

## VALUE ADDED COURSES OFFERED BY OUR DEPARTMENT

### CISA215 WEB DEVELOPMENT

#### LEARNING OBJECTIVES

- LO1. To impart basic knowledge on web development
- LO2. To impart basic scripting ideas and importance in client server architecture
- LO3. To provide the basic knowledge about ASP, XML, CSS, PHP and MySQL.

#### UNIT-I

HTML: History of the Internet and World Wide Web – HTTP, SMTP, POP3, MIME, Understanding roles of Web Browsers and Web Servers. Structure of HTML, Text formatting, Text styles, hyper link, image, and tables.

#### UNIT-II

Frames, Forms and CSS: Frames, Forms and controls, Embedding audio, video and animated files in HTML, CSS –Understanding CSS, Internal CSS, External CSS, Font Properties, Text Properties, Color and Background properties, Table properties, Numbering and List Properties.

#### UNIT-III

JavaScript: Data types and literals, operators, conditional statements, loop constructs, reserved words; core Objects: Array Object, Date Object; Functions: passing value to JavaScript functions, user defined functions, Handling old browsers , java script events, formatting cookie, retrieving cookie value from the cookie file, removing a cookie , animations using events.

#### UNIT-IV

ASP & XML: ASP – Working of ASP – Request and Response Objects – File System Objects – Session tracking and cookies – ADO – Access a Database from ASP – XML – Structure in Data – Name spaces – DTD – Vocabularies – Accessing Web servers – IIS – Apache web server.

#### UNIT-V

PHP & MySQL: Why PHP and MySQL - Server-Side Web Scripting - Getting Started with PHP - Adding PHP to HTML -Syntax and Variables - Control and Functions - Passing Information between Pages – Strings – Arrays and Array Functions – Numbers - MySQL Database Administration - PHP/MySQL Functions -Displaying Queries in Tables - Building Forms from Queries.

#### TEXT BOOKS

1. Kris Jamsa, konrad King and Andy Anderson, “HTML & Web Design Tips and Techniques”, Tata McGraw-Hill, First Edition, 2002.
2. Powell T.A, HTML: Complete Reference, Tata McGraw-Hill, Fifth Edition, 2010.

#### REFERENCE BOOKS

1. Deitel & Deitel, Goldberg, Internet and World Wide Web – How to Program, Third Edition, Pearson Education Asia, 2005.
2. Elizabeth Naramore, Jason Gerner, Yann Le Scouarnec, Jeremy Stolz, and Michael K. Glass, “Beginning PHP5, Apache, and MySQL Web Development”, First Edition, Wrox publications, 2005.
3. Rajkamal, “Web Technology”, First Edition, Tata McGraw-Hill, 2001. Tim Converse, Joyce Park and Clark Morgan “PHP5 and MySQL Bible”, Wiley Publishing, Inc. 2004.

## **COURSE OUTCOMES**

On successful completion of the course, the students will be able to

- CO1. Develop simple components in web pages.
- CO2. Write code using scripting languages.
- CO3. Can connect databases via web applications.
- CO4. Design a web page.

## **CISA415 ADVANCED WEB DEVELOPMENT**

### **LEARNING OBJECTIVES**

- LO1. To impart advanced ideas of web development
- LO2. To impart scripting ideas and importance in web development.
- LO3. To provide the basic knowledge about ASP.NET, ADO.NET and web services.

### **UNIT-I**

OVERVIEW OF ASP.NET - The .NET framework – Learning the .NET languages : Data types – Declaring variables- Scope and Accessibility- Variable operations- Object Based manipulation- Conditional Structures- Loop Structures- Functions and Subroutines. Types, Objects and Namespaces : The Basics about Classes- Value types and Reference types- Advanced class programming- Understanding name spaces and assemblies. Setting Up ASP.NET and IIS .

### **UNIT-II**

Developing ASP.NET Applications - ASP.NET Applications: ASP.NET applications– Code behind- The Global.asax application file- Understanding ASP.NET Classes- ASP.NET Configuration. Web Form fundamentals: A simple page applet- Improving the currency converter- HTML control classes- The page class- Accessing HTML server controls. Web controls: Web Control Classes – AutoPostBack and Web Control events- Accessing web controls. Using Visual Studio.NET: Starting a Visual Studio.NET Project- Web form Designer- Writing code- Visual studio.NET debugging. Validation and Rich Controls: Validation- A simple Validation example- Understanding regular expressions- A validated customer form. State management - Tracing, Logging, and Error Handling.

### **UNIT-III**

Working with Data - Overview of ADO.NET - ADO.NET and data management- Characteristics of ADO.NET-ADO.NET object model. ADO.NET data access : SQL basics- Select , Update, Insert, Delete statements- Accessing data- Creating a connection- Using a command with a DataReader - Accessing Disconnected data - Selecting multiple tables – Updating Disconnected data. Data binding: Single value Data Binding- Repeated value data binding- Data binding with data bases. Data list – Data grid – Repeater – Files, Streams and Email – Using XML

#### **UNIT-IV**

Web Services - Web services Architecture : Internet programming then and now- WSDL- SOAP- Communicating with a web service-Web service discovery and UDDI. Creating Web services : Web service basics- The StockQuote web service – Documenting the web service- Testing the web service- Web service Data types- ASP.NET intrinsic objects. Using web services: Consuming a web service- Using the proxy class- An example with TerraService.

#### **UNIT-V**

Advanced ASP.NET - Component Based Programming: Creating a simple component – Properties and state- Database components- Using COM components. Custom controls: User Controls- Deriving Custom controls. Caching and Performance Tuning: Designing and scalability– Profiling- Catching- Output catching- Data catching. Implementing security: Determining security requirements- The ASP.NET security model- Forms authentication- Windows authentication.

#### **TEXT BOOK**

Mathew Mac Donald, “ASP.NET Complete Reference”, TMH 2005.

#### **REFERENCE BOOKS**

1. Crouch Matt J, “ASP.NET and VB.NET Web Programming”, Addison Wesley 2002.
2. J.Liberty, D.Hurwitz, “Programming ASP.NET”, Third Edition, O'REILLY, 2006.

#### **COURSE OUTCOMES**

On successful completion of the course, the students will be able to

- CO1. Overall view to develop web pages.
- CO2. Write advanced codes in scripting languages.
- CO3. Connect the different databases via web applications.

**Able to use components, remote calls and web services in distributed web applications.**