

Control Theory (BMEKOKAM142, BMEKOKAM122) and Control Theory and system dynamics (BMEKOKAM701)

Lectures and tutorials will be held in Room J202

Laboratories (you do at home with Matlab – see videos on Moodle) only for students of courses BMEKOKAM122 and BMEKOKAM701!

WEEK	Friday 10:15-12:00	Friday 12:15-14:00
1 (12. Febr.)	ONLINE via TEAMS: Lecture: Introduction to control theory T. Tettamanti	-
2 (19. Febr.)	ONLINE via TEAMS: Lecture: Time domain analysis T. Tettamanti	Tutorial video 1 : Time domain analysis
3 (26. Febr.)	ONLINE via TEAMS: Lecture: Introduction to frequency domain, basic transfer functions and their Bode diagrams: 0TP, 0TI, 0TD, 1TP, 1TD, PD. T. Tettamanti	-
4 (5. March.)	ONLINE via TEAMS: Lecture: Rearranging block diagrams, Bode stability criterion, Performance properties T. Tettamanti	Tutorial video 2 : Frequency domain analysis
5 (12. March)	Tutorial video 3: PID (feedback) control Tutorial video 4: PID (feedback) control	LABORATORY of System analysis <u>only</u> for students on course BMEKOKAM122/ BMEKOKAM701 X. Fang,
6 (19. March)	Tutorial video 5: Practicing for mid-term exam 1.	-
7 (26. March)	Mid-term exam I. X. Fang, Retake of mid-term exam I. will be on 30- March 16:15-18:00, X. Fang	LABORATORY of PID control <u>only</u> for students on course BMEKOKAM122/BMEKOKAM701 X. Fang
8 (2. April)	-	-
9 (9. April)	Lecture: Introduction of state space theory, SISO system A. Mihály	Lecture: Stability, controllability, observability A. Mihály
10 (16. April)	Tutorial: From transfer function to state space representation and back, stability, controllability, observability A. Mihály	-
11 (23. April)	Lecture: Full-state feedback control A. Mihály	Tutorial: Full-state feedback control X. Fang
12 (30. April)	Tutorial: Full-state feedback control A. C. Piazzi	LABORATORY of Full-state feedback control <u>only</u> for students on course BMEKOKAM122/ BMEKOKAM701 X. Fang
13 (7. May)	Lecture: Linear Quadratic Regulator (LQR) A. Mihály	Tutorial: LQR A. Mihály
14 (14. May)	Mid-term exam II. X. Fang 14. May (Friday 10:15-12:15)	LABORATORY of LQR <u>only</u> for students on course BMEKOKAM122/ BMEKOKAM701 X. Fang
(21. May)	Retake of mid-term exam II. X. Fang 21. May (Friday 16:15-18:15!)	-

IMPORTANT:**There will be 2 midterm exams in the semester. Final evaluation is calculated as the mean of the 2 midterm exams.**

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