

## EE 442 Power System Protection

### COURSE INFORMATION

Prerequisites	Academic Year &Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
EE 441	4	8	2	2	2	3

### COURSE AIM

To enable the students understanding the concepts of protection of electrical equipment, advantages and disadvantages of protection techniques through coverage of principles of operation of the different types of relays, circuit breakers and fuses in power systems.

### COURSE WEEKLY CONTENTS

- 1 General principles of protection
- 2 Types of Relays and construction of over current relays
- 3 Instrument Transformers
- 4 Fuses
- 5 Circuit Breakers (1)
- 6 Circuit Breakers (2)
- 7 Over current relays' settings + Midterm Exam
- 8 Transmission Line Protection (1)
- 9 Transmission Line Protection (2)
- 10 Differential Protection
- 11 Protection of transformers (1)
- 12 Protection of transformers (2)
- 13 Protection of Motors
- 14 Generator Protection
- 15 General revision

### 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 | Paul M.Anderson "Power System Protection" Wiley-IEEE Press  |
| Other    | M. Chander, "Power System Protection and Switch Gears", New Age International Limited Publishers, 2002. |