C O U R S E R E P O R T

Subject: Elective-Urban Design Seminar		**Term:**	**AY: 2023-24**	
Course Code: MUDE 402	**Credits :** 2	**Semester: IV**	**No of Periods per week : 4**	
Total Marks: 100	**Internal : -100**	**External : -**	**Theory Paper : -**	

Faculty:	Subject coordinator : Harshada Katkar Team Members: Snehal Ghag

INTRODUCTION:

This course is designed to guide students in completing the written portion of their thesis, a vital component for their master's degree in urban design and conservation. Collaborating closely with their supervisors, students will craft the content of their written document. Additionally, course instructors will serve as copy editors, assisting students during class sessions to refine the structure, format, and language of their work.

Course Structure: The course will feature lectures delivered by instructors, covering the structure and elements of each chapter.

Methodology (All the following points must be addressed in ALL subjects)

Aim: -

To educate students about research writing and methodological framework for any Urban Design Project.

Objectives:-

1. To develop writing skills in a standard format (Research writing standards).
2. To put forward and orientating thoughts as per the thesis proposals through writing.
3. To complete the M. Arch. Thesis Black book in a standard and structured format.
4. To develop ability of students to formulate framework for any Urban Design Project.

Methodology:-

Elaborative guidance lectures will be conducted on each stage of thesis and understanding of urban

Design Project will be evolved through it. Research methodologies which are adopted by students will be discussed and appropriate representation and writing techniques will be introduced to students. UD seminar subject instructors will work with the students during class hours to support them towards fine tuning the structure, form and language of their written document. So, the schedule is formulated in such a way, that formulating project specific framework for the report with respect to deadline will be achieved.

Horizontal Integration approach with other subjects in the semester: -

UD seminar is an allied elective to support M. Arch. thesis dissertation to develop writing skills in the specific format standardized for black book.Expected outcomes in terms of students understanding and skills: - Methodological framework for the report of Thesis as per the topic of student and its detailed structure.

Black book submission for plagiarism check Final outcome:

Two copies of Hard bound M.Arch. Thesis black book

Course Outcomes

CO1: Master the application of research writing standards, including proficient citation techniques, proper formatting conventions, and clear language usage.

CO2: Effectively communicate and align thoughts with thesis proposals through written expression, demonstrating clarity and coherence in conveying ideas.

CO3: Successfully compile the M. Arch. Thesis Black book in a meticulously structured format, ensuring consistency and adherence to established guidelines.

CO4: Acquire the capability to formulate comprehensive frameworks for Urban Design Projects, encompassing problem analysis, conceptualization, strategic planning, and implementation strategies.

CO5: Develop critical thinking skills necessary to evaluate and refine written work, fostering a capacity for continuous improvement in writing proficiency and project development.

Horizontal Integration approach with other subjects in the semester:-

This elective is curated in way to support Thesis II course. Formulating dissertation book in methodical way will be focused in this subject.

Studio outcomes

Analytical skills development, black book for thesis of students

Course Plan Submitted v/s completed				
Subject: **Elective-Urban Design Seminar**			Course Code : MUDE 401	
Faculty:				
WEEK	**TOPIC TO BE COVERED**	**ASSIGNMENT**	**Adhered to the schedule or not**	**Which COs are aligned to each lecture and assignment**
1	Introduction to the course	Data collection	YES	-
2	Discussion/ Presentation	Discussion/ Presentation	YES	CO1
3	Discussion/ Presentation	Discussion/ Presentation	YES	CO 1
4	Abstract, Research question, Aims and objectives	Submit titles for the book specific to thesis research- Discussion	NO Extra discussion needed	CO2 & CO 1
5	Framework of Dissertation	Submit a rough structure for the book (Share a hard copy with UD seminar subject faculties an submit online on classroom)	YES	CO 4
6	Holiday (Write Premise/Research question, Aims and objectives)	Submit online (Structure and progress writing)	YES	-
7	Chapter 1: Introduction and abstract/Premise	Draft writing: Editing of	YES	CO 1 & 5

	Chapter 3: Research Methodology (Build diagram)	Introduction, RM chapter and discussion (Share a hard copy to your guide and submit online on classroom)		
8	Chapter 2: Literature Review	Draft writing: Editing of Literature review (Share a hard copy to your guide and submit online on classroom)	YES	CO2
9	Chapter 4: Cases/ Case studies	Draft writing: Editing of Cases/ Case studies	YES	CO 4
10	Combine chapter 1 to 4- Revised draft 1	1st Draft of Introduction, Literature review, Research methodology and cases/case studies	YES	CO 3 & CO5
11	Combine chapter 1 to 4- Revised draft 2	2nd Draft of Introduction, Literature review, Research methodology and cases/case studies **(Students can add titles which are relevant to their own thesis research)**		CO 1, 2 &3
12	Holiday Start writing chapter 5: Site Study and analysis	1st draft Submit online (Structure of remaining chapters)	YES	-
13	Chapter 5: Site Study and analysis	Draft writing: Editing of Site study and	YES	CO 2 &3

	Chapter 6 onwards: Can include strategies and Guidelines, demonstrations, scenarios, structure plan, interventions	other chapters (Share a hard copy to your guide and submit online on classroom)		
14	Chapter 5 and other chapters	Draft writing: Editing of Site study and other chapters (Share a hard copy to your guide and submit online on classroom)	YES	CO 3 &2
15	Chapter 5 and other chapters draft 1	Draft writing: Editing of Site study and other chapters draft 1	YES	CO 3 & 2
16	Combined draft plagiarism check (Prefinal)	**Final combined chapters**	YES	-
17	Final book submission	Final book submission	YES	-

It has been observed in this studio that design strategies for green field site needs to be thoroughly explored along with knowledge of latest trends and practices in field of Urban Design. Term plan needs to incorporate dedicated time for understanding this through research.