



1. Subject name	Data collection and evaluation systems PhD				
2. Subject name in Hungarian	Mérő- és Adatgyűjtő Rendszerek PhD				
3. Code	BMEKOGED007	4. Evaluation type	exam grade	5. Credits	4
6. Weekly contact hours	2 (0) Lecture	2 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Basic course		
9. Working hours for fulfilling the requirements of the subject					120
Contact hours	56	Preparation for seminars	7	Homework	26
Reading written materials	10	Midterm preparation	0	Exam preparation	21
10. Department	Department of Railway Vehicles and Vehicle System Analysis				
11. Responsible lecturer	Dr. Lovas László				
12. Lecturers	Dr. Lovas László				
13. Prerequisites					
14. Description of lectures					
Classification and choice of measurement procedures. Role of the measurements in the modern structure design process. Presentation of the measurement theory and process for photoelastic coatings, evaluation of results. Test measurements on models and real structures. Application for fracture mechanics. MEasurement processes for polimers and composites. Applications in biomechanics. Strain measurement processes, tools, evaluation. Measurement of residual stresses.					
15. Description of practices					
Planning and preparation of measures on structures, based on the lectures.					
16. Description of labortory practices					
17. Learning outcomes					
A. Knowledge <ul style="list-style-type: none">• Measurement processes, methods. B. Skills <ul style="list-style-type: none">• Preparation and realisation of measurements. C. Attitudes <ul style="list-style-type: none">• Being open to understand and learn novelties on that given domain. D. Autonomy and Responsibility <ul style="list-style-type: none">• Evaluation and choice of optimal model element.					
18. Requirements, way to determine a grade (obtain a signature)					
Semester note upon the essay, the presentation and a written exam.					
19. Opportunity for repeat/retake and delayed completion					
Presentation and essay secondary deadlines precised in the lessons requirements.					
20. Learning materials					
Effective date	27 November 2019	This Subject Datasheet is valid for		Inactive courses	