Department : Information Technology	Semester :5th	Name of the teaching faculty: Madhusmita dalai
Week -17 weeks	Days	Theory
Subject: Software Engineering	No.of days/per week class allotted . 4p/week.	Semester from : 1st August 2023 to 30th November 2023
		No. of weeks:17 weeks
		Topics to be covered:
August 1st week	1st	Introduction to Software Engineering
	2nd	Program vs. Software product
	3rd	Emergence of Software Engineering.
	4th	Computer Systems Engineering
August 2nd week	1st	Software Life Cycle Models
	2nd	Classical Water fall model
	3rd	Iterative Water fall model
	4th	Prototyping model
August 3rd week	1st	Evolutionary model
	2nd	Spiral model
	3rd	Responsibility of Project Manager
	4th	Project Planning
August 4th week	1st	Metrics for Project size estimation (LOC and FP)
	2nd	Project Estimation Techniques
	3rd	Project Estimation Techniques
	4th	COCOMO Models, Basic, Intermediate and complete
Sept-1st week	1st	COCOMO Models, Basic, Intermediate and complete
	2nd	Scheduling
	3rd	Organization and Team structur
	4th	Staffing
Sept-2nd week	1st	Risk Management
	2nd	Configuration Management
	3rd	Requirement Analysis and specification
	4th	Requirements gathering and analysis
Sept-3rd week	1st	Software Requirements Specification
	2nd	Contents of SRS
	3rd	Characteristics of Good SRS
	4th	Organization of SRS
	3rd	Techniques for representing complexing logic
	4th	Software Design,What is a Good S/W design
Sept-4th week	1st	Cohesion and coupling

	2nd	Neat arrangement
	3rd	S/W Design approaches
	4th	Structured analysis
	5th	Data Flow Diagrams
Oct-1st week	1st	Symbols used in DFD
	2nd	Designing DFD
	3rd	Developing DFD model of a system
	4th	Shortcomings of DFD
Oct-2nd week	1st	Structured design
	2nd	Principles of transformation of DFD to Structure Chart
	3rd	Transform analysis and Transaction Analysis
	4th	Design Review
Oct-3rd week	1st	User Interface Design,Characteristics of Good Interface
	2nd	Basic concepts of UID
	3rd	Types of User interfaces
	4th	Components based GUI development
Oct-4th week	**Puja Vacation**	
Nov- 1st week	1st	Software Coding & Testing
	2nd	Code Review
	3rd	Code walk through
	4th	Code inspections and software Documentation
Nov- 2nd week	1st	Testing, Unit testing
	2nd	Black Box Testing,Equivalence class partitioning and boundary value analysis
	3rd	White Box Testing,Different White Box methodologies statement coverage branch coverage, condition mutation testing coverage, path coverage, cyclomatic complexity data flow based testing and
	4th	Debugging approaches,Debugging guidelines
Nov- 3rd week	1st	Integration Testing, Phased and incremental integration testing
	2nd	System testing alphas beta and acceptance testing,Performance Testing, Error seeding
	3rd	General issues associated with testing
	4th	Software Reliability
Nov- 4th week	1st	Different reliability metrics,Reliability growth modeling
	2nd	Software quality,Software Quality Management System
	3rd	Revision & Semester Question Answer Discussion

	4th	Revision & Semester Question Answer Discussion

Signature of the Faculty
29/7/23