WEB TECHNOLOGIES

Course Code: 13IT2105   **L P C**
                                                               4 0 3

Pre requisites: Java.
Course Outcomes:
At the end of the course, a student should be able to:
CO 1:   Design static and dynamic web pages.
CO 2:   Create, manipulate and validate XML documents.
CO 3:   Write Servlet programs.
CO 4:   Develop JSP applications.
CO 5:   Use JDBC in application development.

UNIT-I
HTML Common tags: List, Tables, images, forms, Frames; Cascading Style sheets.
Java Scripts: 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
Java Beans: Introduction to Java Beans, Advantages of Java Beans, BDK
Introspection, Using Bound properties, Bean Info Interface, Constrained properties
Persistence, Customizes, Java Beans API, Introduction to EJB's
UNIT-III
Web Servers: Introduction to Servlets: Lifecycle of a Servlet, JSDK, The Servlet API, The javax.servlet Package, Reading Servlet parameters, Reading Initialization parameters.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 JSP Page, JSP Processing. JSP Application Design with MVC Setting Up and JSP Environment: Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat.

JSP Application Development: 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, Introduction to struts framework.

Text Books:
1. Chris Bates, *Web Programming, building internet applications*, 3rd Edition, WILEY
   Dreamtech, 2007.
2. Patrick Naughton, Herbert Schildt, *The complete Reference Java 2*, 7th Edition, TMH, 2006.
3. Hans Bergsten, *Java Server Pages*, 3rd Edition, SPD O'Reilly, 2003.

References:
1. Hans Bergsten, *Java Server Pages*, 3rd Edition, O'Reilly publication, 2008.
2. Raj Kamal, *Internet & web technologies*, 8th Edition, Tata McGraw-Hill, 2007.
3. Chris Bates, *Web Programming, building internet applications*, 2nd Edition, WILEY
   Dreamtech, 2008.
4. Xavier. C, *web technology and design*, 1st Edition, New Age International, 2011.
5. Marty Hall and larry Brown, *Core servlets and java Server pages,* volume 1, core technologies, 2nd Edition, Pearson Education, 2007.

Web references:
1. www.microsoft.com
2. http://developer.netscape.com/tech/javascript/ssjs/ssjs.html