CPP project planning report new-converted

Lab report 4 Stoke deseal engeine (Agnel Polytechnic)

MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

VIVEKANAND EDUCATION SOCIETY's POLYTECHNIC

PROJECT PLANNING REPORT

Academic year: 2021-22

TITLE OF THE PROJECT

Planning estimation and designing of G+1 house plan

***Program*: Civil Engineering**

***Program code*: CE5I**

***Course:* Capstone Project Planning**

***Course code*: 22058**

Annexure A

MAHARASHTRA STATE

BOARD OF TECHNICAL EDUCATION

Certificate

This is to certify that MUSKAN SHARMA, NIKITA SAWANT, EHSAN ANSARI, AJMAL SHAIKH of Roll No.67,48,63,02 Enrollment no 1900040431, 1900040412, 1900040427, 1800040416 of **5th** Semester of Diploma in **Civil**, Institute **V.E.S. POLYTECHNIC** (Code: 0004) has Completed ***Project planning report*** having title Planning estimation and designing of G+1 house plan in a group consisting of 04 candidates under the guidance of faculty SANIKA KANDALEKAR.

Subject Teacher **Head of the Department** **Principal**

Seal of Institution

Group Details:

Sr.No.	Name of group members	Roll No.	Enrollment No.	Seat No.
1	MUSKAN SHARMA	67	1900040431	102434
2	NIKITA SAWANT	48	190040412	
3	EHSAN ANSARI	63	1900040427	101785
4	AJMAL SHAIKH	02	1800040416	

Name of Guide: SANIKA KANDALEKAR

ACKNOWLEDGEMENT

We express our gratitude to everyone who supported us throughout the course of this project. We are thankful for their aspiring guidance and friendly advice during the project work. We are sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the project. We express our warm thanks to Program Coordinator Mr Aniket T for his support and guidance at Vivekanand Education Society of Polytechnic. We would also like to thank our guide SANIKA KANDALEKAR and all the people who provided us with the facilities being required for our project. The whole team of the Civil Engineering department helped us throughout the project and also helped us to clear our obstacles. It's a great honor to be a student of the esteemed institute of V.E.S. Polytechnic and got several opportunities to learn everyday something new

ABSTRACT

Our project focuses on planning designing of estimation of G+ 1 house plan. In this exclusive civil project one will get some vital information on how to develop perfect house plan for any G+1 house. The main objective of our project is to know the various design aspects like planning and estimate We have planned to design a house consisting of two floors (G+1).The planning is done as per the requirements Project begins with starts the start of Layout of the house or structure followed by Design and Analysis of the structure which is succeeded by cost estimation and planning for the said project. This project involves the layout, design, analysis, planning and cost estimation of a G+1 house The layout of the proposed G+1 house is based on a plot of size15.40m x 11.75m. The shape of the house is rectangular in plan. The house consists of ground floor and first floor. The staircase is provided with enough safe. National Building Code (NBC). All the drafting was done using AutoCAD. Also these drawings made on AutoCAD also served as a base for transfer of the structure for analysis and design. The cost estimate for the project has been calculated using Centre Line Method.

INDEX

SR. NO	TITLE OF EXPERIMENT	DOP	DOS	MARKS
1	Project Title (Problem/Task Identification(02)			
2	Literature Survey/Industrial Survey/Questionnaire (02)			
3	Project Proposal (03)			
4	Execution plan of project in fifth semester (02)			
5	Log Book (02)			
6	Portfolio Preparation (04)			
7	Final Report Preparation(06)			
8	Presentation (02)			

1. INTRODUCTION

• ESTIMATE:An estimate is the anticipated or probable cost of work and is prepared before the construction is taken up. It is indeed calculations or computations of various items of an engineering work.

• SITE PLAN: It is the plan drawn for a particular construction showing its position with respect to approaching roads, main bazars, markets and other permanent features in populated area. It shows the location of the area under construction with respect to the other areas and on generally the names of the owners of areas or property holders adjoining to it are also denoted. North line is also clearly marked on it.

• LINE PLAN Line plan can be defined as the plan of a particular construction simply showing main features with the help of the single lines of different portions of the constructions. Details of constructions are not generally shown on this plan. This inside and outside dimensions shown on this plan should necessarily be corresponding to actual dimensions.

• DETAILED PLAN : This plan indicates a plan of a construction drawn to a definite scale, showing all detailed information required for its execution. Various sections and elevations are clearly drawn on this plan.

