COURSE INFORMATON					
Course Title	*Code*	*Semester*	*C +P + L Hour*	*Credits*	*ECTS*
Special Topics in RF Systems	EE696		3 + 0 + 0	3	10

Prerequisites	None

Language of Instruction	English
Course Level	Doctorate
Course Type	Elective
Course Coordinator	Assoc. Prof. Serkan Topaloğlu
Instructors	Assoc. Prof. Serkan Topaloğlu
Assistants	None
Goals	The goal of this course is to cover recent advances in RF technology
Content	Reviews the latest components, topologies and design methods used mainly in RF communication systems.

Learning Outcomes	**Program Outcomes**	**Teaching Methods**	**Assessment Methods**
1. Latest Semicodcutor technologies	1,2,7,8	1, 2, 3, 4, 6	D, E
2. Latest RF Simulators	1,2,7,8	1, 2, 3, 4, 6	D, E
3. RF Amplifiiers	1,2,7,8	1, 2, 3, 4, 6	D, E
4. Receiver Topologies	1,2,7,8	1, 2, 3, 4, 6	D, E
5. Latest RFIC topologies	1,2,7,8	1, 2, 3, 4, 6	D, E

Teaching Methods:	1: Lecture, 2: Problem Solving, 3: Simulation, 4: Seminar, 5: Laboratory, 6: Term Research Paper
Assessment Methods:	A: Exam, B: Quiz, C: Experiment, D: Homework, E: Project

COURSE CONTENT		
Week	**Topics**	**Study Materials**
1	Selected paper review	Selected papers
2	Selected paper review	Selected papers
3	Selected paper review	Selected papers
4	Selected paper review	Selected papers
5	Selected paper review	Selected papers
6	Selected paper review	Selected papers
7	Selected paper review	Selected papers
8	Selected paper review	Selected papers
9	Selected paper review	Selected papers
10	Selected paper review	Selected papers
11	Selected paper review	Selected papers
12	Selected paper review	Selected papers
13	Selected paper review	Selected papers
14	Selected paper review	Selected papers

RECOMMENDED SOURCES	
Textbook	-
Additional Resources	IEEE Microwave Theory and Techniques Society Microwave Journals Microwave Engineering Microwaves& RF

MATERIAL SHARING	
Documents	Journal papers, selected papers for the assigned topics
Assignments	
Exams	

ASSESSMENT		
IN-TERM STUDIES	**NUMBER**	**PERCENTAGE**
Project	1	70
Final	1	30
Total		**100**
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE		30
CONTRIBUTION OF IN-TERM STUDIES TO OVERALL GRADE		70
Total		**100**

COURSE CATEGORY	Expertise/Field Courses

COURSE'S CONTRIBUTION TO PROGRAM							
No	Program Learning Outcomes	Contribution					
		1	2	3	4	5	
1	Comprehends and applies basic sciences, mathematics and engineering sciences at the highest possible level.					X	
2	Demonstrates a thorough knowledge in Electrical and Electronics Engineering in breadth and depth including the current trends of development.					X	
3	Designs, implements and completes an original research process independently; manages this process.						
4	Can reach and grasp the most recent information in a field, has a high level of competence in the necessary methodology and skills to do research in this field.						
5	Performs a comprehensive work that results in a new scientific method or technological product/process development, a scientific and technological innovation, or an application of a known method to a new area.						
6	Contributes to the literature of science and technology by publishing the results of academic studies in respectable academic media.						
7	Can critically analyze, synthesize and evaluate the ideas and developments in Electrical and Electronics Engineering.					X	
8	Can communicate effectively with the Electrical and Electronic Engineers and the wider scientific and social communities in written and spoken Turkish; can establish written, oral and visual communications, and can participate in discussions using one foreign language (English) at least at the General Advanced Level C1 of European Language Portfolio.					X	
9	Evaluates scientific, technological, social and cultural developments, and transfers the outcomes to the society with scientific objectivity and ethical responsibility.						

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION			
Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration	14	3	42
Off-Class Work	14	5	70
Project	1	70	70
Final	1	60	60
Total Work Load			242
Total Work Load / 25 (h)			9.68
Course ECTS Credit			10