VBA004-*Excel Automation with VBA*

DURATION: 2 Days; Instructor-led

WHAT YOU WILL LEARN
This course provides a more in-depth understanding of various VBA features and techniques in performing automation in Microsoft Excel.

Upon completion of the course, participants will learn
 - ➢ The benefits of automation in Excel with some case studies
 - ➢ The differences between recorded and hand-coded Macros
 - ➢ Various techniques to trigger macros
 - ➢ Other VBA features in supporting automation

AUDIENCE
Any of the Microsoft Excel users that already know the fundamentals of VBA programming.

PREREQUISITES
Before attending this course, students must be able to demonstrate the following skills:
 - Familiarity with the general operations of Microsoft Windows operating system.
 - Basic knowledge and skill in using Microsoft Excel.
 - Basic VBA programming

The course materials, lectures, and lab exercises are in English. To benefit fully from the instruction, students need an understanding of the English language and completion of the prerequisites.

METHODOLOGY
This program will be conducted with interactive lectures, PowerPoint presentation, discussions and practical exercise

COURSE OUTLINES

Module 1: The benefits of Excel Automation
 - What is automation?
 - The benefits
 - Case study #1: Comment Pictures
 - Case Study #2: Calander
 - Case Study #3: Exam Mock Engine

Module 2: Comparing recorded and Hand-coded macros
 - Record and play-back macros
 - 3 basic techniques to trigger techniques from Excel main window.
 - Explore the recorded macro and identify its weaknesses.
 - Hand code your own macro
 - Compare with the recorded macro.

Module 3: Dealing with macro under Excel VBA IDE
 - 5 techniques trigger macros from IDE.
 - Use macro recorder to learn VBA coding.

Module 4: Automation with Worksheet Event-Programming
 - What is event programming?
 - Event and Event Handlers
 - Event parameters
 - Worksheet events
 - Worksheet_SelectionChange event
 - Worksheet_Change event
 - Beware of Re-Entrant Issue
 - Worksheet_Activate event
 - Worksheet_Deactivate event
 - Worksheet_BeforeDoubleClick event
 - Intercept and Hijack Before_* events
 - Worksheet_BeforeRightClick event

Module 6: Automation with Workbook Event-Programming
 - The use of workbook level events
 - Workbook_Open event
 - Workbook_Open event
 - Workbook_NewSheet event
 - Downcast Object with Worksheet reference
 - Workbook_Sheet* events

Module 6: Using ActiveX controls
 - Form controls vs ActiveX controls
 - Renaming controls
 - Program ActiveX controls
 - ActiveX Button
 - ActiveX Combo box
 - ActiveX Check box
 - ActiveX Scrollbar

Module 7: Develop User Forms
 - The purpose of user forms
 - Add user form
 - Add controls to user form
 - Dealing with Form events
 - Dealing with Control events