

Lecture Plan

M.TECH CE/IT/CN

CODE: MTIT-17-114

SUBJECT NAME: WEB TECHNOLOGIES

NO OF CREDITS: 4

Unit	Topic	Duration (in hours)	Reference
I	Web Essentials: Clients, Servers, and Communication. The Internet-Basic Internet Protocols - The World Wide Web-HTTP request message-response message-Web Clients, Web Servers,	2	<ol style="list-style-type: none"> Uttam K. Roy "Web Technologies", Oxford Publication Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson
	Markup Languages: HTML: list, table, images, frames,	2	
	forms, CSS	3	
II	Introduction, Role of XML, Difference between XML and HTML, XML Tree, XML Syntax, Elements, Attributes, Validation	2	<ol style="list-style-type: none"> Uttam K. Roy "Web Technologies", Oxford Publication XML by Example: Building Ecommerce applications – Sean McGrath,Pearson Education Asia Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson
	XML DTD: Introduction, Using DTD in an XML Document, Element Type Declaration, Attribute Declaration, Entity Declaration, CDATA, DTD validation,	3	
	XML schemas: presenting and using XML;	4	
	XML DOM: DOM Nodes, Document Node, Element Node, Text Node, Attribute Node,	2	
	Manipulating DOM Tree,	2	
	XML Transformation, XML Application.	3	
III	Java script: Introduction, variables, operators, Control structure, Arrays,	2	<ol style="list-style-type: none"> Uttam K. Roy "Web Technologies", Oxford Publication Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson
	Functions, documents, DOM,	3	
	forms, statements, functions, objects; events and event handling, Accessing and Manipulating HTML Elements, Data entry and Validations, DHTML.	3	
IV	JSP: Creating simple JSP Pages, templating ,Request time expression,Request &	2	<ol style="list-style-type: none"> JSP: Java server pages – Barry Burd, IDG Books India

	Response objects, Reading parameter values.		<ol style="list-style-type: none"> 2. Java Server pages – Larne Pekowsky – Pearson Education Asia 3. Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson 4. Uttam K. Roy "Web Technologies", Oxford Publication
	Java Servlets- Architecture -Overview-A Servlet-Generating Dynamic Content-Life Cycle	2	<ol style="list-style-type: none"> 1. Uttam K. Roy "Web Technologies", Oxford Publication
	Parameter Data-Sessions-Cookies- URL Rewriting	2	<ol style="list-style-type: none"> 2. Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson
	Other Capabilities-Data Storage Servlets and Concurrency	2	
	EJB – Basics of EJB – Types of Beans – Development of Session Beans – Steps – Creating & Implementing Interfaces – Writing Deployment descriptors – Packaging and deploying bean – using the bean from a client – Development of stateful session bean. Entity beans – Features (Basics of developing and using entity beans)	3	<ol style="list-style-type: none"> 1. EJB Design Patterns – Floyd Marinescu 2. Uttam K. Roy "Web Technologies", Oxford Publication
V	Web services, Design and modeling of web services, Technologies for Implementing web services, Current applications of advanced web technologies.	2	<ol style="list-style-type: none"> 1. Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson
	. HTML 5.0, WebGL,	2	<ol style="list-style-type: none"> 1. Introducing HTML5- Book by Bruce Lawson 2. WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL)- Kouichi Matsuda , Rodger Lea
	SVG, Social web and related technologies, - Ontology modeling, Languages for representing ontologies on the web, Rules and inferences,	2	<ol style="list-style-type: none"> 1. http://svgpocketguide.com/ 2. Research Papers
	Total Lectures	48	