BCA204A31: VISUAL PROGRAMMING

Credits: 4   **Hours:60**

 Course Objective:

                 To design and develop Windows-based applications using Visual Basic.NET programs
        that meet viable programming standards.

Course Outcomes:

 After completing this course, the student will be able to:

- develop stand-alone applications with effective design.

- debug and deploy various applications.

- create database driven applications.

Unit 1: Getting Started with Visual Basic   **12hrs**

Introduction: Introduction to Visual programming: Arithmetic Operators, Data type, Statements, Control Statements, Loops, Arrays, Structures, Val and Structure functions, Creating Visual studio Applications, Saving Visual Basic Application.

Object Oriented Programming: Basic Principles of Object Oriented Programming, Member AccessModifiers, Define Class, Creating Objects, Constructors, Inheritance, Abstract Classes, Interfaces, Polymorphism

Unit 2: VB.NET Essentials I   14 hrs

Windows Forms: Introduction to the windows forms, Setting the title Bar Text, Minimizing and Maximizing a form, Setting initial position of a form, Working with multiple forms, Creating adding controls to a form, Setting controls Tab order, Naming Controls, Setting Properties at design time, Setting properties at run time.

Visual Basic Controls: Creating a message box, Creating a Input box, Creating MDI Applications, Creating Dialog box, Commenting the code, Label, Text Box, Button, Combo Box and List Box Controls: Label Control, Button Control, Combo Box Control.

Unit 3: VB.NET Essentials II   10 hrs

Progress Bar Control, Timer Control, Checkbox, radio button, and group box controls: Checkbox control, Radio button control, List Box Control, Panel, Picture Box, Tree View Control.

Unit 4: Menus, Dialog boxes and Exception Handling   12 hrs

Project Menus, built-in dialog boxes :Menus, Folder Browser Dialog Control, Open File Dialog Control Save File Dialog Control, Font File Dialog Control, Color File Dialog Control, Print Document Control. **Mouse Events and Keyboard Events**: Mouse Events, Keyboard Events;Handling Errors and Exceptions: Errors, Exceptions.

Unit 5: Working with Databases: 12 hrs

Accessing data using ADO.NET: What are Databases?, Basic SQL statements, Working with ADO.NET, Overview of ADO.NET objects, Data Grid View, Control, Accessing data using server explorer, Creating a new data connection, Accessing data using Data Adapters and Datasets, Previewing data from Data Adapters, Connecting to a SQL server database.

Text Books:

Vikas Gupta Comdex .NET 4.5 programming Course Kit. Kogent Solutions Inc., .NET 4.5Programming, Black Book, Dream Tech.

References:

XueBai, Michael Ekedah (2006). The Web Warrior Guide to Web Programming, Thomson. Bill Sheldon, BillyHollis, RobWindsor, DavidMcCarter, Todd Herman. Professional Visual Basic 2012 and .NET 4.5 Programming (1 ed.).