Kadi Sarva Vishvavidyalaya, Gandhinagar
Bachelor of Engineering (Electrical Engineering Syllabus)
B.E Semester: VIth (EE)
Subject Name & Code: Power System Simulation Laboratory (EE-606)

A. Course Objective:

- To present a problem oriented knowledge of power system analysis methods.
- To address the underlying concepts & approaches behind analysis of power system network using software tools.
- To identify & formulate solutions to problems relevant to power system using software tools.

B. Teaching / Examination Scheme

SUBJECT		Teaching Scheme				Total Credit	Evaluation Scheme					Total Marks
		L	T	P	Total		THEORY		IE	CIA	PR. / VIVO	
CODE	NAME	Hrs	Hrs	Hrs	Hrs		Hrs	Marks	Marks	Marks	Marks	
EE-606	Simulation Laboratory - II	0	0	2	2	1	-	-	-	20	30	50

C. Suggested List of Experiments (Use Mipower Software)

- Solution of a single nonlinear equation and a set of non linear algebraic equation using G-S method.
- Solution of a single nonlinear equation and a set of non linear algebraic equation using N-R method.
- To analyse the performance of transmission line for specified receiving end quantities.
- To analyse the performance of transmission line for specified sending end quantities.
- To obtain voltage profile curve for a transmission line.
- To obtain receiving end power circle diagram of a transmission line.
- To analyse the effect of neutral grounding.
- To obtain fault analysis of synchronous machine.
- To obtain ABCD parameters of transmission line.
- To analyse the performance of transmission line with reactive power compensation.
- To analyse the performance of transmission line for specified load impedance.

D. Instructional Method & Pedagogy

- At the start of course, the course delivery pattern , prerequisite of the subject will be discussed.
- Attendance is compulsory in laboratory, which may carries five marks in overall evaluation.
- The course includes a laboratory, where students have an opportunity to build an appreciation for the concept being taught in lectures.
- Experiments shall be performed in the laboratory related to course contents.

E. Students Learning Outcomes

- The student can be acquired the basic knowledge of power system analysis methods.
- The students will be able to effectively employ different techniques to analyse different power system network conditions and lead the exploration of new applications and techniques for their use.