



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)

Course Title: ELECTRICAL ENGINEERING FOR NON-ELECTRICAL ENGINEERS	Course Code : EEA 170
<u>Course Background/Summary :</u> <p>This course is specifically designed for people who work with electrical equipment without having comprehensive knowledge on electrical concept. This person may work as plant engineers, process engineer, maintenance engineers, technicians, facilities managers and other facility professionals, but eager to gain an understanding of the basic principles of electricity.</p> <p>The module in this course will cover on the fundamental theory of electrical concepts, the definition of electrical magnitude, the power factor, electrical circuit and three phase power system. Significance of the electrical equipment service factor and voltage regulation of power distribution systems is highlighted. Electric power bill calculation in residential, commercial and industrial arena is illustrated</p> <p>Electrical equipment such as transformers, DC/AC motors and generators are introduced. The basic principles and equations governing the operation and performance of electric motors are presented. Common calculations involving electric motors are covered.</p> <p>Hands on base practical session will be key features of this training. The practical session will give trainee a "hands on" feel of common electrical components which are include power circuit breaker, contactor, overload relay, ac drive and more.</p>	
<u>Course Objectives:</u>	
<ul style="list-style-type: none">▪ Describe the electrical magnitudes and solve power and energy calculations.▪ Identifying the electrical equipment and the components and perform wiring installation with safety consideration.▪ Discuss principles and equations governing the operation and performance of transformers, electric motors, AC drive and generators▪ Solve electric power bill calculation in residential, commercial and industrial arena.	
Target Audience:	
<ul style="list-style-type: none">• Engineers, Technicians	
Course Duration :	Min:3 days, Max:5 days

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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CONTENTS/TOPICS	
• DC Circuit Analysis & Basic Electronic Devices	
• Alternating Current (AC) Fundamentals	
• DC & AC Power, power factor	
• Transformers, Electric Motors & Generators	
• Single-phase and three-phase system	
• Electrical & Controls Drawings	
• Electrical power distribution and control equipment	
• Practical on measurement of electrical magnitudes (current, voltage, power)	
• Practical on electrical equipment, wiring installation	
• Practical on variable speed controller for electrical motors	
COURSE STRUCTURE:	
Theory :	50%
Practical :	50%

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