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FACULTY OF CIVIL ENGINEERING

.

ANNUAL REPORT 2007

SLOVAK UNIVERSITY OF TECHNOLOGY BRATISLAVA

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F RD

Ladies and Gentlemen,

the Presidium of the Faculty is submitting an evaluation of the Faculty's activities for the year 2007 in accordance with Act No. 131/2002 Coll., on universities dated 2 February, 2002, and on the changes to and amendments of other related acts in conformity with the valid Statute of the Slovak University of Technology (STU) and Faculty of Civil Engineering FCE. The structure of the Report is determined by the structure of the Annual Report of STU, which was made obligatory for all the bodies of STU by Resolution No.2/8/2007 dated 19 November, 2007, of the Rector's Council.

The Annual Report assesses accomplishment of the objectives formulated in the Long-Term Intentions for the development of FCE for the years 2007-2011, including its precise formulation for the year 2007, which was developed and approved by a session of the Academic Senate on April 20, 2007.

The year 2007 saw major breakthroughs in several aspects of the life of the Faculty. In February and March, faculty boards were formed, and basic documents determining the Faculty's activities were developed. In the pedagogical field, for the first time, the graduates of the Master's program were the products of the new undergraduate study programs. Guarantors of the various study programs took part in the teaching process in a more distinctive way. Their position was adjusted to reflect new conditions; their authority and competences were specified in relation to the departmental heads.

At the close of the year, data for the accreditation of the Faculty were collected in conformity with a plan for overall accreditations by the Ministry of Education. The final result of the accreditation process will be the categorization of the schools of higher education in Slovakia with an emphasis on quality, which will significantly affect the future of the various faculties and universities for a number of years.

Life at the Faculty in 2007 could be positively characterized due to the continuing interest in the study programs offered by the Faculty as well as the increased science and research activities with a larger number of grants and projects, including the financial support they provide. In previous years, the Faculty attained positive economic results owing to its entrepreneurial and expert activities and the effective use of its property. Last year, the instruction of foreign students at the Faculty, the number of whom exceeded 300, represented a significant activity of the Faculty, which positively contributed to its positive economic results.

The report submitted cannot cover the whole range of activities which have been carried out at the Faculty and were realized in 2007. In spite of that, I think that they account for the Faculty's most important achievements in the above areas and which have been noted by our University and the Ministry of Education. Marginal conditions were changed in a number of areas. We have to become accustomed to the fact that we will be evaluated more frequently; our performance will consequently be judged by certain criteria and requirements, and we will have to engage in self-reflection and self-evaluation. This is the only way we can

enhance our performance. It will be the responsibility of all of us who hold leading positions at our Faculty to work together to find the tools to enable us to objectively analyze our performance. I expect all the Faculty's staff to adapt to the necessary changes with understanding and good will and to do their best to help us achieve our goals with constructive discussion.

1. EDUCATION

1.1 Study programs

In the last academic year, the Faculty of Civil Engineering (STU) in Bratislava offered university-level education in eight newly accredited Bachelor's study programs for the first two years of study. In the third year of study the undergraduates followed the existing five branches of the Bachelor's degree study.

Eleven study programs were offered in the new Master's degree programs in the first year of study. In the second year of study 16 study programs followed the existing study branches.

Thirty-five undergraduates who had to retake their courses also completed their studies in the existing branches of the study programs.

Fifteen new Doctoral study programs were introduced in addition to the 11 existing branches of the Doctoral study programs.

New Bachelor's degree study programs:

- 1. Building Structures and Architecture
- 2. Civil Engineering and Transport Construction
- 3. Hydraulic Engineering and Water Resources Management
- 4. Geodesy and Cartography
- 5. Building Technology and Management
- 6. Environmental Engineering
- 7. Mathematical and Computational Modeling
- 8. Civil Engineering (in English)

New Master's degree study programs:

- 1. Architectural Construction and Design
- 2. Buildings and the Environment
- 3. Building Structures and Architecture
- 4. Building Services
- 5. Realization of Buildings
- 6. Building Materials and Prefabrication
- 7. Transportation Structures
- 8. Bearing Structures of Civil Engineering Works
- 9. Civil Engineering in Urban Areas
- 10. Economics and Building Industry Management
- 11. Bearing Constructions of Building Structures
- 12. Sanitary Engineering
- 13. Hydraulic Engineering
- 14. Land and Water Resources Management

- 15. Hydraulic Engineering and Water Resources Management
- 16. Landscape Engineering
- 17. Buildings and the Environment
- 18. Techniques for Indoor Building Environments
- 19. Geodesy and Cartography
- 20. Mathematical and Computational Modeling
- 21. Civil Engineering (in English)

New Doctoral degree study programs:

- 1. Theory and Construction of Civil Engineering Works
- 2. Theory and Construction of Building Structures
- 3. Theory and Techniques for the Internal Environments of Buildings
- 4. Building Technology
- 5. Sectoral and Branch Economics
- 6. Non-Metallic Materials and Building Masses
- 7. Applied Mechanics
- 8. Geotechnics
- 9. Hydraulic Engineering
- 10. Sanitary Engineering
- 11. Engineering Hydrology
- 12. Forensic Engineering
- 13. Applied Mathematics
- 14. Landscape Design
- 15. Geodesy and Cartography

The existing study branches:

Bachelor's study branches:

- 1. Civil Engineering and Transport Construction
- 2. Water Resources Management and Hydraulic Engineering
- 3. Geodesy and Cartography
- 4. Building Structures and Architecture
- 5. Environmental Engineering
- 6. Civil Engineering (in English)

Master's study branches:

- 1. Civil Engineering and Transport Construction
- 2. Hydraulic Engineering
- 3. Geodesy and Cartography
- 4. Building Structures and Architecture
- 5. Environmental Engineering
- 6. Economics and Building Industry Management
- 7. Material Engineering
- 8. Building Services
- 9. Realization of Buildings
- 10. Civil Engineering (in English)

Doctoral study branches:

- 1. Theory and Construction of Civil Engineering Works
- 2. Applied Mechanics, Specialization: Mechanics of Solid and Deformable Bodies
- 3. Hydrology and Water Resources Management
- 4. Hydraulic Engineering
- 5. Sanitary and Engineering Structures
- 6. Geodesy and Cartography
- 7. Theory and Construction of Building Structures
- 8. Sectoral and Branch Economics, Specialization: Trade and Industry Economics
- 9. Non-Metallic Materials and Building Science
- 10. Building Technology
- 11. Applied Mathematics

2. ACCEPTANCE PROCEDURE

2.1 Bachelor's studies

The procedure for acceptance to the full-time Bachelor's study program is based on many years of experience and conditions of acceptance for studies. Recently, after an analysis of the acceptance procedures and also with the introduction of new types of secondary school-leaving exams (GSE – general certificate of secondary education exam), the procedures for acceptance have been modified. The terms of enrollment were announced in due time by the Faculty (including on its website) to the University, the Ministry of Education and the mass media.1,754 students applied for the Bachelor's studies at FCE STU in 2007. 1,331 applicants fulfilled the enrolment criteria and were accepted without an entry examination. 423 applicants were invited to the entry exam, but only 322 of them participated. The total number of students admitted to study in the first round of the acceptance procedures was 1,382. 145 students were not accepted. Seventeen of the students who were not accepted could appeal the decision. The Presidium of the Faculty decided to announce an additional round of acceptance procedures for September, 2007. The last day on which the applicants could submit their applications was July 31, 2007.

Acceptance by the Faculty was carried out using the same enrolment criteria as in the first round. 478 candidates applied to study at the Faculty, and 404 of them were accepted. Forty- two percent of the students enrolled for the first year of the Bachelor's study were graduates of grammar schools (gymnasiums); 45 % were graduates of secondary vocational schools; and 13 % were from secondary apprentice centers.

There is a continuing trend of increased interest in studying at FCE, STU. On the other hand, more than 30 % of the students accepted did not register. This year the number amounted to 33 % of the students.

2.2 Master's study program

The procedures for acceptance were conducted in accordance with the rules for acceptance to the Master's study program at FCE, STU. The Faculty is not obligated to open a Master's degree study program if the number of applications submitted is less than 15. For this reason, only 12 Master's degree study programs were opened. There were 625 applicants who showed an interest in the Master's degree study at FCE, STU, and 522 were accepted.

2.3 Doctoral study

It is gratifying to note that the number of candidates interested in the Doctoral study at FCE, STU, has increased year after year and that the Faculty has succeeded in accommodating the candidates who show an interest in the Doctoral study. The distribution of the number of accepted applicants according to the individual specializations and departments has always been uneven. Ten PhD students completed their studies on time in 2007. The number of dissertations submitted in English and the defenses of dissertations delivered in English have gradually increased. In addition, the Faculty has also registered foreign PhD students (particularly from Iraq). Their PhD study at the Faculty was mediated through the Institute for Foreign Relations.

2.4 Managerial activities and supervision of education

The principal aim of the Faculty is to provide a high level of education. The Presidium of the Faculty fully realizes that the quality of the pedagogical process is dependent to a certain degree on the quality of the management and supervision of such a process.

The position of study program guarantor is integral to the process of managerial and supervisory activities. FCE, STU, approved the Statute of the Guarantor to ensure the above activities. This Statute defines the position of the guarantor in the structure of the Faculty, as well as his competence, rights and commitments.

Regular meetings with the students of a specific study program are among the basic duties of the guarantor of a study program. The purpose of such a meeting is the exchange of mutual information on events with regard to the study program and the prompt resolution of possible problems. The guarantor informs students about the contents of the study program and obtains information from students, especially about the quality of lecturers and seminars, faculty premises or program schedules, etc. Consequently, he deals with any problems in cooperation with the guarantors in charge of individual subjects or departmental heads and more serious problems with the relevant vice dean.

2.5 Evaluating the quality of the teaching process and the assessment of teachers by students

In accordance with the Act on Higher Education, the evaluation of the quality of the pedagogical process belongs among the basic rights of students. However, the Presidium of the FCE, STU, understands the monitoring of the educational process by students not only as a right of a student but also as an effective tool as well, in order to improve the educational process. The Presidium of the Faculty has been trying to create the conditions for such assessments for a number of years.

The assessment itself was carried out in the tenth and eleventh weeks of both the winter and summer semesters during the course of presented lectures. The Faculty's Presidium created the conditions and premises to perform such an assessment. The heads of the departments were acquainted with the method of the assessment and were asked to reserve the time needed during the pedagogical process. On the basis of this procedure, a relatively large number of students participated in the assessment. The distribution and collection of the questionnaires were performed by the Student Parliament. The filled-in questionnaires were handed in to the CIT (Center for Information Technology) of FCE, where they were processed. Fifty percent of the students took part in the assessment. Participation in the survey varied in all the study programs. In some cases, due to the small number of students, it was not possible to evaluate the results objectively.

On the basis of the results, we can conclude that the overwhelming majority of the teachers assessed are perceived positively. On the other hand, a very critical evaluation emerged. All the guarantors of the study programs were informed about the results of the assessment within their study programs. At the same time they were asked to discuss any identified deficiencies in quality with the relevant departmental head. The departmental heads were asked by the Presidium of the Faculty to deal with such cases. The departmental heads informed the Presidium of the Faculty about any measures taken.

In the future, evaluations of the pedagogical process will be performed via the AIS (Academic Information System). That is expected to save time as the currently used method of assessment by questionnaires is time consuming.

2.6 Postgradual education

FCE offers courses of postgradual education following its study branches or programs, the aim of which is to gradually create a complete system of lifelong education. In the academic year 2006/07, FCE, STU, offered 69 courses to the professional public, which were attended by more than 1200 participants. The quality of the individual courses can be rated very highly. The participants showed great interest in such courses and appreciated the high level of their preparation and the conduct of the courses as well as the study materials provided.

3. THE OVERAL ACREDITATION

The preparation of the documents for the overall accreditation of STU and the Faculty was one of the most important tasks of the period evaluated. The Presidium of the Faculty decided to exploit this opportunity and improve the structure of the study programs. The collected data were prepared in the required form and structure and submitted by the Faculty to the Rector's Office of STU. Currently, the evaluation is the process of being accomplished, and harmonization with the data collected from the faculties of STU is proceeding, particularly with regard to the issues which are to be jointly administered. The new structure of the study programs reflects new opportunities and the interests of the Faculty, as well as the needs of civil engineering and geodesy experts. This is important to allow for the continuity of the educational process and the continuing graduation from the Faculty of those students who have enrolled in the newly-introduced study programs. Due to the relatively good qualification structure, the Faculty does not have any problems with the guarantors for the study programs which are in the process of preparation. On the other hand, the Faculty can afford to help the other faculties or university workplaces of STU.

The self-reflection and self-assessment of the Faculty form an important part in its overall accreditation in all the areas of its activities. In addition, the performance parameters in the fields of science and research activities and the education of PhD students are of great importance and have come to the forefront at FCE.

The aim of the overall accreditation is the qualitative classification of universities and schools of higher education with the intent of gradually reducing their weaknesses and enabling the monitoring of the schools in order to achieve the quality of leading European universities. The criteria for the evaluation are set at a high level, and in many respects, will direct not only the orientation of research but also the quality of the data outputs. Our analysis of the last six years demonstrates a considerable degree of advancement in the scientific activities of the Faculty. The increased number of basic and advanced research projects is more than satisfactory; on the other hand, projects based on international cooperation have

been granted only gradually. The Faculty's ability to contribute to the growth of scientific and technical knowledge has been demonstrated by the quality of our publishing activities and the education of our PhD students. In spite of previous criticism, we can state that there has been a significant improvement in the activities of a number of the departments over the whole range of evaluation indicators, which has led to an overall positive evaluation of the Faculty. It is highly probable that, on the basis of the preliminary comprehensive evaluation, the Faculty as a whole will be ranked in the "A" category.

In accordance with the rules of the Accreditation Commission of the Government of the SR, the indicators are evaluated in the individual research fields with their integrated study branches for which the Faculty is applying for the accreditation of the study programs for the first, second and third stages of study or nomination procedure (Table 1).

Table 1	 Scientific 	fields a	and study	branches

	Scientific Fields	
No.	Title/name	Study branch
5	Design, Engineering and Technology, and Water Resources Management	Architecture and Urbanism Geodesy and Cartography Building Structures Civil Engineering and Transport Construction Hydraulic Structures Applied Mechanics Building Structures Non-Metallic Materials and Building Masses Water Resources Management
		Land Consolidation
9	Economics and Management	Branch and Cross-Sectoral /Industrial Economics Branch Economics and Management
19	Agricultural and Forestry Science	Landscape Design
24	Mathematics and Statistics	Applied Mathematics

4. SCIENCE AND RESEARCH

In accordance with Act No. 131/2002 Coll. on Universities, the main goal of universities is to provide a university education and engage in creative scientific research. The results of the scientific and research activities of universities are reflected in the amount of subsidies from the ME SR. This form of evaluation is expected to be more important year after year. Systematic research activity documented by publications is fundamental to the Faculty's success and the growth in the qualifications of its employees. It is vitally important to pay attention to the appropriate conditions for creative work at each management level.

4.1 Focus and priorities of research

The Faculty of Civil Engineering has continued the implementation of its priorities based on its orientation towards the development of research at the University and Faculty. The focus and priorities for the development of research in the following areas rank high on the agenda of FCE, STU:

- 1. Decreasing energy demands during the construction and maintenance of structures
- 2. Harmonization of European Standards in the fields of civil engineering and geodesy
- 3. Quality management, realization and maintenance of buildings.
- 4. Safety and reliability during the process of building and reconstruction
- 5. Sustainable water resources
- 6. Sustainable development of towns, municipalities and regions
- 7. Creation of geoinformation systems; global and regional problems of geodesy
- 8. Application of modern mathematical methods in the engineering sciences
- 9. Development of expert systems in the mechanics of materials, structures and civil engineering; Bionics
- 10. Progressive building materials and their durability

As stated above, the orientation of the research will be reflected in the basic research as defined by the various departments after due consideration of the development trends abroad. It will respond to the development of the theoretical basics of scientific disciplines, new constructional approaches, including building materials and technological procedures, and will lay great emphasis on economic efficiency. Priorities in the development of research will be as follows:

- Analysis of bearing structures subjected to static and dynamic loads, considering their interaction with the environment
- Environmental assessments, impact of anthropogenic interference on the environment, and interaction between civil engineering structures and the environment.
- An overall decrease in energy demands and the maximum use of renewable sources of energy, particularly with regard to building materials, structures, technology and energy systems.
- Maintenance, restoration and renovation of monuments in Slovakia as part of its cultural heritage.
- Reliability and quality in the process of building design, production and reconstruction
- Interaction between hydro engineering, land consolidation and sanitary engineering structures and the environment, the optimization of their design, and exploitation of improvements in the quality and quantity of water for integrated water resources management and planning.

