

EE 543 Electrical Power Distribution

COURSE INFORMATION

Prerequisites	Academic Year &Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
EE 441	5	9 or 10	2	2	0	3

COURSE AIM

To select and design the best configuration for a distribution system. To introduce to the students the different components of distribution substation. To investigate the performance of distribution system under different loading conditions. To explain to the students the effect of power factor improvement on the distribution system.

COURSE WEEKLY CONTENTS

- 1 Introduction to electrical distribution system and distribution system (1).
- 2 Introduction to electrical distribution system and distribution system (2).
- 3 Electrical Load Characteristics.
- 4 Short Circuit Calculations and Protection of LV and MV Systems.
- 5 Voltage Regulation, Profile, and Voltage Drop Calculations (1).
- 6 Voltage Regulation, Profile, and Voltage Drop Calculations (2).
- 7 MV and LV Cables. + Midterm Exam
- 8 MV OHL's.
- 9 Locating and Sizing. HV /MV Substations.
- 10 Distribution Transformers (1)
- 11 Distribution Transformers (2).
- 12 Distributors.
- 13 Operation and control of distribution system.
- 14 Load Estimation.
- 15 Earthing Schemes.

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	10	MARKS		→	30
To be freely distributed among possible assessments							
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

REFERENCES

Textbook	Turan Gonen "Electrical Power Distribution Engineering" CRC Pr. (3 rd Edition).
Other	A S Pabla, " Electrical Power Distribution "

