IV B.Tech – II Semester (17CS832) SOFTWARE PROJECT MANAGEMENT (Professional Elective-IV)

Int. Marks	Ext. Marks	Total Marks		L	Т	Р	С
40	60	100		3	1	-	3
Pre-Requisi	tes: SE, STN	1					

Course Objectives:

- To study how to plan and manage projects at each stage of the software development life cycle (SDLC)
- To train software project managers and other individuals involved in software project planning and tracking and oversight in the implementation of the software project management process.
- To understand successful software projects that support organization's strategic goals

UNIT-I:

Introduction Project, Management, Software Project Management activities, Challenges in software projects, Stakeholders, Objectives & goals Project Planning: Step-wise planning, Project Scope, Project Products & deliverables, Project activities, Effort estimation, Infrastructure

UNIT-II:

Project Approach Lifecycle models, Choosing Technology, Prototyping Iterative & incremental Process Framework: Lifecycle phases, Process Artifacts, Process workflows (Book 2)

UNIT-III:

Effort estimation & activity Planning Estimation techniques, Function Point analysis, SLOC, COCOMO, Use case-based estimation, Activity Identification Approaches, Network planning models, Critical path analysis

UNIT-IV:

Risk Management Risk categories, Identification, Assessment, Planning and management, PERT technique, Monte Carlo approach

UNIT-V:

Project Monitoring & Control, Resource Allocation Creating a framework for monitoring & control, Progress monitoring, Cost monitoring, Earned value Analysis, Defects Tracking, Issues Tracking, Status reports, Types of Resources, Identifying resource requirements, Resource scheduling

UNIT-VI:

Software Quality Planning Quality, Defining Quality - ISO 9016, Quality Measures, Quantitative Quality Management Planning, Product Quality & Process Quality Metrics, Statistical Process Control Capability Maturity Model, Enhancing software Quality (Book3)

Course Outcomes:

CO-1	To understand the basic concepts and issues of software project management	L2
CO-2	To effectively plan the software project	L4
CO-3	To implement the project plans through managing people, communication and change	L4
CO-4	To select and employ mechanism for tracking software projects	L4
CO-5	Conduct activities to successfully complete and close software project	L3
CO-6	To develop the skills for tracking and controlling software deliverables	L6

Correlation of COs with POs & PSOs:

	PO-	PSO-	PSO-	PSO-											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO-1	3	3	2	2	-	-	-	-	-	-	3	-		3	-
CO-2	3	3	2	2	2	-	-	-	-	-	3	-		3	-
CO-3	3	3	2	2	-	-	-	-	2	-	2	-		3	-
CO-4	3	3	2	2	-	-	-	-	-	-	2	-		3	-
CO-5	3	3	3	2	2	-	-	-	-	-	3	I		3	-
CO-6	3	3	3	2	-	-	-	-	-	-	3	-		3	-

Text Books:

1. Software Project Management, Bob Hughes & Mike Cotterell, TATA Mcgraw-Hill

2. Software Project Management, Walker Royce: Pearson Education, 2005.

3. Software Project Management in practice, Pankaj Jalote, Pearson.

Reference Books:

1. Software Project Management, Joel Henry, Pearson Education.