



1. Subject name	Operation of construction machines				
2. Subject name in Hungarian	Építőgépek üzeme				
3. Code	BMEKOEAD004	4. Evaluation type	exam grade	5. Credits	3
6. Weekly contact hours	2 (0) Lecture	0 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Specific course		
9. Working hours for fulfilling the requirements of the subject					48
Contact hours	28	Preparation for seminars	4	Homework	8
Reading written materials	4	Midterm preparation	4	Exam preparation	0
10. Department	Department of Material Handling and Logistics Systems				
11. Responsible lecturer	Dr. Bohács Gábor				
12. Lecturers	Dr. Bohács Gábor				
13. Prerequisites					
14. Description of lectures					
The subject aims to survey the advanced construction machine systems and their components. Related optimization problems are presented as well. First specific machines and processes are surveyed. Further possibilities for automation is discussed. These include not only hardware devices but the necessary software as well. The subjects deals with construction machines as system components, where supervision and control is an important issue. During the semester two tests are written and an individual students essay is developed.					
15. Description of practices					
16. Description of labortory practices					
17. Learning outcomes					
A. Knowledge					
<ul style="list-style-type: none"> • Modern construction processes and automation possibilities. • Software to support modern construction engineering. • System engineering characteristics of construction engineering. 					
B. Skills					
<ul style="list-style-type: none"> • Ability to develop construction engineering system and process concepts. • Ability to optimize construction engineering systems.. 					
C. Attitudes					
<ul style="list-style-type: none"> • Strive to maximize their abilities to make their studies at the highest possible level, with a profound and independent knowledge, accurate and error-free, in compliance with the rules of the applicable tools, in collaboration with the instructors. 					
D. Autonomy and Responsibility					
<ul style="list-style-type: none"> • Take responsibility for the quality of the work and the ethical standards that set an example for the classmates, using the knowledge acquired during the course. 					
18. Requirements, way to determine a grade (obtain a signature)					
The grade is calculated from the grade of the individual work and the tests as an average.					
19. Opportunity for repeat/retake and delayed completion					
Announced at the beginning of the semester					
20. Learning materials					
Mahesh Varma: Construction equipment and its planning and application					
Effective date	27 November 2019	This Subject Datasheet is valid for		Inactive courses	