4.2 Research projects

In previous years the activity of the creative workers at the Faculty has increased. The current situation in the field of research can be characterized by the large number of projects which are in progress as is shown in the following survey:

- 59 projects granted by the Vega Agency (of those, 26 projects were accomplished in 2007);
- Five projects granted by the Educational Grant Agency (KEGA)
- 27 projects granted by the Slovak Research and Development Agency -APVT Agency (of those, seven are in cooperation with other organizations); of the total number, 16 projects were accomplished in 2007;
- Five applied research projects;
- Eight projects were granted by the International Scientific-Technical Cooperation (MVTS);
- Three projects within the state program for research and development;
- Four development projects;

- 15 projects granted by structural funds;
- Eight international projects (of these, three were accomplished in 2007);
- 16 international educational projects (of those, seven were accomplished in 2007);
- Four international projects were accomplished (including financial coverage).

Financial support for the projects was not negligible. In 2007, the financial allocation of running expenditures from the state budget to the Faculty consisted of SKK 33,995,342 (i.e. SKK 103,329 per creative employee –CE) and capital expenditures of SKK 8,537,000 (SKK 25,948 per CE). Research supported from other resources converted to SKK consisted of SKK 8,893,121 (SKK 27,031 per CE). In addition, we applied for 56 new projects over the course of the year (mainly in the spring and summer months of 2007):

- 26 projects granted by VEGA,
- 17 projects granted by APVV,
- 10 projects granted in cooperation with other organizations,
- Two projects of intergovernmental cooperation between the SR and China,
- One project granted by VEGA.

A new approach to financing research can be seen in the newly applied-for projects: our applicants foresee acquiring the total sum of SKK 156,245,731 for running expenditures and SKK 44,696,771 for capital expenditures from the state budget.

4.3 Research centers and high-tech laboratories

On the basis of the Faculties' proposal, STU formed a framework for the definition of "Research Centers – Workplaces" and "High-Tech" Laboratories.Of those 22 defined research centers – workplaces, six belong to FCE (Table 2):

Table 2 – Research centers – workplaces of FCE STU

Research centers	Department	Head
Observatory for Geodetic Astronomy at the Department of Theoretical Geodesy	GZA	Prof. Ing. Ján Hefty, PhD.
Thermal Simulation of Indoor Building Environments	KPS	Prof. Ing. Jozef Hraška, PhD.
Durability and Sustainable Development of Bearing Structures	BKM	Prof. Ing. Juraj Bilčík, PhD.
Land and Water Resources Management	VHK	Prof. Ing. Ján Szolgay, PhD.
Computer-Aided Mathematical Simulations in Biomechanics and Mechanics of Materials and Structures	SME	Prof. RNDr. Mgr. Ing. Jozef Sumec, DrSc., Assoc.Prof. Ing. Juraj Králik, PhD.
Mathematical and Computational Modelling	MDG	Prof. RNDr. Radko Mesiar, DrSc.

Table 3 – High-Tech laboratories at FCE STU

High-tech laboratories	Deptartment	Head
Testing Laboratory of FCE STU	University	Ing. Vladimír Priechodský, PhD
	workplace	
Geodetic-Metrology Laboratory	GZA	prof. Ing. Ján Melicher, PhD

Hydralic Laboratory	HTE	prof. Ing. Peter Dušička, PhD
Integrated Laboratory of Building Physics	KPS	prof. Ing. Anton Puškár, PhD

4.4 Publishing activities

There has recently been a considerable increase in the publishing activities of our creative workers. FCE has a leading position in the number of publications according to an evaluation by STU; however, the number per creative worker is much lower. This means that the high standard of publishing activity has been maintained only by the teachers who exceed the average. In the future all the Faculty's employees must be engaged in publishing activities. The preparation of the accreditation documents has pointed to the need for a better quality standard of our publications. We have to pay particular attention to significant journals, especially the current professional journals which are highly evaluated. The Faculty's staff (with the exception of a few individual employees) has to become acquainted with the facts via the research team leaders.

4.5 Co-operation with companies

The number of research tasks, i.e., contractual research, at FCE is increasing due to the high performance of the building industry, which demonstrates the interest shown by the building practice in maintaining a good degree of cooperation. This is helpful to both parties (Table 4). Non-routine tasks of employees are dealt with by contract work.

Year	Number	Financial budget in SKK mils.
2002	429	29.7
2003	440	30.2
2004	389	53.0
2005	401	55.8
2006	393	49.3
2007	387	49.9

Table 4 – An overview of research contracts from 2002 to 2007

5. HUMAN RESOURCES

The area of human resources and continuing development of the personnel of the Faculty and its particular workplaces is considered one of the priorities that subsequently determine further development of the Faculty in all its sectors. The Faculty's basic goals must aim towards building up the research of a type of technical university that provides all levels and forms of technical university education and maintains the Faculty's dominant position in the provision of education, science and research as well as the assurance of qualifications in the sectors of civil engineering, geodesy and cartography in Slovakia.

A gradual reduction in the number of staff has continued at the Faculty during the monitored period from 607 in the year 2002 to 527 in the year 2007. However, the structure of the teachers remained at almost the same level: professors account for 12.5 % on average, associate professors account for 27 %, senior lecturers with a PhD account for 31 %, and those without a PhD account for 29 %. The average age of the university lecturers is 49 and significantly differs from a detailed analysis of the particular categories. For example, the

average age of the professors is 59 years, associate professors - 54, senior lecturers with a PhD - 46 and those without a PhD - 44 (Table 5).

Table 5 –	Development	of the facult	y staff structure

		2003			2004			2005			2006			2007	
	Amount	%	Average age												
University teachers	314	100	48	288	100	49	293	100	50	292	100	49	274	100	51
Out of which															
Professors	34	11	58	32	11	59	39	13	58	41	14	59	37	14	60
Assoc. professors	85	27	54	88	31	54	83	28	55	79	27	56	71	25	54
Senior lecturers with PhD	87	28	46	85	30	46	90	31	47	96	33	45	111	41	45
Senior lecturers without a PhD	108	34	41	83	29	43	81	28	43	76	26	43	55	20	55

We have failed to fulfill a high-priority task - an increase in inaugurated and habilitated professors to 60 % of the total number of teachers. Through its goal-minded activities, the Faculty's Presidium has succeeded in reducing the number of senior lecturers without a PhD, but the average age of this category is not satisfactory because of its significant increase. It indicates that the group of employees in this category older than 55 years of age has stagnated and that the Faculty has not changed its position on lecturers or educational activity providers on a contractual basis yet. Ing. Ol'ga Ivánková, PhD. (Department of Structural Mechanics) was appointed Assoc. Professor by the Slovak University of Technology (STU) in 2007 in the study branch of Applied Mechanics. The SR President appointed three professors from our Faculty - Prof. Ing. Bystrík Bezák, PhD. (Department of Transport Construction and Traffic Engineering) in the Civil Engineering and Transport Construction study branch; prof. Ing. Peter Dušička, PhD. and prof. Ing. Andrej Šoltész, PhD. (Department of Hydraulic Engineering), in the Hydraulic Structures study branch. The appointments of Prof. Ing. Emília Bednárová, PhD. (Department of Geotechnics) in the Hydraulic Structures study branch and Prof. Ing. Ildikó Rouseková, PhD. (Department of Material Engineering) in the Non-Metallic Materials and Building Masses study branch, will take effect on January 15, 2008.

The Presidium of the Faculty has noted the increased number of PhD students and leading graduates of the Master' degree study with fluent language skills, which is due to experience they gained from the students' international mobility. For this purpose, funds other than those allocated by the SR Ministry of Education were spent. The success rate has gradually increased in the third year of study, but has still not reached the required level. It has been demonstrated that this category of employees has become a significant Faculty resource from the perspective of eventual employee exchanges and the resulting rejuvenation of the Faculty.

6. AREA OF INTERNATONAL COOPERATION AND FOREIGN RELATIONS

Thanks to its employees' activities, the Faculty of Civil Engineering has been involved in the most significant EU projects, namely SOCRATES-ERASMUS, the LEONARDO da VINCI II educational programs and the 5th and 6th Framework Programs. Along with other international activities, especially the CEEPUS program, bilateral programs have been expanded by the Faculty's employees in recent years on the basis of bilateral contacts with foreign partner universities.

6.1 Tempus Tacis Program

The Tempus Tacis program is focused on the states of the former USSR, the Balkan states, and the Mediterranean and Asian states. In the year 2007, the Faculty's activities expanded within the Tempus projects by another two projects dealing with the implementation of internal quality control systems at universities in Kazakhstan and Kyrgyzstan. We should point out that there are five Tempus Tacis projects in progress, three of which are based at the Faculty of Civil Engineering, STU!

6.2 The SOCRATES-ERASMUS Program

The SOCRATES-ERASMUS Program refers to the most important and significant educational programs in the spirit of the Bologna challenge addressed to EU countries and also joined by the Slovak Republic.

6.3 EUCEET

The Faculty is a member of the Socrates Thematic Network of EUCEET – European Civil Engineering Education and Training, which consists of more than 80 prestigious civil engineering schools and professional associations in Europe. The third stage, i.e., EUCEET III, is currently in progress following the first two stages (EUCEET I, II), which are dedicated to the Bachelor's degree, Master's degree and Doctoral degree studies.

6.4 EEGECS

Geodetic departments and geodetic and cartographic workplaces in the EU are involved in activities similar to that of EUCEET, i.e., the EEGECS (European Education in Geodetic Engineering, Cartography and Surveying) international project, which is financially supported by the EU within the SOCRATES-Erasmus program. The project deals with university education in the areas of geodesy and cartography, and its associates include approximately 100 European universities of 26 European countries as well as business institutions, expert companies and research centers.

6.5 Student mobility

The Faculty prepares a plan for student mobility every academic year within the SOCRATES mobility program in order to spend the allocated funds. We can confirm the increased amount of study stays implemented; we have doubled the amount of months of study stays compared to the year 2002, and have taken a leading position in the implementation of student mobility at our university together with the Faculty of

Architecture. Travel opportunities have been gradually expanded by new destinations – the Czech Republic, Hungary, Poland and Malta.

The average grant per student mobility in the academic year 2007/8 amounts to EUR 314,- per month (Table 6). Currently, students who are part of the mobility program within the SOCRATES project receive financial aid from the SR Ministry of Education in the amount of SKK 3.540 - per month.

Table 6 – Overview	of the average	monthly grant of	of an STU	student in EU	R
	or are areas	into interior , provint ,	or arr or c	State III L	

Year	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008
Average grant per month	256	258	320	314	257	314
Total number of months	380	480	345	521	594	671
Number of students	76	68	85	91	95	98

6.6 Teacher mobility

Based on the successful implementation of teacher mobility in the previous year by the individual faculties of STU, the number of teachers who are able to travel in the next academic year per particular faculty is specified. Table 7 shows the success of the teacher mobility and the consequent amount of related grants per particular faculty planned in the next year. Unfortunately, we received a smaller grant for STU from Brussels during the last academic year. The planned grant amounts to EUR 700 - per capita (a total of EUR 3500, - per the Faculty of Civil Engineering). The Presidium of the Faculty decided on six nominations and two substitute teachers for the teacher mobility during this academic year.

Table 7 – Overview of the annual rate of implementation of teacher mobility at the Faculty of Civil Engineering

Faculty	The planned number of teachers	Implemented number of teachers	Teacher mobility grants in Euro	Rate of implementati on in %
2002/2003	5	5	1693	100
2003/2004	4	7	2944	175
2004/2005	11	9	5808	82
2005/2006	9	9	6561	100
2006/2007	7	10	5600	142

6.7 The 5th and 6th Framework Programs

The CERGOP Project, which was carried out by the teams of Assoc.Prof. Mojzeš and Prof. Bajza, was finished within the 5th Framework Program. The team of prof. Szolgay, who is working on a project included in the 6th Framework Program (HYDRATE – Hydrometeorological data resources and technologies for effective flash flood forecasting) with the Department of Land and Water Resources Management, represents a leading workplace in Slovakia. In addition to the above project, the best project leader is Assoc.Prof. Mikula, whose team from the Department of Mathematics and Descriptive Geometry is currently carrying out two projects included in the 6th Framework Program - BioEmergencies and EMBRYONICS.

The project NUCTECH deals with the reliability of concrete structures in nuclear power plants. The project work leader is Assoc.Prof. Králik from the Department of Structural Mechanics. Moreover, the Faculty of Civil Engineering received a Marie Currie Fellowship grant for a project entitled "Computer-Aided Physical Modeling of Buildings" to be carried out by a team of the Department of Building Structures. Ing. arch. Rabenseifer is the research team leader. The last project registered within the Framework Program is known as SNOWBALL, and its research team leader is Ing. Rakšányi from the Department of Transport Construction and Traffic Engineering.

6.8 Civil Engineering study programme

A strong upsurge of student applicants for CE study programme in the English language - self-payers was reported in February 2007, mainly from Arabic countries. A total of 118 new students from Kuwait applied for the CE study in the English language in March. They completed the study preparation module in the spring at FCE. An even more significant inflow of self-paying foreign students from Kuwait was reported at the beginning of the academic year 2007/2008, when another 160 students applied for the study. Currently, we have registered a total of 298 self-paying foreign students in the Civil Engineering program at the Faculty of Civil Engineering.

6.9 ESF projects

European Social Fund (ESF) projects are currently being completed. Lingering issues have mainly been caused by the failed financial coverage of the projects by the coordinating ministries. The total funds allocated to the 11 ESF projects amounts to SKK 45.3 mil. The year 2007 was unique, since the EU countries entered another financial period, i.e., 2007-2013, during which Slovakia will be allowed to draw EUR 11.4 bn from the Structural Funds. Various conferences and seminars are presently being organized upon the allocation of the funds, and the structural programs that should be funded more intensively.

7. PUBLIC RELATIONS

The area of public relations has gained importance year after year. In compliance with the long-term development goals of the Faculty of Civil Engineering, STU, the area of public relations is being structured to cover all the Faculty's fundamental activities — especially the promotion of the study programs, students, Faculty presentations at trade fairs, expert and scientific events, activities of the Industrial Board, competitions, media activities and social events.

7.1 Promotion of the Study Programs

Promotion of the study program at secondary schools has been fruitful for a long time. A total of 14 visits to secondary schools across the entire Slovak territory were conducted in order to acquaint the students with the Faculty's past and present. During the secondary school visits, information materials were distributed containing details of the bachelor's study programs; they were also shipped to another 127 schools. The Faculty organized an Open Door Day on June 14 and Dec 12, 2007, with almost 250 participants from secondary schools from all over Slovakia. We attended the international fair of post-school leaving examination

education and the AKADÉMIA and VAPAC exhibitions held on Oct 2-4, 2007, in order to promote the study and provide materials on the accredited study programs.

The Faculty makes an effort to help the students admitted from the very beginning. A publication was issued called "A Guide for 1st Year Students of the Faculty of Civil Engineering 2007/2008", which contained useful information. Exhibitions of student works are organized on a regular basis. The professional public that attend the exhibitions as well as the students highly appreciate the works presented. A "Job Auction" is organized on a regular basis for graduates of the Bachelor's and Master's degree studies (March 7, 2007). A total of 19 companies attended the latest auction and offered available jobs to the students.

7.2 Student competitions

Along with the traditional student scientific conference organized concurrently with the CONECO international trade fair, the Faculty of Civil Engineering organized a second annual competition of bachelor's theses entitled "ABF Slovakia", which was evaluated on the Faculty's premises on Dec 17, 2007. Five Faculty students were awarded prizes at the competition of the Bachelor's degree theses from the Faculty of Civil Engineering and the Faculty of Architecture SR (Bratislava, Košice, Žilina), and they confirmed the high quality of the bachelor's degree theses at the Faculty of Civil Engineering, STU.

A competition of designs for recreation and relaxation zones and architectural designs of buildings constructed of porous concrete is organized on an annual basis. They are student competitions under the auspices of the Xella Company, which are organized with the cooperation of the Faculty. The Faculty's students are ranked at the top.

