

# Information for prospective students



## Institute of Management of the Slovak University of Technology (UM STU) and SPECTA Centre of Excellence of the EU

Institute of Management is pedagogic, research, and scientific institution of Slovak University of Technology (STU). It is providing research and pedagogic activities in the area of management and spatial planning including landscape planning, land-use planning and strategic socio-economic planning, closely cooperating with other university units, domestic and foreign universities, and other scientific and academic institutions. It guarantees the study programs and specific study courses and education modules that are related to its profile and it takes care of integration of STU capacities in management and planning study programs, interdisciplinary study programs that have the university character. The Institute hosts the SPECTRA Centre of Excellence of the EU integrating outstanding capacities in the field of spatial planning from STU, Faculty of Natural Sciences of the Comenius University, Geographic Institute and Prognostic Institute of the Slovak Academy of Sciences and other collaborating foreign institutions.



## **Educational Activities**

Institute of Management and SPECTRA Centre of Excellence offer broad spectrum of accredited educational activities in the graduate, post-graduate and life-long learning focused on spatial and landscape planning and management. The master program in Spatial Planning is offered as a joint-diploma program with Université de Reims, France.

### **Bachelor level:**

#### ***Spatial Planning:***

Study is focused on acquiring the abilities and providing the knowledge necessary for effective management of spatial and landscape planning activities, inventarisation and analytical work and implementation management in the field of spatial development in urban and open landscape. They will find their job positions within planning processes, including landscape management, project management processes, development of rural and urban settlements, regional development, as well as development on national and European level.

### **Master level:**

#### ***Spatial Planning***

Study is focused on acquiring the abilities to analyze the state of art, characteristics and values of spatial systems regarding their nature and socio-economic structures, culture, economics, ecology, economic and social dimensions, landscape aesthetics, as well as on forms of utilizing landscape and settlement. Graduates are able to use this knowledge in their own creative planning work. They are able to facilitate the processes of social participation, steer the mediation of conflicts in planning process and coordinate a complex spatial and landscape management. Module Landscape Development of Knowledge Based Society enriches the graduates' profile in terms of current problems of landscape development.

### **PhD. level:**

#### ***Spatial planning***

Study is focused on acquiring the abilities and providing the knowledge necessary for research in the processes of spatial and landscape development, to identify the principles and regularities, to propose new approaches, new tools and methods of spatial development regulation, with the emphasis on safeguarding its sustainability. The graduate is also able to propose new ways, methods and instruments that can be utilized in the planning practice, design and management of spatial development of territorial units as well as of the whole land. The graduate can find the employment opportunities in the science, in the education and practice of land-use, landscape and spatial planning and in the management of spatial and landscape development.

### ***Sectoral and Branch Economics***

The study focused on the acquisition of scientific abilities to solve complex problem of Sectoral and Branch Economics, presenting the results through publications, teaching and defense of final dissertation. Graduate finds the job in scientific research, in universities, consulting in the conceptual professions (strategic plans, analysis, management), and state and public administration.

## Research Activities

Main research scopes of UM STU and SPECTRA Centre of Excellence of the EU are including spatial development, landscape management, European framework of spatial management in the globalized and knowledge based economy, European planning cultures, sustainable development of settlement and landscape infrastructure including public policies, impact of mobility with regard to spatial structures, monitoring and analysis of settlement development including the research of territorial potentials, circular land-use, brownfield redevelopment, public goods governance, organizational management in the business landscape of 21st. century, with emphasis on innovative development models and sustainability

### Spectra, Centre of Excellence

SPECTRA, Centre of Excellence is an integral part of Institute of Management. This Centre has been acknowledged by European Commission as a Centre of Excellence contributing to European research and development programmes within 5th Framework programme, key area Nr. 4. „City of Tomorrow and Cultural Heritage, 2003“. The Centre strives to help facilitate the processes of economic, social and cultural integration of Europe and its territorial cohesion. Spectra, Central European Research and Training Centre SPECTRA grows and develops its research activities, based on interdisciplinary research of the issues of complex spatial/landscape development, with the emphasis on the problems of development of the settlement and landscape structures. By permanent research and proposals of the solutions for optimization of spatial/landscape structures including the settlements it helps meet the objectives of sustainable spatial development, management and planning as well as balancing regional disparities, improving quality of life and strengthening of social equity in Europe.

