20SA8751 – COMPUTER AIDED PROJECT MANAGEMENT LAB

Course Category:	Skill Oriented Course	Credits:	2
Course Type:	Laboratory	Lecture-Tutorial-Practical:	1-0-2
Prerequisites:	Nil	Continuous Evaluation:	-
		Semester End Evaluation:	50
		Total Marks:	50

Course Outcomes

Upon successful completion of the course, the student will be able to:

CO1	**Use** Microsoft Project to develop accurate project task, time, resource, and cost relationships following current professional and/or industry standards.	K3
CO2	**Use** critical thinking skills to design and create accurate Gantt charts.	K3
CO3	**Deal** with Resource constraints and Balancing the demand of resources respectively.	K3
CO4	**Review and analyze** the predicted incoming and outgoing cash for a set period of time and also control costs by Earn Value Analysis.	K4

Contribution of Course Outcomes towards achievement of Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1					3						3			**3**
CO2					3						3			**3**
CO3					3						3			**3**
CO4											3			**3**
Avg.					**3**						**3**			**3**

1- Low **2-Medium** **3-High**

Course Content

Experiment No.1	**Creating and Defining Projects**: Creating and Saving Projects, Defining Properties and Options, Creating and Organizing the Task List, Importing Data, Modifying and Applying Calendars, Setting Scheduling Options.	CO1 CO2 CO3 CO4
Experiment No.2	**Working with Estimates and Dependencies**: Entering tasks, Creating WBS codes, Entering a Duration or Work Estimate, Creating Links between Tasks, Adding Lag or Lead Times, Displaying Links in Network Diagram View	
Experiment No.3	**Working with Deadlines, Constraints, and Task Calendars**: Displaying the Critical Path *f* Setting a Deadline, Setting a Constraint, Responding to Situations, Triggered by Deadlines and Constraints, Creating and Applying a Task Calendar to Meet a Deadline, Finding and Removing Constraints in a Schedule	
Experiment No.4	**Working With Resources**: Adding Resources to the Resource Sheet View, Creating and Modifying Resource Assignments, Entering Project Costs and Project Budgets.	
Experiment No.5	**Tracking Progress**: Setting and Revising a Baseline, Entering Actual Results Updates for Tasks and Resources, Controlling Projects by Finding Variance and Suggesting Corrective Action, Applying Techniques to Shorten Duration, Reduce Work and Reduce Cost.	
Experiment No.6	**Data Structure of Primavera**: About Organizational Breakdown Structure, Procedure to Create an OBS, About Enterprise Project Structure, Procedure to create EPS, Creation of Project in web and client	
Experiment No.7	**Modification of Calendar**: Introduction to Calendar, Types of Calendars, Creating global calendars both web & client, Editing thestandard work weeks & its time, Create Exception, Creating Project calendars both web & client, Creating Resource calendars both web & client, Conversions in calendars, Working with timescale in Gantt chart.	
Experiment No.8	**Work Breakdown Structure**: Creation of WBS in both Web & Client, Creating an Activity, Assign Calendar to the Project in web, Creating Activities in web, Configuring General Tab, Delete an activity, Various ways to create an Activity in client, Adding Relationships to the Activities in various methods in both web & client, Dissolve Activity, Apply Lead or Lag, Procedure to apply Lead or Lag,	

	Views.	
Experiment No.9	**Resource allocation, smoothening and levelling**: Assigning Resources to an Activity, Assign Resource to Multiple Activities, Assigning Resources by using Role, Resource Analysis and Resource Levelling in both web & client	
Experiment No.10	**Tracking**: Choose a Method for Updates in both Web & Client, Perform Earned Value analysis in web & client server.	

Learning Resources

Text Books	1. Jimmie W. Hinze, Construction Planning and Scheduling, edition 4th 2011,(3rd edition), Publisher: Prentice Hall
Reference Books	1. User Manual- MS Project & Primavera P6. 2. Rain Diana ,"Training Guide to Microsoft Access", 2008 BPB Publications, New Delhi 3. Raina V.K. ,"Construction Management practice", edition 2nd 2009 (1988), Tata – McGraw Hill publishing co.Ltd.