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WHO WE ARE:

The University "Ss. Cyril and Methodius" is the oldest and biggest university in the Republic of Macedonia with more than 35 faculties and research institutes. The university has a network of well-developed international cooperation programs, both in the area of education and the area of research.

The Faculty of Civil Engineering-Skopje, founded in 1949, is one of the oldest faculties at the university. It includes 14 chairs with 55 members of academic staff (35 PhD and 19 MSc.) and offers five undergraduate and postgraduate study programs in the following areas: constructions and structural engineering, roads and railways infrastructure, hydrology, geology and geodesy. The Faculty of Civil Engineering has at one's disposal seven laboratories for hydrological investigation, a structural engineering which investigates construction from concrete and steel, geological and geotechnical research and an asphalt laboratory. The academic staff at the faculty has published more than 2500 research and scientific reports from 1975 to the present and has participated in several international R&D projects.

COLLABORATION INTERESTS:

The academic staff of the Department of Road and Railway permanently participates in various national and international research projects. Their interests for the projects under FP7 are in the following thematic transport areas: transport modeling for policy impact assessments, social and economic impacts of transport policy, sustainable surface transport (road and railway), especially for advanced and cost effective road infrastructure construction, management, maintenance and cost-effective improvement of rail transport infrastructure. Particular attention is also given to the design, implementation and testing of innovative strategies for sustainable urban transport. The role of the faculty during collaboration is envisaged to be as a research partner within the projects.

AREAS FOR R&D COLLABORATION:

- Maintenance of road and railway infrastructure: to develop a new concept of road and railway maintenance strategy, based on economic efficiency, safety and reliability of transport services.
- Planning of demand and supply in the transport sector: to analyse the demand and the supply in the transport sector, especially in urban transport, to identify interactions between several factors which influence demand and to envisage some solutions to improve urban transport supply.
- Socio-economic analysis of mobility: to take into consideration the new demographic trends in society and the needs for the mobility of new generations.

- Economic assessment of transport infrastructure projects: to analyse all factors which are used in economic and financial cost-benefit analysis as well as the most important variables in risk and sensitivity analysis.
- Design and construction of road and railway infrastructure: to develop new concepts and studies for the design and construction of road and railway infrastructure.

MAIN ACHIEVEMENTS:

The main achievements of the Department of Road and Railway are the following:

- Membership of the Management Committee in the EU project COST 355-Transport "Changing behavior towards a more sustainable transport system," realisation of survey for vehicles ownership of habitants in Skopje 2006-2008.
- Participation in the project "CADMIUM" (France-Germany): Comparative Analysis of Demographic Modifications and Impact on the longitudinal Use of Modes" (ChAngements Démographiques et Impacts sur l'Usage des Modes et la Multimodalité), in collaboration with INRETS-DEST (National Institute of Research on Transport and their Safety Department of Economy and Sociology of the Transport), 2007.
- Ministry of Transport and Communication & European Agency for Reconstruction, participation in the project National Transport Strategy, 2007.
- World Bank & Macedonian Railway Infrastructure: Study of Railway Track Renewal of Corridor X in Republic of Macedonia – technical preparation and economic assessment, 2009.
- Calibration of models of anticipation of the deterioration level of the pavements, doctoral thesis, 2009-present.
- Contribution to the management of sustainable quality of the pavements, master thesis, 2007.

WHAT MAKES US A GOOD PARTNER?

The advantages of working with the faculty are the following:

- A good approach to the analysis of the road and railway infrastructure from different points of view.
- Complementarities in the analysis between road and railway infrastructure performance.
- Several laboratories for investigation and research.
- Relatively young, experienced and motivated staff.
- Good collaboration in the R&D works with the French Transportation Institute INRETS-DEST (National Institute of Research on Transport and their Safety – Department of Economy and Sociology of the Transport).
- Excellent collaboration with other universities and high schools in the country and in the neighboring region.
- Good software and hardware equipment.



EU PROJECTS:

The faculty is a coordinator of the following projects:

- Consortium building for research in innovations for sustainable development of Macedonia, funded by FP5.
- Development of New Land Governance Studies in Macedonia and Ukraine, funded by TEMPUS.
- South Eastern European Graduate School for Ph.D. Formation in Engineering, funded by DAAD.

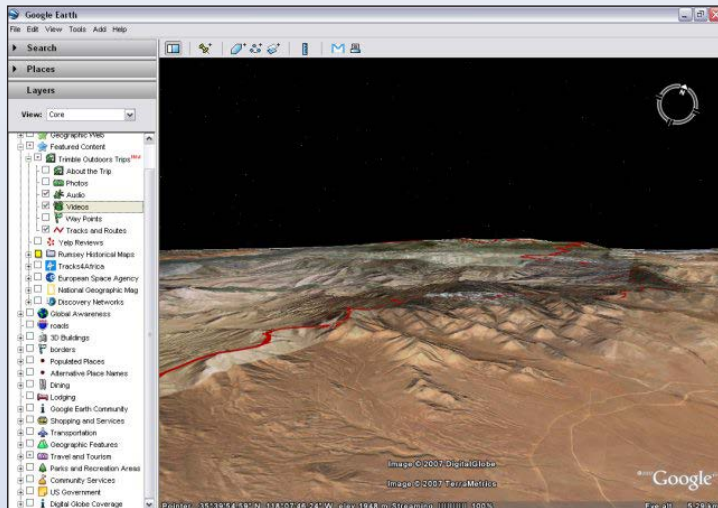
Some of the projects in which the faculty has participated as a partner are the following:

- Low Risk Disposal Technology for Hazardous Waste, Energy, Environment and Sustainable Development Programme, funded by FP5.
- BALWOIS-Water Observation and Information System for Balkan Countries, funded by FP5.
- Earthquake protection of historical buildings by reversible mixed technologies- PROHITECH, funded by FP6.
- Exchange of a good practice in implementation of ECTS, funded by TEMPUS.
- Development of New Land Governance Studies in Macedonia and Ukraine, funded by TEMPUS.
- Teaching and Learning Civil Engineering in European Context, funded by CEEPUS II.
- Improvement of building's structural quality by new technologies, Structural Integrity under Exceptional Actions, funded by COST.

- Innovative timber and composites elements/components for buildings, funded by COST.
- Improving the quality of existing urban building envelopes, funded by COST.
- Changing behavior towards a more sustainable transport system, funded by COST.

OTHER PROJECTS:

- International Network of Water Environment Centers for the Balkans-INWEB, Hydrological and Water Quality Database, national expert.
- Major Transboundary Rivers and Lakes in the BALKAN Region, ZINKE Environment Consulting for Central and Eastern Europe-CEE, national expert.
- Development of an Inventory of Internationally Shared Surface Waters in South-Eastern (SEE), GIS-based inventory on shared surface waters in SEE and shared surface and transboundary aquifers in SEE and the Mediterranean regions, national expert.
- KfW Feasibility Study, Transboundary Prespa Park Project, GFA terra Systems, national expert.
- To meet increasing demands for irrigation water as a result of climatic changes, coordinator.
- Strengthening of the capacities of the Energy Agency, Development of the Energy Regulation in the Building Sector in the Republic of Macedonia, partner.
- BALGEOS-Balkan Geodetic Observation System, partner.



OTHER INFORMATION:

Name of the organisation: Faculty of Civil Engineering, University "Ss. Cyril and Methodius," Skopje

Organisation type: Institution of higher education

Name of the research department: Department for Roads and Railways

Working languages: English

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