

CAP757:WEB TECHNOLOGIES-LABORATORY

Course Outcomes: Through this course students should be able to

- CO1 :: recognize the latest DHTML and CSS concepts
- CO2 :: understand bootstrap concepts for responsive web designing
- CO3 :: apply the dynamic web design concepts using react js
- CO4 :: illustrate the use of DHTML and react JS for responsive web development

List of Practicals / Experiments:

Overview of HTML

- structure of HTML page
- working with tags and attributes
- working with list and inline elements
- implementing tables and forms

DHTML with CSS

- concepts of selectors
- formatting tags with css
- responsive layout designing using css flexbox

Interface designing with BootStrap

- introduction to bootstrap
- associating bootstrap with mobile web interfaces
- bootstrap modals and cards
- bootstrap carousel and css z-index

Introduction to ReactJS

- reactjs architecture
- reactjs and web development

Pure React concepts

- setting up webpage using react and react dom
- constructing elements with data
- concept of dom rendering
- working with factories in react

Using React with JSX

- defining react elements using jsx
- concept of transpiling and babel
- working with recipes and webpack

State management and component tree in ReactJS

- validating properties with react
- managing data using state in react
- using component tree to manage state

Working with React router and server

- web page management by incorporating react router
- data driven web applications and router parameters
- react based server rendering
- react based server communication

Functional programming with Javascript

- programming constructs in javascript
- introduction to es6 class
- components of es6 class

Text Books:

1. HTML & CSS: THE COMPLETE REFERENCE by THOMAS A. POWELL, M.G.Hills
2. LEARNING REACT: MODERN PATTERNS FOR DEVELOPING REACT APPS by ALEX BANKS, EVE PORCELLO, O'REILLY

References:

1. WEB ENABLED COMMERCIAL APPLICATION DEVELOPMENT USING HTML, JAVASCRIPT, DHTML AND PHP by IVAN BAYROSS, BPB PUBLICATIONS
2. ADVANCED WEB DEVELOPMENT WITH REACT: SSR AND PWA WITH NEXT.JS USING REACT WITH ADVANCED CONCEPTS: SSR AND PWA WITH NEXT.JS USING REACT WITH ADVANCED CONCEPTS by MEHUL MOHAN, BPB PUBLICATIONS
3. LEARNING REACT NATIVE: BUILDING NATIVE MOBILE APPS WITH JAVASCRIPT by BONNIE EISENMAN, O'REILLY