Birla Institute of Technology & Science, Pilani
Hyderabad Campus

SECOND SEMESTER 2019-2020

Course Handout Part II

Date: 06-01-2020

In addition to part-I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the course.

Course No. : EEE F478
Course Title : Power Systems Laboratory
Instructor-in-Charge : Dr. Alivelu Manga Parimi.

Scope and Objective of the Course:

1. Scope and objective:
   This course aims at introducing the students to the hands on experience on basic features of the modern power systems, analysis and operation under steady state and transient conditions.
2. Course description:

Modeling of the transmission lines (short, medium and long) generator and transformer, load flow studies optimal operation, symmetrical and unsymmetrical fault analysis, and voltage control, protection and circuit breaker.

This Laboratory course gives hands-on experience to the theoretical concepts covered in the theory course.

Textbooks:

1. Nagrath I.J. and D.P.Kothari, “Power System Engineering” TMH, 1994.

Reference books

Glover J Duncan and Sarma Mulukutala S, “Power System Analysis and Design” 3rd edition, Thomson Brooks/Cole, 2003.

Course Plan:

The laboratory classes will be conducted in the Power system Labs: hardware and simulation. The simulation experiments in PSCAD and DSA tools environment will introduce the concepts learned in Power System course. Practical experiments on hardware are intended to provide hands-on experience. Details of the experiments will be available in the “Laboratory Manual”. Laboratory marks mentioned includes marks for record and attendance in lab practical.

Evaluation Scheme:

Component	Duration	Weightage (%)	Date & Time	Nature of Component
Laboratory Practical Regular class work One simulation and practical lab session	2 hours each with two lab sessions	60%	Time Table	OB
Lab exam	2 hour	40%	Will be announced	CB

Chamber Consultation Hour: Chamber consultation hours of Instructors will be announced separately.

Notices: All notices of this course will be displayed in CMS

Make-up Policy: Make-up for components will be granted for genuine reasons, only when prior-permission is obtained from Instructor-in-charge.

Academic Honesty and Integrity Policy: Academic honesty and integrity are to be maintained by all the students throughout the semester and no type of academic dishonesty is acceptable.

INSTRUCTOR-IN-CHARGE