The Faculty organizes annual PhD student competitions in the fall. The winners can present their work at the JUNIORSTAV international conference in Brno, the Czech Republic, with their full costs covered.

The 12th Annual Sports Day of the Faculty of Civil Engineering, STU, held on May 3, 2007, celebrated the traditional joint sports activities of the Faculty teachers and students. The competitions were attended by a total of 114 athletes, who competed in seven sports. Prizes were awarded at a ceremony at the Club of the Faculty of Civil Engineering, STU.

7.3 Support for the development of civil engineering and architecture

Similarly as in preceding years, the Faculty's experts participated in an evaluation of the Slovak competition organized by ABF Slovakia – "Construction of the Year". As an expert guarantor and competition of PhD students, the Faculty provided "The Prize of the Faculty of Civil Engineering, STU," to the competition for the application of the latest scientific and research knowledge gained during the reconstruction of a building structure. In the year 2007, the prize was awarded to the BELLEVUE hotel – a conference and relaxation center at Starý Smokovec.

The participation of the Faculty of Civil Engineering, STU, in the "CONECO-RACIOENERGIA-CLIMATHER" trade fairs in Bratislava held on March 20 – 24, 2007, and "DOMEXPO" in Nitra, held on April 12 – 15, 2007, is traditional. The Faculty is a coorganizer of both events, which permits making the events accessible to both teachers and students. The periodic organization of various professional events, conferences and seminars significantly contributes to the successful presentation of the Faculty. More than 70 events were organized during the previous year: Heating, Geometry Day, Low-Energy Building Facades, Aspects of Rural Recovery, Mobility, Stability of Geodetic Instruments, Aqua, Drinking Water, Sanhyga, Roofs, Indoor Climates, Magia, the Water Management Industry,

etc. In this form, the Faculty presents scientific and technical knowledge acquired and directly transfers it to practice.

8. INFORMATION AND COMMUNICATION TECHNOLOGIES

8.1 Academic information system

The Academic Information System (AIS) STU Bratislava began to fully operate in the first half of 2007 in its pedagogical activity; since then, the Faculty's entire study register has been operated through the system. IS is designed to help students and teachers accelerate their mastery of the curriculum and provide access to information as well as further data for research fellows and for the public.

All AIS function options have been gradually implemented and serve to support education, science and the research process (modules: Admission Procedures, Scholarships, Printing Files, Science and Research). AIS is interfaced with other parts of IS STU: Personnel and Wages, the Central Student Register, Assets; the AIS interconnection through the Central Student Register to the ID card generation system, the OLIB library system, the email system, and the payment system through the Treasury.

8.2 Library and Information Center of the Faculty of Civil Engineering

The Library and Information Center of the STU Faculty of Civil Engineering (LIC) represents a theoretical basis for the individual education and research of teachers, scientific fellows and students of the Faculty of Civil Engineering, STU. LIC fulfills all the functions of a university library with an emphasis on the development of book and journal funds and the provision of scientific information within the profile of the pedagogical and research processes of the Faculty of Civil Engineering, STU.

8.3 Databases and electronic information sources

LIC provides a wide range of expert database titles and electronic information sources to students, teachers and researchers online, directly through all the IP addresses of the LIC Database Center and through the IP addresses of all the PCs at the Faculty's workplaces. Specific database and electronic information source titles include bibliographical and full-text sources, which allow for a comfortable method of obtaining professional literature in the form of full-text articles, books and monographs in PDF formats, including pictures, graphs, and tables, and, in many cases, the option of interactive calculations directly in electronic professional documents. LIC makes the following titles of databases and electronic information sources accessible:

- Science Web (license for Slovak universities subsidized by the ME SR)
- EBSCO (nationwide license subsidized by the SNL and the MC SR)
- Springer Link (University license from STU funds)
- Engineering Village 2 (University license from STU funds)
- Science Direct (University license from STU funds)
- ENGnetBASE (University license from TU funds)
- ProQuest 5000 International (license for academic libraries within the IT ME SR central development projects)

- Knovel library (license for academic libraries within the IT ME SR central development projects)
- SCOPUS (license for academic libraries within the IT ME SR central development projects)
- ACM Digital Library (license for academic libraries within the IT ME SR central development projects)
- IEEE Computer Science Digital Library (license for academic libraries within the IT ME SR central development projects)
- Elektronische Zeischriftenbibliothek (access to 15,614 full-text titles of professional electronic periodicals)
- Slovak National Bibliography (CD ROM)
- American Society of Civil Engineers Online Research Library (Faculty license from FCE STU funds).

A subscription to the full-text scientific library of the ASCE (American Society of Civil Engineers) entitled the "ASCE Online Library" for the years 2007 and 2008 (annual subscription fee: USD 10, 000,-) from the Faculty's funds represents a significant professional contribution. The ASCE Library provides for on-line access to 30 key journals from all the Faculty's computers in the area of civil engineering; 21 are current journals. Moreover, all full-text articles are accessible from all the periodical titles for the preceding 15 years, including the overall production of ASCE scientific proceedings, as well as the archives.

8.4 Visitor rate and utilization of LIC services

The extended offer of services and opening hours at the study room has resulted in increased interest in the library and information center by the Faculty students and teachers. The LIC study room's visitor rate reached record levels during the academic year 2005/2006 - a total of 40,337 visitors. The high visitor rates continued in the year 2007 as follows: January 2007 - 3,177 users, February 2007 - 3,322 users, March 2007 - 2,837 users, April 2007 - 1,857 users, May 2007 - 1,613 users, June 2007 - 1,934 users, September 2007 - 934 users, and October 2007 - 5,267 users. The study room is open daily from 9:00 a.m. to 6:00 p.m.

8.5 Faculty PC network

The basis of the Faculty's network infrastructure in the locality of I. Karvaš meets the requirements of an IT area as formulated in the STU Long-Term Intentions for the period 2003-2007. The connection of the Faculty's network to SANET and the Internet through optical cables with a transmission speed of 10 Gb/s is in progress. The network's central components will contain a high-performance Cisco Catalyst 3560E router and Cisco Catalyst 2960 switches, which were purchased in the year 2007 at a cost of up to SKK 1, 350, 000,-. This will significantly improve network monitoring and administration possibilities. Currently, more than 700 active connection ports have been installed at the Faculty. All PCs in the classrooms are connected to the Faculty PC network with a transmission speed of 100Mb/s. During non-classroom time, the Faculty's information center classrooms are accessible to students for the purpose of individual work on PCs or the use of network services, including unlimited Internet access.

A total of 20 PC work stands are reserved exclusively for individual student work and are in constant operation. Their installation was completed this year.

A wireless WiFi network is available in faculty classrooms, the Atrium, the Library and Information Center and the Assembly Hall. On these premises, network access to notebooks is allowed without the required use of cable. This is very important in order to ensure the required comfortable access of students to computers in the STU IS.

8.6 The Faculty's IT classrooms

There are a total of six computer classrooms available to students within the entire Faculty. These classrooms are in operation for 12 – 14 hours a day during the academic term for the purpose of learning or the students' individual work. The classroom PCs are category Celeron/Pentium 4' min. 2.2 GHz, containing 512 MB - 2 GB of operating memory with hard discs of a capacity exceeding 80 GB and at least 17'' LCD monitors.

The PU-03 classroom was completely renovated at the end of the year 2007 at a cost of SKK 400, 000,-. Following the installation of software and a network, the computers will be available as of the 2007/2008 spring semester. At the beginning of the 2007/2008 semester, the Faculty intends to implement a mobile PC laboratory purchased in the year 2007 at a total cost of SKK 460, 000,-, which will be equipped with notebooks, a data projector and PC network access devices.

9. INVESTMENT ACTIVITIES AND RECONSTRUCTIONS

9.1 Classroom modernization and reconstruction

The main assembly hall of the Faculty of Civil Engineering was reconstructed during the summer of 2007 at a total cost of SKK 2 million. The purchase of a high-performance data projector with cabling at a cost of SKK 500,000 also represented a significant investment.

Another major project consisted of the extension of the B010 and B014 classrooms with preparation rooms that had not been used before, resulting in an increased classroom capacity of 80 seats. The total reconstruction cost exceeded SKK 1.6 mil. Moreover, new data projectors were purchased for the above-mentioned classrooms and classroom B-012 at a total cost of SKK 320,000. In this way, the three B010 - B014 classrooms can be included among the large-scale lecture rooms at the Faculty.

Despite the fact that the equipment of department classrooms is mainly within the competence of the various departments, a Fund for the Reconstruction of Department Classrooms was established in the year 2007 for the first time and will make regular contributions to departmental investment activities. In this way, approximately SKK 0.5 million was spent this year on the reconstruction of classrooms at the Departments of Geodesy, Mathematics and Descriptive Geometry, and Building Technology. The investment activities that were also funded will be implemented at the turn of the years 2007-2008 (Department of Structural Mechanics). Such an internal "grant" system of departmental classroom development will continue in the following years.

Air conditioning was installed in the seminar rooms on the second and third floors of the C block at a cost of almost SKK 1 million, which will significantly improve the comfort of the classrooms during the summer months. The reconstructed rooms will extend the use of the seminar rooms for learning and the organization of scientific conferences and other events that require a higher standard.

9.2 Electronic monitoring system of buildings and parking lots

An electronic monitoring system has contributed to the improvement of the Faculty's operations by covering workplaces with PC stands and most of the exposed Faculty premises. The system is based on the use of LAN-cameras (currently 15 cameras are in use) and continuous server recording.

9.3 Investment plans of the faculty

The condition of the panels and facades of the Faculty's main buildings require a general overhaul and reconstruction. The project documentation was prepared in the year 2007, and the Faculty has begun to work on obtaining a building permit at the beginning of the year 2008. The Faculty's management will make a maximum effort to obtain funds for the implementation of these projects within 2-3 years.

10. ECONOMIC PERFORMANCE

The Faculty's economic performance was in compliance with the Act on Higher Education. Its funds consisted of subsidies and non-subsidy sources on the basis of the planned 2007 budget. The Faculty planned to make a profit in the year 2007, and such an outcome is expected. As in preceding years, making a profit was expected, thanks to its profitable performance in the business area and increased income from foreign students in the year 2007 within the main activities.

Funds for implementation of the accredited study programs were provided to the Faculty of Civil Engineering from the SR Ministry of Education's State Budget for the year 2007 as well as for research and development activities, university development and student social support.

Total subsidies provided as of Nov 12, 2007, consisted of SKK 307,049,000; running expenditures were SKK 296,819,000 and capital expenditures SKK 10,230,000.

The SR Ministry of Education provided a subsidy to the Faculty in excess of the Subsidy Agreement to sub-program 06K11 APVV valued at SKK 12,917,000.

Based on an analysis of the Faculty's drawing of operating funds in previous years and an analysis of possible savings measures, a draft of the financial coverage of the expected Faculty operating costs within the running expenditures (goods and services) was prepared and approved by the Academic Senate. The anticipated Faculty operating costs amount to SKK 35,978,000; the energy costs amount to SKK 21,229,000. The subsidy covered costs in the amount of SKK 21,401,000; the anticipated costs of approximately SKK 15,000,000, were proposed from the following resources:

- 1. resources from business activities
- 2. income from main activities mainly income from foreign students 2006 profits achieved
- 3. allocation of running expenditures from the University Science and Technology sub-program.

Prof. Alojz Kopáčik, PhD. Dean of the Faculty

DEPARTMENT OF CONCRETE STRUCTURES AND BRIDGES

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1. Education

1.1 Graduate Study

Obligatory subjects

Concrete and Masonry Members

Reinforced and Prestressed Concrete

Members

Reinforced Concrete Structural Members

Reinforced Concrete Structural Systems

Concrete Structures I

Concrete Structures

Concrete Structures II

Prestressed Concrete

Concrete Bridges

Lifespan and Repair of Concrete Structures

High-Rise Concrete Structures

Execution of Concrete Structures

Special Problems in Concrete Structures II

World Language – English: CAD–FEM

Computer – Aided Design of Concrete

and Steel Structures

Reinforced Concrete Structures

Optional Subjects

Structural Analysis

Precast Concrete Structures

Masonry Structures

Concrete Bridges II

PC Structural Analysis – FEM Models

Experimental Testing of Concrete Structures

Composite Structures

2. Research

2.1 Research projects

- 1. Enhancement of the Effectiveness and Reliability of Prefabricated Concrete Members (2005-2007). Head of the Project: J. Bilčík
- 2. Design of Concrete Structures for Durability (2006-2008). VEGA Project, Head of the Project: J.Bilčík

- 3. Non-Linear Behaviour of Structures Made from Reinforced and Prestressed Concrete and Composite Steel and Concrete Structures (2005-2007). VEGA (Scientific Educational Fund Agency) Head of the Project: L. Fillo
- 4. Analysis of Design Models and Effect of Stochastic Phenomena for Setting of Nationally Determined Parameters (2005-2007). APVT (Agency for Science and Technology) Head of the Project: Ľ. Fillo
- 5. Reconstruction of Precast Concrete Buildings (2005-2007). ESF (European Social Fund) Head of the Project: L'. Fillo
- 6. Structural and Transportation Engineering in English. Common University Study Program. Curriculum (2006-2008). ESF (European Social Fund) Head of the Project: Ľ. Fillo
- 7. Safety Format for Non-Linear Analysis of Concrete Structures (2007-2009). MVTS (International scientific-technology cooperation agency) Head of the Project: Ľ. Fillo
- 8. Analysis of Slender Concrete Prefabricated Members for Alternative Sources of Energy (2007-2009). AV (Applied Research Agency) Head of the Project: Ľ. Fillo

2.2 International Cooperation

- 1. fib TG1.1 Design Applications Task group member Ľ. Fillo
- 2. CEN TC 250 SC2 Eurocodes Design of concrete structures Representative of Slovakia Ľ. Fillo
- 3. Technical Counsil *fib* in Lausanne, Switzerland member M. Chandoga
- 4. Technical Committee *fib* Task group 9: Reinforcing Materials and Systems member M. Chandoga
- 5. Klokner Institute ČVUT Prague, Czech Republic
- 6. Faculty of Civil Engineering, VUT Brno, Czech Republic
- 7. ETH Laboratory for Building Materials, ETH Zurich, Switzerland
- 8. Institut für Baustatik und Konstruktion, ETH Zurich, Switzerland
- 9. Baustoffinstitut, TU Munich, Germany
- 10. Institut für Massivbau und Baustofftechnologie, University of Leipzig, Germany
- 11. Katedra Budowy Mostow Politechniki Slaskiej, Gliwice, Poland
- 12. Department of Civil and Materials Engineering, University of Illinois at Chicago, USA
- 13. RIB Bausoftware, Stuttgart, Germany
- 14. Betosan, s.r.o., Prague, Czech Republic
- 15. Seidl & Partners, G.m.b.H., Regensburg, Germany
- 16. European Commission, DG Research, Brussels, Belgium
- 17. Imperial College for Science, Technology and Medicine, London, U.K.
- 18. St. Paul University, Brussels, Belgium
- 19. Fachhochschule Braunschweig Wolfenbütel, Germany
- 20. Institut für Massivbau, TU Darmstadt, Germany
- 21. Fachhochschule Coburg, Germany

3. Theses

3.1 Bachelor theses – 8

Graduate theses

Supervisor

J. Bilčík

No.	Student's name Supervisor	Title	
1.	Bokora Vladislav	Design of the Pier of the Bridge over the River Danube on the M8 Motorway in Hungary	J. Šoltész
2.	Fliega Mário	Design of Two-Way Hollow Deck	J. Šoltész
3.	Gajdošík Ján	Bearing Structure of High-Rise Building	Š.Gramblička
4.	Chlebana Peter	Cast in Situ RC Technological Silo of Malt Plant	I. Hudoba
5.		Underground Garage of Cast in Situ Concrete	V. Borzovič
6.	Vajda Dušan	Analysis of Tunnel Lining under Impact of Fire	Ľ. Rojko
7.	Zavarský Martin	RC Underground Water Retention Tank	I. Hudoba
8.	Dubec Miroslav	RC Structure of the Generali Multifunctional Building	I.Abrahoim
9.	Hanák Juraj	Apartment House, Uzbecká, Dolné Hony	I.Abrahoim
10.	Chripko Karol	High-Rise Office Building Aupark Bratislava	A. Bartók
11.	Kovačovic Marek	Static Analysis of Underground Garages in Bratislava, Karlova Ves	V.Borzovič
12.	Kubíček Peter	High-Rise Office Building Polus City Center Bratislava	A. Bartók
13.	Kumpanová Hana	Service Building of Slovak Savings Bank	I. Harvan
14.	Matulová-Černákov Veronika	vá Apartment House	I. Harvan
15.	Pargáč Slavomír	Residential House	A. Bartók
16.	Pitek Stanislav	Apartment House	M.Čabrák
17.	Smolinská Barbora	ϵ	I. Harvan
18.	Šatka Miloš	Carcentrum Rožňavská Office Building	I.Abrahoim
19.	Vörös Štefan	Static and Dynamic Analysis of In-Situ RC	
		Structure of Multifunctional Apartment Block at Sabinovská- Drieňová, Bratislava	V. Borzovič
3.2	Doctoral thesis		

4. Publications

Student's name

Title

No.