• CENTRE LINE PLAN : This is actually a layout plan drawn to facilitate the laying out of foundation lines and other features. It is generally fixed on the entrance or at exit in the central place of the colony for the guidance of the inhabitants and outsiders.

• SUPPLEMANTARY ESTIMATE: When some additions are done in the original work, a fresh detailed estimate is prepared to supplement the original work. This estimate is called supplementary estimate. It is also accompanied by all the papers as required in the detailed estimate.

2. LITERATURE SURVEY

• Azidah Ziden, Fatariah Zakaria & Ahmad Nizam Othman (Universiti SainsMalaysia, Penang, Malaysia) 2012: This study shows how AutoCAD can be an effectivetool in increasing the performance of students of various levels. It helps in propervisualisation of the project to be undertaken and thus help students in learning EngineeringDesign better. The study also shows how AutoCAD increases the efficiency of thestudent/designer

• In Estimating and Costing in Civil Engineering (Theory andpractice including specification and valuation), B.N Dutta hasfocused on various methods of estimating and costing ofquantities. It emphasizes on the calculations of quantities ofmaterials, tools, equipment, labours etc. and cost associatedwith them. It consists of numerous examples of estimation ofbuildings, RCC works, culverts, bridges, etc. Method ofpreparing preliminary estimates, analysis of rates,specification, methods of measurements have been dealt indetail with illustration. Many technical data have been included.

• In Design and Estimation of a reinforced building: A CaseStudy (IOSR Journal of Mechanical and Civil Engineering), thecost of various structures of the administrative block of the building are worked out and the design part ids done with the help of IS Code 457:2000.

3. Project Proposal

Data Required Preparing Estimate

- Plan, Elevation & section.
- Schedule of the opening of doors and windows.
- Foundation drawing.
- Column & Beam drawings.

MEASUREMENT SHEET

Sr. No	Description	No.	Length m	Breadth m	Depth	Quantity	Total quantity

Introduction

AutoCAD is a commercial software application for 2D and 3D computer aided design and drafting for various fields in engineering like civil, mechanical, electrical, automation,architecture etc. It was first launched in 1982 by Autodesk, Inc.AutoCAD Architecture allows designers to draw 3D objects such as walls, doors and windows, with more intelligent data associated with them rather than simple objects. The data can be programmed to represent products sold in the building industry, or it can be extracted into a file for pricing material estimation etc.

In this project AutoCAD has been used extensively for drafting and modelling for the structure. Also the various detailing for the foundation has also been completed using AutoCAD. Use of AutoCAD has drastically reduced the drafting time when done manually thus saving time which can be used in other productive work

• Site plans are drawn to show the location of a home on the property in its context. It is an overhead view of the construction site and the home as it sits in reference to the boundaries of the lot. Site plans should outline location of utility services, setback requirements, easements, location of driveways and walkways, and sometimes even topographical data that specifies the slope of the terrain.

• A floor plan is an overhead view of the completed house. On the plan, you will see parallel lines that scale at whatever width the walls are required to be. Dimensions are usually drawn between the walls to specify room sizes and wall lengths. Floor plans will also indicate rooms, all the doors and windows and any built-in elements, such as plumbing fixtures, cabinets, water heaters, furnaces, etc. Floor plans will include notes to specify finishes, construction methods, or symbols for electrical items.

• Elevations are a non-perspective view of the home. These are drawn to scale so that measurements can be taken for any aspect necessary. Plans include front, rear and both side elevations. The elevations specify ridge heights, the positioning of the final fall of the land, exterior finishes, roof pitches and other details that are necessary to give the home its exterior architectural styling.

• A section cuts through the dwelling and the location of this 'cut through' is noted on the floor plan. It describes how the building will be constructed and discusses how the internal finishes are to look. Sections are used because they explain certain conditions in more detail. These conditions may include ceiling height, ceiling type (flat or vault), and window and door dimensions.

• Foundation plan, including dimensions and locations for footings.

• Framing plan, for wall, including the size of the lumber to be used - usually 2x4 or 2x6.

• The Sub-floor Plan gives details of how this area will be constructed and how services will be arranged

• Roof plans, including type, pitch and framing.

• Interior elevation drawings (interior walls).

• Detail drawings, such as built-in shelving, moldings, and columns.

• Schedules for elements such as windows and doors.

• Structural layouts.

• Electrical and telecoms drawings: show locations of all the outlets, TV sockets, switches and fixtures. Also indicates which switches operate which lights, and where the electric lines should be run,.

• Plumbing schematic drawing: plumbing fixtures and piping.

