



**UNIVERSITI KUALA LUMPUR**  
**MALAYSIAN SPANISH INSTITUTE**

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

<b>Course Title: MEASUREMENTS, INSTRUMENTATION &amp; SENSORS</b>		<b>Course Code : EEA 116</b>
<b><u>Course Background/Summary :</u></b>		
<p>This course will expose the participants to 18 different types of analog sensors also digital sensors. We will cover topics on sensor's characteristics, working operations, selections and applications with respect to several different working operations/conditions. The participants will have "hands-on" experience on sensor installation and do the necessary wiring with associated circuit (signal conditioning circuits). The participants will also experience tuning/calibrating, capturing, monitoring and processing analog sensors with analog and digital controllers.</p>		
<b><u>Course Objectives:</u></b>		
<ul style="list-style-type: none"><li>• Familiarize with several types of analog and digital sensors.</li><li>• Tuning/Calibrating sensors</li><li>• Monitoring, capturing and processing sensor signal</li><li>• Apply the knowledge gained to design and program simple projects</li></ul>		
<b>Target Audience:</b>		
<ul style="list-style-type: none"><li>• Industrial workers from operators to technicians</li><li>• Electronics &amp; Electrical Technologists</li><li>• Engineers</li><li>• Teaching staffs/instructors</li></ul>		
<b>Course Duration :</b>		<b>Min:3 days, Max:5 days</b>
<b>Course Contents :</b>		
<b>No</b>	<b>TOPICS</b>	
1	Introduction to Sensors : Digital and Analog sensors	
2	Speed Sensors	
3	Incremental Encoder	

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](mailto:syazrah@unikl.edu.my) or call 04-4035199 / 200 (ext:112 / 185)



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4	Absolute encoders
5	Potentiometers for position sensor
6	AD590 temperature sensors
7	Thermocouple temperature sensors
8	PTC temperature sensors
9	PT100 temperature sensors
11	Capacitive sensor for Level Detection
12	Potentiometers for level detection
13	Ultrasonic sensors for Level detection
14	Pressure Level sensors
15	Turbine for flow rate sensors
16	Differential pressure for flow rate sensors
17	Accelerometer sensors
18	LVDT
19	Stress-strain gauges
20	Speed Pickup sensors
<b>COURSE STRUCTURE:</b>	
Practical :	60%
Theory / Lab Works :	40%

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