1.

4.1 Books and Textbooks

Olivová Katarína

[1] BILČÍK, J.: Restoration of Large Panel Dwellings. Life-Span and Durability. Bratislava STU, 2007, 198 pp. (in Slovak)

Concrete Columns Strengthened

with CFRP Strips and Sheeting

[2] BORZOVIČ, V.: Composite Concrete Bridge Girders: Long-Term Behaviour and Behaviour under a Service Load. Bratislava STU, 2006, 140 pp. (in English)

- [3] FILLO, Ľ. BILČÍK, J. BENKO, V. HALVONÍK, J.: Design of Concrete Structures EN 1992-1-1, Slovak Chamber of Civil Engineers, 2007, 340 pp. (in Slovak)
- [4] GRAMBLIČKA, Š., et al: Introduction of Eurocodes into Practice Design of Composite Steel-Concrete Structures STN EN 1994-1-1, Bratislava SKSI, 2007, 147 pp. (in Slovak)
- [5] HARVAN, I.: Analysis of Structural Systems of Large Panel Dwellings. Bratislava STU, 2007, 279 pp. (in Slovak)
- [6] HARVAN, I.: Concrete Bearing Structures of Buildings. Bratislava STU, 2007, 319 pp. (in Slovak)

4.2 Journals

Scientific papers in Slovak Journals

- [1] BELLOVÁ, M.: How is the Fire Safety of Masonry Structures Resolved in the Eurocodes? 1st Part, Stavba, Vol. X, 2007, Nos. 7-8, pp. 66-68 (in Slovak)
- [2] BELLOVÁ, M.: How is the Fire Safety of Masonry Structures Resolved in the Eurocodes? Completion, Stavba, Vol. X, 2007, No. 9, pp. 42-44 (in Slovak)
- [3] BELLOVÁ, M.: Alternatives for Increasing the Resistance of Masonry Walls of Buildings Made from Clay Masonry Units, Stavebné materiály, Vol. III, 2007, No. 11, pp. 44-45 (in Slovak)
- [4] BILČÍK, J.: Diagnosis of Concrete Structures. Realizace staveb, Czech Republic, Vol. 3, 2007, Nos. 1-2, pp. 51-53 (in Slovak)
- [5] BILČÍK, J.: How to Design a Structure for an Accidental Load. Stavba, Vol. 10, 2007, No. 10, pp. 36-38 (in Slovak)
- [6] BILČÍK, J.: Diagnosis of Concrete Structures. Stavebné materiály, Vol. 3, 2007, No. 12, pp. 53-55 (in Slovak)
- [7] BILČÍK, J.: Renovation of Underground Parking Garages. Stavebné materiály, Vol. 3, 2007, No. 3, pp. 56-57 (in Slovak)
- [8] BILČÍK, J.: Robust Concrete Structures. In: Stavebnícka ročenka 2008, Bratislava, Jaga group 2007, pp. 151-155 (in Slovak)
- [9] BILČÍK, J.: Secondary Protection of Concrete. Stavebné materiály, Vol. 3, 2007, No. 12, pp. 26-28 (in Slovak)
- [10] BORZOVIČ, V.: Long-Term Behaviour of Composite Girders and Behaviour under a Service Load. Slovak Journal of Civil Engineering, Bratislava STU, 2006/2, pp. 14–27 (in English)
- [11] GRAMBLIČKA, Š.: Columns for a Large Load. In: Stavebnícka ročenka 2008, Bratislava Jaga Group s.r.o., 2007, pp. 156-159 (in Slovak)
- [12] GRAMBLIČKA, Š. MATIAŠKO, S.: Composite Steel-Reinforced Concrete Columns of the SLSP Building. Stavba, Vol. X, 2007, No. 10, pp. 27-29 (in Slovak)
- [13] GRAMBLIČKA, Š. MATIAŠKO, S.: High Performance Columns. In: Projekt Stavba, Bratislava SKSI, 3/2007, pp. 26-30 (in Slovak)

- [14] HARVAN, I.: Actual Statical Analysis Problems of Large Panel Dwellings. Projekt Stavba, 4/2007, pp. 7 12 (in Slovak)
- [15] HUDOBA, I.: Utilization of Concrete as a Construction Material in the Concept of Radioctive Waste Storage in the Slovak Republic, Acte Montanistica Slovaca, Volume 12, 2007, No.1, pp. 157-161 (ISSN 1335-1788) (in Slovak)
- [16] HUDOBA, I.: Ultra High Performance Concretes: Present Development and Possibilities of Practical Application, Stavebné materiály, Vol. 3, 2007, No.2, pp. 14-16 (in Slovak)
- [17] HUDOBA, I,: High Performance and Ultra High Performance Concretes, Trends in the Development and Possibilities of Applications, Kamenivo a betón, Vol. VIII, 2007, No.2, pp. 21-26 (in Slovak)
- [18] VALACH, P. GRAMBLIČKA, Š: Theoretical and Experimental Analysis of Composite Steel-Reinforced Concrete (SRC) Columns. Slovak Journal of Civil Engineering, Vol. XV, 2007, No.4, pp. 1 9 (in English)

4.3 Conferences

Contributions to proceedings abroad

- [1] BENKO, V. MARKUS, V. HALVONÍK, J.: "Pushover Analysis", zur Erdbebenbemesung von Brücken gemäss Eurocode 8, In: Proceedings of D-A-CH Tagung 2007. Vienna, Austria, 27.-28. September 2007 (in German)
- [2] BILČÍK, J. LÖRINCZ, A.: Repair of Underground Parking Garages. In: International Repair Symposium 2007, Brno, Czech Republic, pp. 258-264 (in Slovak)
- [3] FILLO, Ľ.: Slender Columns and Buildings with Bracing Cores. In: Navrhování betonových konstrukcí podle EN1992-1-1. Prague, October 2007, pp. 77-88 (in Slovak)
- [4] FILLO, L. REPKA, B.: Resistance of Slender Columns Made from VHB. In: Experiment 07. Brno, Czech Republic, October 2007, pp. 266-271 (in Slovak)
- [5] FILLO, Ľ. CUPÁKOVÁ, L.: Design of Concrete High-Rise Buildings. In: Betonářské dny 2007. Hradec Králové, Czech Republic, November 2007, pp. 262-268 (in Slovak)
- [6] HALVONÍK, J. BORZOVIČ, V. FILLO, Ľ. BENKO, V.: Lessons Learned in the Application of Various Slab-on-Girder Bridge Systems in Slovakia. In: Proceedings of the Fifth International Conference on Current and Future Trends in Bridge Design, Construction and Maintenance, Beijing, China, 2007, pp. 66-79 (in English)
- [7] HALVONÍK, J. BORZOVIČ, V. GIMERSKÁ, Z.: Design of Concrete Bridges in Slovakia after January 1st, 2008. In: Proceedings of Conference on Concrete Days 2007 in Hradec Králové, Czech Republic, November 2007, pp. 262 268 (in Slovak)
- [8] LÖRINCZ, A. BILČÍK, J.: Testing and Quality of Large Panel Dwelling Joints. In: Proceedings of Conference on Testing and Quality in the Building Industry, Prague 26.- 7.9.2007, Czech Republic, pp. 93-97 (in Slovak)
- [9] ŠOLTÉSZ, J. BINDER, I. ECKER, M. HRUŠTINEC, Ľ.: Rehabilitation of Ventilator Cooling in the NPP Bohunice in Slovakia Due to Increased Seismic Hazards

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- [10] ŠOLTÉSZ, J. SZABAD, Z.: STRAP Structural Analysis Programs: Seismic Analysis and Design of Concrete and Steel Structures. In: Conference on Earthquake Safety, Győr 2007, Széchenyi István University, Hungary, pp. 250-253 (in English)

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- [1] BELLOVÁ, M.: Design of Masonry Walls of Buildings from the Point of View of Actual Codes. In: Proceedings of the 12th Conference on Statics of Structures Safety in Utilization of Structures, Piešťany, March 2007, pp. 131-136 (in Slovak)
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- [4] BILČÍK, J. LÖRINCZ, A.: Failures and Repair of Underground Parking Garages. In: Proceedings of International Conference on Technology of Repairs and Maintenance of Buildings, Žilina, 22.-23.2.2007, Krupa print, pp. 94-97 (in Slovak)
- [5] BILČÍK, J. LÖRINCZ, A.: Life Span and Durability of Panel Dwellings. In: Proceedings of International Conference on New Trends and Technologies in the Complex Restoration of Housing, Žilina 2.-3.10.2007, pp. 24-26 (in Slovak)
- [6] BILČÍK, J.: Subsequent Sealing of White Tanks. In: Proceedings of Seminar on Repair of Concrete Structures, STU Bratislava, 2007, pp. 7-10 (in Slovak)
- [7] ČABRÁK, M.: Design of Load-Bearing External Masonry Walls of Buildings in Terms of Safety. In: Proceedings of Conference on Statics of Buildings 2007. Piešťany, March 2007, pp. 123-130 (in Slovak)
- [8] FILLO, Ľ. HALVONÍK, J.: Railway Concrete Bridges. In: 3. Fórum koľajovej dopravy, Bratislava, March 2007, p. 40-45 (in Slovak)
- [9] FILLO, Ľ.: New *fib* Model Code 2008. In: 3. postkongresové kolokvium. Starý Smokovec, March 2007, pp. 56-61 (in Slovak)
- [10] FILLO, Ľ.: Renovation of Panel Buildings ESF Programme. In: Nové trendy a technológie v komplexnej obnove bytových domov. Žilina, October 2007, pp.18-20 (in Slovak)
- [11] FILLO, Ľ.: Structural and Transportation Engineering in the Curricula of Three Universities. In: Technological Education in a Globalized Society. Bratislava, September 2007, DVD (in English)
- [12] GRAMBLIČKA, Š. VALACH, P.: Design Analysis of Composite Steel-Reinforced Columns. In: Proceedings of 8th Scientific Conference of Civil Engineering Faculty in Košice, Košice, May 2007, pp. 39-44 (in English)
- [13] GRAMBLIČKA, Š.: Errors in the Design of Bearing Structures of a Construction. In: Proceedings of Conference on Statics of Buildings 2007, Piešťany, March 2007, pp. 111-116 (in Slovak)

- [14] GRAMBLIČKA, Š.: Failures of Reinforced Concrete Bearing Structures of Industrial Buildings. In: Proceedings of Conference on Statics of Buildings 2007, Piešťany, March 2007, pp. 105-110 (in Slovak)
- [15] HALÁSZOVÁ, K. BILČÍK, J.: Improving the Stability of Slender Columns. In: Proceedings of Seminar on Repair of Concrete Structures, Bratislava, STU Bratislava, 2007, pp. 55-61 (in Slovak)
- [16] HALVONÍK, J. BENKO, V.: Precast Concrete in Bridge Construction New Trends and Examples of Constructed Bridges. In: Proceedings of the 3rd Post-Congressional Colloquium on Concrete at 2nd *fib* Congress in Naples, Starý Smokovec, March 2007, pp. 159-171 (in Slovak)
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- [20] HARVAN, I. ABRAHOIM, I: Punching Foundations According to EN 1992-1-1. In: Proceedings of Conference on Statics of Buildings 2007. Piešťany, March 2007, pp. 87-97 (in Slovak)
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- [22] HUDOBA, I.: Possibilities of Fibre-Reinforced Concrete Applications in Concrete Structures. In: Proceedings of 3rd Postcongress Colloqium on CONCRETE at 2nd *fib* Congress in Naples, Starý Smokovec, March 2007, pp. 81-86 (in Slovak)

DEPARTMENT OF TRANSPORTATION ENGINEERING

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1. EDUCATION

1.1 Graduate Study

Obligatory Subjects

Railways

Modeling and Graphics in Road Construction

Transport Planning

Road Constructions - Project

Project 2

Roads in Urban Areas

Transport Construction

Airports and Their Infrastructure

Design and Construction of Roads

Road Intersections

Diagnosis and Reconstruction of Transport

Constructions

Diagnosis of Transport Constructions

Study Excursion

Transport Prognosis and Scenarios

Special Problems of Transportation Engineering

Ecology of Urban Settlements and Transportation

Town Planning

Diploma Thesis

Modeling Transportation Systems

Traffic Management

The Environment and Transport

Optional Subjects

Transport Construction

Atelier: Transport Construction and Systems

Technology of Civil Engineering Constructions

Selected Chapters from Airports

Quality Control and Experiments

Constuction Elements in Urban and Regional

Transport

Traffic Surveys and Analysis

Integrated Transport Chains

Dynamics of Train Drives

Pavement Mechanics
Terminals and Transport Nodes
Experiments and Testing
Selected Topics in Roads and Motorways
Urban Planning
Transportation Town Planning
Modernization of High - Speed Railways
Computer - Aided Design
Geographic Information Systems

2. RESEARCH

2.1 Research Projects

- 1. Accident Reduction on Road's Through Traffic Construction Engineering Arrangement. APVV 06K11, Contract N°: SK-CZ-08506 (2006-2007, Bezák)
- 2. The Environmental Capacity Parameters of Transport Infrastructures. Contract N°: 1/3314/06 (2006-2008, Bezák)
- 3. Using Recycling Materials in Asphalt Mixtures in Order to Reduce Quantity of Waste and Improve the Environment. VEGA, Contract N°: 1/3318/06 (2006-2008, Grünner)
- 4. SNOWBALL, 6th FP Demonstration, taking-up and further dissemination of sustainable integrated planning methods in European cities. Contract N°: EIE/105/SI2.419575 (2006-2008, Goudappel Coffeng BV, NL coordinator (Rakšányi)
- 5. SNOWBALL, Integrated planning methods for saving the environment, energy in transport and policy in European cities. MŠ SR Grant (Rakšányi)

2.2 International Cooperation

- 1. Aristotle University of Thessaloniki, Greece
- 2. Association for Development of Recycling of Construction Materials, Brno, Czech Republic
- 3. Bitunova, Austria
- 4. BME Budapest University of Technology, Budapest, Hungary
- 5. BOKU University for Bodenkultur, Institute for Transport Structures, Vienna, Austria
- 6. BP Hamburg, Germany
- 7. CDV Transport Research Centre, Brno, Czech Republic
- 8. CEI Central European Initiative, Vienna, Austria
- 9. CFF Münchengladbach, Germany
- 10. COLAS, Paris, France
- 11. ČVUT University of Technology Prague, Czech Republic
- 12. DASL Deutsche Akademie für Städtebau und Landesplanung, Berlin
- 13. FHE University of Applied Sciences, Erfurt, Germany
- 14. FHK University of Applied Sciences, Colonia, Germany
- 15. GEA'21 Grupo de Estudios y Alternativas 21 S.L., Madrid, Spain
- 16. Gemeente Hilversum Dienst Stad, Netherlands
- 17. Goudappel Coffeng, BV, The Netherlands
- 18. Hungarian Academy of Science Regional Research Center, Győr, Hungary

- 19. IFHP International Federation for Housing and Planning, The Hague, The Netherlands
- 20. IVV- University of Technology Vienna, Austria
- 21. JEA Architektur, Tuebingen, Germany
- 22. John Thompson and Partners Limited, London, UK
- 23. LCPC Paris, Nantes, France
- 24. LRPC Bordeaux, France
- 25. NET Engineering SpA, Monselice, Italy
- 26. PACT, Porto, Portugal
- 27. PEBA Berlin, Germany
- 28. Senter/Novem Nederlandse Organisatie voor duurzaamheid en innovatie, Utrecht, The Netherlands
- 29. Schnull-Haller, Ingenieurbureau, Bureau fuer Stadt-verkehrsplanung, Hannover, Germany
- 30. Szechényi István University, Győr, Hungary
- 31. SILMOS, Prague, Czech Republic
- 32. Vilnius Gediminas Technical University, Vilnius, Lithuania
- 33. VUT University of Technology Brno, Czech Republic
- 34. VŠB TUO University of Technology Ostrava, Czech Republic
- 35. Technical University of Belgrade, Serbia
- 36. Technical University of Cracow, Poland
- 37. Technical University of Maribor, Faculty of Civil Engineering, Maribor, Slovenia
- 38. Technology TPA Vienna, Austria
- 39. TPA Warsaw, Poland
- 40. University of Calgary, Schulich School of Engineering, Calgary, Canada
- 41. West Transdanubian Regional Development Agency, Győr, Hungary

3. THESES

3.1 Bachelor Theses – 13

3.1 Graduate Theses

No.	Student's name	Title	Supervisor
1.	Bc.Boris Mičian	Expresway Study R1, Section of Nitra – Zlaté Moravce	K.Bačová
2.	Bc.Gabriela Kostolná	Evaluation of Load - Bearing Capacity of Pavements on Airport Runways	I. Gschwendt
3.	Bc.Katarína Brliťová	Design and Reconstruction of Concrete Pavements	K. Bačová
5.	Bc.Vladimír Michálik	On-Site Study of Airport in Region of Trnava–Boleráz in Accordance with the L14.	Ľ. Bartošová
7.	Bc.Victor Neuman	Reconstruction of Through - Road III/508004 in Municipality of Dolná Streda.	B. Bezák
8.	Bc. Soňa Jurikova	Transport Design of Bus Station in Nové mesto nad Váhom	B. Bezák

3.2 Doctoral Theses

NoStudent's nameTitle of doctoral workSupervisor1.Ďurišová, A.Cement Concrete Pavements – Load, Stresses and Joint Load TransferGschwendt, I.

