



Budapest University of Technology and Economics

Faculty of Transportation Engineering and Vehicle Engineering

1. Subject name	Smart City				
2. Subject name in Hungarian	Intelligens városok - Smart city				
3. Code	BMEKOKKM227	4. Evaluation type	mid-term grade	5. Credits	3
6. Weekly contact hours	2 (7) Lecture	0 (0) Practice	0 (0) Lab		
7. Curriculum	Transportation Engineering MSc (K)	8. Role	Specialization (sp) at Transportation Engineering MSc (K)		
9. Working hours for fulfilling the requirements of the subject					90
Contact hours	28	Preparation for seminars	4	Homework	20
Reading written materials	26	Midterm preparation	12	Exam preparation	0
10. Department	Department of Transport Technology and Economics				
11. Responsible lecturer	Dr. Tóth János				
12. Lecturers	Dr. Tóth János, Dr. Esztergár-Kiss Domokos				
13. Prerequisites					
14. Description of lectures					
Paradigm shift in urban citizen life. Smart city introduction, evaluation and ranking methods. City planning aspects, methods and strategies. Introduction to land use functions and models. Shared spaces, public space transformation. Utilization of information received from social media and mobility patterns. Big data and Internet of Things solutions. Smart Grids and its applications. Top international and Hungarian best practices.					
15. Description of practices					
16. Description of labortory practices					
17. Learning outcomes					
A. Knowledge <ul style="list-style-type: none">Familiar with the Smart City concept, urban planning models, social media types, mobility patterns, Big Data data types, the Internet of Things model and features; B. Skills <ul style="list-style-type: none">Able to define Smart City features, use assessment methodologies, apply land use models, use road planning principles, use Big Data approaches, distinguish between Smart Grid elements; C. Attitudes <ul style="list-style-type: none">Maximizing abilities, extends the knowledge by their own, strives for precise task solving; 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)					
2 midterm tests (50%), 1 homework (50%)					
19. Opportunity for repeat/retake and delayed completion					
Midterm test correction possibility for those not present on one of the tests, possibility of delayed deadline for home work.					
20. Learning materials					
Presentation slides and electronic lectrue notes.					
Effective date	10 October 2019	This Subject Datasheet is valid for		Inactive courses	