ELECTROMAGNETIC WAVE THEORY										
1	Course Title:	ELECTR	OMAGNETIC WAVE THEORY							
2	Course Code:	EEM220	2							
3	Type of Course:	Compuls	sory							
4	Level of Course:	First Cyc	le							
5	Year of Study:	2								
6	Semester:	4								
7	ECTS Credits Allocated:	6.00								
8	Theoretical (hour/week):	3.00								
9	Practice (hour/week):	0.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	-								
12	Language:	Turkish								
13	Mode of Delivery:	Face to f	face							
14	Course Coordinator:	Doç.Dr.	UĞUR YALÇIN							
15	Course Lecturers:	Yrd. Doç. Dr. Esin KARPAT Öğr. Gör. Dr. Sevim KURTULDU								
16	Contact information of the Course Coordinator:	uyalcin@uludag.edu.tr, +90 (224) 2942023, Uludağ Üniversites Müh. Fak. Elektrik-Elektronik Müh. Bölümü Görükle / BURSA								
17	Website:									
18	Objective of the Course:	Historical development of electromagnetism, to search behavior of electromagnetic waves								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	The gain of ability to model and solve electromagnetic waves problems using theoretical knowledge							
		2	Gain the ability to identify, model, and solve complex engineering problems on electromagnetic waves; the ability to select and apply appropriate analysis and modelling methods for these problem							
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21	Course Content:									
		Co	burse Content:							
Week	Theoretical		Practice							
1	Entry to electromagnetic waves, Mai equations, space equations.	xwell								
2	Maxwell equations by integral, inductive theory, continuous theorem.	ction								

3	Monochromatic waves in simple space harmonic Maxwell equations, boundat conditions at simple space.	ce, ary							
4	Electromagnetic waves, energy, pow relations, and related applications, uniqueness theorem of electromagne waves, the complex Poynting vector applications.	er etic and							
5	Wave and Helmholtz equations to ob	tain.							
6	Potentials of electromagnetic fields. and scalar potentials. Lorentz conditi vector. Debye potentials.	Vector on. Hertz							
7	Helmholtz wave equation and solutio methods. Simple two-dimensional so	n lutions.							
8	Midterm Exam + Review of past lectu	ures							
9	Monochromatic waves in a simple environment,frequency, phase, wave phase velocity concepts and applicat simple plane waves.	length, ions, a							
10	Dispersive phase and group velocity waves in media concepts, the polariz plane waves.	of plane ation of							
11	Search for monochromatic plane way the surface reflection and diffraction two simple environment.	ves from of the							
12	Applications for monochromatic plan	e waves							
Activit	ies		Numt	ber	Duration (hour)	Total Work Load (hour)			
Th fe4 bre	ibainsmission lines and their applicat	ions.	14		3.00 42.00				
Practic	als/Labs		0		0.00	0.00			
Self stu	Wyaterdatus eperation	•	YalyAnevi	2001.	3.00	42.00			
Homew	vorks		0		0.00	0.00			
Project	8		3 Elements of Electromation 90cs , Sadiku M 1,5200 Edition.						
Field S	tudies		0		0.00	0.00			
Midlerr					23.00	23.00			
Others			0		0.00	0.00			
₩irdale Er	мaffmam	1	40100		28.00	28.00			
Total V	Vork Load					150.00			
Hotalew	መመkklepærdjæ30 hr	0	0.00			5.00			
ECTS	Credit of the Course					6.00			
Total		2	100.00						
Contrib Succes	oution of Term (Year) Learning Activitiess Grade	es to	40.00						
Contrib	oution of Final Exam to Success Grade	e	60.00						
Total			100.00						
Measu Course	rement and Evaluation Techniques Us	sed in the							
24	ECTS / WORK LOAD TABLE								

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib 1 very low ution Level:			2 low 3			6 Medium		4 High		5 Very High						