



GUJARAT TECHNOLOGICAL UNIVERSITY

BACHELOR OF ENGINEERING SYLLABUS

Minor/Honours Degree : Computer Aided Civil Engineering Processes

Subject Code : N117AV02

Subject Name : Construction Project Management - Software Applications

WEF Academic Year:	2026-27
Semester:	7
Category of the Course:	Compulsory

Prerequisite: Various construction activities, resources required by individual activities, types of building constructions.

Rationale: The subject will help to develop critical thinking of students by Creating planning of construction activities by using softwares.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
1	0	4	3	70	00	30	00	100

Content:

No.	Course Content	No. of Hours
1	Introduction Organization chart, Methodology, Planning, Scheduling, Preparation of bar chart, Preparation of Network for various construction activities.	08
2.	Introduction to MS Project Quick and easy overview of managing project with MS Project, Setting up Project.	10
3	Manual Schedule Vs. Auto Schedule Creating work breakdown structure, identifying task relationship in software, Defining Resources within project.	12
4	Making work package estimate Creating an initial schedule, Managing the project, Formatting output and printing reports, ribbon customization.	06
	Total Hrs.	36



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Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10%	15%	25%	20%	10%	12%

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1. Project Management by Samuel J. Mantel, Jr., Jack R. Meredith, Scott M. Shafer, Margaret M. Sutton with M.R. Goapalan (WILEY-INDIA)
2. Project Management and Appraisal by Sitagshu Khatua (Oxford)
3. Microsoft Project Book (A book to learn Ms Project from Basic) by Evita Pikey

Course Outcomes:

No.	Course Outcomes	Marks % weightage
CO1	Students will be able to create bar chart of construction activity manually.	5%
CO2	Students will be able to create network of construction activity manually.	15%
CO3	Students will be able to learn management of construction activities in software	30%
CO4	Students will be able to generate output and reports from software	20%
CO5	Students will be able to differentiate between manual and auto scheduling	30%

List of Experiments:

1. Preparation of bar chart for various construction activities
2. Preparation of network for various construction activities
3. Creating simple network in MS Project software.
4. Creating work breakdown structure in MS Project.
5. Creating network of complex structures.

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