

MAK4482 Industrial Automation Group (1)
SYLLABUS

Semester: Fall (1st) 2023-2024

Lecture: Wednesday, 16.00 – 17:50, Online, Wednesday, 18.00 – 19:50, Online

Instructor: Dr. İlkey KURT

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Textbook:

- Programmable Logic Controllers, Frank D. Petruzella, 5th Edition, McGraw-Hill Education.

Other Sources:

- Panasonic Programmable Controller FP Series Programming Manual
- Programmable Controller FPWIN Pro7 Introduction Guidance

PLC Software:

- Control FPWIN Pro

Weekly Subjects

Week	Subject	Related Preparation
1	Introduction to Industrial Automation and Programmable Logic Controllers (PLC)	Chapter 1
2	PLC Hardware Components	Chapter 2
3	Number Systems and Codes	Chapter 3
4	Fundamentals of Logic	Chapter 4
5	Basics of PLC Programming	Chapter 5
6	Developing Fundamental PLC Wiring Diagrams and Ladder Logic Programs	Chapter 6
7	Developing Fundamental PLC Wiring Diagrams and Ladder Logic Programs	Chapter 6
8	Midterm Exam	-
9	Programming Timers	Chapter 7
10	Programming Counters	Chapter 8
11	Programming Counters	Chapter 8
12	Program Control Instructions	Chapter 9
13	Data Manipulation Instructions	Chapter 10
14	Math Instructions	Chapter 11
15	Final Exam	-

Evaluation System

Activities	Percentage of Grade
Laboratory	30
Midterm Exam	30
Final Exam	40
Total	100