Name of Faculty :Prankit Gupta
Discipline :Electrical Engineering
Semester :VI
Subject :HVDC & FLEXIBLE AC TRANSMISSION SYSTEMS
Lesson Plan Duration :15 weeks
Work Load :Lecture-03

Week	Theory	
	Lecturer Day	Topic(including assignment/test)
1	1	Discuss Learning outcomes of Electrical Machine subject.
	2	**Unit1 Introduction to HVDC transmission**
	3	Introduction to HVDC transmission
2	4	Comparison of AC and DC transmission.
	5	Application of DC transmission system,
	6	Equipment of HVDC transmission systems
3	7	Equipment of HVDC transmission systems
	8	Modern trends in D. C. transmission
	9	**Unit2 HVDC System Control: Introduction**
4	10	Principles of dc link control
	11	Types of dc Link
	12	Types of dc Link
5	13	Starting and Stopping of dc link,
	14	Power control
	15	Harmonics and Filters:, Effects of Harmonics,
6	16	Sources of harmonic generation
	17	Types of filters
	18	First assignment will be given and tentative 1st sessional test/evaluation of sessional marks etc
7	19	Display and analysis of 1st sessional marks
	20	**Unit3: Flexible AC Transmission Systems (FACTS)**
	21	Introduction
8	22	Introduction to FACTS
	23	Objective
	24	Concept of FACTS
9	25	Concept of FACTS
	26	Control of Power flow in transmission lines
	27	Control of Power flow in transmission lines
10	28	Application
	29	Application
	30	**Unit4**
11	31	Second assignment will be given and tentative 2nd sessional test/evaluation of sessional marks etc
	32	Display and analysis of 2nd sessional marks
	33	Need for compensation
	34	Classification of FACTS controllers

12	35	Shunt Compensation: Objectives of shunt compensation, Methods of controllable VAR generation, Static VAr Compensator (SVC), STATCOM.
	36	Series Compensation: Objectives of series compensation, GCSC, TSSC, TCSC and SSSC.
13	37	**Unit5: Unified Power Flow Controller: Principles of operation,**
	38	comparison with other FACTS controller
	39	Interline Power Flow Controller : Principles of operation
14	40	comparison with other FACTS controller
	41	comparison with other FACTS controller
	42	3rd sessional
15	43	Evaluation and display of 3rd sessional marks
	44	Remedial will be taken if any shortcomings found
	45	Remedial will be taken if any shortcomings found