



**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:</b> <b>Practical Signal And Image Processing : Theory &amp; Applications</b>	<b>Course Code</b> : <b>EEA 176</b>
<b><u>Course Background/Summary :</u></b> The objective of this course is to expose the participants on the theory and practical in signal and image processing at an early stage.  Signal processing is the enabling technology for the generation, transformation, extraction, and interpretation of information. It comprises the theory, algorithms with associated architectures and implementations, and applications related to processing information contained in many different formats broadly designated as signals. Signal processing uses mathematical, statistical, computational, heuristic, and/or linguistic representations, formalisms, modeling techniques and algorithms for generating, transforming, transmitting, and learning from signals.  This course also exposes the participants to a variety of image processing tasks that can be performed using the programming language through intensive hands-on problem-based activities. Real world examples involving, defect detection, dimensional measurement, and feature measurement will be used to demonstrate the practical applications.	
<b><u>Course Objectives:</u></b> At the end of this training, the participants will be able to: <ul style="list-style-type: none"><li>• Use programming language to define and manipulate scalars, vectors, and matrices.</li><li>• Use programming language to represent signals and systems.</li><li>• Write programming language to perform time-domain and frequency-domain analysis, use programming language to design linear filters.</li><li>• Use programming language codes to read and process digital images.</li><li>• Write programming language codes to extract features and other information from</li></ul>	

*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)*



**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)

digital images.	
• Develop algorithms for specialized applications.	
<b>Target Audience:</b>	
Technical managers, scientists, engineers, technicians , teaching staffs (vocational & technical teachers), lecturers, and research students who wish to learn about signal and image processing and review their implementation and applications for industry uses.	
<b>Course Duration</b> :	<b>Min:3 days, Max:5 days</b>
<b>Course Contents</b> :	
<b>No</b>	<b>TOPICS</b>
1	Introduction signal and image processing
2	Representation of signals and systems
3	Time-domain and frequency domain analysis
4	Filter design etc
5	Images and spatial transformation
6	Linear filtering and morphological operations
7	Analyzing and enhancing images etc
<b>COURSE STRUCTURE:</b>	
Practical :	60%
Theory :	40%

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)