• Subdivision plans also known as an allotment plans or Strata plans. Show information regarding adjoining properties

- **Proposed Methodology**

Preparing the plan for G+1 structure
Drawing the plan in AutoCAD
Drawing in Revit
Estimation using excel software

4. Execution Plan of Project in Fifth Semester

S. No.	Details of activity	Planned Start date	Planned Finish date	Name of Responsible Team Members
1	Finalization of project Title	03/09/21	08/09/21	All team members
2	Project Definition	14/09/21	18/09/21	All team members
3	Plan	22/09/21	29/09/21	All team members
4	Draw in sheet	01/10/21	11/10/21	All team members
5	Draw in autocad	12/10/21	26/10/21	All team members
6	Design in revit	27/10/21	05/11/21	All team members
7	Estimating excel sheet	01/11/21	22/11/21	All team members
8	Demonstration of project and final submission Making of report	24/11/21	15/11/21	All team members

5.

6. Log Book

Week: 1 and 2 **Duration:**

_____to

_____ Activities Executed:

- Project identification
- Submitted 2 project topics as
- planning estimation of G+2 Residential plan.
- planning estimation and costing of G+1 House plan
- Finalization of Topic
- From the given topics is planning estimation and costing of G+1 House
- plan finalized.

Week: 3 and 4 **Duration:**

_____to

_____ Activities Executed:

- Literature Survey:

- Azidah Ziden, Fatariah Zakaria & Ahmad Nizam Othman (Universiti SainsMalaysia, Penang, Malaysia) 2012: This study shows how AutoCAD can be an effectivetool in increasing the performance of students of various levels. It helps in propervisualisation of the project to be undertaken and thus help students in learning EngineeringDesign better. The study also shows how AutoCAD increases the efficiency of thestudent/designer
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- In Design and Estimation of a reinforced building: A CaseStudy (IOSR Journal of Mechanical and Civil Engineering), thecost of various structures of the administrative block of the building are worked out and the design part ids done with the help of IS Code 457:2000.

Week: 5 and 6 **Duration:**

_____to

_____ Activities Executed:

Activities Planned:

1. Resources Required

1. Scope:

- Functional planning of G+1 House Plan
- Designing of the house plan G + 1

Week: 7 and 8 **Duration:**

_____to

_____ Activities Executed:

1.

Resource

s

Required:

Hardware

Sr. No.	Name of the Equipment	Specification	Quantity
1	Computer System	1GB RAM or above	1

Software

Sr. No.	Name of the Software	Specification	Quantity
1	Windows	Windows 7 or above	1
2	Autocad		1
3	Microsoft PowerPoint	MS Office 7 or above	1
4	Revit		1

Week: 9 and 10 **Duration:**

_____to

_____ Activities Executed:

1. Preparing Action Plan

S. No.	Details of activity
1	Finalization of project Title
2	Project Definition
3	Plan
4	Draw in sheet
5	Draw in autocad
6	Design in revit
7	Estimating excel sheet
8	Demonstration of project and final submission Making of report

Week: 11 and 12 **Duration:**

_____to

_____ Activities Executed:

1. Preparing Detailed Action Plan

S. No.	Details of activity	Planned Start date	Planned Finish date	Name of Responsible Team Members
1	Finalization of project Title and Scope			All team members
2	Project Definition and design structure			All team members
3	Design proc edure (algorithm)			All team members
4	Draw Design			All team members
5	Coding			All team members
6	Coding			All team members
7	Testing and error correction			All team members
8	Demonstration of project and final			All team members
9	submission Making of report			All team members

7. Portfolio Preparation

Sr No	Questions	Response	
1	Are You able to plan for execution of given work?		
2	Are you able to take appropriate decisions?		
3	Are you able to arrange resources?		
4	Are you able to work as a member and leader of team?		
5	Are you able to communicate properly?		
6	Are you able to resolve the conflicts?		
7	Are you able to manage the time well?		
8	Do you have concern for ethical, sociertal and environmental issues?		
9	Do you have ability to learn from experiences?		
10	Does changing Technology threaten you?		

