EASWARI ENGINEERING COLLEGE, CHENNAI-600 089
DEPARTMENT OF INFORMATION TECHNOLOGY

SUBJECT CODE	*:*	*IT 2353*
SUBJECT TITLE	*:*	*WEB TECHNOLOGY*
HOURS DISTRIBUTION	*:*	*(L T P C 3 0 0 4)*
COURSE/ BRANCH	*:*	*B.TECH (INFORMATION TECHNOLOGY)*
SEMESTER	*:*	*VI*
ACADEMIC YEAR	*:*	*2015 - 2016*
FACULTY NAME	*:*	*Mr. M. VIVEKANANDAN, AP (Sl .Gr.)*

OBJECTIVE OF COURSE*:*

- *It enables students to explain the Basic concept of HTML, XHTML, Internet and Internet protocol.*
- *It focus on the concept of Cascading style sheet, JavaScript programming.*
- *It enables students to explain the Basic DOM, Servlet and session tracking.*
- *It enables students to explain XML, Ajax, XSLT, Java Bean and MVC Architecture.*
- *It focuses on the concept of web service creation, XML schema, SOAP, WSDL and Servlet using database.*

OUTCOME OF COURSE*:*

- *Know regarding internet related technologies. Systematic way of developing a website.*
- *Design dynamic and interactive web pages by embedding Java Script code in HTML.Use Java Script to validate user input.*
- *Know the advantages and use of different types of CSS.*
- *Understand the HTML and XML DOM. Know how to use Dynamic HTML.*
- *Efficiently write Java Servlet.*
- *Understand the fundamentals of AJAX and JSP.*
- *Understand the fundamentals of Web Services.*

PREREQUISTE:

1. Java Programming Language

EASWARI ENGINEERING COLLEGE
Department of Information Technology
LESSON PLAN

Format No : LP-01	
Issue No : 01	
Issue Date : 05.05.06	

Subject code: IT2353 **Degree / Branch: B.Tech / IT**
Subject Name: Web Technology **Year / Sem / Sec: III / VI / B**
Faculty: Mr.M.VIVEKANANDAN.
Total No. of Hrs given in syllabus:
Tutorial: 0 **Lecture: 45**
Practical: 0 **Grand Total: 45 Hrs**

	Topic	No. of Periods	Ref/Web Book	Pages
UNIT – I **Objective: This unit enables students to explains the Basic concept of HTML,XHTML, Internet and Internet protocol**				
1	*The Internet, Basic Internet Protocols*	*1*	*T1*	*17-25*
2	*The World Wide Web-HTTP request message-response message*	*1*	*T1*	*25-38*
3	*Web Clients, Web Servers-Case Study.*	*1*	*T1*	*39-63*
4	*An Introduction to HTML*	*1*	*T1& W2*	*72-74*
5	*History-Versions*	*1*	*T1*	*75-80*
6	*Basic XHTML Syntax and Semantics-*	*1*	*T1&W2*	*80-88*
7	*Some Fundamental HTML Elements-Relative URLs*	*1*	*T1*	*88-99*
8	*Lists-tables-Frames-Forms-XML*	*1*	*T1*	*99-122*
9	*Creating HTML Documents and Case Study.*	*1*	*T1*	*120-128*
UNIT – II **Objective: This unit focus on the concept of Cascading style sheet, JavaScript programming**				
10	*CSS-Introduction to Cascading Style Sheets*	*1*	*T1&W2*	*137-139*
11	*CSS Features-Core Syntax-Style Sheets*	*1*	*T1&W2*	*139-149*
12	*HTML Style Rule Cascading and Inheritance*	*1*	*T1*	*149-156*
13	*Text Properties-Box Model*	*1*	*T1*	*156-173*
14	*Normal Flow Box Layout-Beyond the Normal Flow-Other Properties-Case Study.*	*1*	*T1*	*173-198*
15	*Client-Side Programming: The JavaScript Language-History and Versions Introduction*	*1*	*T1&W2*	*208-210*
16	*JavaScript in Perspective-Syntax-Variables-Data Types*	*1*	*T1&W2*	*210-219*
17	*Statements-Operators-Literals*	*1*	*T1&W2*	*219-225*
18	*Functions-Objects-Arrays-Built-in Objects-JavaScript Debuggers.*	*1*	*T1&W2*	*225-255*

