

EE 332 Network Analysis

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
EE 232	3	5	2	2		3

COURSE AIM

To analyze electrical networks using complex frequency approach ,
 To use Laplace transform
 To apply such approaches to magnetically coupled circuits
 To analyze and two port networks

COURSE WEEKLY CONTENTS

- 1 Complex frequency method for different waveforms
- 2 Bode plot
- 3 Circuit elements in the s- domain
- 4 Circuit analysis in the s-domain
- 5 The transfer function in partial fraction expansion
- 6 Application
- 7 The concept of magnetic coupling + Midterm Exam
- 8 Analysis of magnetically coupled circuits
- 9 Linear transformers
- 10 Ideal transformers
- 11 Two – port networks and it's different equations form
- 12 Evaluation of its parameter
- 13 Analysis of terminated two-port circuits
- 14 Interconnected two- port networks
- 15 Application Case Study

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 W. J. Hayt and J.E. Kemmerly, "Engineering Circuit Analysis", McGraw-Hill International, Latest Edition.
- Other D. E. Johnson, J.R. Johnson and J.L. Hilbnce, "Electric circuit Analysis", Prentice–Hall, N.J. , Latest Edition.
 James E. Nilsson, "Electric circuits", Addison–Wesley, Latest Edition.