ACTION PLAN FOR 6TH SEMESTER

Example

Sr. no.	Week	Activity to be performed	Planned Start date	Planned Finish date	Name of Responsible Team Members
1	1st	Procuring components,			
2	2nd	component testing			
3	3rd	Developing The Ladder Program			
4	5th	Program Testing			
5	7th	Making of Hardware setup			
6	8th	PLC wiring			
7	10th	Trouble shooting			
8	12th	Documentation			

REFERENCES AND BIBLIOGRAPHY

(References according to your literature review plus any additional if any)

1. www.globalspec.com/specsearch/searchform/flow.
2. https://hnw.com.au/products/diffusers/
3. JIANG Jing, ZHANG Xuesong, Campus sewage treatment based on program logic control
4. https://nevonprojects.com/
5. Gerry dunning- book of industrial automation

Presentation

Vivekanand Education Society's polytechnic
Civil Engineering Department
Academic Year 2021-2022
Capstone project planning

Presentation on

Planning , Estimation and Costing of G+1 House plan

Group members-: 4

Names- Muskan sharma
Nikita sawant
Ehsan ansari
Ajmal shaikh

ProjectGuide- Mrs.SanikaJ.Kandalekar

Outline of Presentation-

- Introduction
- Objectives
- Literature Review
- Problem Statement
- Methodology
- Execution of plan in 5thSem
- Proposed project execution in 6thSem
- References

Introduction

- Any construction project to begin with starts with the Layout of the building or structurefollowed by Design and Analysis of the structure which is succeeded by cost estimation andplanning for the said project. This project involves the layout, design, analysis, planning andcost estimation of a G+1 House Plan located in kurla, Mumbai
- For completing the project very popular Civil Engineering softwares such as

Autocad,Revit,and Microsoft Excel for Cost Estimation hane been used

Objectives

- The objectives of the project are mentioned below

1.Draft the Layout of the proposed building using AutoCAD
2.Analyse and Design the building on REVIT
3.Plan the Project Schedule using Autocad.
4.Calculate the approximate cost of the building

Literature Review

Role of AutoCAD

AutoCAD is a commercial software application for 2D and 3D computer aided design and drafting for various fields in engineering like civil, mechanical, electrical, automation, architecture etc. It was first launched in 1982 by Autodesk, Inc.

Role of Revit

Revit is 4D building information modeling capable with tools to plan and track various stages in the building's lifecycle, from concept to construction and later maintenance and/or demolition.

Role of Microsoft Excel in Cost Estimation

Excel is a typical spreadsheet which is nowadays widely used in cost estimation and also sometimes for planning purposes. Excel has various inbuilt calculation tools which can be used for complex calculation. Apart from that one can also input one's own formula for special calculations. The user interface is very friendly and easy to use.

ProblemStatement

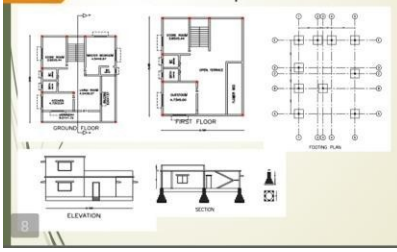
- If you are going G+ 1 house plan there is a problem of dimension in drawing and the visibility of the structure.

Methodology

Selection of site
Planning
Drawing in AutoCAD
Estimating
Coasting
Estimating excel sheet

7

Execution of plan in 5thSem



g+1-Model-63.pdf

8

Proposed project execution in 6thSem

- 1. For 6TH Sem we are going to make model or respected given topic.
- 2. We r going to estimate excel sheet by the given topic.

9

References

- National building code, updated 2013.
- IS 456-2000.
- Estimating , Coasting Specification and Valuation in civil Engineering by M.Chakraborti.
- Building Material and Construction by Gurucharan Singh
- Design og R.C.C structure by Nilam Sharma
- SP:34
- SP:16
- Revised rate schedule of PWD of building works.

10

Defence

Q1. What is the application of your project?

1. Present Application:

The laser gesture recognition presently works on two applications. The Windows Media player with the help of the laser pointer can be controlled to play/pause song, stop song, play previous song, play next song from the user's remote location without having to reach the host machine. The power point slide show can be controlled with the help of laser pointer to go to next and previous slide, again from remote location. This will make presentations and seminars more interactive as this won't compel the person delivering the presentation to be in close proximity to his machine every time the slide is required to be changed.

2. Future Application:

In future, this application can be updated to recognise some more complex gestures of laser pointer to enhance the technology of laser based human-computer interaction. It can be mapped on some more applications on which the gestures need to be recognised. It can be enhanced to recognise gestures more precisely using high quality cameras so that the user will be free to perform the gesture. To make presentations more interactive, some more gestures like dragging, starting the slide show, ending it, etc can be added to the application. For physically challenged people laser pointer will be mounted on an adjustable headband, allowing a hand free operation. The movement of the headgear will control the mouse movements as well as other mouse functions.

Q2. What is the future scope of your project?

