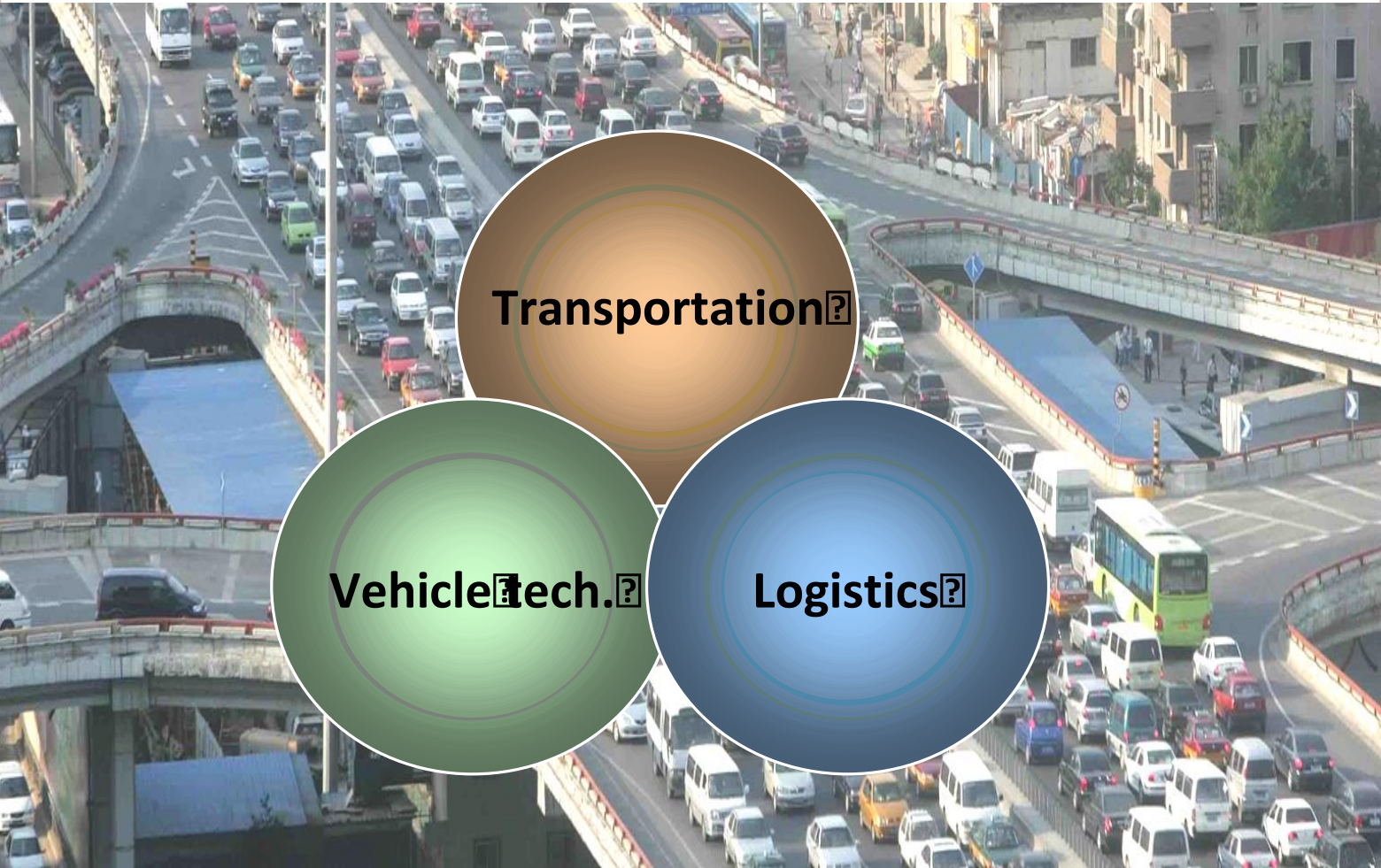




Vehicle technology, transportation and logistics



Transportation?

Vehicle Tech.?

Logistics?



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Faculty of Transportation Engineering and Vehicle Engineering - Introduction



