

Fakulti: FAKULTI KEJURUTERAAN ELEKTRIK	
Nama Matapelajaran: Makmal Tahun 4	Semakan : 1
Kod Matapelajaran : SEE 4722	Tarikh Keluaran : 2007
	Pindaan Terakhir : 2007
	No. Prosedur : PK-UTM-FKE-(0)-10



SEE 4722

**FAKULTI KEJURUTERAAN ELEKTRIK
UNIVERSITI TEKNOLOGI MALAYSIA
KAMPUS SKUDAI
JOHOR**

**INSTITUT VOLTAN DAN ARUS TINGGI (IVAT)
STUDENT PACK (Experiment 05)**

**Performance of underground XLPE cable according to the
dielectric strength-1**

Disediakan oleh : Prof. Madya Hj Tarmidi	Disahkan oleh : Ketua Jabatan
Nama : Bin Tamsir	Nama :
Tandatangan :	Tandatangan :
Cop :	Cop :
Tarikh : Jun 2007	Tarikh :

1. LIST OF COMPONENTS AVAILABLE

- a) High Voltage Construction Kits
 - ✚ High voltage transformer
 - ✚ Measuring capacitor
 - ✚ Connectors and Accessories
 - ✚ Measuring system
- b) Cables and terminations
- c) Partial Detector System test set

2. PROBLEM-SOLVING TIME-LINE

Activities	Week 1	Week 2	Week 3	Week 4
1) Understanding/Identify/Brainstorming				
2) Design/ /Experiments				
3) Hardware Development/Testing				
4) Measurements/Data Analysis				
5) Presentation/Report Writing				

3. REPORT WRITING

- a) Other than the general guide specified by the Laboratory Coordinator, your report for this laboratory must also include;
 - Results all the tests.
 - Photographs of the system set-up.
 - Photographs of your group members during hands-on session.
 - The group shall submit a write-up on the topic of *Electrical Insulation in Power Systems* (2 pages) to the facilitator on the **second week** of the laboratory.
 - In the report, **you have to consider the effects of the performace of XLPE cable.**

4. REFERENCES

- i) *Standard Terminologi Relating to HV Cable. IEC 60230:2002 (impulse), 60502 – 2 (power Frequency), 60228 : 2005 (electrical resistance) and 60885 – 3 : 2003 (Partial Discharge).*
- ii) M.S. Naidu and V. Kamaraju (2004). *High Voltage Engineering*. Mc. Graw Hill.
- iii) E. Kuffel and W.S. Zaengl. *High Voltage Engineering, Fundamentals*. Pergamon Press.
- iv) Useful information related to high voltage engineering is available at <http://www.nikhef.nl/~enrichn/highvolt/notes.html>
- v) More information on Cable News and Market Report.