

CS612 INTERNET TECHNOLOGIES
(ELECTIVE - IV)**Objective of the Course:**

This course demonstrate an in-depth understanding of the tools and Web technologies necessary for business application design and development. The course covers client side scripting like HTML, JavaScript and server side scripting like servlets, JSPs. and also XML and web servers and database interfacing.

UNIT - I**HTML Common tags :**

List, Tables, images, forms, Frames, image maps : Cascading Style sheets; Introduction to Java Scripts, Objects in Java Script, Dynamic HTML with Java Script.

UNIT - II**XML :**

Document type definition, XML Schemas, Document Object model, Presenting XML, Using XML Processors: DOM and SAX.

UNIT - III**Web Servers and Servlets :**

Tomcat web server, Introduction to Servlets: Lifecycle of a Servlet, JSDK, The ServletAPI, The javax.servlet

Package, Reading Servlet parameters, Reading Initialization parameters. Introduction to Filters in servlets, Filter Life Cycle, Processing filters, Programming Filters, Configuring Filters, Container's rule for Ordering filters, The javax.servlet HTTP package, Handling Http Request & Responses, Using Cookies-Session Tracking, Security Issues,

UNIT - IV**Introduction to JSP:**

The Problem with Servlet. The Anatomy of a JSPPage, JSP Processing. JSP. Application Designwith MVC Setting Up and JSP Environment Generating Dynamic Content, Using Scripting Elements Implicit JSP, Objects, Conditional Processing – Displaying Values Using an Expression to Set an Attribute, Declaring Variables and Methods Error Handling and Debugging Sharing, Data Between JSP pages, Requests, and Users Passing Control and Date between Pages – Sharing Session and Application Data – Memory, Usage Considerations.

UNIT - V**Database Access :**

Database Programming using JDBC, Studying javax.sql.* package, Accessing a Database from a JSP Page, Application – Specific Database Actions, Deploying JAVA Beans in a JSP Page, custom tags, introduction to The Java Server Pages Standard Tag Library (JSTL 1.0), Introduction to struts framework.. Simple example in struts.

TEXT BOOKS :

1. *Chris Bates*, "Web Programming, building internet applications", 2nd ed., WILEY Dreamtech.
2. The complete Reference Java 2 Fifth Edition by *Patrick Naughton* and *Herbert Schildt*. TMH.
3. Java Server Pages –Hans Bergsten, SPDO'Reilly.

REFERENCEBOOKS :

1. Programming world wide web-Sebesta, Pearson
2. Core Servletsandjvaserver Pages Volume 1: Core Technologies By Mart Hall and Larry Brown Pearson
3. Internet and World Wide Web – How to program by *Dietel* and *Nieto* PHI/Pearson Education Asia.
4. *FiruzAibara*, "HTML for beginners", 2nd ed., SPD Oreilly Publishers, 2010.
5. *Murach's* beginning JAVA JDK 5, Murach, SPD.
6. *Jennifer Niederst, Robbins*, "Learning web Design", 3rd ed., SPD, Oreilly Publishers, 2010.