

**Miskolci Egyetem**

**Gépészmérnöki és Informatikai Kar Informatikai Intézet**

**Alkalmazott Informatikai Intézeti Tanszék**

**Tantárgyi tematika és ütemterv (2016/2017. 1. félév)**

**Intelligent Vehicles (GEIAK134B-a ERASMUS) tematikája**

**Nappali, BSc Szint**

**Tárgyfelelős: Dr. Dadvandipour Samad egyetemi docens**

## **Intelligent Vehicles**

### **Introduction**

In the last three decades, we can observe the smart vehicles. These type of cars are usually or, in other words, they are physically work as intelligent as robots. The smart vehicles have become an important part as they are equipped with intelligent agents that give services to human beings. It is estimated that over 1 billion cars travel the streets and roads of the world today. With such traffic, it is clear that there are many situations where the driver has to react quickly. In many cases, the driver is not able to respond, that is why applications of automated systems are involved in the vehicles. These automated systems solve various tasks, with which the driver meets during normal operation of the vehicle. A smart vehicle is defined as a vehicle equipped with perception, reasoning, and actuating devices.

1. week: Introduction to Vehicles in General – I.
2. week: Introduction to Vehicles in General – II.
3. week: Technology of Autonomous Vehicle Systems – I.
4. week: Technology of Autonomous Vehicle Systems – II.
5. week: Technology of Autonomous Vehicle Systems – III.
6. week: Free speech and seminarian on the presented topics
7. week: Free speech and seminarian on the presented topics
8. week: Free Speech and seminarian on the presented topics
9. week: Obstacles detection for unmanned vehicles – I.
10. week: Obstacles detection for unmanned vehicles – II.
11. week: Obstacles detection for unmanned vehicles – III.

12. week: Summary of the presented subjects

13. week: Oral speaking and final exam

14. week: Oral speaking and final exam

**Literature and References:**

1. Free online materials downloaded from the Internet.
2. Any books, which are available.

**Remarks:**

- 1. The subject scheduled for 2x2 hours or 2x1. The result of Exam depends on the student's activities and Homework during the semester, and Colloquium (writing and oral exam).*
- 2. The teaching language for the subject is English.*