

A SHORT TERM TRAINING PROGRAM ON

“Simulation of electrical circuits and systems”

GTU in association with I I T Bombay is organizing a one week training program on “Simulation of electrical circuits and systems” from 13th September to 17th September, 2010.

The nominations are invited from the **faculty members of Electrical Engineering Department of Degree Engineering Colleges affiliated to GTU with minimum of two years of teaching experience**.

About STTP :

The STTP is designed to cover the GTU syllabus of Power System Analysis and Simulation of B.E Electrical - Sem 5.

The circuit simulation and system simulation has been become very important part of analysis and design. It is important that the exposure of various available software tools and numerical methods is given to faculty and students of electrical engineering. The objective of this STTP is to cover simulation of simple electrical and power electronic circuits using programming and dynamic simulation. Basic numerical methods like Euler's method, Modified Euler's method, Trapezoidal method, Newton-Raphson etc are covered here for solution of simple electrical circuits and systems. The simulation of simple electrical circuits and power electronic circuits is taken up using an open-source software known as SEQUEL. The parameter calculation of simple electrical components like inductor and plunger is dealt with the help of FEM analysis using an open-source software like FEMM. The performance analysis of power transmission line is carried out using programmes.

Co-ordinator : Prof V B Babaria, LDCE, Ahmedabad

Co-coordinators : Prof S R Joshi, GEC Surat

Venue: Electrical Engineering Department, L D College of Engineering, Ahmedabad.

Schedule :

Day 1:

A. Introduction to Basic MATLAB programming and Simulink

B. Lab Session for MATLAB programming and Simulink

(Prof S R Joshi and Prof B N Suthar)

Day 2 :

- A. Application of MATLAB for power system analysis, Performance analysis of transmission lines etc.
- B. Lab session (Prof S R Joshi)

Day 3 :

- A. Basic theory of parameter calculation of electrical components using FEM analysis. The FEM analysis will be dealt from scratch for a beginner.
- B. Lab session

(Prof S V Kulkarni, I I T Bombay)

Day 4 :

- A. Introduction to various numerical methods used for electrical engineering like N-R, G-S, Euler's methods etc. Application of these methods for solution of electrical circuits and systems
- B. Lab session

(Prof A M Kulkarni, I I T Bombay)

Day 5 :

- A. Introduction to SEQUEL and simulation of power electronic circuits using sequel.

The creation of model file and running of simple examples will be covered with the help of open-source software SEQUEL.

- B. Lab session

(Prof M B Patil, I I T Bombay)

GTU will take care of the training cost as well as working lunch, tea- coffee and snacks during sessions.

TADA is to be paid by the sponsoring institute. Accommodation is to be arranged by the participant.

Interested faculty is requested to forward the name through Principal of the institute with 2 years experience certificate by 5th Sep, 2010. Participants list will be made available in the first week of September on GTU website. Also send an email to syllabus@gtucolleges.in as well as on registrar@gtu.ac.in