**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA**

**IV Year B.Tech. CSE -I Sem**

**SOFTWARE PROJECT MANAGEMENT (Elective-II)**

UNIT - I Conventional Software Management : The waterfall model, conventional software Management performance. Evolution of Software Economics : Software Economics, pragmatic software cost estimation.

UNIT - II Improving Software Economics : Reducing Software product size, improving software processes, improving team effectiveness, improving automation, Achieving required quality, peer inspections. The old way and the new : The principles of conventional software Engineering, principles of modern software management, transitioning to an iterative process.

UNIT - III 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.

UNIT - IV Model based software architectures : A Management perspective and technical perspective. Work Flows of the process : Software process workflows, Iteration workflows.

UNIT - V Checkpoints of the process : Major mile stones, Minor Milestones, Periodic status assessments. Iterative Process Planning : Work breakdown structures, planning guidelines, cost and schedule estimating, Iteration planning process, Pragmatic planning.

UNIT - VI Project Organizations and Responsibilities : Line-of-Business Organizations, Project Organizations, evolution of Organizations. Process Automation : Automation Building blocks, The Project Environment.

UNIT - VII Project Control and Process instrumentation : The seven core Metrics, Management indicators, quality indicators, life cycle expectations, pragmatic Software Metrics, Metrics automation. Tailoring the Process : Process discriminants.

UNIT - VIII 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 BOOK : 1. Software Project Management, Walker Royce: Pearson Education, 2005.

REFERENCES : 1. Software Project Management, Bob Hughes and Mike Cotterell: Tata McGraw-Hill Edition. 2. Software Project Management, Joel Henry, Pearson Education. 3. Software Project Management in practice, Pankaj Jalote, Pearson Education.2005.