

Principles of Cyber-Physical Systems					Computer Engineering			
Semester	Teaching Methods						Credits	
	Lecture	Recite	Lab.	Field Study	Other	Total	Credit	ECTS Credit
8	42	50	-	50	46	188	3	8
Language	English							
Compulsory / Elective	Elective							
Prerequisites	None							
Course Content	Principle of Cyber Physical Systems							
Course Objective	Analysis of Real Cyber Physical Systems							
Learning Outcomes and Competences	Learning of Real Cyber Physical Systems							
Textbook and/or Referanslar	<p>1. E. A. Lee and S. A. Seshia, Introduction to Embedded Systems - A Cyber-Physical Systems Approach, Second Edition, 2015.</p> <p>2. Rajeev Alur – PRINCIPLES OF CYBER-PHYSICAL SYSTEMS. Pres MIT- Boston, 2016</p>							
Assessments Criteria					(X)			Ağırlık(%)
	Midterm Exam							20
	Quizzes							20
	Homework							
	Projects					X		20
	Term Paper							
	Laboratory work							
	Other							
Final Exam						X		40
Instructor	Prof. Dr. Remzi YILDIRIM							
Week	Subject							
1	Principle of Systems							
2	Analog Systems							
3	Digital Systems							
4	Discrete Systems							
5	Continuous Time System							
6	Discrete Time Systems							
7	Hybrid Systems							
8	Principle of Embedded Systems							
9	Cyber-Physical Systems							
10	Instrumentation Systems							
11	Sensors							
12	MIDTERM							
13	Temperature, Pressure and Weight							
14	Heat and Actuator							
15	ADC- DAC converters							
16	Multifunction Displays							
17	Modeling and Dynamic Behaviors							
18	Model Checking							
	FINAL							