

COURSE INFORMATION						
Course Title	Code	Semester	C + P + L	Hour	Credits	ECTS
Special Topics in Communication Systems	EE659		3 + 0 + 0		3	10

Prerequisites

Language of Instruction	English
Course Level	Master's
Course Type	Elective
Course Coordinator	Assist. Prof. Dr. Engin Maşazade
Instructors	Assist. Prof. Dr. Engin Maşazade
Assistants	
Goals	The aim of this course is to create an environment for discussing and studying contemporary methods and challenges in communication systems.
Content	The content of the course may differ at each offered semester. The possible content that can be covered in a semester may become adaptive wireless sensor network management, resource allocation in cognitive radio networks, next generation wireless communications and networking systems.

Learning Outcomes	Program Outcomes	Teaching Methods	Assessment Methods
1) Ability to reach technical research papers, develop critical thinking to develop new ideas.	1,2,3,4,5,6,7,8,9,11	1,3,6	D, E
2) Based on the state-of-the-art literature, develop a valid problem formulation, suggest methods for solving it.	1,2,3,4,5,6,7,8,9,11	1,3,6	D, E
3) Project Presentation in front of the class.	1,2,3,4,5,6,7,8,9,11	1,3,6	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	Discussions on Emerging Methods in Wireless Communications	Resources
2	Discussions on Emerging Methods in Wireless Communications	Resources

3	Technical Paper Review and Discussions	Resources
4	Technical Paper Review and Discussions	Resources
5	Technical Paper Review and Discussions	Resources
6	Project Proposal Presentations	Resources
7	Technical Paper Review and Discussions	Resources
8	Technical Paper Review and Discussions	Resources
9	Technical Paper Review and Discussions	Resources
10	Technical Paper Review and Discussions	Resources
11	Project Progress Presentations	Resources
12	Project Progress Presentations	Resources
13	Project Progress Presentations	Resources
14	Final Project Presentations	Resources

RECOMMENDED SOURCES

Textbook

Additional Resources

IEEE Communications Magazine
 IEEE Transactions on Wireless Communications
 IEEE Communications Letters
 IEEE Communications Surveys & Tutorials
 IEEE Signal Processing Magazine
 IEEE Transactions on Signal Processing
 IEEE Signal Processing Letters

MATERIAL SHARING

Documents Course Web Page

Assignments Course Web Page

Exams Course Web Page

ASSESSMENT

IN-TERM STUDIES	NUMBER	PERCENTAGE
PROJECT PROPOSAL	1	30
PROJECT PROGRESS REPORT	1	30
FINAL PROJECT AND PRESENTATION	1	40
Total		100
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE		40

CONTRIBUTION OF IN-TERM STUDIES TO OVERALL GRADE	60
Total	100

COURSE CATEGORY	Field Course
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COURSE'S CONTRIBUTION TO PROGRAM						
No	Program Learning Outcomes	Contribution				
		1	2	3	4	5
1	Can reach information in breadth and depth, and can evaluate, interpret and apply this information to scientific research in the area of Electrical and Electronics Engineering.					X
2	Can complete and apply information with scientific methods using limited or missing data; can integrate information from different disciplines.					X
3	Sets up Electrical and Electronics Engineering problems, develops and implements innovative methods for their solutions.					X
4	Develops new and/or original ideas and methods; finds innovative solutions to the system, component, or process design.					X
5	Has comprehensive knowledge about the state-of-the-art techniques and methods in Electrical and Electronics Engineering and their limitations.					X
6	Can design and conduct research of analytical, modeling or experimental orientation; can solve and interpret complex cases that come up during this process.					X
7	Can communicate verbally and in writing in one foreign language (English) at the General Level B2 of the European Language Portfolio.					X
8	Can assume leadership in multi-disciplinary teams; can develop solutions in complex situations, and take responsibility.					X
9	Can systematically and openly communicate in national and international venues the proceedings and conclusions of the work he/she performs in Electrical and Electronics Engineering.					X
10	Respects social, scientific and ethical values in all professional activities performed during the collection, interpretation and announcement phases of data.					
11	Is aware of new and emerging applications in Electrical and Electronics Engineering; investigates and learns them, whenever necessary.					X
12	Can identify the social and environmental aspects of Electrical and Electronics Engineering applications.					

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION			
Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration (including 2 midterms: 14xtotal lecture hours)	14	3	42
Project Work	14	14	196
Presentation	1	5	5

Total Work Load	243
Total Work Load / 25 (h)	9.72
ECTS Credit of the Course	10