Smart City

1. Subject name	Smart City				
2. Subject name in Hungarian	Intelligens városok - Smart city				
3. Code	BMEKOKKD011	4. Evaluation type	mid-term grade	5. Credits	2
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					60
Contact hours	28	Preparation for seminars	4	Homework	0
Reading written materials	16	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
- Familiar with Smart City concept, urban planning models, social media types, mobility patterns, Big Data data types, Internet of Things model and features.

B. Skills
- Defines Smart City features, calculates with evaluation methods, applies land use models, uses road planning principles, uses Big Data approaches, distinguishes Smart Grid elements.

C. Attitudes
- Provides maximized abilities, extends knowledge independently, strives for precise task solving.

D. Autonomy and Responsibility
- Applies acquired knowledge during the course in a responsible way, accepts the framework of cooperation, is able to work independently or in a team.

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

There will be 2 written test during the semester, students need to pass both. The course mark will be calculated from the average of test marks.

19. Opportunity for repeat/retake and delayed completion

Midterm test correction possibility for those not present on one of the tests

20. Learning materials

Presentation slides and electronic lectrue notes

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