ITE1008	Open Source Programming	L	T	P	J	C
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Pre-requisite	**CSE1001**	**Syllabus version**				
		1.0				

Course Objectives:
- To understand the free and open source technologies
- To develop web pages using PHP and Perl.
- To learn various tools for developing web pages.

Expected Course Outcome:

1) Differentiate between open source software and free software

2) Build applications software using Open Source Software

3) Demonstrate the knowledge of fundamental concepts related to open source technologies.

4) Demonstrate the knowledge of fundamental concepts using open source databases.

5) Provide solutions to reliability, security, scalability and robustness in Internet.

6) Design and develop a web crawler to traverse a local repository of webpages.

7) Design of web domains.

8) Develop applications targeted for Internet considering the recent exploration such as real time web applications.

Student Learning Outcomes (SLO):	**2, 5**

[2] Having a clear understanding of the subject related concepts and of contemporary issues
[5] Having design thinking capability

Module:1	**OSS Fundamentals**	**4 hours**

FOSS- Open Source Philosophy -OSD – Licensing - Open Source vs Closed Source– Open Source vs Free Software – Copyright Vs. Copyleft.

Module:2	**Open Source Technologies**	**4 hours**

Open Source Servers – browsers – packages.

Module:3	**Basic PHP**	**7 hours**

Installation & Setting Path -Overview - Basics - GUI Programming - Arrays - Functions - Files-Exception Handling.

Module:4	**Open Source Data Base**	**6 hours**

Introduction to MYSQL -Data types - Queries-Interfaces with PHP

Module:5	**Advanced PHP**	**6 hours**

OOPs – File Uploading - Regular Expressions - Sending Mail – Cookies – Session Handling

Module:6	Perl		8 hours
Introduction – Statements – Arrays – Strings – File Handling.			
Module:7	Tools for OSS		7 hours
Moodle: Installation – Themes – Course & Activity – File Uploading. Ecllipse - IDE PHP: Creating Project – Adding files to Repository – Parsing functionality – Executing the project. Introduction to R-Programming			
Module:8	Contemporary issues:		3 hours
	Total Lecture hours:		45 hours
Text Book(s)			
1. Micheal K. Glass, Rommnle Scouarnec, Beginning PHP, Apache, MYSQL Web Development, Wiley Dream Tech publishing Inc. New Delhi 2010.			
Reference Books			
1. William Rice, Moodle E-learning Course Development, Packt Publishing, Third Edition 2015.			
2. Larry Wall, Tom Christiansen & Randal L. Schwartz, Programming Perl, Fourth Edition, O'Reilly, 2012.			
3. Gosselin, Diana Kokoska, Robert Easter Brooks, PHP Programming with MySQL, Second Edition, Course Technology, 2010.			
Recommended by Board of Studies		05-03-2016	
Approved by Academic Council	No. 40	Date	18-03-2016