## SOFTWARE TESTING METHODOLOGY LABORATORY

VII Semester: CSE / IT								
<b>Course Code</b>	Category	Hours / Week		Credits	Maximum Marks			
AIT104	Core	L	Т	Р	С	CIA	SEE	Total
		-	-	3	2	30	70	100
Contact Classes: Nil	Tutorial Classes: Nil	Practical Classes: 36 Total			al Class	Classes: 36		
<b>I. COURSE OVERVIEW:</b> Software testing improves the quality of software and provides error free software. This course provides the hands on experience on an automated and manual testing techniques such as black-box, data flow, path and transaction testing. The demonstration on bug tracking and automated test management tools. Testing is major part in software development life cycle and used in real time applications likebanking, flight reservation system etc.								
II. OBJECTIVES: The course should enable the students to:								
I The designing of the test cases in specific to the system specifications of anyapplication.								
II The creation of bug reports by using bug tracking tools like bugzilla and bugbit								
III The demonstration of test management and automated functional testing tools onweb applications.								
<b>III. COURSE OUTCOMES;</b> After successful completion of the course, students should be able to:								
CO 1 <b>Make use of</b> Conditional statements: if , if else, for, while, do-while and switch for Apply verifying the logical behavior of the system.						pply		
CO 2 Choose the tes	Choose the test director tool for effective test management inspecific to the applicationApply				pply			
CO 3 <b>Design</b> a Test Plan which helps us to validate the quality of theapplication. Understa					erstand			
CO 4 <b>Design</b> a test cases by using the specific behaviour of the system Ap				pply				
CO 5 Analyze the process of test life cycle of an application by using different bug tracking Analyze track like buggills and bugbit					alyze			
CO 6 Analyze the pr	Cools like bugzilla and bugbit0.6Analyze the process of Automated Functional Testing Tool forgiven applicationAnalyze				alyze			
IV. SYLLABUS:								
LIST OF EXPERIMENTS								
Week-1 CONSTR	RUCTS							
Write programs in C language to demonstrate the working of the following constructs: a) while b) switch c) for d) if-else e) do-while								
Week-2 SYSTEM	SYSTEM SPECIFICATIONS							
<ul><li>a. Study the system specifications of ATM system and report various bugs in it.</li><li>b. Study the system specifications of banking application and report various bugs in it.</li></ul>								
Week-3 TEST CA	TEST CASES							
<ul><li>a. Write the test cases for ATM system.</li><li>b. Write the test cases for banking application.</li></ul>								

Week-4	TEST PLAN			
Create a test plan document for any application (e.g. Library management system).				
Week-5	TESTING TOOL			
Study of any testing tool (e.g. Win runner).				
Week-6	SELENIUM			
Study of web testing tool (e.g. Selenium).				
Week-7	BUG TRACKING TOOL			
Study of bug tracking tool (e.g. Bugzilla).				
Week-8	BUGBIT			
Study of bug tracking tool (e.g. Bugbit).				
Week-9	TEST MANAGEMENT TOOL			
Study of any test management tool (e.g. Testdirector).				
Week-10	OPEN SOURCE TESTING TOOL			
Study of any Open Source Testing Tool (e.g. Test Link).				
Week-11	AUTOMATED FUNCTIONAL TESTING TOOL			
Study of QTP	(Quick Test Professional) automated functional testing tool.			
Week-12 INTROSPECTION OF MATRIX MULTIPLICATION				
A program wi write down the	ritten in C language for matrix multiplication fails, introspect the causes for its failure and e possible reasons for its failure.			
Reference Books:				
<ol> <li>Boris Beizer, "Software Testing Techniques", DreamTech Press, 2<sup>nd</sup> Edition, 2000.</li> <li>Dr. K. V. K. K. Prasad, "Software Testing Tools", DreamTech Press, Revised Edition, 2004.</li> <li>Perry, "Effective methods of Software Testing", John Wiley, 2<sup>nd</sup> Edition, 1999.</li> <li>Paul Jorgensen, "Software Testing: A Craftsman's Approach", Auerbach Publications, 3<sup>rd</sup> Edition, 2012.</li> <li>P. C. Jorgensen, "Software Testing", Auerbach Publications, 3<sup>rd</sup> Edition, 2000.</li> </ol>				
Web References:				
<ol> <li>https://www.bugzilla.org/about/</li> <li>http://www.seleniumhq.org/docs/01_introducing_selenium.jsp</li> <li>http://www.softwaretestinghelp.com/popular-bug-tracking-software/</li> <li>http://www.guru99.com/testlink-tutorial-complete-guide.html</li> <li>http://www.softwaretestingstuff.com/2007/10/test-director.html</li> </ol>				
Course Home Page:				
SOFTWARE AND HARDWARE REQUIREMENTS FOR 36 STUDENTS:				
HARDWARE: Desktop Computers with 4 GB RAM 36 nos.				
<b>SOFTWARE:</b> Application Software: Win runner, Selenium, Bugzilla, Bugbit, Testdirector, Testlink (Open Source)				
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