In future, this application can be updated to recognize some more complex gestures of laser pointer to enhance the technology of laser based human-computer interaction. It can be mapped on some more applications on which the gestures need to be recognized. It can be enhanced to recognize gestures more precisely using high quality cameras so that the user will be free to perform the gesture. To make presentations more interactive, some more gestures like dragging, starting the slide show, ending it, etc. can be added to the application. With some modifications, this technique can be helpful for physically challenged people. For physically challenged people laser pointer will be mounted on an adjustable headband, allowing a hand free operation. The movement of the headgear will control the mouse movements as well as other mouse functions. To implement this scheme, we would require estimating the movement time and the index of difficulty for each command.

Appendix B

Evaluation Sheet (ESE) for Capstone Project Planning

Name of Student:- MUSKAN SHARMA, NIKITA SAWANT, EHSAN ANSARI ,AJMAL SHAIKH
Enrollment No:-1900040431,1900040412,1900040427,1800040416
Name of Program: CE Semester: 5th Course Title: CPP Course Code: 22058

Title of the Capstone Project: Planning estimation and designing of G+1 house plan

A. POs addressed by the Capstone Project:

1. "Basic knowledge: An ability to apply knowledge of basic mathematics, science and
2. "Problem analysis: Identify and analyse well-defined engineering problems using codified standard methods."
3. "Design/ development of solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs."
4. "Engineering Tools, Experimentation and Testing: Apply modern engineering tools and
5. " Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices."
6. "Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities."
7. "Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes."

Course Outcomes addressed by the Capstone Project:

1. Write the problem/task specification in existing system related to the occupation
2. Select/collect/use required information/knowledge to solve the problem/complete the task
3. Legally choose relevant possible solutions
4. Consider the ethical issues related to the project
5. Assess the impact of project on society
6. Prepare project proposal with action plan
7. Communicate effectively and confidently as a member and leader of the team

Progressive assessment (PA) sheet			
Sr. No	Criteria	Max.Marks	Marks obtained
1	Problem identification (project title)	10	
2	Literature Survey/ Industrial survey		
3	Punctuality and overall contribution		
4	Project diary		
5	Report writing including documentation	10	
6	Presentation	05	
Total		25	

Name and Signature of the Project guide: SANIKA KANDALEKAR

Name and Signature of the Program coordinator:_____ Mr. Aniket Thorat

Appendix C

Suggested rubrics for assessment of capstone project:

S. No.	Characteristic to be assessed	Poor (Marks 1 - 3)	Average (Marks 4 - 5)	Good (Marks 6 - 8)	Excellent (Marks 9- 10)
1	Problem identification(project title)	Relate to very few POs, scope of problem not clear	Related to some POs, scope of problem vague	Take care of at-least 3 POs,scope of problem not specific	Take care of more than 3 POs,scope of problem very clear
2	Literature Survey/ Industrial survey	Not more than 10 sources (primary and secondary), very old reference	At-least 10 relevant sources, 5 latest	At –least 15 relevant sources, most latest	About 20 relevant sources, most latest
3	Project proposal	Methods are not appropriate, all steps not mentioned, design of prototype not started	Appropriate plan but not in much detail,plan B for critical activities not mentioned,timeline is not developed, the design of the prototype is not complete	Appropriate and detailed plan with plan B for critical activities mentioned, but clarity is not there, timeline is given but not appropriate, design of prototype is not detailed	Appropriate and detailed plan with plan B for critical activities mentioned, clarity in methods with timeline , detailed design of prototype
4	Project diary	Entries for most weeks are missing. There is no proper sequence and details are not correct.	Entries for some weeks are missing. Details are not appropriate, not signed regularly by the guide.	Entries were made every week but not in detail. Signed and approved by the guide every week.	Entries were made every week in detail. Signed and approved by the guide every week
5	Final Report Preparation	Very short, poor quality sketches, Details about methods, material, precaution and conclusions omitted, some details are wrong	Nearly sufficient and correct details about methods, material, precautions and conclusion. but clarity is not there in presentation. But not enough graphic description.	Detailed, correct and clear description of methods, materials, precautions and Conclusions. Sufficient Graphic Description.	Very detailed, correct, clear description of methods, materials, precautions and conclusions. Enough tables, charts and sketches
6	Presentation	Major information is not included, information is not well organized .	Includes major information but not well organized and not presented well	Includes major information and well organized but not presented well	Well organized, includes major information ,well presented
7	Questions and answers	Could not reply to a considerable number of questions.	Replied to considerable number of questions but not very properly	Replied properly to a considerable number of questions.	Replied to most of the questions properly