Departments

Department of
Transport Technology
and Economics

Department of Vehicle
Elements and Vehicle-
Structure-Analysis

Department of
Automobiles and
Vehicle Manufacturing

Department of Control
for Transportation and
Vehicle Systems

Department of
Aeronautics, Naval
Architecture and
Railway Vehicles

Department of
Material Handling
and Logistics Systems

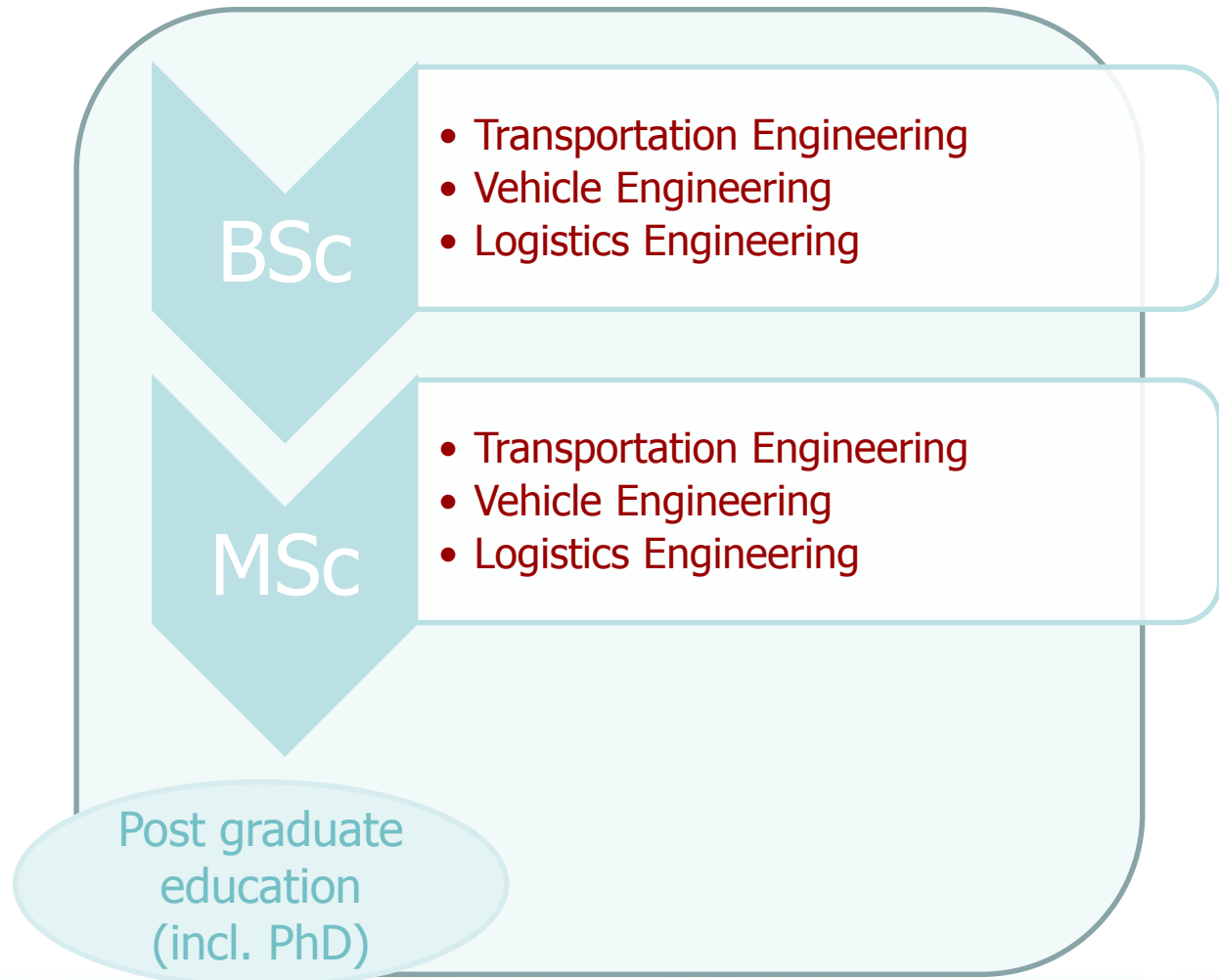
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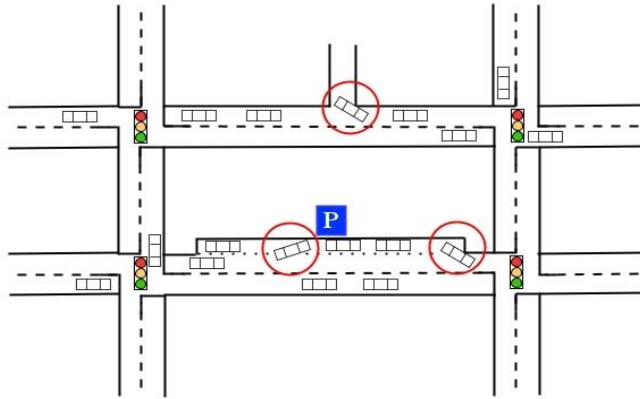


