

**Course Title: Human Machine Interface (HMI)  
in Visual Basics**

**Course Code: IR 108**

**Course Background / Summary:**

The participants will be exposed to communication and developing interface design for Human Machine Interface (HMI) using Visual Basic. They will be able to design and implement supervision of network automation systems and develop communication between Visual Basic and industrial devices such as PLC.

**Course Objectives:**

- Develop and test a serial communication program between PC and PLC using appropriate high-level language software like Visual Basic.
- Design a human-machine interface (HMI) in a network automation system using VB by the serial communication protocol.
- Install, configure, and establish master/slave PLC communication by using appropriate materials, equipment, tools, and software by standard regulation protocols.
- Apply VB programming in serial communication between PC and Controllers.

**Target Audience:**

- Programmers, Software Engineers, Application Developers, Individuals involved in IT Functions, Academicians

**Course Duration: 3 Days**

**Course Contents**

**1.0 Introduction to HMI**

**2.0 Visual Basic**

- Programming Fundamental
- Visual Basic Control and Properties
- Function, Pointers, and Array
- Using Array Controls

**3.0 HMI Application with Visual Basic**

- Introduction to factory Interface Network Service (FINS)
- FINS Gateway installation & operation
- Introduction to Component Applet (Compolet)
- Complete installation and operation
- Application and Project

**4.0 Lab Works**