4. PUBLICATIONS

4.1 Books and Textbooks

- [1] GRÜNNER, K.: Bitumen Emulsions in Road Construction and Maintenance. 2007, ISBN 978-80-969771-5-4-1, 132 pp.
- [2] GSCHWENDT, I., et al.: Motorway D1, Bratislava Žilina, Projects and Constructions. 2007, Jaga Group, ISBN 978-80-8076-050-2, 200 pp.

4.2 Journals

Scientific Papers in Slovak journals

- [1] BARTOŠOVÁ, Ľ.: Pavements with Cement-Concrete Blocks: Yesterday and Today. In: Build. ISSN 1335-5406. Vol.10, No.1-2 (2007), pp. 33-37 (in Slovak)
- [2] GRÜNNER, K.: Recycled Aggregates: Quality Requirements. SZVK Technical journal, 2/2007, Vol. VIII, pp. 11 14.
- [3] KOVÁČ, B., RAKŠÁNYI, P.: Cities Need Both Investors and a Sensitive Approach. In: ASB Architecture. Building. Habitation. ISSN 1335-1230. Vol.14, No. 5 (2007), pp. 66-68. (in Slovak)
- [4] LEDEREROVÁ, M., GRÜNNER, K.: Optimization of the Technology for Recycling Concrete Materials. Slovak Journal of Civil Engineering, 2005/4, Vol. XIII;. ISSN 1210-3896; pp. 29 40
- [5] ONDROVIČ, M.: Equalization of Opportunities in Transport for Persons with Disabilities. In: Slovak Journal of Civil Engineering. ISSN 1210-3896. Vol. 15, No. 2 (2007), pp. 20-27. (in English)
- [6] RAKŠÁNYI, P.: Cycling Safety on Devínska Street. In: Building. ISSN 1335-5406. Vol.10, No. 5 (2007), pp. 5-7. (in Slovak)

4.3 Conferences

Contributions to proceedings abroad

- [1] GÁBOR, P.: The Application of Recycled Asphalt Mixtures for Pavement Bases. In: Building Annual 2008, Jaga Group s.r.o., Bratislava, 2007. ISBN 80-8076-056-4, pp. 140 143 (in Czech)
- [2] GRÜNNER, K.: Conditions for Various Uses of Different Types of Construction Waste as an Aggregate Recyclate. In: Proceedings of Simultaneity and Future of Mining and Setting of Non-Metallic Raw Materials IV. Mining Faculty University of Technology Ostrava, Ostrava, April 2007; pp. 161 170
- [3] GRÜNNER, K.: Polishing Pavement Surface Skid Property. In: Proceedings of Measurement and Evaluation of Antiskid Properties of Surfaces of Overland Communications (in electronic form), Brno University of Technology, Faculty of Civil Engineering, Department of Transport Engineering, Brno, May 2007; pp.114 125.
- [4] GRÜNNER, K.: Recycling Asphalt Mixtures. In: Proceedings of Bitumen Pavements 07 (in electronic form). České Budějovice, November 2007, Pragoprojekt Prague. ISBN 978-80-903925-0-2, 10 pp.
- [5] GSCHWENDT, I.: Load Bearing Capacity of Subgrade and Pavement Structures, In: Building Annual 2008, Jaga Group s.r.o., Bratislava, 2007. ISBN 80-8076-056-4, pp. 167 171 (in Czech)
- [6] RAKŠÁNYI, P.: Reconstruction of Slovak Railway Network In: Stadt und Bahn: Almanach 2006/2007. Berlin: Deutsche Akademie für Städtebau und Landesplanung, 2007. pp. 149-161. (in German)
- [7] RAKŠÁNYI, P.: Comprehensive Transport Master Plans. In: Futures of Cities Impacts: Indicators: Implementation: 51st IFHP World Congress/Copenhagen, 23.-26.9.2007. Copenhagen: IFHP, 2007 (http://www.ifhp2007copenhagen.dk). published on CD, 10 pp. (in English)

Contributions to proceedings in Slovakia

- [1] BAČOVÁ, K.: Process of Pavement Recycling for Environments. In: Recursive Materials for Construction Purposes. In: Proceedings of International Seminar. Štrbské Pleso, 14.-16.3. 2007. Košice: Dom techniky ZSVTS Košice, 2007. ISBN 978-80-232-0274-8. pp. 44 51 (in Slovak)
- [2] BAČOVÁ, K.: Utilization of Milled Asphalt Pavement Materials for Pavements in Cities. In: TOP 2007. Proceedings of the 13th international conference on Engineering in Environment Protection. Senec /Slovak Republic/, June 26-28, 2007. Bratislava: STU v Bratislave, 2007. ISBN 978-80-227-2693-1. pp. 19-24 (in Slovak)
- [3] BAČOVÁ, K.: Construction Layers Created from Secondary Raw Materials for Roads. In: Proceedings of 12th Ivan Poliaček International Seminar on Pavement Diagnoses and

- Examination of Pavement Building Materials. Bratislava 21.-22.11.2007. Bratislava : Slovak Road Association. ISBN 978-80-89275-07-6. pp. 119-126. (in Slovak)
- [4] BARTOŠOVÁ, Ľ.: Assessment of Road Serviceability. In: Proceedings of 12th Ivan Poliaček International Seminar on Pavement Diagnoses and Examination of Pavement Building Materials. Bratislava, 21.-22.11.2007. Bratislava: Slovak Road Association, 2007. ISBN 978-80-89275-07-6. pp. 177-183 (in Slovak)
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- [9] DOSTÁL, K., ČAŇO, J.: Modal Split of Railways in Bratislava. In: Proceedings of 10th International Scientific Conference MOBILITA '07 on Sustainable Mobility in Urban Areas. Bratislava, 24.-25.5.2007. Bratislava: STU v Bratislave SvF, 2007. ISBN 978-80-227-2648-1. pp. 275-278 (in Slovak)
- [10] ĎURIŠOVÁ, A., BARTOŠOVÁ, Ľ.: Diagnosis and Assesssment of Concrete Pavement Conditions. In: In: Proceedings of 12th Ivan Poliaček International Seminar on Pavement Diagnoses and Examination of Pavement Building Materials., Bratislava 21.-22.11.2007. Bratislava: Slovak Road Association, 2007. ISBN 978-80-89275-07-6. pp. 235-241 (in Slovak)
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- [16] GRÜNNER, K., ŠUSTER, M.: Use of Crushed Concrete Waste. In: Proceedings of 8th Scientific Conference of Faculty of Civil Engineering, Košice, May 2007, ISBN 978-80-8073-801-3, pp. 45 51.
- [17] GRÜNNER, K.: Use of Bitumen Emulsions in Road Construction. In: Proceedings of Realization and Economy of Buildings. Dom techniky, spol. s r. o., Košice, Štrbské Pleso, October 2007, ISBN 978-80-232-0276-2, pp. 164 170.
- [18] GRÜNNER, K.: History of Use of Bitumen for Waterproofing. In: Proceedings of Waterproofing Bridges and Tunnels, Dom techniky, spol. s r. o., Košice, Podbanské, November 2007, ISBN 978-80-232-0279-3, pp. 14 25.
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- [21] GSCHWENDT, I.: Load Bearing Capacity of Subgrade and Pavement Structures, In: Building Annual 2008, Jaga Group s.r.o., Bratislava, 2007. ISBN 80-8076-051-9, pp. 160 164
- [22] KAPUSTA, V.: Assessing Road Safety. In: Proceedings of 8th Scientific conference of Faculty of Civil Engineering TU in Košice: Section 2: Engineering Construction and Road Construction. Iron and Timber Construction. Košice, 28.-30.5.2007. Košice: University of Technology Košice, 2007. ISBN 978-80-8073-802-0. pp. 105-110. (in Slovak)

- [23] KAPUSTA, V.: Traffic Volume and Accident Rates on Highways. In: Road Safety: Proceedings of International Conference/Vyhne, 26.-28.9.2007. Bratislava: Ministry of Transport, Post and Telecommunication of the Slovak Republic, 2007. ISBN 978-80-232-0277-9. pp. 90-93 (in Slovak)
- [24] LUKNÁR, M.: Use of Crushed Concrete in Asphalt Mixtures. In: Proceedings of Recycling of Materials for Construction Purposes. Dom techniky, spol. s r. o. Košice, Štrbské pleso, March 2007; ISBN 978 80 232 0274 8; pp. 85 92
- [25] NEMČEK, M.: Effect of Suburban Transport in the North-East Agglomeration of Bratislava. In: Proceedings of 10th International Scientific Conference MOBILITA '07 on Sustainable Mobility in Urban Areas. Bratislava, 24.-25.5.2007. Bratislava: STU v Bratislave SvF, 2007. ISBN 978-80-227-2648-1. pp. 241-246 (in Slovak)
- [26] NEMČEK, M.: Traffic Calming on 4-Lane Roads. In: Road Safety: Proceedings of International Conference / Vyhne, 26.-28.9.2007. Bratislava: Ministry of Transport, Post and Telecommunication of the Slovak Republic, 2007. ISBN 978-80-232-0277-9. pp. 65-68 (in Slovak)
- [27] NEMČEK, M.: Variations in Traffic Flow Speed. In: Proceedings of 8th Scientific conference of Faculty of Civil Engineering TU in Košice: Section 2: Engineering Construction and Road Construction. Iron and Timber Construction. Košice, 28.-30.5.2007. Košice: University of Technology Košice, 2007. ISBN 978-80-8073-802-0. pp. 111-115 (in Slovak)
- [28] ONDROVIČ, M.: Framework Requirements for Safety of the Sight Impaired. In: Proceedings of 10th International Scientific Conference MOBILITA '07 on Sustainable Mobility in Urban Areas. Bratislava, 24.-25.5.2007. Bratislava: STU in Bratislava SvF, 2007. ISBN 978-80-227-2648-1. pp. 333-336 (in English)
- [29] ONDROVIČ, M.: Drive Slow, Go Faster. In: Road Safety: Proceedings of International Conference / Vyhne, 26.-28.9.2007. Bratislava: Ministry of Transport, Post and Telecommunication of the Slovak Republic, 2007. ISBN 978-80-232-0277-9. pp. 61-64 (in Slovak)
- [30] RAKŠÁNYI, P., VAŠKOVIČ, P.: Transport in Landuse Planning. In: New Methods, Approaches and Quality Assessment in the Road Sector: Proceedings of Conference. Seminar. Bratislava, 15.-16.5.2007. Bratislava: SUTN, 2007. pp. 57-82 (in Slovak)
- [31] RAKŠÁNYI, P.: Rules of Sustainable Transport in the High Tatra Mountains. In: Proceedings of 8th Scientific conference of Faculty of Civil Engineering TU in Košice: Section 3: Environmental Engineering. Košice, 28.-30.5.2007. Košice: University of Technology Košice, 2007. ISBN 978-80-8073-791-7. pp. 195-201 (in Slovak)

DEPARTMENT OF THEORETICAL GEODESY

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Informational Technologies

Processing and Analysis of Measurements 1

Processing and Analysis of Measurements 2

Programming

Local Geodetic Networks

Geometric Geodesy

Geoinformatics

Geodesy and Cartography (Faculty of Architecture)

Physical Geodesy 1

Spherical Astronomy and Space Geodesy

Field Education in Geodetic Controls

Global Geodesy

Space Geodesy

Geographic Information Systems

Physical Geodesy 2

Analysis of Measurements

Specialised Field Education

Metrology in Geodesy

Optional subjects

Digital Modelling of Spatial Structures

Satellite Geodesy

Gravimetry

Three-Dimensional Geodesy

GIS Design and Implementation

Geodynamics

Geodata Quality Analysis

Geographic Information Systems (branch of study: Buildings and the Environment)

1.2 Postgraduate courses

Microstation, Ing. Jana Faixová Chalachanová, PhD., 2 days

2. RESEARCH

2.1 Research projects

- 1. 5th Framework Program: Contract No. EVK2-CT-2002-00140, "CERGOP-2/Environment". National coordinator: Assoc. Prof. Marcel Mojzeš, PhD.
- 2. Interreg III B CADSES Neighbourhood Programme: Project No. 3B035, S.I.S.M.A. System Integrated for Security Management Activities to Safeguard and Protect Historic Centres from Risks. Participant: Assoc. Prof. Marcel Mojzeš, PhD.
- 3. Troposphere Modelling on the Territory of Slovakia Using Permanent GNSS Observations for Near Real Time Applications. APVV Project No. LPP-0176-06. Leader: Prof. Ján Hefty, PhD.
- 4. Quality Assessment of the Cadastre of Real Estate Domains. VEGA Project 1/4025/07. Leader: Ing. Jana Faixová Chalachanová, PhD.
- 5. Using New and Modernized GNSS for Precise Point Positioning and Determining Position Time Changes. VEGA Project 1/4089/07. Leader: Prof. Ján Hefty, PhD.

2.2 International cooperation

- 1. Institute of Geodesy and Geodetic Astronomy, Warsaw University of Technology, Poland
- 2. FÖMI Satellite Geodetic Observatory, Penc, Hungary
- 3. Institute of Physical Geodesy, Technical University Darmstadt, Germany
- 4. Federal Office of Metrology and Surveying, Graz, Austria
- 5. Department of Geology, Palaeontology and Geophysics, University of Padova, Italy
- 6. Department of Geophysics, Graduate School of Science, Kyoto University, Japan
- 7. Research Institute of Geodesy, Topography and Cartography, Zdiby, Czech Republic
- 8. Institute of Geoinformatics, Faculty of Mining and Geology, Mining University, Ostrava,
 - Czech Republic
- 9. Czech Technical University, Prague, Czech Republic
- 10. Technical University of Brno, Czech Republic
- 11. Delft University of Technology, The Netherlands
- 12. Advisory Group on Outreach (CEN/TC287)
- 13. International Institute for Geo-Information Science and Earth Observation, The Netherlands
- 14. Faculty of Philosophy & the Arts, Charles University, Prague, Czech Republic

3. THESES

3.1 Bachelor Theses – 14

3.2 Graduate Theses

No.	Student's Name	Title	Supervisor
1.	J. Burgan	Creating Database of Astronomic- Gravimetric Deflections of the Vertical for Purposes of Testing Quasigeoid Models	J. Janák
2.	B. Dudek	Diagnosing Relative Systematic Errors in Local Gravimetric Quasigeoid in the Tatra Mountains	M. Mojzeš
3.	Z. Hanulíková	Transformation of GPS Observation Results to Coordinate Systems Used in Slovakia	Ľ. Gerhátová
4.	M. Husár	Application of Geostatistical Methods in Geodesy	Ľ. Gerhátová
5.	T. Kliment	XML as a Tool for Distribution of Geo- Database Metadata	I. Ivánová
6.	T. Kubiček	Analysis of Quality of Digital Terrain Model	J. Janák
7.	L. Kubincová	Application of Digital Terrain Model for Realization of Linear Buildings	Faixová Chalachanová
8.	K. Lengyel	Application of UML for Modeling a Spatial Domain	I. Ivánová
9.	Z. Loviška	Implementation of Local Topocentric Information into Automated Topocentric Correction Computations	J. Janák
10.	M. Melek	Effect of Ionosphere on GPS Code Observations and Possibilities for Its Elimination	J. Hefty
11.	M. Mikuš	Inter-Operable Geo-Database in an International Context	I. Ivánová
12.	V. Mlkvá	Application of Microgravimetry in Speleology	J. Janák
13.	L. Porubčan	Triangular Side Orientation Using Space and Classic Geodesy Methods	Ľ. Gerhátová
14.	M. Večerek	Methods for Predicting Repeated Measurements	M. Igondová

3.3 Doctoral Thesis

No.	Student's Name	Title	Supervisor
1.	M. Hrčka	Tidal Effects in GPS Point Positioning - Models and Their Corrections	J. Hefty

4. PUBLICATIONS

4.1 Books and Textbooks

[1] IVÁNOVÁ, I.: Data Quality in Spatial Datasets. PhD. Thesis. Edition of scientific works, sheet No. 41, STU Bratislava, 2007, 157 pp.