Main scientific activities of Spectra are nowadays covered by the research project **SPECTRA+, Centre of Excellence for the Settlement Infrastructure Development of the Knowledge Based Society**, financed by ERDF, Operational Programme Research and Development. Strategic goal of this project is an enhancement and synergy of top scientific and research institutions and bodies of Bratislava region (BSK) in order to optimize sustainable spatial development of settlements and landscape structures framing socio-economic activities related to knowledge based society.

Among other recently running projects, the following ones we consider essential:

#### **Brownfield Redevelopment in the Visegrad Countries**

Education project from programme International Visegrad Fund. The main goal of the project is to establish regular course of education in English language focused on brownfield revitalization. This course will be incorporated into the masters study programme “Spatial planning” and its ambition is to improve the skills and orientation within the field of brownfield revitalization in Europe.

**CIDEP: Typology of settlement structures for territorial development of the city**

Programme of cross-border cooperation Slovakia-Austria between 2007-2013 – Creating the Future. The main aim of the project is to elaborate passportization of urban structures within the region Vienna-Bratislava, with regard to prepare background platform for decision-making on local and regional level.

**Research Project from programme COST: Transport and Urban Development, Action TU0602, Land Management for Urban Dynamics.**

European comparative study on area management approaches and regeneration and development projects devoted to methods of large city development projects and evaluation of efficiency of those methods. Results of this study will be available for practitioners, policy-makers and main concerned stakeholders.

**POLYCE “Metropolisation and Polycentric Development of Central Europe”**

POLYCE is a research project in the ESPON 2013 program (“European Observation Network for Territorial Development and Cohesion”) that is conducted by an international consortium of universities and research institutes in Central Europe. It is structured in a way as to maximize the dialogue between project partners and stakeholders in the 5 cities. The project generates analysis polycentric development in Central Europe and focus on five metropolitan regions: Bratislava, Budapest, Ljubljana, Prague and Vienna. The project aims at the identification of key assets driving polycentric development. Based on quantitative analysis, interviews and workshops the five cities will be assessed regarding their potentials and assets. The results of the empirical work will provide the basis to identify the importance and the position of the five metropolises in the European perspective. Finally, strategic options for these metropolises in an increasingly competitive context will be elaborated.

**CIRCUSE – Circular Flow Land Use Management.**

Circular land use management represents an integrative policy and governance approach which presupposes a changed land use philosophy with regard to land utilization. This modified land use philosophy can be expressed with the slogan “avoid – recycle –compensate”. 12 Partners from 6 countries are working together in the project CircUse to face these problems and develop strategies to solve them. This project is implemented through the CENTRAL EUROPE Programme co-financed by ERDF.

