

## **CS 414: Web Technology (3-0-0: 3)**

### **Introduction to web technologies and architectures:**

Recent Web technologies: A case study on WWW, web 2.0 etc., Client/Server Computing: C/S Computing, Middleware, Fat client VS Fat Servers, N-tiered Software Architecture.

### **Mark-language**

Markup Languages and their grammars: SGML, DTD Resources, HTML, CSS, XML, XSL, Query Languages for XML.

### **Browser and Apache web server architecture**

Web Browser: Browser Architecture, Configuration of Netscape and IE

Web Server Apache Architecture: Web Server Architecture, Server Features, Configuration of Apache Tomcat.

### **Commonly used protocols**

Protocols: HTTP, FTP, SMTP, POP etc.

### **Basics of web-programming**

Programming: Client side scripting: JAVASCRIPT, AJAX.

Server side programming in PHP/JSP/Servlet.

Overview of Java, JAVA Applet

### **Distributed Object Models**

CORBA, DCOM, EJB

### **E-commerce applications**

E-business models, E-commerce and WWW, secure electronic payment protocols, e-commerce payment systems, web based marketing, search engine and directory registration, e-commerce site designing tools etc.

### **Web 3.0**

Semantic web and supporting technologies

### **Text Books:**

1. Jeffrey C. Jackson, "Web Technologies: A computer science perspective" , Pearson Education

### **References:**

1. W3schools tutorials, <http://www.w3schools.com/>
2. Eric T. Freeman, Elisabeth Robson, "Head First JavaScript Programming", O'Reilly Media
3. L. Beighley, Michael Morrison, "Head First PHP & MySQL", O-Reilly Media
4. B. Basham, Kathy Sierra, Bert Bates, "Head First Servlets and JSP", O'Reilly publication.
5. R. M. Riordan, "Head First Ajax", O'Reilly Media.