

EE446 High Voltage Engineering

Text Book

"Fundamentals of High Voltage Engineering", by A.A. Al-Arainy, N. H. Malik and M. I. Qureshi, King Saud University Press, 2005.

Reference Books

"High Voltage Engineering", by Naidu and Kamaraju, Tata McGraw Hill, India, 1995

"High Voltage Engineering", by Khalifa, Marcel Dekker, U.S.A. 1990.

Course Outline

1. Introduction to high voltages (1 week). Sections from textbook book are 1.1 up to 1.5.
2. Generation of high ac, dc and impulse voltages (3 weeks). Sections from book are 2.1 up to 2.4.
3. Measurement of high voltages (3 weeks). Sections from book are 3.1 up to 3.6.
4. Insulating materials and their applications (2 weeks). Sections from book are 4.1 up to 4.8.
5. Breakdown mechanisms in gases, liquids and solid insulating materials (3 weeks). Sections from book are 6.1, 6.2 up to 6.9, 7.1 up to 7.3, 7.5 up to 7.7, and 8.1 up to 8.5.
6. High voltage test techniques and standards (1 week). Sections from book are 11.1 up to 11.4.
7. Experiments on selected parts of the course (1 week)

Mark Distribution

Mid-Term I: Thursday 02/11/2017	22.5 %
Mid-Term II: Thursday 14/12/2017	22.5 %
Lab Experiments & Home Works	10 %
Lectures attendance	5 %
Computer HW (<i>Bonus</i>)	
Final Exam	<u>40 %</u>
Total	100 %

Attendance:

A student absent for more than 25% of lectures will not be allowed to appear in the final exam. This policy will be strictly enforced without any exception.

Teaching Assistant

Eng. Nisar Rasool Wani, High Voltage Lab