

# COURSE DETAILS

## •NET TECHNOLOGY

### ▣ ASP . NET

- **Getting Started With ASP.NET**
  - What is a Static Web Pages?
  - What is ASP.NET?
  - The Installation Process
- **Server Controls and Variables**
  - Forms
  - Web Pages, HTML Forms, and Web Forms
  - Request and Response in Non-ASP.NET Pages
  - ASP.NET Server Controls
  - Storing Information in C# Variables
  - Data types
- **Control Structures and Procedural Programming**
  - Operators
  - Control Structures
  - Branching Structure
  - Looping Structures
- **Functions**
  - Overview
  - Defining and using Functions
  - Passing Parameters to Functions
- **Event-Driven Programming**
  - Overview
  - HTML Events
  - ASP.NET'S trace features
- **Objects**
  - Classes Instances
  - Properties, Methods, Events
  - Net objects
- **Reading from databases**
  - Understanding databases
  - The Matrix Data Explorer
  - Creating Data Pages
  - ADO.NET
- **Advanced Data Handling**
  - More Data Objects
  - Updating Databases

➤ **ASP.NET Server Control**

Understanding Web Controls: The Wrox United Application  
ASP.NET Web Controls  
HTML Server Controls  
HTML Server Controls Versus Web Controls  
Events  
Page Lifecycle

➤ **Users and Application**

Information In a Web application  
Reacting to Application and Session Events  
Caching  
State Management Recommendations

➤ **Reusable Code for ASP.NET**

Encapsulation, Components, UserControls, CodeBehind

➤ **• .NET Assemblies and Custom Controls**

Three Tier Application Design  
ASP.NET Application Design  
.NET Assemblies  
Custom Server Controls

➤ **Debugging and Error Handling**

Tips on coding, Sources of Errors, Finding Errors,  
Handling Errors, Error Notification and Logging

➤ **Configuration and Optimization**

Configuration Overview  
Performance Optimization

➤ **Web Services**

All About Web Services

➤ **ASP.NET Security**

The Security Model  
Authorization, Authentication and also in Wrox United  
Encryption Using SSL

## ■ C# .NET

### ◆Part 1: The C# Language

- .NET Architecture
- C# Basics
- Objects and Types
- Inheritance
- Operators and Casts
- Delegates and Events
- Memory Management and Pointers
- Strings and Regular Expressions
- Collections
- Reflections
- Errors and Exceptions

### ◆Part 2: The .NET Environment

- Visual Studio .NET
- Assemblies
- .NET Security
- Threading
- Distributed Applications With .NET Remoting
- Localization
- Deployment

### ◆Part 3: Windows Forms

- Windows Forms
- Graphics With GDI+

### ◆Part 4: Data

- Data Access With .NET
- Viewing .NET Data
- Manipulating XML
- Working With Active Directory

### ◆Part 5: Web Programming

- ASP.NET Pages
- Web Services
- User Controls and Custom Controls

### ◆Part 6: Interpol

- COM Interoperability
- Enterprise Services

### ◆Part 7: Windows Base Services

- File and Registry Operations
- Accessing The Internet
- Windows Services

## **Project Development Work**

- **Client:** Hindustan Steelworks Construction Ltd. (Govt. of India)
- **Project Name:** Online office automation system of HSCL

### ➤ **General Characteristics / Platform:**

1. The program will run under Windows Platform.
2. The program will be written in ASP.NET/C#
3. All reports shall be developed using desired control .
4. The program will expect the database to be SQL Server.
5. Security is very important aspect in this Enterprise System. User(s) are allowed to use the System only from options available in the menu. The Systems department is expected to ensure that the user(s) does not break into the system and perform any modifications. Security system shall be provided after all testing work is over. This system shall allow user to define the security as follows :
  - ✓ All users shall have a valid User code and valid Password.
  - ✓ User after login can change there Password.
  - ✓ There shall be one System Administrator with his/her different user code and Password.
  - ✓ Any Unit can't change or update other unit's data.
  - ✓ Depending on the above definition, system shall disable all menu-items, which are not applicable for that user.
  - ✓ etc.

If any user forgot their password except for Administrator, the Administrator of the system shall be able to reassign his/her password

### ➤ **Software Interfaces:**

- The program shall run under Windows platform.
- Internet Information Services (IIS5.1) should be installing and configure properly at server.
- Internet Explorer or Netscape.
- To enable data transfer between the various factory & branches Internet connection will be required.

### ➤ **Module Activity:**

1. Internal Messaging system with file transfer and E-mail system implementation.
2. Role base access control system.
3. Security control using admin panel
4. Project status checking of HSCL using LDM section.
5. Finance on Profitability.
6. Clint server communication using Socket Programming.
7. Multithread socket programming for implementation of Chat Server.