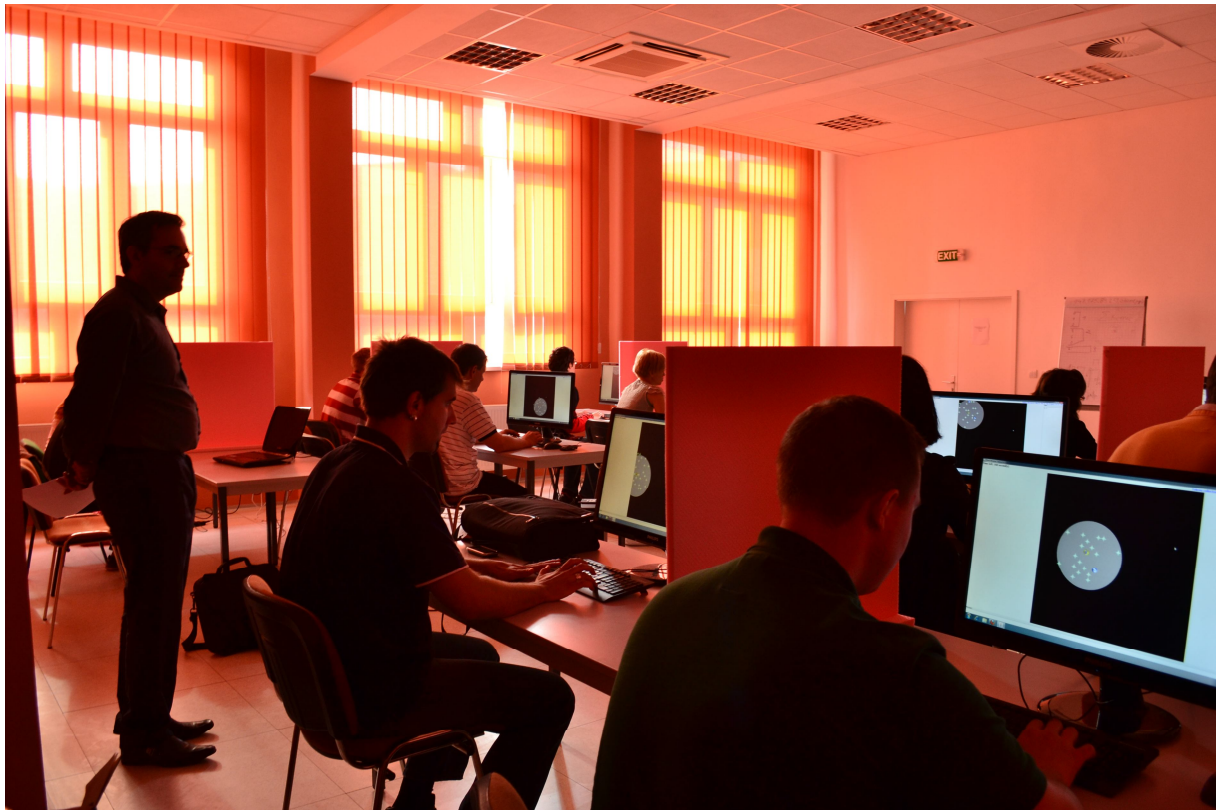
**CESTA – Centre for Interdisciplinary research and strategy of society)**

Centre CESTA, Centre of Excellence has been established at Institute for Forecasting, Slovak Academy of Science for the years 2011-2015. Institute of Management is a Partner Institution. First event of the Centre (held in September/October 2011) was consisting from lectures within the central topic „Experimental Social Sciences“ and international workshop „Modelling and experiments in experimental decision-making“.



### **Virtual experimental economic laboratory - VEEL**

UM STU in cooperation with The Center for Trans-disciplinary Study of Institutions, Evolution and Policies CETIP of Institute for Forecasting, Slovak Academy of Sciences (IF SAS) within SPECTRA+ has established the Virtual Experimental Economic Laboratory (VEEL). Laboratory mission is to increase innovative potential of economic research and the quality of graduate and postgraduate economic education in the Slovak Republic. The key purpose of VEEL lab is to create a platform for research and teaching in social science within the Slovak academic community. Existence of local experimental economic laboratory creates opportunity to expand region specific research projects, attract attention of young scholars to expand their carrier in their home country and contribute to the cost effective operation.