4.2 Journals

Scientific papers abroad

- [1] FAŠKOVÁ, Z. ČUNDERLÍK, R. JANÁK, J. MIKULA, K. ŠPRLÁK, M.: Gravimetric Quasigeoid in Slovakia by the Finite Element Method. Kybernetika, Vol. 43, No. 6, 2007, pp. 789-796.
- [2] HEFTY, J.: Geo-kinematics of Central and South-Eastern Europe Resulting from Combination of Various Regional GPS Velocity Fields. Acta Geodynamica et Geomaterialia. Vol. 4, No. 4 (148), 2007, pp. 169-185.
- [3] HEFTY, J. IGONDOVÁ, M.: Geokinematic Implications Inferred from Analysis of Permanent Stations in Central European Region. Reports on Geodesy 1 (76), 2006. pp. 29-38.
- [4] HEFTY, J., et al.: Analysis of CEGRN 2005 as the Eighth of CERGOP Observing Campaigns. Reports on Geodesy 1 (76), 2006. pp. 39-46.
- [5] ROGOWSKI, J.B. BARLIK, M. BOGUSZ, J. HEFTY, J. KLAK, M. KUJAWA, L.: Polish Astro-Geodetic Geoid Final Results. Reports on Geodesy 1 (76), 2006. pp. 119-128.
- [6] HEFTY, J.: WP 5 of the CERGOP-2/Environment: GPS Data Analysis and the Definition of Reference Frames. Reports on Geodesy 3 (78), 2006. pp. 51-84.
- [7] HEFTY, J.: WP 7 of the CERGOP-2/Environment: Geo-kinematical Modeling and Strain Analysis. Reports on Geodesy 3 (78), 2006. pp. 157-197.

Scientific papers in Slovak Journals

- [1] DROŠČÁK, B. LEITMANNOVÁ, K. HEFTY, J: Independent Verification of the Transformation between ETRS 89 and S-JTSK Using the GPS Observations Performed by Railway Surveying Centre of the Railways of the Slovak Republic. Geodetický a kartografický obzor, 53 (95), 5, 2007, pp. 81-92 (in Slovak).
- [2] NIKŠOVÁ, N. IVÁNOVÁ, I.: Production of International and European Standards for Geographic Information and Their Introduction into the STS System. Geodetický a kartografický obzor, 53 (95), 1, 2007, pp. 7-12 (in Slovak).
- [3] HEFTY, J.: Modelling Random Errors in Time Series of Geodetic Observations. Geodetický a kartografický obzor, 53 (95), 9, 2007, pp. 185-196 (in Slovak).
- [4] LIESKOVSKÝ, T. KÖNIG T.: Processing Archaeological Data from Archaeological Excavations of the Lower Považie Using GIS. Kartografické listy, 15, 2007, pp. 69-76 (in Slovak).

[5] IVÁNOVÁ, I.: Modelling Data Quality in a Spatial Domain. Slovak Journal of Civil Engineering. XV, 2, 2007, pp. 28-34.

4.3 Conferences

Contributions to proceedings abroad

- [1] HEFTY, J.: GPS Observations in the Balkan Peninsula and Adjacent Regions within the CERGOP-2/ENVIRONMENT Activities. In: Geodynamics of the Balkan Peninsula. Reports on Geodesy 5 (80), 2006. pp. 577-589.
- [2] HEFTY, J. GERHÁTOVÁ, L. BEZRUČKA, J.: Potential Short-Periodic Variations of the Galileo Permanent Station Its Comparison with GPS Experience. In: 1st colloquium on scientific and fundamental aspects of the Galileo program. Toulouse, France, 2007.
- [3] MOJZEŠ, M. JANÁK, J. PAPČO, J. ŠPRLÁK, M. VAĽKO, M.: Determination of a Quasigeoid Using the Neumann Boundary Value Problem. In: Proceedings of the 1st International Symposium of the International Gravity Field Service: "Gravity Field of the Earth". General Command of Mapping, Istanbul, Turkey, 2007, pp. 7-12.
- [4] MOJZEŠ, M. HUSÁR, L. PAPČO, J.: Integrated Approach to Determining Quasigeoid in the High Tatra Mountains. In.: Applications of Satellite Measurements in Geodesy. VUT Brno, 2007, pp. 92-100 (in Slovak).
- [5] HEFTY, J. GERHÁTOVÁ, Ľ. ŠUJAN, M.: Fault Analysis Using GPS Measurement at the Locality of the Mochovce Nuclear Power Station. In: Applications of Satellite Measurements in Geodesy. Brno: FAST VUT Brno, 2007. pp. 81 86 (in Slovak).
- [6] JANÁK, J. MIKULA, K. ŠPRLÁK, M.: Downward Continuation of Satellite Gradiometry Data, European Space Agency, (Special Publication) ESA SP (SP-627), 2007, pp. 109-113.
- [7] BECKER, M. CAPORALI, A. DRESCHER, R. GERHÁTOVÁ, Ľ. GRENERCZY, G. HASLINGER, C. HEFTY, J. KRAUSS, J. LIWOSZ, T. STANGL, G.: Reprocessing CEGRN Campaigns 1994-2006. In: Geophysical Research Abstracts, Vol. 9/2007: Abstracts of the Contributions of the EGU General Assembly, Vienna, Austria, 2007.
- [8] CAPORALI, A. BECKER, M. FEJES, I. GERHÁTOVÁ, Ľ. GHITAU, D. GRENERCZY, G. HEFTY, J. MEDAC, D. MILEV, G. MOJZEŠ, M. MULIC, M. NARDO, A. PESEC, P. RUS, T. ŠIMEK, J. SLEDZINSKI, J. SOLARIC, M. STANGL, G. VESPE, F. VIRAG, G. VODOPIVEC, F. ZABLOTSKYI, F.: Geokinematics of Central Europe: New Insights from the CERGOP-2/Environment Project. In: Geophysical Research Abstracts, Vol. 9/2007: Abstracts of the Contributions of the EGU General Assembly, Vienna, Austria, 2007.
- [9] MOJZEŠ, M. PAPČO, J.: Determination of Vertical Movements by GPS and Absolute Gravity Measurements in the Tatra Mountains. In: Geophysical Research Abstracts, Vol. 9/2007: Abstracts of the Contributions of the EGU General Assembly, Vienna, Austria, 2007.
- [10] JANÁK, J. ŠPRLÁK, M. MIKULA, K.: Downward Continuation of the Second Radial Derivative of Disturbing Potential Application for GOCE Mission. In:

- Geophysical Research Abstracts, Vol. 9/2007: Abstracts of the Contributions at the EGU General Assembly, Vienna, Austria, 2007.
- [11] ŠPRLÁK, M. JANÁK, J. MOJZEŠ, M.: Comparison of Gravimetric Quasigeoid Models Using Spherical Stokes's Function and Its Five Deterministic Modifications. In: Geophysical Research Abstracts, Vol. 9/2007: Abstracts of the Contributions at the EGU General Assembly, Vienna, Austria, 2007.
- [12] HEFTY, J.: Geo-kinematics of Central and South-Eastern Europe Resulting from a Combination of Various Regional GPS Velocity Fields. In: Recent Geodynamics of the Sudeten MTS and Adjacent Areas: Abstracts of the 8th Czech-Polish Workshop. Poland, 2007, p. 12.
- [13] FAIXOVÁ CHALACHANOVÁ, J. FENCÍK, R.: Teaching Geoinformatics at the Faculty of Civil Engineering of the Slovak University of Technology. In: GIS Ostrava 2007 (http://gis.vsb.cz/GIS_Ostrava/GIS_Ova_2007/index.php). The Technical University of Ostrava, 2007 (in Slovak).
- [14] BEZRUČKA, J: Automated Analysis of Permanent GPS Network Processing Using the Kalman Filter. In: Juniorstav 2007, Brno, p. 328 (in Slovak).
- [15] ŠPRLÁK, M.: Numerical Comparison of the Stokes Integral and the Finite Element Method Using a Synthetic Gravity Model of the Earth. In: Juniorstav 2007, Brno, p. 344 (in Slovak).
- [16] FERKO, J.: Determination of Normal (Molodensky's) Heights by Earth Geopotential Models. In: Juniorstav 2007, Brno, p. 330 (in Slovak).
- [17] LIESKOVSKÝ, T.: Using Geographical Information Systems for Predictive Modelling in Archeology. In: Juniorstav 2007, Brno, p. 337 (in Slovak).

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- [1] IGONDOVÁ, M. HEFTY, J.: Monitoring Atmosphere Moisture Project over Slovakia Using Permanent GNSS Stations Network. In: Geodetic Networks and Spatial Information, Podbanské, 2007, pp. 147-155, ISBN 978-80-969757-5-4 (in Slovak).
- [2] BEZRUČKA, J. HEFTY, J.: Detection of Positional Changes in Near-Real Time Based on Continual GNSS Measurements. In: Geodetic Networks and Spatial Information, Podbanské, 2007, pp. 59-64 (in Slovak).

DEPARTMENT OF SURVEYING

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E-mail: stefan.sokol@stuba.sk

1. EDUCATION

1.1 Graduate Study

Obligatory subjects

Surveying I

Surveying in Building Construction (branch of study: Building Constructions and Architecture)

History of Civil Engineering and Surveying

Surveying II

Surveying in Civil Engineering

Surveying Camp

Surveying for Water Management

Surveying in Building Construction (branch of study: Engineering Constructions and

Transportation Structures)

Surveying Camp for Engineering Constructions

Geodesy, Cartography and Cadastre

Surveying III

Engineering Surveying I

Engineering Surveying Camp

Professional Practice

Photogrammetry and Remote Sensing

B. Sc. Project

Engineering Surveying II

Special Seminar

Photogrammetry and Remote Sensing

Engineering Surveying Camp

Geodetic Work Legislation

Diploma Work

Optional subjects

Applied Analytical Photogrammetry Surveying in Underground Areas

Measuring Systems in Engineering Surveying

Industrial Surveying

Geographic and Information Technologies

Spatial Technologies in Engineering Surveying

2. RESEARCH

2.1 Research projects

- 1. Research Grant Registration No. 1/3308/06: Application of precise navigating algorithms and systems for monitoring building structures (A. Kopáčik, et al.)
- 2. Research Grant Registration No. 1/4206/07: Monitoring deformations of building and local geodynamic processes with automated measurement systems (Š. Sokol, et al.)

2.2 International Cooperation

- 1. Institute of National Surveying and Engineering Geodesy, TU Vienna, Austria
- 2. Institute for Photogrammetry and Remote Sensing, TU Vienna, Austria
- 3. Department of Surveying, Cartography and Descriptive Geometry, Politechnika Lodž, Poland
- 4. Institute of Geodesy and Geophysics of the Hungarian Academy of Sciences, Sopron, Hungary
- 5. Department of Geodesy, VUT Brno, Czech Republic
- 6. Department of Surveying, Mining Geological Faculty, TU Ostrava, Czech Republic
- 7. Palacky University of Olomouc, Department of Mathematical Analysis and Mathematical Applications, Czech Republic
- 8. Department of Geodesy, TU Munich, Germany
- 9. College of Geoinformatics, University of West Hungary, Székesfehérvár, Hungary
- 10. Department of Special Geodesy, CTU, Prague, Czech Republic
- 11. TU Graz, Austria
- 12. Surveying Laboratory, Department of Civil Engineering, University of Patras, Patras, Greece

3. THESES

3.1 Bachelor theses -31

3.2 Graduate Theses

No.	Student's Name	Title	Supervisor
1.	Silvia Bátorová	Testing of Leica DISTO Telemeter Connected to Electronic Theodolite	A. Kopáčik
2.	Juraj Brázdil	Possibilities of Utilization of SK POS Service in Engineering Geodesy	A. Kopáčik
3.	Štefan Brnčík	Environmental Impact on the Accuracy of Measurement in a Geodetic Network	A. Kopáčik
4.	Ivana Cepková	Estimation of Empirical Precision of Nikon D200 and Olympus c-8080 WZ Digital Cameras	M. Fraštia
5.	Ľuboš Daniš	Possible Utilization of Fuzzy Logic in Geodesy	A. Kopáčik
6.	Michal Doležal	Testing Universal Robotic Measuring Stations	A. Kopáčik
7.	Pavol Domin	Geodetic Control of Structure on Kapucínska Street After Its Reconstruction	G. Hostinová
8.	Zuzana Ferková	Testing of Electronic Tacheometers	J. Ježko

9.	Miroslava Hercová	Long-Term Monitoring of Displacements of Bridge Structures	J. Ježko
10.	Michal Jariabka	Long-Term Measurement of Vertical Displacements of Bridge Structures	G. Hostinová
11.	Milan Kavulič	Analysis of Measurement Results of Horizontal Displacement of Water Structure	V. Staněk
12.	Jaroslav Kolárik	Measuring Displacements and Deformations Using Universal Robotic Measuring Stations	A. Kopáčik
13.	Roman Kormucik	Utilization of GPS and RTK Technology in Engineering Geodesy	J. Ježko
14.	Peter Labuda	Control Measurement of Actual State and Visualization of Measurements	Š. Sokol
15.	Peter Lanátor	Spatial Monitoring of Earthwork of Málinec Waterworks	V. Staněk
16.	Monika Matulová	Spatial Measuring and 3D Modelling of Construction Structures	M. Bajtala
17.	Pavel Novák	Photogrammetric Methods of Creating DMR	P. Bartoš
18.	Veronika Olekšáková	Long-Term Geodetic Control of Vertical Displacements of Tunnel of Gabčíkovo Waterworks	V. Staněk
19.	Jozef Ondrejkov	Creating Detailed Spatial Model of Facade	M. Fraštia
20.	Ivana Pokorná	Data Acquisition for Reinstating a Rock Cut Using Digital Photogrammetry	P. Bartoš
21.	Martin Pollák	Geodetic Assurance of Construction and Operation of Highway Tunnels	V. Staněk
22.	Ľudmila Púčeková	Testing Stability of Universal Measuring Instruments	Š. Sokol
23.	Peter Roziak	Photogrammetric Compression of Control Points Using Analytical Aerotriangulation Methods	P. Bartoš
24.	Matej Sučík	Measuring and Processing of Actual Execution of Engineering Networks	G. Hostinová
25.	Anton Šimončič	Automated Determination of Areas Monitoring Vertical Displacements of	Š. Sokol
26.	Martin Tuka	Existing Buildings in the Realization of New Buildings	M. Bajtala
27.	Milan Uličný	Analysis of Method of Trigonometric Determination of Heights	Š. Sokol
28.	Jozef Václavík	Testing and Calibration of Horizontal Circles of Theodolites	J. Ježko
29.	Rastislav Valášek	Geodetic Control of Stability of Bridge Structures in Operation	V. Staněk
30.	Kamila Višniarová	Measuring and Analysis of Horizontal Displacements of Tail Bay of Čuňovo Waterworks	V. Staněk

4. PUBLICATIONS

4.1 Books and Textbooks

[1] STANĚK, V. - HOSTINOVÁ, G. - KOPÁČIK, A.: Surveying in Civil Engineering. Publisher JAGA GROUP - Bratislava, 2007, 110 pp., ISBN 978-80-8076-048-9.