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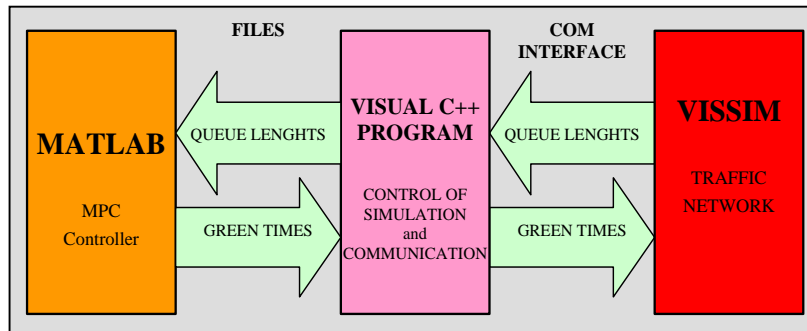
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Competence examples



Robust traffic control



Traffic simulation

Transport economy

Transport and logistics development policies, strategic planning, decision making

Monetizing external effects of transport and logistics, complex analysis of sustainability related problems

Technological and economic relationships, efficiency analysis (data envelopment analysis)

Activity Based Costing in transport

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Competence examples



ENGINE ANALYSIS

ENGINE DIAGNOSTICS

VEHICLE ENGINE PERFORMANCE MEASUREMENT

THEORY OF I.C.E

FIELD EXAMINATIONS

CONTROLLED VEHICLE DYNAMICS

VEHICLE BRAKE SYSTEMS

ACCIDENT RECONSTRUCTION

EXPERT ACTIVITY

VEHICLE ENVIROMENT

VEHICLE ERGONOMICS

RECYCLING

VEHICLE DYNAMICS SIMULATION

PROCESS SIMULATION OF I.C.E



Road Vehicles – Railway vehicles – Ships and aeronautics

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Competence examples



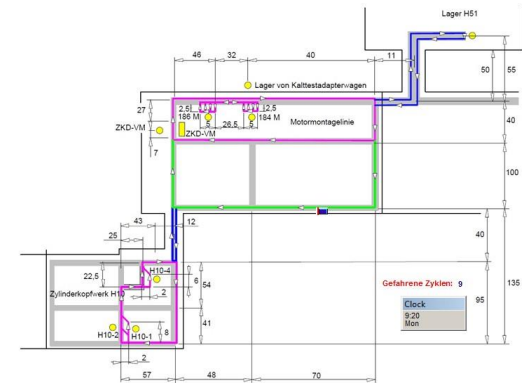
Development of automatic guided vehicles



City Logistics



Intermodal supply chains



Logistics process modelling

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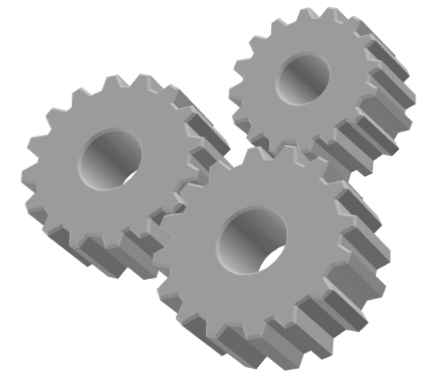




Focus on researching Vehicle technology, transportation and logistics



- Increasing motorization
- Increasing loading of the environment
- Necessity of energy reduction
- Infrastructural limitations
- ...



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Solution: advanced technologies and processes



- Vehicle technologies with increased energy efficiency and smaller environmental impact,
- Intelligent vehicle technologies,
- Intelligent transport systems,
- Efficient transport operation processes,
- Integrated logistics systems.



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Setting strategic directions

New EU Transport Politics
Új Széchenyi Terv –
HU development plan

BME – potential
and competence

Research directions

Best international practices
(ERTRAC,ERRAC,WATERBORNE,
ACARE, EIRAC)

Industrial
requirements



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Fields of our strengths



JKL

Interdisciplinarity

Broad scientific competence

**Good relations with the
industry**

**Practice oriented education,
laboratory background**

Long time traditions



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Projects of Vehicle technology, transportation and logistics research



Increasing efficiency of IC-motors
Development of mechatronical components for the vehicle industry
Research on vehicle energetics



Intelligent control of transport networks
Development of road traffic models and measurement methods



Research on logistical requirements for transport processes
Research on supporting technologies for logistic systems
Research on quality services of logistic intensive branches



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Future Perspectives

Transportation, Vehicle Technology and Logistics are key elements of a prospering economy

Continuous upgrading of education

Improving scientific impact of this area

Improving collaborations at both industrial and scientific levels

Participating at international research projects



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Future Perspectives

Why us:

- Research and innovation: national leader in the above areas
- Proactive partner of company and governing bodies
- Well organized research and innovation, using the available synergies, interdisciplinarity,
- Advanced instruments and background



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Some areas of interest for possible collaborations



- Development of intelligent transport systems
- Development of adaptive supply chain strategies
- Information sharing to enhance mobility
- Green solutions in vehicle and logistic transport
- Proactive safety for pedestrians and cyclists
- Improvements in railway automation, transport and railway vehicles
- Smart city solutions



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Thank You for Your Attention!



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