



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Next Generation Industry Applications							
Course Code		AEK220		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	71 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Industry 4.0, known as the 4th industrial revolution, essentially focused on production technologies though it is a concept used by almost all automation and data exchange era from all sectors. Cyber-physical systems, internet of things, cloud technology, cognitive computation, modelling, simulation and data analytics.							
Course Content		Cyber-physical systems Internet of things Cloud technology Cognitive computation Modelling Simulation Data analytics							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study					
Name of Lecturer(s)		Ins. Emine ERTÜRK ŞAHİN							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Endüstri 4.0-Uygulama ve Dönüşüm Rehberi
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Week	Weekly Detailed Course Contents	
1	Theoretical	Intelligent Related Product Work Models
2	Theoretical	LEAn Production systems for Industry 4.0
3	Theoretical	Skill Development for Industry 4.0
4	Theoretical	Road Map for Industry 4.0
5	Theoretical	Data Analysis for Manufacturing
6	Theoretical	Internet of Things and New Value Suggestion
7	Theoretical	Developments in Robotics in Era of Industry 4.0
8	Theoretical	Role of Incremented Reality in Industry 4.0 Era
9	Theoretical	Endüstri 4.0 Çağında Artırılmış Gerçekliğin Rolü
10	Theoretical	Digital Traceability on Production Value Chain
11	Theoretical	General View Toward Cyber Security in Era of Industry 4.0
12	Theoretical	Project Presentations
13	Theoretical	Project Presentations
14	Theoretical	Project Presentations
15	Theoretical	Project Presentations
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	1	1	26
Term Project	5	1	2	15
Project	4	3	1	16
Midterm Examination	1	6	1	7



Final Examination	1	6	1	7
Total Workload (Hours)				71
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	A student successfully completed this course will be able to 1. Combine information and communication technologies and industrial technology conceptionally. 2. Recognizes technologies within the scope of Industry 4.0. 3. Get acquainted with new approaches in production.
2	
3	
4	
5	

Programme Outcomes (Alternative Energy Sources Technology)

1	To have knowledge about basic science and technology.
2	To have knowledge about basic energy and alternative energy sources.
3	To have knowledge about basic electrical and electronic laws.
4	To have knowledge about the installation and operation of energy facilities.
5	Learning the methods of recycling of waste and use of energy.
6	To have experience in energy generation and project design.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P2	2	2	2	2	2
P4	5	5	5	5	5
P5	2	2	2	2	2
P6	5	5	5	5	5

