Software Engineering Lab

Course Code	19CS3551	**Year**	III	**Semester**	I
Course Category	Program Core	**Branch**	CSE	**Course Type**	Practical
Credits	1	**L-T-P**	0-0-2	**Prerequisites**	Object Oriented Programming
Continuous Internal Evaluation :	25	**Semester End Evaluation:**	50	**Total Marks:**	75

Course Outcomes		
Upon successful completion of the course, the student will be able to		
CO1	Apply analysis, design and visual modelling concepts for analyzing concern case studies	L3
CO2	Implement visual model experimentation as an individual, or team member by using modelling tools.	L3
CO3	Develop an effective report based on various case studies analyzed	L3
CO4	Apply analytical knowledge for a given case study and express with an effective oral communication.	L3
CO5	Analyze outputs generated through modelling tools	L4

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:Substantial, 2: Moderate, 1:Slight)

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	3											2	1	1
CO2					3				3					
CO3										3				
CO4	3									3				
CO5		3												

Syllabus		
Unit No.	**Contents**	**Mapped CO**
1	Develop UML behavioral and structural diagrams for a given scenario	**CO1,CO2,CO3, CO4,CO5**
2	**Prepare a SRS document in line with the IEEE recommended standards for the below case study** An automated teller machine (ATM) or the automatic banking machine (ABM) is banking subsystem that provides bank customers with access to financial transactions in a public space without the need for a cashier, clerk or bank teller. Customer uses bank ATM to check balances of his/ her bank accounts, deposit funds, withdraw cash and/or transfer funds. ATM technician provides maintenance and repairs	**CO1,CO2,CO3, CO4,CO5**
3	**A Point-of-Sale (POS) System** A retail POS system typically includes a computer, monitor, keyboard, barcode scanners, weight scale, receipt printer, credit card processing system, etc. and POS terminal software. It interfaces to various service applications, such as a third-party tax calculator and inventory control. These systems must be relatively fault tolerant; that is, even if remote services are temporarily unavailable they must still be of capturing sales and handling at least cash payments. A POS system must support multiple and varied client-side terminals and interfaces such as browser, PDAs, touch-screens	**CO1,CO2,CO3, CO4,CO5**
4	**Credit Card Processing System** Credit card processing system (Credit card payment gateway) is a system under consideration. Main part of the system is the Merchant's Credit Card Processing System. The merchant submits a credit card transaction request to the credit card payment gateway on behalf of a customer. Bank which issued customer's credit card which could approve or reject the transaction. If transaction is approved, funds will be transferred to merchant's bank account.	**CO1,CO2,CO3, CO4,CO5**
5	**Hospital Management System** Hospital management system is a large system including several subsystems or modules providing variety of functions. Hospital subsystem or module supports some of the many job duties of hospital receptionist. Receptionist schedules patient's appointments and admission to the hospital, collects information from patient upon patient's arrival and/or by phone. For the patient that will stay in the hospital ("inpatient") she or he should have a bed allotted in a ward. Receptionists might also receive patient's payments, record them in a database and provide receipts, file insurance claims and medical reports.	**CO1,CO2,CO3, CO4,CO5**
6	Apply software development life cycle activities on student interested case study and prepare an effective report.	**CO1,CO2,CO3, CO4,CO5**

Learning Resources
Text Book
1. Software Engineering: A Practitioner's Approach, Roger S. Pressman, Seventh edition, 2009, McGraw Hill, International Edition.
References
1. Software Engineering, K.K. Agarwal &Yogesh Singh, 2007, New Age International Publishers. 2. Software Engineering, Ian Sommerville, Seventh edition, 2004, Pearson,India. 3. Software Engineering Principles and Practice, Waman S Jawadekar, McGrawHill, 2004. 4. Fundamentals of Software Engineering, Rajib Mall, Fourth edition, 2009, PHI.
e-Resources and other Digital Material
1. https://onlinecourses.nptel.ac.in/noc20_cs68