

Subject Code: 2ET4070602	Subject Title: ADVANCE INTERNET TECHNOLOGY
Pre-requisite	Web Based Application Computer Networks

Course Objective:

The objectives of the course are to:

- Introduce the concepts of basic technical aspect of Internet Technology.
- Introduce the advanced keyword generation process and development of web programming using advance technology.
- Make the students aware about Search Engine basics and important aspect of SEO

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory		Practical		Total
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
3	-	2	4	60	40	20	30	150

Subject Contents			
Sr. No	Topic	Total Hours	Weight (%)
1	Advanced Internet Protocols • DNS, Working of DNS, DNS Header, Type of Records in DNS, • forward and Reverse lookup, Configuration of Open Source (OS) DNS, • working of DDNS - DHCP, DHCP header, Working of DHCP, • Configuration of OS DHCP - FTP, Working of FTP, • Configuration of OS Public FTP server and Private FTP server Understanding IPv6, CIDR, Hierarchical Routing, and Routing Protocol over internet. • Multimedia over Internet, Voice over IP, Virtual Private network	8	18
2	Search Engine Basics • Algorithm based Ranking Systems – Determining, • Searcher Intent and Delivering Relevant, • Fresh Content, Analyzing Ranking Factors, Using Advanced Search, • Techniques, Vertical Search Techniques, Country-Specific Search Engines	8	18
3	Search Engine Optimization • Determining SEO Objective and Finding Your Site's Audience – Setting SEO Goals and Objective, • Developing SEO plans Prior to Site Development -SEO for Raw traffic; E-commerce Sales; Mind share/Branding; Direct Marketing; Reputation Management; Ideological Influence. • Getting started SEO: Defining Your Site's Information Architecture, Auditing an Existing Site to identify SEO Problems, Identifying Current Server Statistic Software and Gaining Access – Determining Top competitors, • Benchmarking Current Indexing Status, Current Rankings, Benchmarking Current Traffic Source and Volumes, Conduct SEO/Website SWOT analysis.	10	28
4	Keyword Generation: • Creating Pages – Website Structure- • Creating Content-Creating Communities- building Links-Using Google Analytics-Social Media Optimization- • Creating Pay-per-click Campaigns- Optimizing PPC Campaigns through Quality Score optimization -Tracking Results and Measuring Success.	8	18

5	Mashups, HTML Scraping, and Web Services: • Popular Examples: Mapping Mashups. • Why Use Mashups? T • he Business Model of Mashups. Screen Scraping. Creating Feeds. • Mappingand Badges.	8	18
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Course Learning Outcome:

On successful completion of this course students would be able to

- 1 Understand technical aspect of Internet Technology
- 2 Understand the concept of Search Engine basics
- 3 Understand the important aspect of SEO
- 4 Understand the keyword generation process of web searching mechanism.
- 5 Develop advanced web programming

List of Experiments:

Note: The experiment list provided beneath is for reference only. The course teacher may change/formulate it as per his/her methodology and requirement.

1. To configure FTP
2. To configure DHCP
3. To install, configure and test the web server (Apache, IIS, Tomcat etc.)
4. To demonstrate the Mapping of Mashups. (RSS feeds)
5. To develop responsive web pages using HTML5 and CSS3
6. To study and compare the features of responsive websites which are developed using HTML5 and CSS3
7. To study search engine optimization tool.
8. To analyzed different methods for advanced search Techniques. (By content/topic, Information type etc.)
9. To study SEO/Website SWOT analysis.
10. Analyzing of web page ranking.

List of References:

1. Professional Web 2.0 Programming by Eric van der Vlist, Danny Ayers, ErikBruchez (Wrox Publication)
2. A Semantic Web Primer by Grigoris AntoniouFrank van Harmelen, The MIT Press Cambridge
3. The Art of SEO O'Reilly Publication
4. Web Crawlers and Search Engines by Mike Thelwall
5. TCP/IP Protocol Suite: By Behrouz A. Forouzan: Tata McGraw-Hill
6. Building an intelligent Web: theory and practice by Rajendra Akerkar, Pawan Lingras

E-Resources:

1. <http://searchengineland.com/guide/what-is-seo>
2. <http://www.deitel.com/ResourceCenters/Web20/Mashups/tabid/977/Default.aspx>
3. <http://mayor2.dia.fi.upm.es/oeg-upm/index.php/en/researchareas/2-ontologicalengineering/>

Mapping of CLO with PO and PSO

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CLO1	M												L			
CLO2	H												M			
CLO3	H						M							H		
CLO4	M					L								M		
CLO5	H	M					H							H		

H: High, M: Medium, L: Low