



(The contents and other related details in this form is used for publication purpose only. Training module will be given to participants upon registration)

Course Title: VISUAL BASIC FOR AUTOMATION		Course Code : ICT 116
Course Background/Summary: This course is designed for individuals with Visual Basic programming skills and wish to further develop their skills and knowledge of serial communication and applying the knowledge in Industrial Automation. Participants will learn basic serial communication, develop the program using Visual Basic and applying the knowledge in Automation System such as FMS.		
Course Objectives: <ul style="list-style-type: none"> • Develop skills required in order to establish serial communication between PC to PC. • Upgrade programming skills in Visual Basic specializing in Industrial Communication. • Develop and implement Human Machine Interface in Industrial Automation System using Visual Basic. 		
Target Audience: <ul style="list-style-type: none"> • Programmers, Software Engineers, Application Developers • Individuals who are involved in IT functions • Teaching staffs 		
Course Duration :	Min:3 days, Max:5 days	
Course Contents :		
No	TOPICS	
1	Communication in Automation <ul style="list-style-type: none"> • Introduction • Industrial communication • Pyramid of Automation • Serial and parallel communication • Communication port • Transmission media 	
2	Introduction to Serial Port RS 232 <ul style="list-style-type: none"> • About RS-232: Features • Signals • Voltages • Timing Limits • Connectors: 25-pin Shells • 9-pin Shells • The ALT A Connector • Modular Connectors • Adapters 	

UniKL MSI can also customize existing short courses and develop new courses to meet your personal training needs and requirements. The course duration serves as a guideline for your reference.

Please forward enquiries to Centre for Advancement & Continuing Education (ACE), University Kuala Lumpur (Malaysian Spanish Institute), Kulim Hi-Tech Park, 09000 Kulim, Kedah or via fax to:04-4032539 or email to syazrah@unikl.edu.my or call 04-4035199 / 200 (ext:112 / 185)



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	<ul style="list-style-type: none">• Cables: Length Limits • How Many Wires?• Isolated Links: • Ways to Achieve Isolation • About Grounds • Power Supply Grounds• Preparing RS-232 Cable
3	Serial Programming with Visual Basic <ul style="list-style-type: none">• Using MSComm: Properties • Text and Binary Transfers • Polled Communications • Using OnComm• A Template Application: The Main Form • General Routines • Selecting a Port • Saving Data• Other Ways to Access Serial Ports: API Functions • Direct Port Access• Linking Two Computers: A 2-PC Link
4.0	PC-PLC Communication through OPC Keypserver <ul style="list-style-type: none">• General Overview OPC• OPC Application in Industrial Network• Working with KepServer OPC for PC-PLC Communication• Application OPC with PLC Mitsubishi
5.0	HMI with Visual Basic <ul style="list-style-type: none">• General Overview HMI• Visual Basic as HMI Design technologies• Creating HMI Application using VB and OPC• Special Project: Integrating HMI and Industrial Automation System• (PLC + OPC + VB)
COURSE STRUCTURE:	
Practical :	60%
Theory / Lab Works :	40%

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