**REGISTRATION FORM**

**DESIGN AND INSTALLATION OF ELECTRICAL SYSTEM IN BUILDINGS**

Please register the following persons for the above course:

1. (Dr/Mr/Ms*) ____________________________  
   Designation ____________________________

2. (Dr/Mr/Ms*) ____________________________  
   Designation ____________________________

3. (Dr/Mr/Ms*) ____________________________  
   Designation ____________________________

4. (Dr/Mr/Ms*) ____________________________  
   Designation ____________________________

Enclosed is a cheque/bank draft No. __________ or $ __________ (payable to Institution of Electrical Engineers, Singapore Centre) being Registration Fee for ________ person(s).

Name of Organisation ________________________

Address ___________________________________

__________________________________________

Contact Person _____________________________

Telephone _________________________________

Facsimile _________________________________

*(Delete where appropriate)*

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**COURSE LECTURER**

Assoc Prof Teo C Y has worked in many areas of computer applications for power system planning, operation and control. He joined the Imperial College, University of London as a research assistant for one year and then worked in the Public Utilities Board, Singapore, as an engineer, executive engineer, senior engineer and project manager for 7 years. He has been with the Nanyang Technological University for 20 years. As an Associate Professor since 1986, he was appointed the Head of Division of Electrical Engineering for 6 years. He has served for 9 years as a member of the SISIR Electrical Industry Practice Committee which is responsible for the approval of all the codes of practice including CP5. He is the author of the very popular book for M & E engineers on low voltage systems, and the developer of a number of power system packages including VIPCROP, VIPCAG, VIPCODA and SmartDraw.

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**SHORT COURSE ON**

**DESIGN AND INSTALLATION OF ELECTRICAL SYSTEM IN BUILDINGS**

Compliance with
16th Edition of IEE Wiring Regulation and new CP5

Conducted by:
Assoc Prof Teo Cheng Yu  
B.Sc, M.Sc, DIC, P.Eng, FIES, FIEM, FIEE

Date:  
19 & 20 October 2000

Venue:  
Nanyang Technological University

Organised by:
Institution of Electrical Engineers,  
Singapore Centre

• A Service to IEE Members •
COURSE OBJECTIVE

Installation costs increase as a result of poor design or over-design. Many accidents and injuries occur in electrical installations due to the insufficient knowledge of the electrical personnel in wiring systems. A knowledge and appreciation of the implications of the Wiring Regulations or Code of Practice, coupled with the rational and principles covering electrical installation will enable participants to ensure that the requirements for the safety of person and property are met and that the wiring of electrical installation in buildings is designed and operated to the optimum financial levels.

This course is intended to introduce participants to the scope, aim and requirements for protection for safety in electrical installation. Through lecture, hands-on exercise and the support of a dedicated microcomputer-based integrated package, the participants will become familiar with the criteria and procedure for the design and testing of electrical installation in buildings.

COURSE OUTLINE

1) Overcurrent Protection (3 Hours)

2) Sizing Conductors (3 Hours)

3) Design Exercise 1 (2 Hours)
Computer-aided hands-on exercise to complete a simple design of an electrical installation of a two-storey building. It includes the calculation of design current, selection of breaker and cable for each circuit to satisfy the codes of practice and design criteria.

4) Earthing System and Protection (3 Hours)

5) Inspection, Testing and Diagnosis (2 Hours)
Initial inspection, testing sequence and method of testing. Hands-on exercise to detect short circuit and to examine the continuity of CPC. Diagnose for overload, short circuit and earth fault. Isolation of fault and restoration of supply. PC-based supervisory control and data acquisition (SCADA) for electrical installation.

6) Design Exercise 2 (3 Hours)
Computer-aided, hands-on exercise to complete the design of a 2 MVA electrical installation for a 7-storey flatted factory with two incoming busbars and one emergency busbar with a stand-by generator. A dedicated CAD tool will be provided to partially automate the routine calculation and the size-up of cable and breaker. Errors made in the design exercise will be prompted and summarized in an overall report. A simulation module will also be provided to give feedback to participants to visualize the loading conditions and the operation limitations on the installation designed by them.

WHO SHOULD ATTEND

All practising engineers and technicians engaged in the design and installation of electrical system in the power industries. These include designers of electrical installation, M & E engineers, consulting engineers, electrical contractors, facilities engineers and managers in charge of the electrical installations and building services.

COURSE DETAILS

Date : 19 & 20 October 2000
Days : Thursday & Friday
Time : 8.30am - 5.30pm
Venue : NTU

Fee : S$590 (IEE Member)
     S$690 (Non-member)

Duration: 16 hours


Certificate of participation will be issued to participants who have completed the whole course.

Registration should be accompanied by payment in full and is on a first come, first served basis. Please make cheque payable to Institution of Electrical Engineers, Singapore Centre and send together with your completed registration form as soon as possible to:

Assoc Prof Teo Cheng Yu
School of Electrical & Electronics Engineering
Nanyang Technological University
Nanyang Avenue
Singapore 639798
Tel : 790-5007 • 790-5481
Fax : 792-0415 • 791-2687

The organiser reserves the right to cancel the course and fully refund the participants, should unforeseen circumstances necessitate it.