MAK3071 System Dynamics and Simulation Group (1)
SYLLABUS

Semester: Fall (1st) 2023-2024
Lecture: Friday, 10.00 – 11:50, A-111
Instructor: Dr. İlkay KURT
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Website: avesis.yildiz.edu.tr/ikurt
Textbook: System Dynamics, 4th Edition, Katsuhiko Ogata
Software: MATLAB/Simulink

Weekly Subjects

Week	Subject	Related Preparation
1	Introduction to System Dynamics / The Laplace Transform	Chapters 1 and 2
2	The Laplace Transform	Chapter 2
3	Mechanical Systems	Chapter 3
4	Transfer-Function Approach to Modeling Dynamic Systems	Chapter 4
5	Transfer-Function Approach to Modeling Dynamic Systems	Chapter 4
6	State-Space Approach to Modeling Dynamic Systems	Chapter 5
7	State-Space Approach to Modeling Dynamic Systems	Chapter 5
8	Midterm Exam	
9	State-Space Approach to Modeling Dynamic Systems	Chapter 5
10	Time-Domain Analysis of Dynamic Systems	Chapter 8
11	Time-Domain Analysis of Dynamic Systems	Chapter 8
12	Frequency-Domain Analysis of Dynamic Systems	Chapter 9
13	Frequency-Domain Analysis of Dynamic Systems	Chapter 9
14	Frequency-Domain Analysis of Dynamic Systems	Chapter 9
15	Final Exam	

Evaluation System

Activities	Percentage of Grade
Homework Assignments	30
Midterm Exams	30
Final Exam	40
Total	100

Additional information:
- 70 % participation of lectures is mandatory. However, full attendance is expected since all classes are linked to each other.
- Each homework assignments need to be submitted before the next class.
- Taking notes is optional. However, only your handwritten notes are allowed in exams.