SOFTWARE PROJECT MANAGEMENT

Course code: 13CS2112 **L P C**
4 0 3

Course outcomes:
At the end of the course, a student will be able to
CO1: Estimate the overall cost of a software project.

CO2: Differentiate conventional and modern software development process.

CO3: Distinguish workflows of the process.

CO4: Design project organization structure & analyze quality.

CO5: Estimate the effort and schedule needed for project

UNIT – I
Conventional Software Management : The waterfall model, conventional software Management performance. Evolution of Software Economics : Software Economics, pragmatic software cost estimation. Improving Software Economics : Reducing Software product size, improving software processes, improving team effectiveness, improving automation, Achieving required quality, peer inspections.

UNIT – II
The old way and the new: The principles of conventional software engineering, principles of modern software management, transitioning to an iterative process. Life cycle phases : Engineering and production stages, inception, Elaboration, construction, transition phases.
Artifacts of the process: The artifact sets, Management artifacts, Engineering artifacts, programmatic artifacts. Model based software architectures: A Management perspective and technical perspective.

UNIT – III
Flows of the process: Software process workflows, Inter trans workflows. Checkpoints of the Process: Major Mile Stones, Minor Milestones, Periodic status assessments. Interactive Process
Planning: Work breakdown structures, planning guidelines, cost and schedule estimating, Interaction planning process, Pragmatic planning.

UNIT – IV

Project Organizations and Responsibilities: Line-of-Business Organizations, Project Organizations, evolution of Organizations. Process Automation: Automation Building Blocks, The Project Environment. Project Control and Process instrumentation: The server care Metrics, Management indicators, quality indicators, life cycle expectations pragmatic Software Metrics, Metrics automation. Tailoring the Process: Process discriminants, Example.

UNIT – V

Future Software Project Management: Modern Project Profiles Next generation Software economics, modern Process transitions. **Case Study:** The Command Center Processing and Display System-Replacement(CCPDS-R).

Text Books:

1. Walker Rayce : "Software Project Management A Unified Framework", 1st Edition, Pearson Education, 2005.

References:

1. Richard H.Thayer : "Software Engineering Project Management", 2nd Edition, IEEE Computer Society, 1997.

2. Shere K.D. : "Software Engineering and Management", 1st Edition, Prentice Hall, 1988.