Software Project Management

Subject Code: MS21903 Semester II Lectures: 60

Objectives:

The syllabus aims in equipping students with,

- skills that are required to ensure successful medium and large scale software projects.
- examining Requirements Elicitation, Project Management, Verification and Validation and Management of Large Software Engineering Projects.
- applications of project management techniques for process modeling, planning, estimation, process metrics and risk management; perform software verification and validation using inspections, design and execution of system test cases.

Unit 1: Introduction	10
Chapter 1 : Introduction to Project Management	4
What is a Project?	
What is Project management?	
Project phases and project life cycle	
Organizational structure	1
Qualities of Project Manager	
Chapter 2 : Project Management Components	6
Project Integration Management-Project plan development and execution	0
• Change control	
Configuration management	

Unit 2:	14
Chapter 3 : Scope Management	4
Strategic planning	
Scope planning, definition	
Verification and control	
Chapter 4 : Time management	2

BOS Members:

Dr. Reena Bharathi (Subject Expert)

Dr. Manisha Bharambe (Subject Expert)

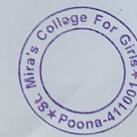
Dr. Jyoti Yadav (Subject Expert)

Mr Vishal Salke (Industry Expert)

Ms Amruta Nambiar(Alumni)

Prof. Ashwini Kulkarni (Chairman and Internal faculty)

Prof. Smita Borkar (Internal Faculty)



Activity planning	
 Schedule development and control 	
GANTT Chart	
Chapter 5 : Cost Management	2
Cost estimation and Control	
COCOMO Model	
Basic COCOMO numerical	
Chapter 6 : Quality Management	2
Quality planning and assurance	
Chapter 7: Human Resource Management	
Organizational planning	2
Staff acquisition	
Chapter 8 : Communication Management	
Information distribution	2
Reporting	

Unit 3:	10
Chapter 9 : Risk Management	2
Risk identification Quantification and control	
Chapter 10: Procurement Management	2
Solicitation management and control	
• Contract administration	6
Chapter 11: Software Metrics • The scope of software metrics	
Size- oriented metrics	
Function oriented	
Software metrics data collection	
Analyzing software data	

BOS Members:

Dr. Reena Bharathi (Subject Expert)

Dr.Manisha Bharambe (Subject Expert)

Dr. Jyoti Yadav (Subject Expert)

Mr Vishal Salke (Industry Expert)

Ms Amruta Nambiar(Alumni)

Prof. Ashwini Kulkarni (Chairman and Internal faculty)

Prof. Smita Borkar (Internal Faculty)

Neharambe Dadar



2

Unit 4:	14
Chapter 12 : Software Reliability	6
Measurement and prediction	
Resource measurement	
Productivity, teams and tools	
Chapter 13 : Planning a measurement program	4
What is metrics plan?	
Developing goals, questions and metrics	
Where and When: Mapping measures to activities	
How: Measurement tools	
Who: Measurers , analyst, tools revision plans	
Chapter 14 : Quality Standards	
• CMM	4
• KPA's	
PSP/TSP	

Contact Hours: 12 hours

References books

- Cenage Learning, Kathy Schwalbe, 6th Edition, Information Technology Project Management, ISBN-13:9781111221751
- 2. International Thomson Computer Press ,Norman E. Fenton and Shari Lawrence Pfleeger, Software Metrics: A rigorous and Practical Approach
- 3. McGraw-Hill ,Roger S. Pressman Software Engineering: A Practioner's Approach ISBN: 9780071267823
- 4. Prentice hall, Robert B. Grady, Practical Software Metrics for Project Management and Process Improvement ISBN: 9780137203840

x

BOS Members:

Dr. Reena Bharathi (Subject Expert)

Dr. Manisha Bharambe (Subject Expert)

Dr. Jyoti Yadav (Subject Expert)

Mr Vishal Salke (Industry Expert)

Ms Amruta Nambiar(Alumni)

Prof. Ashwini Kulkarni (Chairman and Internal faculty)

Prof. Smita Borkar (Internal Faculty)

S Poona A

3