4.2 Journals

Scientific paper abroad

[1] KOPÁČIK, A.: Surveying Festival in the Capital of Bavaria. Geodetic and Cartographic Scope, Vol. 53 (95), No. 4. Prague, Cosmos 2007, pp. 72-75, ISSN 0016-7096.

Scientific papers in Slovak journals

- [1] BAJTALA, M. SOKOL, Š. JEŽKO, J.: Estimation of Network Parameters with Consideration of the Effect of Horizontal Refractions. In: Acta Montanistica Slovaca 3/2007. Košice, 2007, pp. 301-310, ISSN 1335-1788 (in Slovak).
- [2] FRAŠTIA, M. BAJTALA, M. SOKOL, Š.: Photogrammetric Determination of the Spatial Shape of a Clinker Silo. In: Acta Montanistica Slovaca 3/2007. Košice, 2007, pp. 361-365, ISSN 1335-1788 (in Slovak).
- [3] JEŽKO, J.: Calibration and Verification of Horizontal Circles of Electronic Theodolites. Slovak Journal of Civil Engineering. Volume XV, 2007/4, pp. 27-33, ISSN 1210-3896.
- [4] JEŽKO, J. SOKOL, Š. BAJTALA, M.: Testing and Calibration of Geodetic Instruments. In: Acta Montanistica Slovaca 3/2007. Košice, 2007, pp. 390-397, ISSN 1335-1788 (in Slovak).
- [5] KOPÁČIK, A. HOSTINOVÁ, A.: Continuing Education in Civil Engineering and Surveying. In: Slovak Surveyor and Cartographer, 1/2007. Bratislava, 2007, pp. 23-26, ISSN 1335-4019 (in Slovak).
- [6] SOKOL, Š. JEŽKO, J. BAJTALA, M.: Geodetic Methods for Collecting 3D Data. In: Acta Montanistica Slovaca 3/2007. Košice, 2007, pp. 544-553, ISSN 1335-1788 (in Slovak).
- [7] ZÁMEČNÍKOVÁ, M.: Testing Terrestrial Laser Systems. Geodetic and Cartographic Scope, 3/2007, pp. 48-55, ISSN 0016-7096 (in Slovak).

4.3 Conferences

Contributions to proceedings abroad

[1] FRAŠTIA, M. - BAJTALA, M. - SOKOL, Š.: Analysis of Processing Methods of Photogrammetric Measurements as on Example of Determining the Actual State of a Structure. In: 14th Conference of Society of Mining Surveyors and Geologists – VSB Technical University of Ostrava, Ostrava, 2007, CD-ROM, 8 pp., ISBN 978-80-248-1654-8 (in Slovak).

- [2] FRAŠTIA, M. CHLEPKOVÁ, M. BARTOŠ, P.: Photogrammetric Monitoring of the Stability of a Rock Environment. In: Proceedings of 13th International Congress of International Society for Mine Surveying. Budapest, September 2007, 5 pp.
- [3] HAŠKOVÁ, V. SOKOL, Š. JEŽKO, J. MOKROŠ, J.: Calibration of Horizontal Circles of Surveying Instruments. In: Proceedings of 13th International Congress of International Society for Mine Surveying. Budapest, September 2007, 5 pp.
- [4] JEŽKO, J. ČIŽMÁR, J.: Cartography and Map Creation During the Era of Mikovini in Slovakia. In: 28th Symposium: History of Geodesy and Cartography, Prague, Publisher: National Technical Museum, Prague, XII/2007, 7 pp. (in Slovak).
- [5] JEŽKO, J. HERZOVÁ, M.: Long-Term Monitoring of Movements of Bridge Structures. In: 14th Conference of Society of Mining Surveyors and Geologists VSB Technical University of Ostrava, Ostrava, 2007, CD-ROM, 6 pp., ISBN 978-80-248-1654-8 (in Slovak).
- [6] KOPÁČIK, A.: Testing a Terrestrial Laser Scanner Using Test Forms. Optical 3-D Measurement Techniques VIII, 9-12 July 2007, Zurich, Switzerland, pp. 155-162, ISBN 3-906467-67-8.
- [7] KOPÁČIK, A.: Implementation of the Bologna Agreement in Slovakia. Scientia Est Potentia. Knowledge is Power. FIG Commission 2 Symposium, 9-12 July 2007, Prague, CTU, 7-9 June 2007, pp. 69-75, ISBN 978-80-01-03718-8.
- [8] LUKÁČ, Š.: The Surveyor and Cartographer Professions in Selected Countries of the European Union. In: GEOS 2007. 2nd International Trade Fair of Geodesy, Cartography, Navigation and Geoinformatics, Prague, March 2007, pp.12, ISBN 80-85881-26-8 (in Slovak).
- [9] SOKOL, Š. BAJTALA, M. FRAŠTIA, M.: Geodetic Sighting of Clinker Silo's Spatial Shape. In: 14th Conference of Society of Mining Surveyors and Geologists – VSB Technical University of Ostrava, Ostrava, 2007, CD-ROM, 8 pp., ISBN 978-80-248-1654-8 (in Slovak).

Contributions to proceedings in Slovak

- [1] BARTOŠ, P. FRAŠTIA, M. MATYŠÁKOVÁ, A. CHLEPKOVÁ, M.: History, Present and Future of Photogrammetry Education at the Faculty of Civil Engineering SUT Bratislava. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 4 pp.
- [2] BELIANSKY, M.: Creation and Actualisation of an Object-Oriented GIS Database by Digital Photogrammetry. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 49-56, ISBN 978-80-227-2727-3.
- [3] FRAŠTIA, M.: Options for Processing Photogrammetric Measurements. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 9 pp.
- [4] HALIČKOVÁ, J. HOSTINOVÁ, A.: Terrestrial Laser Decisions on the Utilization of Scanning in Different Surveying Sections. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 6 pp.

- [5] HALIČKOVÁ, J. CHLEPKOVÁ, M. KOSKA, B.: Comparison of the Accuracy of Methods in Laser Scanning and Digital Photogrammetry in Documenting Historical Facades. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 10 pp.
- [6] HALIČKOVÁ, J. CHLEPKOVÁ, M. KOSKA, B.: Comparison of Methods of Laser Scanning and Digital Photogrammetry in Documenting Historical Facades. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 57-66, ISBN 978-80-227-2727-3.
- [7] HAŠKOVÁ, V.: Calibrations of Horizontal Circles of Theodolites. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 67-72, ISBN 978-80-227-2727-3.
- [8] HOSTINOVÁ, A. HALIČKOVÁ, J.: SKPOS and Its Exploitation in Engineering Surveying. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 6 pp.
- [9] HOSTINOVÁ, A. KYRINOVIČ, P.: Monitoring a High-Rise Building. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 73-80, ISBN 978-80-227-2727-3.
- [10] CHLEPKOVÁ, M. BARTOŠ, P. FRAŠTIA, M.: Application of Digital Photogrammetry in Monitoring Geodynamic Processes. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 8 pp.
- [11] JEŽKO, J. BAJTALA, M.: Spatial Visualisation of a 3D Map of a Manufacturing Plant. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 8 pp.
- [12] JEŽKO, J. KOPÁČIK, A.: Research and Publications of the Department of Surveying from 2001-2006. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 27-30, ISBN 978-80-227-2727-3.
- [13] JEŽKO, J. SOKOL, Š. VYBÍRAL, P.: 50 Years of Surveying Camp. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, ISBN 978-80-227-2727-3, pp. 7-14.
- [14] KYRINOVIČ, P.: Verification of Attributes of Electronic Distance Transducers. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 81-90, ISBN 978-80-227-2727-3.
- [15] LIPTÁK, M.: Elimination of Effect of Refraction on Surveying Measurements. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 91-96, ISBN 978-80-227-2727-3.

- [16] LIPTÁK, M.: Eliminating the Effect of the Environment on the Estimation of Elevations. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 6 pp.
- [17] LUKÁČ, Š.: Photogrammetry and Remote Sensing at 23rd FIG and INTERGEU Congress 2006 in Munich. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 5 pp.
- [18] LUKÁČ, Š. KOPÁČIK, A. KYRINOVIČ, P.: Practical Training in Engineering Surveying. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 15-20, ISBN 978-80-227-2727-3.
- [19] SOKOL, Š.: Models for Eliminating the Effect of Refraction on Trigonometric Elevation Measurements. In: Interdisciplinary Applications of Photogrammetry and Geodesy. Bratislava, KGDE SvF STU, 2007, CD ROM, 10 pp.
- [20] SOKOL, Š. FRAŠTIA, M. BAJTALA, M.: Determination of the Spatial Shape of a Clinker Silo. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, pp. 97-103, ISBN 978-80-227-2727-3.
- [21] STANĚK, V. HOSTINOVÁ, G.: Surveying Campus for Building Courses. In: History, Present and Future of Field Training in Geodesy. Proceedings of 50th Anniversary of Field Training in Počúvadlo. Bratislava, KGDE SvF STU, 2007, ISBN 978-80-227-2727-3, pp. 21-26.

DEPARTMENT OF GEOTECHNICS

Department Head Prof. František Baliak, PhD. Tel.: + 421 2 59274 284 Fax: + 421 2 52925 642

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1. EDUCATION

1.1 Graduate Study

Obligatory subjects

Geology

Geology and Geomorphology

Soil Mechanics

Soil Mechanics and Foundations

Building Foundations

Building Foundations and Underground Structures

Engineering Geology and Rock Mechanics

Properties of Rocks and Soils

Water Reservoirs and Dams

Underground Constructions

Plane and Deep Foundations

Soil Construction

Optional Subjects

Engineering Geology and Rock Mechanics

Construction Ditches

Water Dams

Interaction of Water Structures and the Environment

Numerical Modelling in the Design of Water Dams

Geotechnical Reconstruction and Remedial

Measures

Recommended Subjects

Dam Design

Foundation of Water Structures

Selected Topics in Soil Mechanics

Complex Dam Projects

Diploma Seminar

Special Engineering Geology and Hydrogeology

Soil Properties

Geomechanics

2. RESEARCH

2.1 Research Projects

- 1. Problems of Water Structures and Environmental Interaction and Ways to Minimize Them (Bednárová)
- 2. Geotechnical Structures under Extraordinary Loading States (Hulla)
- 3. Soil Structure Interaction at a High Loading Intensity (Kuzma)
- 4. Geotechnical Audit of Environmental Structures and Burdens (Masarovičová)
- 5. Interaction between Selected Geotechnical Structures and Soil Environment (Turček)

2.2 International Cooperation

- 1. CTU Prague, Czech Republic
- 2. TU Ostrava, Czech Republic
- 3. TU Brno, Czech Republic
- 4. Czech Academy of Sciences, Czech Republic
- 5. UK Prague, Czech Republic
- 6. TU Budapest, Hungary
- 7. University of Alberta, Canada
- 8. University of Freiburg, Germany
- 9. TU Vienna, Austria
- 10. TU Graz, Austria
- 11. TU Innsbruck, Austria
- 12. ETH, Zürich, Switzerland
- 13. Mernöki Kamara, Budapest, Hungary
- 14. BPI Minsk, Belarus

3. THESES

3.2. Graduate Theses

No.	Student's Name	Title	Supervisor
1.	Dovala. T.	Typology of Dams and Efficiency of Grouting Curtains Design and Reconsideration of	Bednárová,E.
2.	Gal'a. M.	Foundation of Bridge Structure No. 206-00 at km 3,064 of Highway D1 Hubová - Ivachnová	Hruštinec,Ľ.
3.	Lukačovičová, E.	Increment of Decanting Plant – Stability Analysis	Slávik,I.
4.	Mackovjak, P.	Risk Factors in Safety of Flood Dykes	Bednárová,E.
5.	Makiš, M.	Assured Stability of Foundation Pit	Turček,P.
6.	Manas, V.	Reconsideration of Stability of Foundation Tension of Cooling Tower EMO 3-4 Mochovce	Kuzma,J.
_	3	Effect of the Operation of the Veľká	
7.	Marikovičová, A.	Domaša Water Structure on the Environment	Minárik,M.
8.	Markovičová, S.	Stability of Heating Decanting Plant	Masarovičová,M.
9.	Mészáros, T.	Problems of Polder on Chvojnica River and Design of Treatment	Bednárová,E.
10.	Muráň, R.	Evaluation of Stability of Sliding Slopes above Village of Višňové	Kopecký,M.
11.	Oman, M.	Effect of the Operation of the Hriňová Water Structure on Outflow Conditions under the Dam	Bednárová,E.
12.	Rennerová, S.	Optimisation of Remedial Work on Mlynčeky Water Structure	Bednárová,E.

13.	Staňák, M.	Design and Reconsideration of Retaining Construction of Deep Pit on Šancova Street in Bratislava	Hruštinec,Ľ.
14.	Štofan, P.	Design and Reconsideration of Foundation of Bridge Structure in Dunaújváros	Hruštinec,Ľ.
15.	Vanko, J.	Reconsideration of Stability of Landslide in the Vicinity of a Gas Pipeline	Kopecký,M.

4.2 Journals

Scientific Papers Abroad

- [1] BARTOŠOVÁ, M.: Bearing Capacity of Conical Piles. In: Silnice a železnice. Vol. 2, No. 3/2007, Czech Republic, pp. 9-11 (in Slovak)
- [2] CHABROŇOVÁ, J.: Background of Rock Properties and Deformations during Tunnelling. In: Silnice a železnice. Vol. 2, No. 4/2007, Czech Republic, pp. 15-18 (in Slovak)
- [3] HULLA, J.: Seismic Effects in the Design of Retaining Structures. In: Geotechnika. Vol.10, No. 2/2007, Czech Republic, pp. 9-12 (in Slovak)
- [4] HULLA, J.: Settlement of High-Rise Buildings. In: Realizace staveb. Vol.2, No. 1/2007, Czech Republic, pp. 46-47 (in Slovak)
- [5] HULLA, J.: Influence of Seismic Effects on Retaining Constructions of Foundation Pits. In: Konstrukce. Vol.6, No. 1/2007, Czech Republic, pp. 12-15 (in Slovak)
- [6] NIKITENKO, M. I. TURČEK, P.: International Experience in Improving Characteristic Soils in Foundation Subsoils. Vol.13, No. 4/2007, Belarus, pp. 104-107 (in Slovak)
- [7] PIVARČ, J.: Stone Columns Behaviour in Subsurface Soils. In: Silnice a železnice. Vol. 2, No. 3/2007, Czech Republic, pp. 20-23 (in Slovak)

Scientific Papers in Slovak Journals

- [1] CHABROŇOVÁ, J.: Deformation of a Surface during the Construction of Underground Spaces. In: Acta Montanistica Slovaca. Vol. 12, No. 1/2007, pp. 226-231 (in Slovak)
- [2] HULLA, J.: Properties of Soils Compacted by Deep Vibrations. In: Projekt stavba. Vol.2, No. 4/2007, pp. 19-23 (in Slovak)
- [3] HULLA, J.: Design of Capacity of Spread Foundations under Slovak and European Codes. In: Stavebné materiály. Vol. 3, Nos. 1-2/2007, pp. 56-58 (in Slovak)
- [4] HULLA, J.: Settlement of High-Rise Buildings. In: Stavebné materiály. Vol. 3, Nos. 1-2/2007, pp. 34-35 (in Slovak)
- [5] HRUŠTINEC, Ľ. KUZMA, J.: Mathematical Analysis of Malfunctions Caused by Seepage Water to the Republic Radioactive Waste Dump in Mochovce. In: Acta Montanistica Slovaca. Vol. 12, No. 1/2007, pp. 134-139 (in Slovak)

