7th Semester	RIT6D002	Internet and Web Technology	L-T-P 3-0-0	3 Credits

Objectives

☐ To introduce concepts in internet web technology

☐ To identify html, scripting, java applets, internet security

☐ To introduce php concepts`

Module I: (09 hours)

INTRODUCTION TO INTERNET

Introduction, Evolution of Internet, WEB2.0 and Evolution of WWW. Internet Protocol - TCP/IP, UDP, HTTP, Secure Http(https) Internet Addressing Scheme – Ipv4 & IPv6, Domain Name Server and IP Addresses-Mapping. Building Web Sites: Planning for designing Web pages, site navigation, model and structure of a Website, Web Servers, Web Browsers, Two Tier and Three Tier Web Based Architecture

Module II: (09hours)

HTML CSS AND SCRIPTING

HTML – Introduction, SGML, DTD(Document Type Definition). Basic HTML using images links, Lists, Tables and Forms, Frames for designing a good interactive website. HTML Standards, Issues in HTML

HTML5: Migration, New Elements, Semantics, Canvas, SVG, Google Maps, Multimedia, APIs

CSS: Syntax, Class Selector, Id Selector. External and Internal Style Sheets, Inline Style, and The class selector, div & span tags. Change the properties like background images, colors, and manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS.

CSS3: Rounded Corners, Border Images, Gradients, Shadows, 2D and 3D Transforms, Transitions, Animations, object-fit, Multiple Columns, Box Sizing, Flexbox.

Java Script – Java Script Object Model, Variables-Constant – Expressions, Conditions-Relational Operators- Data Types – Flow Control – Popup Boxes, Try…. Catch Statement, Throw Statement, and Objects of JavaScript: Date object, array object, Boolean object, math object Functions & Objects-events and event handlers – Data type Conversion & Equality – Accessing HTML form elements. Email and password validations.

Module III: (09 hours)

XML and JAVA Applets

What is XML – Basic Standards, Schema Standards, Linking & Presentation Standards, Standards that build on XML, Generating XML data, Writing a simple XML File, Creating a Document type definition, Documents &Data ,Defining Attributes & Entities in the DTD ,Defining Parameter Entities & conditional Sections, Designing an XML data structure, XML Normalization.

Approaches to Dynamic Pages: CGI, Java Applets, Plug Ins, Active X controls, Java Applet: Introduction to Java, Writing Java Applets, Life cycle of applet, Design a login page using applets. Designing of applications using applet.

Module IV:

PHP   (09 hours)

PHP: Starting to script on server side, Arrays, function and forms. Advance PHP: File Upload, Cookies, Sessions, Filters, Error Handling, Exception

Databases : Basic command with PHP examples, Connection to server, creating database, selecting a database, listing database, listing table names creating a table, inserting data,

altering tables, queries, deleting database, deleting data and tables, PHP my admin and database bugs.

Outcomes
☐ Ability to relate practical problems to internet web technology concepts
☐ Ability to model problems using standard web technology concepts
☐ Ability to apply web technology skills in real-world problem solving

Books

[1] Internet of Web Technology by A. Ravichandran, Khanna Book Publishing Co (P) Ltd,1st Edition,2013

[2] Internet & Web Technologies ByRajkamal, Mcgraw Hill Education,1st Edition,2013

[3] Internet Technology and Web Design by Isrd Group, Mcgraw Hill Education,1st Edition,2014

[4] Web Technology:A Developer by N.P.Gopalan, J. AKILANDESWARI , Phi Learning, 2nd Edition,2016
[5] Web Technologies: A Computer Science Perspective, by Jackson, Pearson Education India, 1st Edition,2015

[6] Html5 Covers Css3 Javascript Xml Xhtml Ajax Php &Jquery Black Bookby Na,Dreamtech(Biztantra),2nd Edition,2018

Digital Learning Resources:

Course Name: Internet Technology

CourseLink:https://nptel.ac.in/courses/106/105/106105084/

Course Instructor: Prof. Indranil Sengupta, IIT Kharagpur