



1. Subject name	Intelligent transport systems				
2. Subject name in Hungarian	Intelligens közlekedési rendszerek				
3. Code	BMEKOKUM205	4. Evaluation type	exam grade	5. Credits	5
6. Weekly contact hours	2 (10) Lecture	0 (0) Practice	2 (11) Lab		
7. Curriculum	Transportation Engineering MSc (K)	8. Role	Mandatory (mc) at Transportation Engineering MSc (K)		
9. Working hours for fulfilling the requirements of the subject					150
Contact hours	56	Preparation for seminars	18	Homework	12
Reading written materials	46	Midterm preparation	8	Exam preparation	10
10. Department	Department of Transport Technology and Economics				
11. Responsible lecturer	Dr. Tóth János				
12. Lecturers	Dr. Tóth János, Dr. Esztergár-Kiss Domokos, Soltész Tamás				
13. Prerequisites					
14. Description of lectures					
Keywords of intelligent transport systems. ITS directive of EU. Classification of ITS systems based on transport modes. Tasks of a mobility management system, the structure of the integrated transport database. EU standards. The NESZIP an NEJP systems. Features of Demand Responsive Transport, area of use, classification of systems. Rout planning of DRT, economic features. Hungarian and international best practices.					
15. Description of practices					
16. Description of laboratory practices					
Introduction to GIS, QGIS practice, Location based services, Route planning methods, Multimodal journey planners, Mobility as a Service, Transportation databases and data collection systems, Homework presentations.					
17. Learning outcomes					
A. Knowledge					
<ul style="list-style-type: none"> Familiar with types and features of ITS, the relevant terms and standards. Knows the attributes and advantages of multimodal systems. Knows the conditions of development demand responsive transport. 					
B. Skills					
<ul style="list-style-type: none"> Ability to apply of GIS in planning of ITS systems. Able to examine and analyse ITS systems. 					
C. Attitudes					
<ul style="list-style-type: none"> Strive to acquire the highest level of system approach. 					
D. Autonomy and Responsibility					
<ul style="list-style-type: none"> Responsible applies of acquired knowledge in individual or in team work. 					
18. Requirements, way to determine a grade (obtain a signature)					
Signature: 1 midterm test from the theoretical and 1 midterm test from the practical part, 2 homeworks (QGIS and LBS), 1 presentation from the QGIS homework. Final grade equals to the result of written exam.					
19. Opportunity for repeat/retake and delayed completion					
Both midterm test correction possibility and possibility of delayed deadline for home work.					
20. Learning materials					
Presentation slides					
Effective date	10 October 2019	This Subject Datasheet is valid for		Inactive courses	