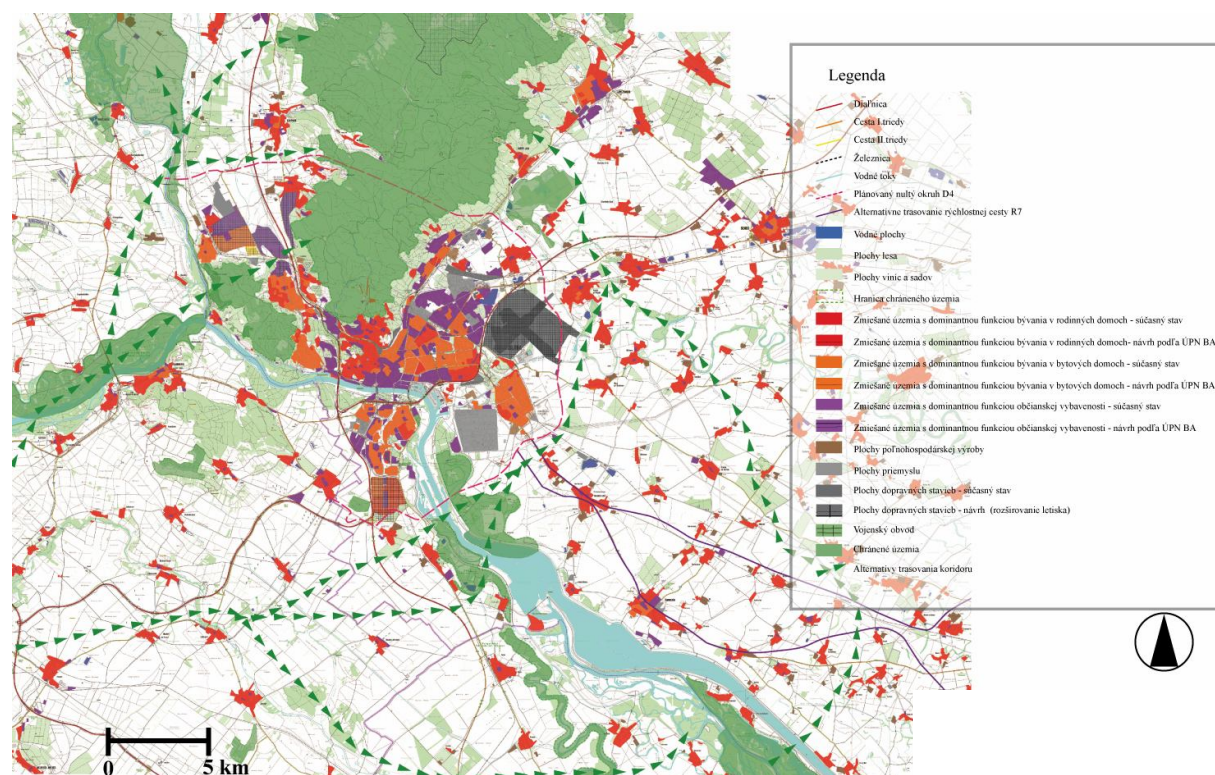
## Works of students

Jankechová K. 2010. Alps-Carpatian Bio-corridor – study of localization (diploma thesis)

### Abstract

In the past centuries, ecological connectivity has been identified as one of the key factors for safeguarding biodiversity. The first profound survey that identified the need for ecological connectivity in Austria was done in 2001. Soon a priority was noted to safeguard the connection between the Alps and the Carpathian mountains. Because of an increasing barrier effect of infrastructure, increasing settlement-area and intensive land use, the protection of an ecological corridor – the so-called Alpine-Carpathian Corridor (ACC) – has been determined as the measure necessary to safeguard migration and genetic exchange, going beyond the protection of ecological connectedness. The goal of this work is to define a trace of corridor with the view of the spatial conditions. In my work I am going to analyze the territory within many techniques, I will use information from different publications. After this, I am going to implicate all information obtained, with use of analysis, limits and potentials. From many alternatives, I will choose one or more, which fit the most to demands of area.

Picture: Trace of Alps-Carpatian Bio-corridor in area of Slovak republic.



