

Budapest University of Technology and Economics

Faculty of Transportation Engineering and Vehicle Enginee

| 1. Subject name | Advanced Driver Assistance Systems | | | | |
|------------------------------|---|--------------------------|--|------------------|-----|
| 2. Subject name in Hungarian | Vezetéstámogató rendszerek | | | | |
| 3. Code | BMEKOGGM657 | 4. Evaluation type | exam grade | 5. Credits | 4 |
| 6. Weekly contact hours | 2 (10) Lecture | 0 (0) Practice | 2 (11) Lab | * | |
| 7. Curriculum | Vehicle Engineering MSc (J) | 8. Role | Specialization (sp) at Vehicle Engineering MSc (J) | | |
| 9. Working hours | for fulfilling the req | uirements of the s | ubject | | 120 |
| Contact hours | 56 | Preparation for seminars | 18 | Homework | 28 |
| Reading written materials | 8 | Midterm preparation | 0 | Exam preparation | 10 |
| 10. Department | Department of Automotive Technologies | | | | |
| 11. Responsible lecturer | Dr. Tihanyi Viktor | | | | |
| 12. Lecturers | Dr. Tihanyi Viktor, Dr. Szalay Zsolt, Dr. Török Árpád | | | | |
| 13. Prerequisites | | | | | |
| 14. Description of | lectures | | | _ | |

The target is to present driver assistant systems and automated driving functions. The levels of automation according to SAE. Brief overview about vehicle dynamics. Driver assistance system overview on the stabilization level. Typical DAS systems, like AEBS, LDW, LKA available at present vehicles. Outlook on future advanced driver assistance systems at higher automation levels.

15. Description of practices

16. Description of labortory practices

The task is to work out an ADAS related topic including realization, testing and documentation.

17. Learning outcomes

- A. Knowledge
 - Knowledge of ADAS systems
- B. Skills
 - Ability to develop ADAS systems
- C. Attitudes
 - Openness to new opportunities in the field
- D. Autonomy and Responsibility
 - Participate in solving independent task

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

An individual task fullfilment is required for the signiture. The final mark will be provided taking the exam result and the individual task result into account with weighted average of 60-40%.

19. Opportunity for repeat/retake and delayed completion

Individual taks replacement one

20. Learning materials

Slides