

# Environmental effects of Transport

2018/19 academic year, Transportation Engineering MSc and PhD program

2019.02.14. version

1. II.4. **Survey, Transport and Environment**, conflicts, interactions, effects, state of environment, tendencies, policies.
2. II.11. **Survey, Transport and Environment**, conflicts, interactions, effects, state of environment, tendencies, policies. **Subjects to be managed** by the students during the semester. II.
3. II. 18. **Urban and suburban transport**, policies, sustainability approaches, and conditions in the urban and suburban transport. SUMP and strategies, outlooks.
4. II. 25. **Transport Demand management**, parking and user fees, road charges, restrictions, incentives, preferences, at the management of external costs, in urban and suburban transport systems.
5. III.4. **Forms of soft mobility, walking and cycling**, opportunities, preferences, policies, techniques, support, integration, case studies. Bike sharing, public forms of cycling mobility.
6. III. 11. **Land use and Transport**, integrated and sustainable urban and regional development, integration of transport, regional development and environment. Process of suburbanisation, management opportunities.
7. III. 25. **Regional transport systems, the role of rail**, integration, multimodality, regulation, financing, environmental and regional development elements.
8. IV. 1. 10.15 am **Workplace Travel Plan guidance**, development opportunities, possibilities to shift employees to sustainable transportation modes, practical experience through an EU project implementation. By Domokos Esztergár Kiss PhD.  
  
12.15 am. **Development of transport infrastructure network**, environmental, economic and social conflict system. The role of **environmental impact assessment**, regulations, transport and regional development, Strategic Environmental Impact Assessment.
9. IV.8. Date to be confirmed: **External consultation at BKK, Budapest Transport Center**, on proposed subjects, like: BMT, SUMP, Integrated Traffic Modelling, current R+D projects, BKK, Rumbach S. u. Király u.
10. IV. 15. -
11. IV.22. -
12. IV.29. **Freight Transport and Environment**, policies, techniques, regulations, EU and other transit policies, intermodality, internalization of externalities.
13. V.6. **Transport Noise impact**, effects, management and regulation solutions, prevention, techniques.  
  
Date to be confirmed: **External consultation at Trenecon** Transport, Environment, Economics Consulting, and Planning office, on current transport development projects running.
14. V.13. Optional: 10.15 am: **Midterm, written test and presentation of assignments**, semester papers of students, evaluation.  
  
12.15 am **New vehicles, and sustainable fuel opportunities**, driving modes, bio fuels, energy use, and efficiency on the field of transport.
15. V.20. 10.15 am: **Midterm, written test and presentation of assignments**, semester papers of students, evaluation.

Lessons: Monday at 12.15 am. St 321. B (10.15 am, and/or 12.15 am)

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Proposed literature:

Lecture notes, presentations at: <http://kukg.bme.hu/eng/study/msc/>

Knoflacher H.: Zur Harmonie von Stadt und Verkehr. Springer Verlag.

Knoflacher H.: Umweltgerechter Verkehr – Innovative Konzepte für den Stadt und Regionalverkehr. Springer Verlag.

Hensher. D.A. – Button K.J.: Handbook on Transport and Environment. Elsevier. 2003.

Feitelson E. – Verhoef E.T.: Transport and Environment. In search of Sustainable Solutions. Edward Elgar. 2001.

Website of European Federation for Transport and Environment: <http://www.transportenvironment.org>

European Environment Agency: <https://www.eea.europa.eu/themes/transport>

Mobility and Transport, EC: [http://ec.europa.eu/transport/index\\_en](http://ec.europa.eu/transport/index_en)