

RADIO T.V. TECHNOLOGIES

1	Course Title:	RADIO T.V. TECHNOLOGIES	
2	Course Code:	ELNS210	
3	Type of Course:	Optional	
4	Level of Course:	Short Cycle	
5	Year of Study:	2	
6	Semester:	4	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Öğr. Gör. Dr. Yusuf Alptekin TÜRKKAN	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	<p>Öğr. Gör. Taner ERGÜN tanere@uludag.edu.tr 05392788127 02245739862 B.U.Ü Orhangazi Yeniköy Asil Çelik MYO Elektronik Teknolojisi Prg. Yeniköy Altı Çalılık Mevki Yeniköy- Orhangazi / BURSA</p>	
17	Website:	http://www.uludag.edu.tr/orhangazi	
18	Objective of the Course:	<p>Away from the transmission of analog and digital data modulation systems are required to recognize the overall structure and used technologies. Determine the failing component to explain the types of modem and modem device. Identify the major communication protocols .Industrial control systems that communicate over the Internet, data transmission schemes.</p>	
19	Contribution of the Course to Professional Development:	<p>Communication with Radio and TV, which is one of the digital communication techniques that has an important place in Electronic Technology, and providing information about Radio and TV technical equipment.</p>	
20	Learning Outcomes:		
		1	Identifying the general structure and technology of modulation systems used for transmitting the analogues and digital data
		2	Be able to explain the modem types and the faulty parts in the modem.
		3	Identifying the fundamental communication protocols.
		4	Identifying the data transmission structures of industrial control systems which communicate over internet.
		5	Be able to use exactly the techniques used in encrypting and compressing the data that is transmitted over internet.
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21	Course Content:		
	Course Content:		
Week	Theoretical	Practice	
1	Identifying a modulation system if it is an analogous or digital one, drawing the block diagram.		
2	Defining carrier and modulation types. Identifying AM and FM frequency spectrums, making the side band power calculations.		
3	Defining PCM, PWM and PSK modulation techniques, making the essential measurements of wave forms on integrated circuits.		
4	Defining the difference between baud and bps. Explaining the encryption and compression of data used for transmission over telephone lines. Drawing the QPSK wave form for a binary data.		
5	Troubleshooting for analogous line impedance sensing circuit which makes connection on telephone line.		
6	Identifying the technical differences between cable modem, ADSL and ISDN.		
7	Making connection on interface. Drawing the block diagram of barcode systems and forming the data knowledge in UPC/EAN protocol.		
8	Course review and Midterm Exam		
9	Identifying the connection points and data structures for IDE, SCSI, PCMCIA, PCI, AGP ports in computer cards.		
10	Identifying IrDA1.0 ve IrDA1.1 infrared data transmission protocol layers and explaining the protocol and interface interaction.		
11	Identifying hardware and protocol layers used in Bluetooth systems and explaining the setup of piconet processes.		
12	Identifying the GSM cellular communication systems and their components. Explaining the SMS, WAP and GPRS protocols and their intended use.		
13	Making literature search about 3G(3th generation) transmission devices and multiple environment communication protocols.		
14	Identifying WWW, HTTP, HTTPS, HTML, ASP ve PHP and PHP protocol terms and explain their usage. Identifying the search engines and their working and questioning principles.		
22	Textbooks, References and/or Other Materials:	Veri Haberleşmesi Kavramları, Yasin Kaplan; Bilgisayar Ağları, Dr.Demir Öner	
23	Assesment		
TERM LEARNING ACTIVITIES		NUMBER	WEIGHT
Midterm Exam		1	15.00
Quiz		0	0.00
Home work-project		1	25.00

Final Exam	1	60.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course	Course Attendance and Course Participation, Midterm Grade, Final Exam Grade, Project Grade	
24	ECTS / WORK LOAD TABLE	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	3.00	42.00
Homeworks	0	0.00	0.00
Projects	1	18.00	18.00
Field Studies	0	0.00	0.00
Midterm exams	1	1.00	1.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			91.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	3	4	4	2	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	1	3	3	3	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	1	4	4	4	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	1	4	4	4	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	1	4	4	4	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low			3 Medium			4 High			5 Very High				