

1702CS702		SOFTWARE PROJECT MANAGEMENT	L	T	P	C
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		(Common to B.E / B.Tech – CSE, IT & ECE)				
PREREQUISITE :						
Software Engineering						
Course Objectives:						
	1. To provide a strong foundation on the concept of software project development					
	2. To learn the concepts on project management and evaluation.					
	3. To understand the principles of management and team organization.					
UNIT I	PROJECT EVALUATION AND PROJECT LIFE CYCLE					9 Hours
Understanding software projects – Project management vs. product management – stages of project management – Software project life cycle - Managerial issues.						
Unit II	ACTIVITY PLANNING AND RISK MANAGEMENT					9 Hours
Project initiation – Identifying project – Developing project character – Identifying stack holders – Requirement analysis – Gathering requirements – Requirements types – Project scope planning – Resource breakdown structure (RBS) – Manpower planning – Quality planning – Time and Cost estimates – Risk management planning – Procurements for the project.						
Unit III	COST ESTIMATION TECHNIQUES					9 Hours
Software effort estimation techniques: KLOC/SLOC estimation, expert opinion, top-down and bottom-up approach, use-case point estimates, object point estimates, Delphi technique – Project test plan – Software quality assurance (SQA) – Software quality control (SQC) – cost of quality – Software quality Metrics – SEI-CMMi model						
Unit IV	RISK MANAGEMENT AND CONTROL					9 Hours
Understanding Project risk management process – risk management planning – identification of risks – risk analysis – risk-response planning – Monitoring the risks – Role of project manager – Leadership styles – recruitment process – team development stages – Conflict management in Project environment – Hiring and firing issues in software project management – Communication process						
Unit V	ADVANCED TOPICS					9 Hours
Project scheduling – Activity diagrams – Network diagrams – PERT & CPM for Schedule development – Schedule compression technique – Critical chain method – Software project scheduling tools – Program - Project-Program-Portfolio relationships - Project portfolio – Project Management Careers.						
					Total:	45 Hours
Further Reading:						
	1.Import of the internet on project Management					
	2.Classification of Software Metrics					
Course Outcomes:						
	After completion of the course, Student will be able to					
CO1	Identify and build an appropriate process model for a given project					
CO2	Analyse the principles at various phases of software development					
CO3	Translate specifications into design, and identify the components to build the architecture for a given problem, all using an appropriate software engineering methodology					
CO4	Define a Project Management Plan and tabulate appropriate Testing Plans at different levels during the development of the software					
CO5	Understand the software project estimation models and estimate the work to be done resources required and the schedule for a software project					
References:						
1. Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.						
2. Robert K. Wysocki “Effective Software Project Management” – Wiley Publication,2011.						
3. Joel Henry,”Software Project Management: A real world guide to success”, Pearson,2011						

4. Sanjay Mohapatra, “Software Project Management”, Cengage Learning, 2011.

5. http://nptel.ac.in/courses/106101061/