Source: Jankechová K. 2010. Alps-Carpatian Bio-corridor – study of localization (diploma thesis)

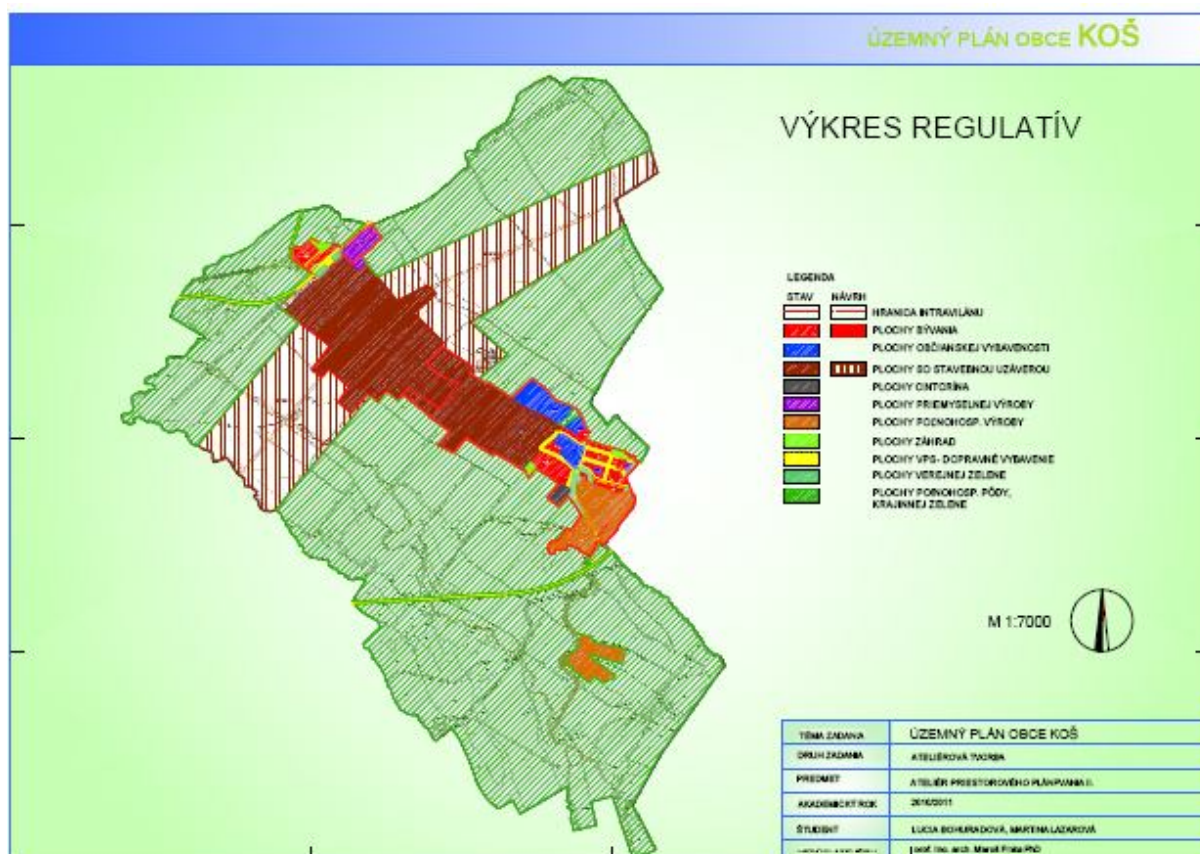
Bohurádová L., Lazarová M. 2011. Development of the village affected by mining activityDevelopment of the village affected by mining activity- the example of the village Koš.(student scientific activity)

## Anotation

The task of our work was creating a developing strategy of the village Koš on the ground of analysis and its consecutive transferring into landuse planning documentation. The development is not one-side, there are three components: sociological and economical, territorial and technical, natural and environmental. The biggest challenge for us was the area which was the centre of the cultural and social life of the village a few years ago and which constitutes a path after mining operations today. Although this area cannot be built-up, it gains a new value. There are wetland biocenters and deserted mine tunnels can have a new utilization. An alternative, which can be a big asset not only for the village but also for the region of Horná Nitra is storage of CO<sub>2</sub> into deserted mine tunnels.

The whole project of CO<sub>2</sub> storage would become a part of the european network for creating emission-free power plants. The village would become more attractive place with new genius loci.

