EE 513 **Control Applications in Power** Engineering

C O U R S E I N F O R M A T I O N

Prerequisites		Academic Year &Level		Teaching Methods			Credit Hrs.
		Year	Semester	Lecture	Tutorial	Lab.	
EE 441	EE422 EE419	5	9,10	2	2		3

C O U R S E A I M

To investigate the control problems in power systems.
To study the dynamic modeling of power system elements
To study the excitation & generation control of power system and their effect on dynamic Stabilization.

C O U R S E W E E K L Y C O N T E N T S

1 Control problems in electrical power system – An introduction.
2 Control problems in electrical power system – An introduction.
3 Modeling System Components in power system Dynamics.
4 Modeling System Components in power system Dynamics.
5 Modeling System Components in power system Dynamics.
6 Modeling System Components in power system Dynamics.
7 Excitation control Systems-QV control. + Midterm Exam
8 Excitation control Systems-QV control Channel.
9 Excitation control Systems-QV control Channel.
10 Excitation control Systems-QV control Channel.
11 Generation control systems-PF control Channel.
12 12th week Assessment + Generation control systems-PF control Channel.
13 Generation control systems-PF control Channel.
14 Generation control systems-PF control Channel.
15 Generation control systems-PF control Channel.

S T U D E N T G R A D I N G & A S S E S S M E N T

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	← 10 MARKS → To be freely distributed among possible assessments					30
8 to 12	← 20 MARKS →						20
13 to 15	← 10 MARKS →						10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

R E F E R E N C E S

Textbook Hadi Saadat, "Power System Analysis"
Other P.M Anderson, and A.A. Fouad " Power System Control and Stability", Iowa State University Press.