Tarih: 11 Eylül 2025 13:30

Department of Electricity and Energy / Department of Electricity and Energy /

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
ENR205	MICROCONTROLLERS	2.00	1.00	0.00	3.00	3.00

Course Detail

Course Language	: Turkish
Qualification Degree	: PreBachelor
Course Type	: Compulsory
Preconditions	: Not
Objectives of the Course	:
Course Contents	:
Recommended or Required Reading	: Bilgisayar, projeksiyon cihazı, ders notları.
Course Instructors	: Öğr. Gör. Ensar Koşatepe
Presentation Of Course	: formal
Update Date	: 9/7/2025 8:56:52 PM
Dosya İndirilme Tarihi	: 9/11/2025

Course Outcomes

Upon the completion of this course a student :
1 Knows the historical development of microprocessors and microcontrollers.
2 Knows the hardware units of the microcontroller.
3 Know the differences between Microprocessors and Microcontrollers.
4 Can create algorithms and flow charts to solve the problem.
5 It can perform analog operations with a microcontroller.
6 Can use sensors with microcontroller.

Preconditions

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS

Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1.Week	*Historical development of microprocessors and microcontrollers.			*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	
2.Week	*Microcontroller hardware units. Basic concepts.	*INTRODUCTION OF MICROPROCESSOR		*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	
3.Week	*Introduction to programming and programming processes	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.2
4.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
5.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
6.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
7.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
8.Week	*Midterm Exam					Ö.Ç.1 Ö.Ç.2 Ö.Ç.3
9.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
10.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
11.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
12.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
13.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
14.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2
15.Week	*Sensor applications with microcontrollers.	*INTRODUCTION OF MICROPROCESSOR	*Various circuit and sensor studies	*Internet videos, lecture notes	*EXPLANATION, QUESTION-ANSWER	Ö.Ç.3 Ö.Ç.4 Ö.Ç.5 Ö.Ç.6 Ö.Ç.1 Ö.Ç.2

Assesment Methods %

1 Ara Sınav : 40.000

3 Final : 60.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Vize	1	1.00	1.00
Proje	10	1.00	10.00
Laboratuvar	14	1.00	14.00
Ders Öncesi Bireysel Çalışma	10	1.00	10.00
Ders Sonrası Bireysel Çalışma	10	1.00	10.00
Ara Sınav Hazırlık	10	1.00	10.00
Final Sınavı Hazırlık	10	1.00	10.00
Teorik Ders Anlatım	14	2.00	28.00
Uygulama / Pratik	10	1.00	10.00
		Total :	103.00
		Sum of Workload / 30 (Hour) :	3
		ECTS :	3.00

Program And OutcomeRelation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15	P.O. 16	P.O. 17	P.O. 18	P.O. 19	P.O. 20
L.O. 1	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0
L.O. 2	0	0	0	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0
L.O. 3	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0
L.O. 4	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0
L.O. 5	0	0	0	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0
L.O. 6	0	0	0	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0
Avarage	0	0	0	0	0	0	0	0	0	5.00	2.50	0	0	0	0	0	0	0	0	0

BEWARE OF PLAGIARISM! Please pay attention to proper academic citation rules and avoid plagiarism, an unethical and academically fraudulent behavior, when completing reports, assignments, or other academic works, and it is treated with the same disciplinary action as cheating in a classroom setting. It is imperative to refrain from presenting another person s ideas, language, expressions, or any other form of intellectual property as your own. Regardless of quality, your assignments/projects/research should reflect your original work. Perfection is not a requirement, and in case of any uncertainties regarding academic writing guidelines, you may seek clarification from your course instructor.

Engel Durumu/Uyarlama Talebi : Engel durumuna ilişkin herhangi bir uyarlama talebinde bulunmak isteyen öğrenciler, dersin öğretim elemanı ya da Nevsehir Engelli Öğrenci Birimi ile en kısa sürede iletişime geçmelidir.