

EE 510 Electrical Maintenance Management

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
EE 442	5	9,10	2	2		3

COURSE AIM

- To understand the basics of Maintenance and its type.
- To know the maintenance Policies and strategies
- To understand the inspection tools and techniques.
- To know the reliability of electrical components and troubleshooting.

COURSE WEEKLY CONTENTS

- 1 Introduction to maintenance management
- 2 Reliability based Maintenance
- 3 Redundancy system
- 4 Fault tree and Event tree analysis
- 5 Condition Monitoring and inspection
- 6 Basic and Advanced Maintenance.
- 7 Preventive Maintenance technique: criticality, planning, scheduling+ Midterm Exam
- 8 Predictive Maintenance (PDM): introduction
- 9 Predictive Maintenance (PDM): techniques and tests
- 10 Depreciation and machine life cycle: replacement policies, spares planning, evaluation of maintenance performance
- 11 Motors and Generator s Maintenance
- 12 Transformer trouble shooting and Maintenance.
- 13 Switchgear troubleshooting and Maintenance.
- 14 Control component trouble shooting and maintenance
- 15 Computerized maintenance management system (CMMS)

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

- | | |
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| Textbook | Lecture notes |
| Other | R. Keith Mobley, Lindly, R. Higgins and Damn J. Wikoff, "Maintenance Engineering Hand Book,"7th ed., McGraw Hill, 2008. |