



**Warsaw University  
of Technology**



**Faculty  
of Transport**

WARSAW UNIVERSITY OF TECHNOLOGY

**Joint Project: Capacity Building in  
the Field of Higher Education  
ERASMUS+ 2018**

**Crisis and Risks  
Engineering for  
Transport Services**

**WARSAW UNIVERSITY OF TECHNOLOGY,  
FACULTY OF TRANSPORT**



Co-funded by the  
Erasmus+ Programme  
of the European Union

**Warsaw, 2019**

**Dr. Konrad Lewczuk  
CRENG project manager**



# Warsaw University of Technology

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of Technology



Faculty  
of Transport

WARSAW UNIVERSITY OF TECHNOLOGY

- Established in **1915**
- The oldest and **the best technical university in Poland**
- More than 10% of CEO's and Presidents of largest enterprises in Poland are graduates of WUT
- The graduates of WUT are the most wanted by Polish employers
- WUT employs about 5000 persons, more than 2500 of them are academic staff
- Annual recruitment of ~ 8 000 students
- Over 180 student research groups, organizations and associations



**48 fields of study**

**19 faculties (+1 college)**

**~ 36 000 students**

**~ 480 professors**

**~ 1,5 mln. volumes in WUT library**





# Warsaw University of Technology, Faculty of Transport

Warsaw University  
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Faculty  
of Transport

WARSAW UNIVERSITY OF TECHNOLOGY

**1948**  
Faculty  
of Railway  
Traffic

**1949**  
Faculty  
of Public  
Transport

**1972**  
Institute of  
Transport

**1992**  
Faculty of  
Transport

- One of 20 faculties on WUT
- About 1600 students (5% of WUT students)
- In 206, 2017 and 2018 the FIRST in engineering studies in field of transport in Poland
- Leading research and didactic unit in transport engineering
- Raising the status of the Faculty in the European Area of Higher Education and Scientific Research
- High level of education – BEST Faculty of Transport in Poland





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Faculty  
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WARSAW UNIVERSITY OF TECHNOLOGY

- Strong academic unit
- Established market position and rich tradition
- Support from the best technical university in Poland

- Mobile personnel
- Advanced laboratories
- Active research programs
- Branch-oriented **departments**

## Clients and Partners

- Industry and business units
- Government units
- Public service companies
- Research groups
- Universities

**A+**



**B**

**C**

- Air Transport Engineering
- Traffic Control and Transport Infrastructure
- Transport Systems Engineering and Logistics
- Information and Mechatronic Systems in Transport
- Vehicle Maintenance and Operation
- Construction Fundamentals of Transport Equipment
- Telecommunication in Transport

- **Transport  
Certification  
Center**





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WARSAW UNIVERSITY OF TECHNOLOGY

Full-time  
studies

Part-time  
studies

ERASMUS+  
program

Postgraduate  
studies

Full-time studies  
in English

Students in 2016/17:

Full-time studies

- 1<sup>st</sup> level 939
- 2<sup>nd</sup> level 173
- 3<sup>rd</sup> level 46

Part-time studies

- 1<sup>st</sup> level 297
- 2<sup>nd</sup> level 120
- Sum 1575

1<sup>st</sup> level –  
Undergraduate  
studies (Engineer)

2<sup>nd</sup> level –  
Graduate studies  
(M.Sc.)

3<sup>rd</sup> level –  
Doctoral studies  
(Ph.D.)

- Safety engineering and ecology of transport
- Engineering of motor vehicles operation
- Rail control command and signaling
- Road traffic control
- Air traffic control
- Logistics and technology of road transport
- Logistics and technology of rail transport
- Warehousing and material handling in logistics and technology of transport
- Transport Telematics

- Logistic audit
- Vehicle diagnostics
- Intelligent transport systems
- Car expert assessment

- Logistics and technology of transport
- Traffic control in transport
- Engineering of motor vehicles operation

- Transport systems engineering and management

- Vehicles operation and diagnostics
- Organization and technology of transport
- Warehousing and logistics
- Transport business management, economics and marketing
- Traffic control techniques
- Claims handling and accident reconstruction
- Teaching technical subjects



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## Transport systems

- Ecological transport systems and electromobility
- Smart cities and Intelligent transport systems
- Modeling and simulation transport systems
- Public transport systems
- Multimodal transport systems

## Traffic organization and control

- Traffic research and forecasting
- Road, rail and air traffic organization and control
- Designing traffic control systems
- Traffic control systems safety and reliability
- Air transport and airport management



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## Logistics

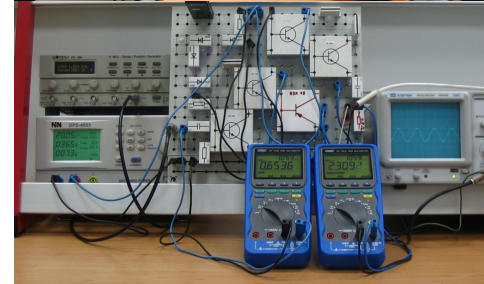
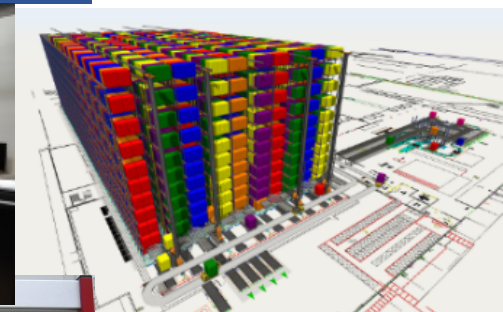
- City logistics and advanced planning
- Modeling and simulation in logistics
- Infrastructural projects and audit
- Material handling technologies
- Supply chain management

