IV Year II Semester   **L   T   P   C**

Code: 17CS832   **3   1   0   3**

SOFTWARE PROJECT MANAGEMENT
(Dept. Elective-IV)

OBJECTIVES:
1. To study how to plan and manage projects at each stage of the software development life cycle (SDLC)
2. 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.
3. 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

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)

OUTCOMES:
• To match organizational needs to the most effective software development model
• To understand the basic concepts and issues of software project management
• To effectively Planning the software projects
• To implement the project plans through managing people, communications and change
• To select and employ mechanisms for tracking the software projects

• To conduct activities necessary to successfully complete and close the Software projects
• To develop the skills for tracking and controlling software deliverables
• To create project plans that address real-world management challenges

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.