Course Code CSE4016	Software Project Management		Course Type	LT
			Credits	3
	Knowledge of Software Engineering concepts are preferred.			

Objectives:
- To know network planning model for project scheduling
- To learn risk management techniques

Expected Outcomes:

Students who complete this course will be able to
- Design a component or a product applying all the relevant standards and with realistic constraints.
- Use techniques, skills and modern Engineering tools necessary for engineering practices.

Student Outcomes (SO): a, h, m

Module No.	Module Description	Hours	SO
1	**Introduction to software project management:** 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.	9	**a, m**
2	**PROJECT LIFE CYCLE AND EFFORT ESTIMATION:** 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.	9	**a, m**
3	**ACTIVITY PLANNING AND RISK MANAGEMENT:** 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	9	**a, m**
4	**PROJECT MANAGEMENT AND CONTROL:** 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	9	**a, m**

	Management		
5	**STAFFING IN SOFTWARE PROJECTS** Managing people – Organizational behavior – 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	9	h
	Total Lecture:	45	

Mode of Teaching and Learning:
Flipped Class Room, Activity Based Teaching/Learning, Digital/Computer based models, wherever possible to augment lecture for practice/tutorial and minimum 2 hours lectures by industry experts on contemporary topics.

Mode of Evaluation and Assessment:
The assessment and evaluation components may consist of unannounced open book examinations, quizzes, student's portfolio generation and assessment, and any other innovative assessment practices followed by faculty, in addition to the Continuous Assessment Tests and Term End Examination.

Text Book(s):

1. Mike Cotterell, Bob Hughes, Rajib Mall - Software Project Management – Tata McGraw-Hill, Fifth Edition - 2011.

Reference Book(s):

1. Greg Horine-Project Management Absolute Beginner's Guide, 3rd edition, Que Publishing, 2012.

Recommendation by the Board of Studies on	
Approval by Academic council on	
Compiled by	