

**Faculty of Transportation Engineering and Vehicle Enginee** 

1. Subject name	Nonlinear control				
2. Subject name in Hungarian	Nemlineáris irányítások				
3. Code	BMEKOKAD018	4. Evaluation type	exam grade	5. Credits	4
6. Weekly contact hours	3 (0) Lecture	0 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Basic course		
9. Working hours f	for fulfilling the req	uirements of the s	ubject		42
Contact hours	42	Preparation for seminars	0	Homework	0
Reading written materials	0	Midterm preparation	0	Exam preparation	0
10. Department	Department of Control for Transportation and Vehicle Systems				
11. Responsible lecturer	Dr. Szabó Zoltán				
12. Lecturers	Dr. Szabó Zoltán				
13. Prerequisites					
14. Description of	lectures				
This course provides approach to nonlinear fundamental design follows Lyapunov ba for nonlinear observe	s an initialization in n ar geometric system problems. As an illus ased stability theory, er design. The courd	onlinear control theor theory based on inva stration switched syst passivity based appro e ends with gain scho	y. We introduce the riant distributions ems are presente baches and backs eduling and LPV t	ne basic concepts related and provide solutions fo d. Linearization techniqu stepping design. We prov echniques.	d to the geometric r the most les are presented. It vide some methods
15. Description of	practices				
16. Description of	labortory practices	5			
17 Loorning cutor					

17. Learning outcomes

A. Knowledge B. Skills C. Attitudes D. Autonomy and Responsibility

18. Requirements, way to determine a grade (obtain a signature)

The credits are obtained by completing the design task and by passing the oral exam. Prior to be accepted for the exam, students should fulfil the design task and should summarize their results in a report.

19. Opportunity for repeat/retake and delayed completion

## 20. Learning materials

**Effective date** 27 November 2019 This Subject Datasheet is valid for Inactive courses