UNIT – III **Objective: This unit enables students to explains the Basic DOM, Servlet and session tracking**				
19	*Browsers and the DOM-Introduction to the Document Object Model*	*1*	*T1&W2*	*265-267*
20	*DOM History and Levels-Intrinsic Event Handling*	*1*	*T1*	*267-270*
21	*Modifying Element Style-The Document Tree*	*1*	*T1*	*272-284*
22	*DOM Event Handling-Accommodating Noncompliant Browsers Properties of window*	*1*	*T1*	*284-310*
23	*Server-Side Programming: Java Servlet-Architecture –Overview*	*1*	*T1&W3*	*323-327*
24	*A Servlet Generating Dynamic Content-Life Cycle-Parameter Data-Sessions-*	*1*	*T1&W3*	*327-345*
25	*Cookies-URL Rewriting*	*1*	*T1*	*345-350*
26	*Other Capabilities-Data Storage*	*1*	*T1*	*350-354*
27	*Servlet Concurrency-Related Technologies.*	*1*	*T1*	*355-373*
UNIT – IV **Objective: This unit enables students to explains XML, Ajax, XSLT, Java Bean and MVC Architecture.**				
28	*XML-Documents and Vocabularies-Versions and Declaration*	*1*	*T1&W2*	*380-386*
29	*Namespaces JavaScript and XML: Ajax-DOM based XML processing*	*1*	*T1&W2*	*386-399*
30	*Event-oriented Parsing: SAX, Transforming XML Documents*	*1*	*T1*	*399-412*
31	*Selecting XML Data:XPATH,Templateb ased Transformations: XSLT*	*1*	*T1&W2*	*412-433*
32	*Displaying XML Documents in Browsers*	*1*	*T1*	*433-442*
33	*JSP Technology, Introduction-JSP and Servlet*	*1*	*T1&W1*	*448-454*
34	*Running JSP Applications Basic JSP*	*1*	*T1&W1*	*454-473*
35	*JavaBeans Classes and JSP,Tag Libraries and Files*	*1*	*T1*	*473-482*
36	*Support for the Model-View-Controller Paradigm-Case Study-Related Technologies*	*1*	*T1*	*482-497*
UNIT – V **Objective: This unit focus on the concept of web service creation ,XML schema , SOAP,WSDL and Servlet using database**				
37	*Web Services: JAX-RPC-Concepts*	*1*	*T1*	*502-506*
38	*Writing a Java Web Service*	*1*	*T1&W2*	*507-512*
39	*Writing a Java Web Service Client*	*1*	*T1*	*513-518*
40	*Describing Web Services: WSDL*	*1*	*T1&W2*	*518-524*
41	*Representing Data Types: XML Schema*	*1*	*T1*	*524-533*
42	*Communicating Object Data: SOAP*	*1*	*T1&W2*	*533-540*
43	*Related Technologies-Software Installation*	*1*	*T1*	*540-554*
44	*Storing Java Objects as Files*	*1*	*T1*	*554-560*
45	*Databases and Java Servlet.*	*1*	*T1*	*561-566*

	Beyond the Syllabus			
46	*Active Server Page*	*1*		
47	*VB Scripts*	*1*		

ASSIGNMENT TOPICS

Sl.No	Assignment Topics	Submission Date
1	*HTML*	**FEB - 15**
2	*CSS*	**FEB - 28**
3	*JAVA SCRIPT*	**MAR -15**
4	*JAVA SERVLET*	**MAR - 30**
5	*XML*	**APR- 15**

TEXT BOOK:

1. Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson Education, 2006

REFERENCE BOOKS:

1. Robert. W. Sebesta, "Programming the World Wide Web", Fourth Edition, Pearson Education, 2007.
2. Deitel, Deitel, Goldberg, "Internet & World Wide Web How To Program", Third Edition, Pearson Education, 2006.
3. Marty Hall and Larry Brown,"Core Web Programming" Second Edition, Volume I and II, Pearson Education, 2001.
4. Bates, "Developing Web Applications", Wiley, 2006.

WEB RESOURCES:

1. **www.jsptut.com**
2. **www.w3schools.com**
3. **www.cse.iitb.ac.in/dbms/Data/Courses/DBIS/Software/servlets/servlet_tutorial.html**

Prepared By **Approved By**

M.VIVEKANANDAN, AP/ IT **HOD / IT**

Program Educational Outcomes

1. *Graduates will be proficient in utilizing the fundamental knowledge of basic sciences and mathematics to the applications relevant to various streams of Engineering and Technology.*

2. *Graduates will possess core competencies necessary for application of knowledge of computers and telecommunications equipment to store, retrieve, transmit, manipulate and analyze data in the context of business enterprise.*

3. *Graduates will be capable of thinking logically, pursue lifelong learning and will have the capacity to understand technical issues related to computing systems and design optimal solutions.*

4. *Graduates will be able to develop hardware and software systems by understanding the importance of social, business and environmental needs in the human context.*

5. *Graduates will gain employment in organizations and establish themselves as professionals by applying their technical skills to solve real world problems and meet the diversified needs of industry, academia and research.*