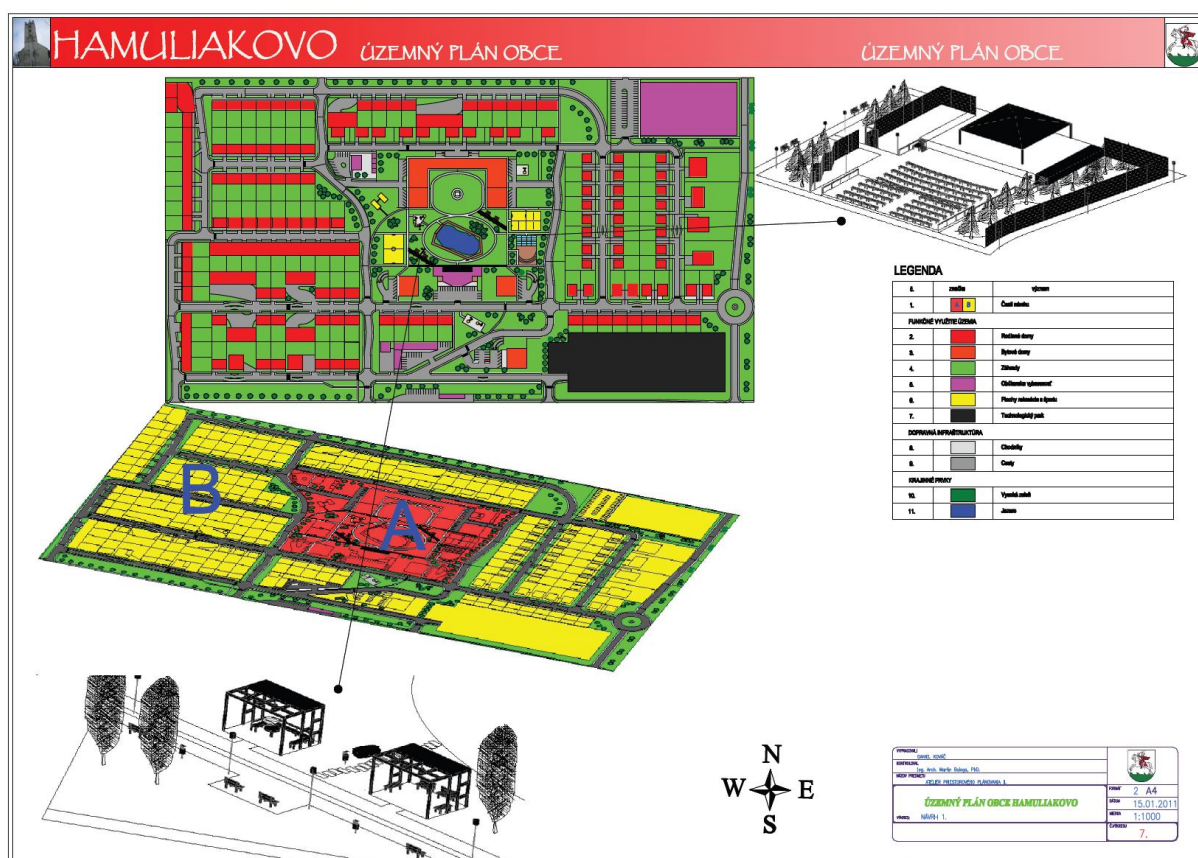
Picture: Scheme of land use regulation





Andrášiková M., Kováč D. 2011. Strategy documents of the village Hamuliakovo. (student scientific activity)

The issue of strategic development at all levels of territorial units is currently heavily discussed. It is itself a complex issue and concerning the content very complicated. This work is a model application of the methodology for the elaboration of local strategic development document for the municipality Hamuliakovo. The Program of economic and social development focuses on the main factors of the development building up on the analysis identified the necessity to improve and expand existing infrastructure, to change land use and to improve the attractiveness of the sport and recreation area, including the implementation of the project “Port Hamuliakovo” in the partnership with neighbouring communities. The document is open and could be an inspiration for the community and also the basis for the land use plan elaboration.



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