



UNIVERSITI TEKNOLOGI MARA

EPO630: HIGH VOLTAGE

Course Name (English)	HIGH VOLTAGE APPROVED				
Course Code	EPO630				
MQF Credit	3				
Course Description	This course covers various aspects of high voltage engineering. The topics include knowledge on (i) insulation materials and their applications in engineering fields, (ii) breakdown phenomenon in solid, liquid and gas insulating materials, (iii) generation and measurement of high DC, AC and impulse voltages and currents, (iv) testing techniques for high voltage apparatus and equipment, and (v) the overvoltage phenomenon and insulation coordination. Teaching and learning sessions are carried out through lectures, tutorials, blended learning, quizzes, written assignments as well as group assignments. Laboratory sessions may be included to strengthen students' comprehension on subject matters.				
Transferable Skills	The understanding of breakdown mechanisms, designing generation and measurement techniques of high voltages and high currents, and coordination of insulation.				
Teaching Methodologies	Lectures, Blended Learning, Tutorial				
CLO	CLO1 Analyze the basic principles of high voltage engineering and its applications. CLO2 Analyze problems related to dielectric breakdowns and high voltage engineering applications. CLO3 Evaluate high voltage insulation through diagnostic testing and insulation coordination techniques.				
Pre-Requisite Courses	No course recommendations				
Reading List	<table border="1"> <tr> <td>Recommended Text</td> <td> <ul style="list-style-type: none"> M Naidu V. Kamaraju 2009, <i>High Voltage Engineering 4E</i>, 2nd Ed., 11, Tata Mcgraw Hill india [ISBN: 0070669287] F. H. Kreuger 1989, <i>Partial discharge detection in high-voltage equipment</i>, 1st Ed., Butterworths london [ISBN: 0408020636] </td> </tr> <tr> <td>Reference Book Resources</td> <td> <ul style="list-style-type: none"> E. Kuffel, J. Kuffel, W.S. Zaengl 2012, <i>High Voltage Engineering : Fundamentals</i>, 2nd Ed., 1-9, Newness [ISBN: 8181477367] </td> </tr> </table>	Recommended Text	<ul style="list-style-type: none"> M Naidu V. Kamaraju 2009, <i>High Voltage Engineering 4E</i>, 2nd Ed., 11, Tata Mcgraw Hill india [ISBN: 0070669287] F. H. Kreuger 1989, <i>Partial discharge detection in high-voltage equipment</i>, 1st Ed., Butterworths london [ISBN: 0408020636] 	Reference Book Resources	<ul style="list-style-type: none"> E. Kuffel, J. Kuffel, W.S. Zaengl 2012, <i>High Voltage Engineering : Fundamentals</i>, 2nd Ed., 1-9, Newness [ISBN: 8181477367]
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Article/Paper List	This Course does not have any article/paper resources				
Other References	This Course does not have any other resources				