6. *Graduates will be aware of professional ethics of the software industry and equip themselves with communication skills essential for working in community.*

Program Outcomes

(a) Ability to apply knowledge of computing and mathematics appropriate to Information Technology

(b) Ability to analyze a problem, and identify computing requirements appropriate to its solution

(c) Ability to design, implement, and evaluate a system, process, component, or program to meet specific requirements

(d) Ability to interpret and synthesis data to provide valid conclusions

(e) Ability to function effectively as a team member to achieve a common goal

(f) Ability to understand professional, ethical and social issues and responsibilities

(g) Ability to communicate effectively with a diverse groups

(h) Ability to analyze the local and global impact of Information Technology on society

(i) Ability to recognize and engage in continuing professional development and life long learning

(j) Ability to use current techniques, skills, and tools necessary to accomplish projects related to Information Technology.

(k) Ability to understand the impact of the professional engineering solutions in societal and environmental contexts for sustainable development.

(l) Ability to understand engineering and management principles to manage projects in multidisciplinary environment.

The Program Outcomes (POs) of UG in Information Technology are:

MAPPING OF COURSE OUTCOMES WITH PEO & THE PROGRAMME OUTCOME-(IT 2353 WEB TECHNOLOGY)

Units	Course Outcomes	OB1	OB2	OB3	OB4	IB5	OB6	OCa	OCb	OCc	OCd	OCe	OCf	OCg	OCh	OCi	OCj	OCk	OCl
Web Essentials: Clients, Servers, and Communication. The Internet-Basic Internet Protocols -The World Wide Web-HTTP request message-response message-Web Clients Web Servers-Case Study. Markup Languages: XHTML. An Introduction to HTML History-Versions-Basic XHTML Syntax and Semantics-Some Fundamental HTML Elements-Relative URLs-Lists-tables-Frames-Forms-XML Creating HTML Documents Case Study.	*At the end, the student can able to desing a web page using HTML,XHTML and XML.*	S	S	S	S	M	W	S	S	S	S	S	S	W	M	M	S	S	W
Style Sheets: CSS-Introduction to Cascading Style Sheets-Features-Core Syntax-Style Sheets and HTML Style Rule Cascading and Inheritance-Text Properties-Box Model Normal Flow Box Layout-Beyond the Normal Flow-Other Properties-Case Study. Client- Side Programming: The JavaScript Language-History and Versions Introduction JavaScript in Perspective-Syntax-Variables and Data Types - Statements-Operators-Literals-Functions-Objects-Arrays-Built-in Objects-JavaScript Debuggers.	*At the end, the student can able to desing a web page using CSS and Java Script.*	S	S	S	S	M	W	S	S	S	S	S	S	W	M	M	S	S	W
Host Objects : Browsers and the DOM-Introduction to the Document Object Model DOM History and Levels-Intrinsic Event Handling-Modifying Element Style-The Document Tree-DOM Event Handling-Accommodating Noncompliant Browsers Properties of window-Case Study. Server-Side Programming: Java Servlet-Architecture -Overview-A Servlet-Generating Dynamic Content-Life Cycle-Parameter Data-Sessions-Cookies- URL Rewriting-Other Capabilities-Data Storage Servlet and Concurrency-Case Study- Related Technologies.	*At the end, the student can able to desing a web page using Server side programs using Servlet*	S	S	S	S	M	W	S	S	S	S	S	S	W	M	M	S	S	W
Representing Web Data: XML-Documents and Vocabularies-Versions and Declaration -Namespaces JavaScript and XML: Ajax-DOM based XML processing Event-oriented Parsing: SAX-Transforming XML Documents-Selecting XML Data :XPATH-Template based Transformations: XSLT-Displaying XML Documents in Browsers-Case Study- Related Technologies. Separating Programming and Presentation: JSP Technology Introduction-JSP and Servlet-Running JSP Applications Basic JSP-JavaBeans Classes and JSP-Tag Libraries and Files-Support for the Model-View-Controller Paradigm-Case Study-Related Technologies.	*At the end, the student can able to desing a web page using JSP and XML*	S	S	S	S	M	W	S	S	S	S	S	S	W	M	M	S	S	W

Web Services: JAX-RPC-Concepts-Writing a Java Web Service-Writing a Java Web Service Client-Describing Web Services: WSDL- Representing Data Types: XML Schema-Communicating Object Data: SOAP Related Technologies-Software Installation-Storing Java Objects as Files-Databases and Java Servlet.	*At the end, the student can able to create a Web Service and can use SOAP technologies and Database connections.*	**S**	**S**	**S**	**S**	**M**	**W**	**S**	**S**	**S**	**S**	**S**	**S**	**W**	**M**	**M**	**S**	**S**	**W**

STRONG	*S*
MEDIUM	*M*
WEAK	*W*