

21CSE22	SOFTWARE PROJECT MANAGEMENT	L	T	P	C
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Course Objectives					
<ul style="list-style-type: none"> To understand the Software Project Planning and Evaluation techniques. To plan and manage projects at each stage of the software development life cycle (SDLC) To learn about the activity planning and risk management principles. To manage software projects and control software deliverables. 					
UNIT I	PROJECT EVALUATION AND PROJECT PLANNING	9 Hours			
Importance of Software Project Management – Activities - Methodologies – Categorization of Software Projects – Setting objectives – Management Principles – Management Control – Project portfolio Management – Cost-benefit evaluation technology – Risk evaluation – Strategic program Management – Stepwise Project Planning.					
UNIT II	PROJECT LIFE CYCLE AND EFFORT ESTIMATION	9 Hours			
Software process and Process Models – Choice of Process models - Rapid Application development – Agile methods – Dynamic System Development Method – Extreme Programming– Managing interactive processes – Basics of Software estimation – Effort and Cost estimation techniques – COSMIC Full function points - COCOMO II - a Parametric Productivity Model.					
UNIT III	ACTIVITY PLANNING AND RISK MANAGEMENT	9 Hours			
Objectives of Activity planning – Project schedules – Activities – Sequencing and scheduling – Network Planning models – Formulating Network Model – Forward Pass & Backward Pass techniques – Critical path (CRM) method – Risk identification – Assessment – Risk Planning –Risk Management – PERT technique – Monte Carlo simulation – Resource Allocation – Creation of critical paths – Cost schedules.					
UNIT IV	PROJECT MANAGEMENT AND CONTROL	9 Hours			
Framework for Management and control – Collection of data – Visualizing progress – Cost monitoring – Earned Value Analysis – Prioritizing Monitoring – Project tracking – Change control – Software Configuration Management – Managing contracts – Contract Management.					
UNIT V	STAFFING IN SOFTWARE PROJECTS	9 Hours			
Managing people – Organizational behaviour – Best methods of staff selection – Motivation – The Oldham – Hackman job characteristic model – Stress – Health and Safety – Ethical and Professional concerns – Working in teams – Decision making – Organizational structures – Dispersed and Virtual teams – Communications genres – Communication plans – Leadership.					
UNIT VI	CASE STUDY				
Case Study on real time application of Software Project Management					
TOTAL PERIODS: 45					
Course Outcomes:					
At the end of the course, Students can able to					
<ul style="list-style-type: none"> Understand Project Management principles while developing software. Gain extensive knowledge about the basic project management concepts, framework and the process models. 					

- Obtain adequate knowledge about software process models and software effort estimation techniques.
- Estimate the risks involved in various project activities.

Text books:

1. Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.

Reference Books:

1. Robert K. Wysocki —Effective Software Project Management – Wiley Publication, 2011.
2. Walker Royce: —Software Project Management- Addison-Wesley, 1998.
3. Gopaldaswamy Ramesh, —Managing Global Software Projects| – McGraw Hill Education (India), Fourteenth Reprint 2013.