Course		Tarres	T 1	Annlingtion	Cuedit	ГСТС	
Name		Code	Term	Theory	Application	Credit	ECIS
Electronic Circuits II		EEE311	5	3	0	3	5
Prerequisite	None						
Course Duration	Starts: 26.09.2022 Ends: 30.12.2022						
Course Language	English						
Course Type	Compulsory						
Course Level	Undergraduate						
Instructors	Asst. Prof. Dr. Vedat TAVAS						
Contact	vtavas@iticu.edu.tr, 0 216 489 18 88 (Ext : 3343), http://ww3.ticaret.edu.tr/vtavas/						
Teaching Assistant	None						
Objective of The Course	To teach behavior of analog electronic circuits as a power-amplifier, operational amplifier, oscillator and types and effects of feedback.						
Course Learning Outcomes (CLO)	rse Learning comes (CLO)1) Knows frequency behavior of amplifiers. 2) Knows behavior of operational amplifiers. 3) Knows types and behavior of power amplifiers. 4) Knows types and effects of negative and positive feedback on behavior of amplifiers 5) Knows and design oscillator circuits.						
Teaching Methods	Face to face, experiments.						
Course Content (brief)	urse Content (brief) BJT and FET Frequency Response, Operational Amplifiers and linear/nonlinear applications, Power Amplifiers, Feedback And Oscillator Circuits,			fiers,			

WEEKLY COURSE OUTLINE

1	Introduction, Decibel, Logarithm.
2	Frequency Response of amplifiers
3	BJT Frequency Response,
4	FET Frequency Response
5	Multistage and pulse response of amplifiers
6	Op-amp Structures
7	Op-amp linear and nonlinear applications
8	Midterm Exam
8 9	Midterm Exam Feedback
8 9 10	Midterm Exam Feedback Feedback
8 9 10 11	Midterm Exam Feedback Feedback Feedback and Stability
8 9 10 11 12	Midterm Exam Feedback Feedback Feedback and Stability Signal Generators and Waveform Shaping Circuits
8 9 10 11 12 13	Midterm Exam Feedback Feedback Feedback and Stability Signal Generators and Waveform Shaping Circuits Output Stages and Power Amplifiers

	Textbook	 Microelectronic Circuits, Adel S. Sedra and Kenner-th C. Smith, The Oxford Series, 7th edition,2015.
Resources	Recommended Books	 Electronic Devices And Circuit Theory 11th edition, Robert Boylestad Louis Nashelsky, Prentice Hall, 2013. Microelectronics Circuit Analysis and Design 4th edition, Neamen, Mc Graw Hill, 2010. Fundamentals of Microelectronics, Razavi, Wiley, 2006.
Teaching Eq	Juipment	Computer and presentation projector.

Evaluation System

	Studies	Number	Contribution %
	Homework	2	10
	Presentation	0	0
	Mid Term Exams	1	35
E	Project	0	0
e teri	Laboratory	0	0
g the	Field Study	0	0
lurin	Quiz	0	0
ies d	Term Project	0	0
tivit	Portfolio	0	0
Ă	Reports	0	0
	Learning Diaries	0	0
	Graduate Project	0	0
	Seminar	0	0
	Others	0	0
	Sub Total	3	45
	During Term Studies Contribution	-	45
	Final Exam Contribution (≥ 40%)	-	55
	TOTAL		100

COURSE AND PROGRAM LEARNING OUTCOMES RELATIONSHIP

No		Program Learning Outcomes (PLO), (Contribution Rate: 1 lowest, 5 highest)		Course Learning Outcomes (CLO)				
				2	3	4	5	
1	a.	Qualified knowledge of mathematics, science and electrical-electronics Engineering discipline;	5	5	5	5	5	
	b.	ability to use theoretical and practical knowledge to model and solve complex electrical-electronics engineering problems.		5	5	5	5	
2	a.	. An ability to identify, formulate, and solve complex Electrical-Electronics engineering problems;						
	b.	the ability to select and apply appropriate analysis and modeling methods for this purpose.						
3	a.	An ability to design a complex system, process, device or product to meet specific requirements under realistic constraints and conditions;						
	b.	the ability to apply modern design methods for this purpose.						
4	a.	Ability to develop, select and use modern techniques and tools necessary for the analysis and solution of complex problems in electrical-electronics engineering applications;						
	b.	ability to use information technologies effectively.						
5		Ability to design, conduct experiments, collect data, analyze and interpret results to investigate electrical-electronics engineering problems.						
6	a.	Ability to work effectively in disciplinary and multidisciplinary teams;						
	b.	self-study skills.						
	a.	Ability to communicate effectively in verbal and written Turkish;						
7	b.	knowledge of at least one foreign language;						
	c.	ability to write effective reports and understand written reports, to prepare design and production reports, to make effective presentations, to give clear and understandable instructions and receiving skills.						
	a.	Awareness of the necessity of lifelong learning;						
0	b.	the ability to access information, follow developments in science and technology, and constantly renew oneself.						
9	a.	To act in accordance with the ethical principles, professional and ethical responsibility awareness;						
	b.	information about standards used in electrical-electronics engineering applications.						
10	a.	Information on business practices such as project management, risk management and change management;						
	b.	awareness about entrepreneurship and innovation;						
	c.	information on sustainable development.						
11	a.	Information about the effects of electrical-electronics engineering applications on health, environment and safety in universal and social dimensions and the problems reflected in the engineering field of the age;						
	b.	awareness of the legal consequences of engineering solutions.						

ECTS-WORK LOAD TABLE

Activities	Week	Time (Hour)	Total Work Load		
Course Duration	13	3	39		
Out of Classroom Studies Duration	13	2	26		
Homework	2	10	20		
Presentation	0	0	0		
Midterm Exam	1	15	15		
Project	0	0	0		
Laboratory	0	0	0		
Field Study	0	0	0		
Final Exam	1	25	25		
Quiz	0	0	0		
Term Project	0	0	0		
Portfolio Study	0	0	0		
Report	0	0	0		
Learning Diaries	0	0	0		
Graduation Project	0	0	0		
Seminar	0	0	0		
Other	0	0	0		
Total Work Load			125		
Total Work Load / 25			5		
ECTS			5		

Approval Head of The Department Prof. D	r. Fatih Üstüner
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