## Transport infrastructure

- Infrastructure planning and construction
- Economic effects of infrastructural investments

## Mechatronics in transport

- Automated People Movers & Automated Transit System
- Innovative cars with electric drive
- Thermovision and lighting in transport



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## Operation and exploitation of vehicles

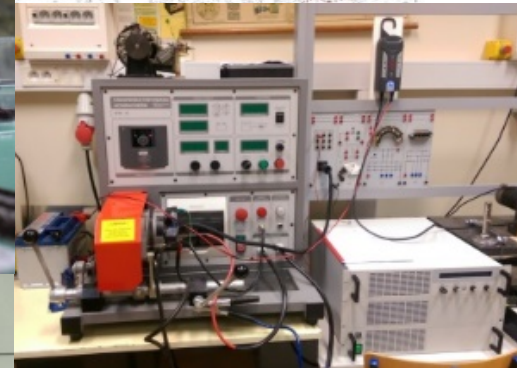
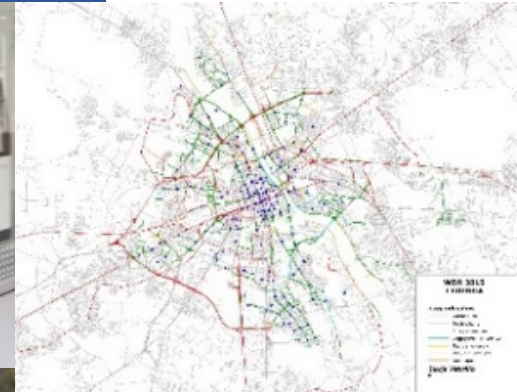
- Driving simulators and chassis dynamometers
- Testing driver's reaction time
- Vehicle motion and dynamics
- Dynamics and condition of rail vehicles and tracks
- Comfort and safety testing

## Economics in transport

- Economic effects of infrastructural solutions
- Entrepreneurship in transport

## Telecommunications in transport

- Advanced telematic systems
- Intelligent vision systems and data security
- Electronic security systems and treats detection
- The impact of on-board devices on safety



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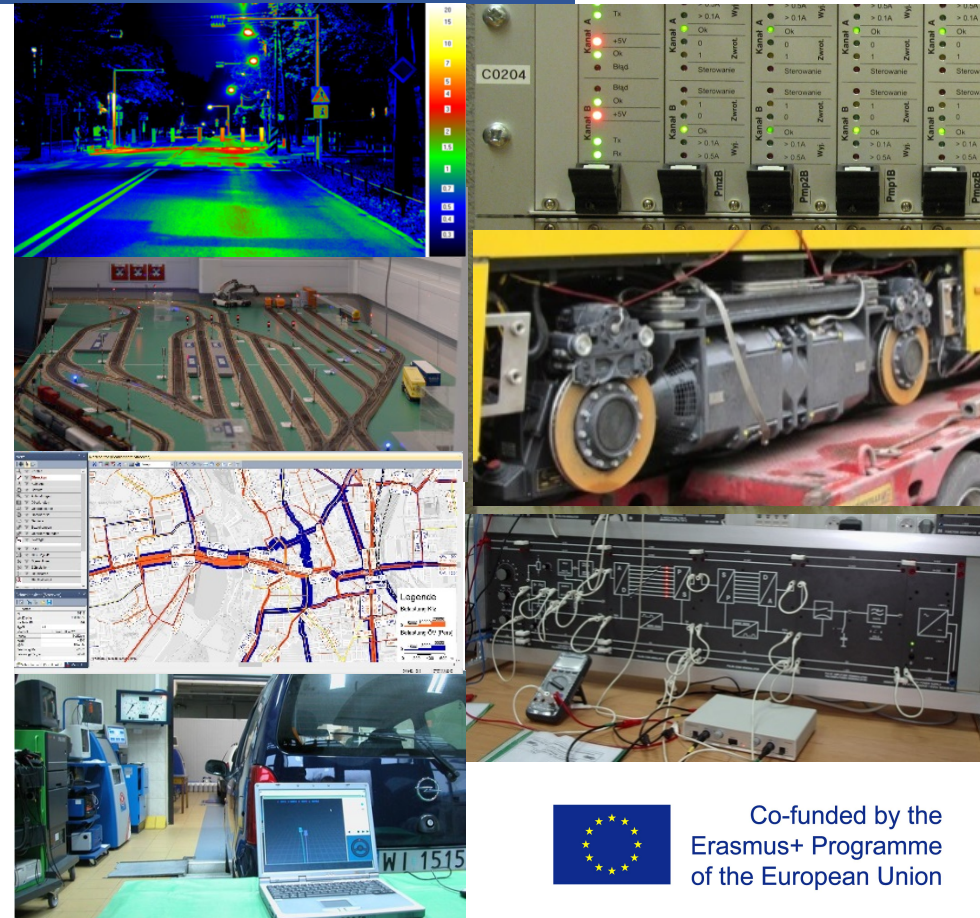
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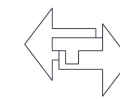
Role in the CRENG project



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**Thank you for you  
attention!**



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