



**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>SIMULATIONS USING FINITE ELEMENT ANALYSIS (FEA)</b>		<b>Course Code</b> : <b>MEC 107</b>
<b>Course Background/Summary :</b>  Finite Element Analysis (FEA) is now a convenient and speedy tool for solution to a wide variety of complicated engineering problems across a wide range of industries. This course explains how FEA can produce accurate, reliable solutions, at a small fraction of the cost of actual testing and prototype. It also provides the level of knowledge required to successfully use the FEA software packages currently available ANSYS or ABAQUS.		
<b>Course Objectives:</b> <ul style="list-style-type: none"><li>• Understand the underlying principles of finite element method using hand calculation.</li><li>• Be able to conduct structural stress analysis using FEA.</li><li>• Be able to conduct thermal stress analysis using FEA.</li><li>• Be able to conduct dynamics analysis using FEA.</li><li>• Understand how to produce reliable results and correctly interpret the results for accurate solutions.</li></ul>		
<b>Target Audience:</b> <ul style="list-style-type: none"><li>• Instructors</li><li>• Engineers &amp; technicians</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 FEA – Analysis in 1D (hand calculation)	
2	Beam Element, Truss Element (hand calculation)	
3	FEA techniques for correct interpretation & reliable results	
4	Projects	

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. <sup>1</sup>

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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<b>COURSE STRUCTURE:</b>	
Theory :	20%
Practical :	80%

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