SOFTWARE PROJECT MANAGEMENT
(Elective – III)
(Common to CSE & IT)

Course Code : 13CT1132
L T P C
4 0 0 3

Pre requisites: Software Engineering.

Course Educational Objectives:
The main objective of the course is to make students understand how to manage software projects.

✦ To understand the draw backs of traditional project management methods.
✦ To understand the principles of modern software project management.
✦ To understand the improving software economics.
✦ To understand the model based software architectures.
✦ To show how to reduce rework, labor-intensiveness, expenditure and produce a project within schedule.

Course Outcomes:
At the end of the course the student will be able to
✦ Understand ethical issues related to software project management.
✦ Apply this ethical knowledge in practical situations.
✦ Understand how different management and development practices affect software.
✦ Get idea about workflows of the process.
UNIT-I (12 Lectures)

CONVENTIONAL SOFTWARE MANAGEMENT:

EVOLUTION OF SOFTWARE ECONOMICS:
Software Economics, Pragmatic Software Cost Estimation.

IMPROVING SOFTWARE ECONOMICS:

UNIT-II (12 Lectures)

THE OLD WAY AND THE NEW:

LIFE CYCLE PHASES: Engineering and Production Stages, Inception Phase, Elaboration Phase, Construction Phase, Transition Phase.

ARTIFACTS OF THE PROCESS:
The Artifact Sets, Management Artifacts, Engineering Artifacts, Pragmatic Artifacts.

UNIT-III (12 Lectures)

MODEL BASED SOFTWARE ARCHITECTURES:

WORKFLOWS OF THE PROCESS:
Software Process Workflows, Iteration Workflows.

CHECKPOINTS OF THE PROCESS:
Major Milestones, Minor Milestones, Periodic Status Assessments.

ITERATIVE PROCESS PLANNING:
UNIT-IV  (12 Lectures)

PROJECT ORGANIZATION AND RESPONSIBILITIES:

PROJECT CONTROL AND PROCESS INSTRUMENTATION:
The Seven Core Metrics, Management Indicators, Quality Indicators Modern Project Profiles, Next-Generation Software Economics. The COCOMO Cost Estimation Model: COCOMO

UNIT-V  (12 Lectures)

EFFORT ESTIMATION AND SCHEDULING:
Effort Estimation, Scheduling

QUALITY PLANNING:

RISK MANAGEMENT:  Risk Assessment, Risk Control.
(VIII Unit from Pankaj Jalote)

TEXT BOOKS:

REFERENCES: