Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering
Electrical-Electronics Engineering Department
2023-2024 Fall Semester

Syllabus

Code/Name	EEE 207 / Electrical Circuits Laboratory
Type	Required
Credit/ECTS	5/5
Hour per Week	4
Level/Year	Undergraduate/2
Semester	Fall
Classroom	A103
Content	Measurement of voltage, current and resistance. Node-voltage method and mesh current methods in dc circuits. Thevenin and Norton theorems. Linearity and superposition principles. RC, RL and RLC circuits. Oscilloscopes. Measurements with oscilloscopes.
Prerequisites	None
Textbooks	***Primary*** J. David Irwin, Basic Engineering Circuit Analysis, 10th ed. John Wiley ***Supplementary*** J.W. Nilsson, S.A. Riedel, Electric Circuits, 9th. Ed., Prentice Hall.
Objectives	• To learn the basic DC circuit analysis concepts practically • To use ammeter, voltmeter and oscilloscope
Course Outcomes	In this course you will be able to: CO1 Use ammeter, voltmeter and oscilloscope CO2 Carry out the experiments by following the instructions given in laboratory manual CO3 Analyze and comment on the experimental data CO4 Prepare reports including the measurement results, their analysis and comments

Weekly Schedule of Topics

W	Topic
1	Introducing the laboratory
2	PSPICE presentation
3	Measurement techniques, definitions, units.
4	Mesuring resistance by ammeter and voltmeter
5	Oscilloscope
6	Measurements by oscilloscope
7	Measuring voltage, current and resistance
8	Node voltage method.
9	Mesh current method
10	Thevenin ana Norton theorems
11	Linearity and superposition principles
12	RC circuit transient response

13	RL circuit transient response
14	RLC circuit transient response

Contribution to Program Outcomes*

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	5	5	1	5	0	5	1	3	1	3	0
CO2	5	5	1	4	0	5	4	3	4	3	0
CO3	5	5	3	5	2	5	1	3	1	3	0
CO4	5	4	3	5	0	5	2	3	1	4	0

* Contribution Level | 0: None | 1: Very Low | 2: Low | 3: Medium | 4: High | 5: Very High

Requirements	Basic knowledge of Electromagnetic Field Theory
Course Policy	• Be in the class on time. • English should always be used to communicate with one another. • At least 70% attendance is required, otherwise a grade of **DZ** will be assigned.
Cheating & Plagiarism	• Copying or letting someone copy your work on exams, assignments, or reports is cheating. • Cutting and pasting text, figures and tables from web sources or any other electronic source is plagiarism. • The consequence of academic dishonesty is to receive a grade of **FF** for the course.
Evaluation	Midterm 40% Final Exam 60% Total 100%

Instructor

Name/Surname	Fikri Serdar Gökhan	Email	serdar.gökhan@alanya.edu.tr
Room	209	Office Hours	W 11.30-12.30 | F 13.30-14.30

Prepared by Akın Uslu on june 10th, 2024.