

Course Code	PIT21C302J	Course Name	OPEN SOURCE TECHNOLOGIES	Course Category	C	Professional Core			
						L	T	P	C
						4	0	2	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department	Computer Science	Data Book / Codes/Standards	Nil		

Course Learning Rationale (CLR):	The purpose of learning this course is to:	1	2	3
CLR-1:	Lean Open Source Software	Level of Thinking	Expected Proficiency	Expected Attainment
CLR-2 :	Designing web page using PHP			
CLR-3 :	MYSQL Database			
CLR-4 :	Database Applications using PHP with MYSQL			
CLR-5 :	PERL			
CLR-6 :	Advanced PERL			

Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:	Level of Thinking	Expected Proficiency	Expected Attainment
CLO-1 :	Create a web page using OSS.	2	80	70
CLO-2 :	Design a web page using PHP	2	85	75
CLO-3 :	Design a web page using PHP with MYSQL	2	75	70
CLO-4 :	Web page with CMS	2	85	80
CLO-5 :	Web page using PERL commands	2	85	75
CLO-6 :	Understand Advanced PERL techniques	2	80	70

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Engineering	Problem Analysis	Design & Analysis, Design, Modern Tool Usage	Society & Culture	Environment & Ethics	Individual & Team	Communication	Project Mgt. & Life Long Learning	PSO - 1	PSO - 2	PSO – 3				
L	H	-	H	L	-	-	-	L	L	-	H	-	-	-
M	H	L	M	L	-	-	-	M	L	-	H	-	-	-
M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
H	H	M	H	L	-	-	-	M	L	-	H	-	-	-
L	H	-	H	L	-	-	-	L	L	-	H	-	-	-

Duration (Hour)		18	18	18	18	18
S1	SLO-1	PHP BASICS	Advanced PHP with MYSQL	Database	Scalar variables	PEARL
	SLO-2	Introduction to PHP	Introduction to MYSQL	Database driven applications	Scalar operators	Advanced PERL
S2	SLO-1	Web Server	Exceptions	Sample applications	Functions	Directory Operations
	SLO-2	Examples	Introduction	Advanced PHP with AJAX	Escape sequences	Process Management
S3	SLO-1	Apache Web Server	Error Handling	Advanced PHP with SEO	Lists	Process Communication
	SLO-2	PHP-Data Types	Error Handling Functions	Advanced PHP with CMS	Arrays	String
S4	SLO-1	Variables	Predefined variables	AJAX - Introduction	Introduction to arrays	Sorting
	SLO-2	Constants	Cookies	SEO - Introduction	Types of Array	Smart Matching
S5 -6	SLO-1	Laboratory 1: COOKIES	Laboratory 4 : Sample Application using PHP MYSQL	Laboratory 7 : PHP with AJAX	Laboratory 10: String Operations in PERL	Laboratory 13: Process communication
	SLO-2					
S7	SLO-1	Operators	Cookies Functions	CMS - Introduction	Subroutines	Advanced PERL Techniques
	SLO-2	Expressions	Sessions	PHP with AJAX	Input Statements	File I/O
S8	SLO-1	Control Structures	Session Functions	AJAX Basics	Output Statements	Open a file
	SLO-2	Functions	COM	PHP with Ajax Database driven applications	Hashes	Read from file
S9	SLO-1	Function Types	DOM	PHP with SEO	Hash Functions	Write to file
	SLO-2	User Defined Functions	CURL	Basics SEO	Basic Input statement	File test
S10	SLO-1	Directory Functions	SOAP	Provokative SE Friendly URL's	Basic Output Statement	operators
	SLO-2	File System	Classes and Objects	Duplicate Content Content Management systems	Subroutines	PERL DBI
S11-12	SLO-1	Laboratory 2: SESSIONS	Laboratory 5: Exception Handling	Laboratory 8: Hash Implementation	Laboratory 11 : Sorting	Laboratory 14 : PERL Database Application
	SLO-2					

S13	SLO-1	Functions Arrays	Example for Classes and Objects	Introduction Advantages	Examples using Hashes	Database Independent
	SLO-2	Types of Arrays String Functions	Mail Functions Sample program using Mail Functions	Word Press - Introduction Blog - Introduction	Regular expressions	Perl - Sort Perl reverse sorting
S14	SLO-1	Date Functions	URL Functions	Simple webpage using CMS	Control structures	Complex sorting
	SLO-2	Time Functions	Introduction to PHP with MYSQL	BASIC PERL	Modules in PERL	PERL – OOPS
S 15	SLO-1	Mathematical Functions	PHP and MYSQL functions	Introduction to PERL	Example using Regular expressions	Object
	SLO-2	User Defined Functions	Database creation	Advantages of PERL	Example using control structure	Class
S16	SLO-1	Miscellaneous Functions	Table creation	Data	Example using Modules	Inheritance
	SLO-2	Other Functions	Sample Queries in MYSQL	Scalar Data	Example using File Tests	Encapsulation
S 17- 18	SLO-1	Laboratory 3:	Laboratory 6: String	Laboratory 9: Array	Laboratory 12:	Laboratory 15 :
	SLO-2	Shopping cart using PHP with MYSQL	Functions	Implementation using PERL	Applications using Modules	Advanced PERL techniques

Learning Resources	1. Mehdi Achour, Friedhelm, Betz Antony Dovgal, Nuno Lopes, Hannes Magnusson, Georg Richter, Damien Seguy, Jakub Vrana And several others, (1997-2011), "PHP Manual (Download the manual from PHP official website www.php.net)", The PHP Documentation Group. (For Units I to III)	3. Jaimie Sirovich and Cristian Darie, (2007), "Professional Search Engine Optimization with PHP A Developer's Guide to SEO", Wiley Publishing, Inc., Indianapolis, Indiana.
	2. Lee Babin, (2007), "Beginning Ajax with PHP From Novice to Professional", Apres., (For Units IV to V)	4. Randal L. Schwartz, Tom Phoenix, brian d foy, "Learning Perl, Fifth Edition

Learning Assessment											
Bloom's Level of Thinking		Continuous Learning Assessment (50% weightage)								Final Examination (50% weightage)	
		CLA – 1 (10%)		CLA – 2 (10%)		CLA – 3 (20%)		CLA – 4 (10%)#			
		Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice
Level 1	Remember	20%	20%	15%	15%	15%	15%	15%	15%	15%	15%
	Understand										
Level 2	Apply	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Analyze										
Level 3	Evaluate	10%	10%	15%	15%	15%	15%	15%	15%	15%	15%
	Create										

	Total	100 %	100 %	100 %	100 %	100%
# CLA – 4 can be from any combination of these: Assignments, Seminars, Short Talks, Mini-Projects, Case-Studies, Self-Study, MOOCs, Certifications, Conf. Paper etc.,						
Course Designers						
Experts from Industry		Experts from Higher Technical Institutions			Internal Experts	
Mr. S. Karthik, IT Analyst, Tata Consultancy Services		Dr. Neelananarayanan,, Professor, School of Computer Science and Engineering, VIT Chennai			Mrs.P.Yogalakshmi	
					Dr..S.Sabeen	