- [6] KUZMA, J. HRUŠTINEC, Ľ.: The Effect of Engineering-Geological Conditions on the Construction of a Radioactive Waste Dump. In: Acta Montanistica Slovaca. Vol.12, No. 1/2007, pp. 99-104 (in Slovak)
- [7] LUKÁČ, M. BEDNÁROVÁ, E.: Fresh Water Supply Reservoirs in Slovakia. In: Plynár vodár kúrenár. Vol. 5, No. 3/2007, pp. 56-61 (in Slovak)
- [8] PIVARČ, J.: Insulation against Ground Moisture by an Air Layer. In: Stavebné materiály. Vol. 3, No. 3/2007, pp. 84-85 (in Slovak)
- [9] PIVARČ, J.: Stone Columns Behaviour in Subsurface Soils. In: Stavebné materiály. Vol.3, Nos. 7-8/2007, pp. 24-25 (in Slovak)
- [10] KLEPSATEL, F.: Safety-Operational Adaptations in Road Tunnels. In: Stavebné materiály. Vol.3, Nos. 7-8/2007, pp. 42-44 (in Slovak)
- [11] KOPECKÝ, M.: Effect of Extreme Climatic Conditions upon the Development of Landslides in the Slovak Republic. In: Slovak Geological Journal. Vol. 12, 1/2007, pp. 63-68 (in English)
- [12] SLÁVIK, I. MASAROVIĆOVÁ, M.: Defective Water Sewage Tank Example of Reasoning of the Assessment of an Engineering Construction. In: Almanach znalca. Vol.5, No. 3/2007, pp. 20-25 (in Slovak)
- [13] TURČEK, P.: Application of Jet Grouting to Special Foundations. In: Stavebné materiály. Vol.3, No. 7-8/2007, pp. 30-31 (in Slovak)

4.3 Conferences

Contributions to Proceedings Abroad

- [1] BALIAK, F. MALGOT, J. SOLČIANSKY, R.: Assessment of the Effectiveness of Stabilization Work on the L'ubietová and Dobrá Landslides. In: Proceedings of Conference on Foundations of Structures. Brno, Czech Republic, 2007, pp. 159-168 (in Slovak)
- [2] BALIAK, F. MALGOT, J. SOLČIANSKY, R.: Results of the Monitoring of the Dobrá-Bogárka Landslide on the Banks of the Domaša Dam. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering. Šibenik, Croatia, 2007 (in English)
- [3] BEDNÁROVÁ, E. MINÁRIK, M.: The Role of Measurements of Flow Velocities to Evaluate the Safety of Dams. In: Proceedings of 14th German Dam Symposium. Freising, Germany, 2007, pp. 21-27 (in English)
- [4] BEDNÁROVÁ, E. MINÁRIK, M.: Grouting Curtains in the Subsoil of Dams. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering. Šibenik, Croatia, 2007 (in English)
- [5] BEDNÁROVÁ, E. MINÁRIK, M.: Mathematics as a Part of TBD on Hydraulic Structures. In: Proceedings of Symposium on Hydrotechnics. Prague, Czech Republic, 2007, pp. 169-174 (in Slovak)
- [6] BEDNÁROVÁ, E. GRAMBLIČKOVÁ, D.: Lessons Learned in the Design of Treatments for Flood Dykes. In: Proceedings of Conference on Geotechnical Field Methods. Ústí nad Labem, Czech Republic, 2007, pp. 5-10 (in Slovak)

- [7] ČERNÝ, M. KOPECKÝ, M.: Remedial Work on the Landslide behind the Railway Roundhouse in Bratislava. In: Proceedings of Conference on Foundations of Structures. Brno, Czech Republic, 2007, pp. 125-130 (in Slovak)
- [8] GRAMBLIČKOVÁ, D. BEDNÁROVÁ, E. MINÁRIK, M.: Analysis of Flood Dyke Safety Using Numerical Methods. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering. Šibenik, Croatia, 2007 (in English)
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- [10] GRAMBLIČKOVÁ, D. BEDNÁROVÁ, E.: Lessons Learned in the Application of Numerical Methods Connected with Floods. In: Proceedings of Conference on Geotechnical Field Methods. Ústí nad Labem, Czech Republic, 2007, pp. 31-36 (in Slovak)
- [11] GUŽÍK, M.: Design of Micropiles. In: Proceedings of 3rd International PhD Symposium in Engineering. Pécs, Hungary, 2007, p. 16 (in English)
- [12] HULLA, J. et al.: Deep Excavations near the Danube in Bratislava. In: Proceedings of the 14th European Conference on Soil Mechanics and Geotechnical Engineering. Rotterdam, Netherlands, 2007, pp. 745-750 (in English)
- [13] HULLA, J.: Quality of Deep Vibro-Compaction on Spread Foundation Subsoil. In: Proceedings of Conference on Hardening, Tightening and Anchoring of a Rock Mass and Structures. Ostrava, Czech Republic, 2007, pp. 86-93 (in Slovak)
- [14] HULLA, J.: Calculation and Design Capacity of a Spread Foundation. In: Proceedings of Seminar on Geotechnics. Ostrava, Czech Republic, 2007 (in Slovak)
- [15] HULLA, J.: Problems of Retaining and Sealing Structures. In: Proceedings of Conference on Foundations of Structures. Brno, Czech Republic, 2007, pp. 35-40 (in Slovak)
- [16] KOPECKÝ, M. BALIAK, F.: Engineering-Geological Investigation for Alternative Comparative Assessment of an Expressway in Eastern Slovakia. In: Proceedings of 4th Rock Mechanics Colloquium Theory and Practice. Vienna, Austria, 2007 (in English)
- [17] KUZMA, J. HRUŠTINEC, Ľ.: Assurance of the Stability of a Road Embankment in a Landslide Area. In: Proceedings of Conference on Foundations of Structures. Brno, Czech Republic, 2007, pp. 147-152 (in Slovak)
- [18] LUKÁČ, M. MINÁRIK, M.: The Role of Slovak Dams and Reservoirs in the Past and Present. In: Proceedings of 14th German Dam Symposium. Freising, Germany, 2007, pp. 295-301 (in English)
- [19] MASAROVIČOVÁ, M. SLÁVIK, I.: Geotechnical Analysis of a Treated Ash Dump. In: Proceedings of Conference on Foundations of Structures. Brno, Czech Republic, 2007, pp. 237-242 (in Slovak)
- [20] PIVARČ, J.: Stone Columns State of the Art. In: Proceedings of 3rd International PhD Symposium in Engineering. Pécs, Hungary, 2007, p. 37 (in English)

- [21] SLÁVIK, I. MASAROVIČOVÁ, M.: Alternation of Mode of Seepage Flow: Negative Soil-Structure Interaction. In: Proceedings of Conference on Risks in Water Management. Brno, Czech Republic, 2007, pp. 451-461 (in Slovak)
- [22] TURČEK, P.: Lessons Learned in Monitoring Buildings Abroad. In: Proceedings of Conference on Geotechnical Field Methods. Ústí nad Labem, Czech Republic, 2007, pp. 109-114 (in Slovak)
- [23] TURČEK, P.: Monitoring of Foundation of High-Rise Building in a Deep Foundation Pit. In: Proceedings of Conference on Geotechnical Field Methods. Ústí nad Labem, Czech Republic, 2007, pp. 103-108 (in Slovak)
- [24] TURČEK, P. SÚĽOVSKÁ, M.: Using an Observation Method for the Foundations of High-Rise Buildings. In: Proceedings of the 14th European Conference on Soil Mechanics and Geotechnical Engineering. Rotterdam, Netherlands, 2007, pp. 419-422 (in English)
- [25] TURČEK, P. RAVINGER, R. SÚĽOVSKÁ, M.: Analysis of Stability of Slope Prepared for Construction. In: Proceedings of Conference on Foundations of Structures. Brno, Czech Republic, 2007, pp. 131-136 (in Slovak)

Contributions to Proceedings in Slovakia

- [1] BALIAK, F. MALGOT, J. SOLČIANSKY, R.: Causes of the Origin of Landslides on Roads. In: Proceedings of Q 2007 Road Conference. Žilina, 2007, pp. 184-188 (in Slovak)
- [2] BALIAK, F. MALGOT, J. SOLČIANSKY, R.: Utilization of Photogrammetric Images in Engineering-Geological Assessment of the Cliff of Castle Beckov. In: Proceedings of Conference on Interdisciplinary Application of Photogrametry and Geodesy. Bratislava, 2007 (in Slovak)
- [3] BALIAK, F. MALGOT, J. SOLČIANSKY, R.: Geological Factors of the Environment and Their Effect on Water Structures. In: Proceedings of Conference on the Effect of Water Structures on the Creation and Protection of the Environment. Podbanské, 2007, pp. 15-23 (in Slovak)
- [4] BEDNÁROVÁ, E. GRAMBLIČKOVÁ, D.: Increasing the Safety of Flood Dyke of the Gabčíkovo Outflow Channel. In: Proceedings of Conference on 15 Years of the Operation of the Gabčíkovo Nagymaros Hydraulic System. Dunajská Streda, 2007, pp. 167-172 (in Slovak)
- [5] ČERNÝ, M: Foundation of a Complex Building under Difficult Engineering-Geological Conditions. In: Proceedings of 6th International Conference on New Trends in the Statics and Dynamics of Buildings. Bratislava, 2007, pp. 183-186 (in Slovak)
- [6] DRINKA, D. KOLLÁR, J.: Compressibility of Improved Soils. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 305-310 (in Slovak)
- [7] DRINKA, D.: Methods of Obtaining Interaction Characteristics of Reinforced Earth Structures. In: Proceedings of Conference on Geo-Synthetics in Civil Engineering. Žilina, 2007, pp. 107-113 (in Slovak)

- [8] GUŽÍK, M.: Design of Micropiles. In: Proceedings of 8th Scientific Conference of Faculty of Civil Engineering in Košice. Košice, 2007, pp. 153-156 (in Slovak)
- [9] CHABROŇOVÁ, J.: Effect of Improvement of Background Properties on a Deformed Surface during Tunnelling. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 396-401 (in Slovak)
- [10] HRUŠTINEC, Ľ. KUZMA, J.: Analysis of Cause of Failure of an Abutment Wall in Handlova. In: Proceedings of 6th International Conference on New Trends in the Statics and Dynamics of Buildings. Bratislava, 2007, pp. 173-176 (in Slovak)
- [11] HULLA, J.: Grouting of Gravel Soils and Problems in Controlling Their Efficiency. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 323-328 (in Slovak)
- [12] HULLA, J.: Deep Compaction of the Subsoil of Spread Foundations. In: Proceedings of Conference on Foundation of Structures New Technologies for Foundations. High Tatras, 2007, pp. 34-39 (in Slovak)
- [13] HULLA, J. FERIANCOVÁ, D.: Penetration Tests during the Investigation of the Subsoil of Float Chambers. In: Proceedings of Conference on 15 Years of the Operation of the Gabčíkovo Nagymaros Hydraulic System. Dunajská Streda, 2007, pp. 57-62 (in Slovak)
- [14] KOPECKÝ, M. FABIAN, M.: Improving Subsoil for High Voltage Masts in an Area Prone to Landslides. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 390-395 (in Slovak)
- [15] KOPECKÝ, M.: Effect of Climatic and Hydro-Geological Conditions on the Origin of Landslides in Slovakia. In: Proceedings of 14th Slovak Hydro-Geological Conference. Banská Bystrica, 2007, p. 10 (in Slovak)
- [16] KUZMA, J. HRUŠTINEC, Ľ.: Improving the Utilization of the Soil Properties of Geotextiles in the Design of a Structural Sealing Arrangement. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 115-120 (in Slovak)
- [17] LUKÁČ, M. BEDNÁROVÁ, E.: Fresh Water Supply Reservoirs in Slovakia. In: Proceedings of Conference on Fresh Water. Trenčianske Teplice, 2007, pp. 39-46 (in Slovak)
- [18] LUKÁČ, M. MINÁRIK, M.: Interaction of the Gabčíkovo Nagymaros Water Structure and the Environment in Actual Operations. In: Proceedings of Conference on 15 Years of the Operation of the Gabčíkovo Nagymaros Hydraulic System. Dunajská Streda, 2007, pp. 245-250 (in Slovak)
- [19] MALGOT, J. BALIAK, F. SOLČIANSKY, R.: Assessment of the Effectiveness of Improving the Subsoil Quality of the Strečno Castle. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 382-389 (in Slovak)
- [20] MASAROVIČOVÁ, M. SLÁVIK, I. KOVAĽKOVÁ, J.: Geotechnical Audit of SMZ a.s. Jelšava Desludging Site. In: Proceedings of Conference on Improving the Quality of

- Expertise in the Field of Environmental Risks of Sewage from Mining. Bratislava, 2007 (in Slovak)
- [21] MASAROVIČOVÁ, M. SLÁVIK, I. KOVAĽKOVÁ, J.: Geotechnical Audits of Desludging Sites. In: Proceedings of TOP 2007 Conference. Techniques of Environment Protection. Senec, 2007, pp. 207-212 (in Slovak)
- [22] PIVARČ, J.: Soil Improvement Using Stone Columns. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 268-271 (in Slovak)
- [23] PIVARČ, J.: Performance of Stone Columns in Subsurface Soils. In: Proceedings of 8th Scientific Conference of Faculty of Civil Engineering in Košice. Košice, 2007, pp. 141-146 (in Slovak)
- [24] PIVARČ, J.: Stone Columns Design Using Priebe's Theory. In: Proceedings of Conference on Foundations of Structures New Foundation Technologies. High Tatras, 2007, pp. 28-33 (in Slovak)
- [25] RAVINGER, R.: Contributions with Applications of Geo-Synthetics in Building. In: Proceedings of Conference on Geo-Synthetics in Civil Engineering. Žilina, 2007, pp. 83-88 (in Slovak)
- [26] RAVINGER, R.: Add New Instruments to Foundation Engineering. In: Proceedings of Conference on Foundations of Structures New Foundation Technologies. High Tatras, 2007, pp. 82-87 (in Slovak)
- [27] RAVINGER, R.: Problems on the Junction of Slopes and Buildings. In: Proceedings of 8th Scientific Conference of Faculty of Civil Engineering in Košice. Košice, 2007, pp. 163-168 (in Slovak)
- [28] RAVINGER, R.: Effect of Soil Deformation Modules on Floor Settlements. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 370-375 (in Slovak)
- [29] SÚĽOVSKÁ, M.: Changes in a Natural Groundwater Flow Regime by Large-Scale Hydraulic Structures. In: Proceedings of 14th Slovak Hydro-Geological Conference. Banská Bystrica, 2007, p. 56 (in Slovak)
- [30] SÚĽOVSKÁ, M.: Efficiency of Grouting Curtains under Embankment Dams. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 334-339 (in Slovak)
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- [32] TURČEK, P.: Improving Subsoil for the Foundation of a High-Rise Building. In: Proceedings of 8th Geotechnical Conference on Improvement of Soil Properties. Bratislava, 2007, pp. 317-322 (in Slovak)

- [33] TURČEK, P.: Mixed-in-Place Technology in Foundation Engineering. In: Proceedings of Conference on Foundations of Structures New Foundation Technologies. High Tatras, 2007, pp. 63-68 (in Slovak)
- [34] TURČEK, P.: Principles of the Design of Reinforced Pilasters for Bridges. In: Proceedings of Conference on Geo-Synthetics in Civil Engineering. Žilina, 2007, pp. 95-100 (in Slovak)
- [35] TURČEK, P.: Slope Cutting Near Constructions of Residential Buildings in Hrabovo. In: Proceedings of 8th Scientific Conference of Faculty of Civil Engineering in Košice. Košice, 2007, pp. 157-162 (in Slovak)

DEPARTMENT OF LAND AND WATER RESOURCES MANAGEMENT

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1. EDUCATION

1.1 Graduate Study

Obligatory Subjects

Hydrology Landscape Ecology

Landscape Ecology and Bioecology Meteorology and Hydrology Landscape Engineering **Engineering Practice** Engineering Structures in a Landscape **River Training** Special Excursion Pedology and Evaluation of Fields River Training and River Restoration Integrated River Basin Management Water Management Hydrological Field Measurements CAD Systems in Landscape Engineering Water Regime of a Landscape GIS in Water Management Excursion

Optional Subjects

Project 1 – Sustainable Landscape Development
Basics of Projection of Landscape Structures
CAD Systems in Water Management
KVHK Project
Project Work
Computer Modelling in Water Management
Small Water Reservoirs
Revitalization of Rivers and Wetlands
Water Regime of a Landscape
CAD Systems in Environmental Engineering

1.2 Postgraduate courses

		Hours Per Week	
Subject	Semester	Lectures	Lecturer
		Seminars	
Hydrology	1	2 - 1	J. Szolgay
Hydrology of Surface Water	1	2 - 1	J. Szolgay
Hydrology of Sub-Surface Water	1	2 - 1	J. Skalová
Hydrodynamics of a Porous Medium	1	2 - 1	J. Skalová
Methods of Terrain and Laboratory Experiments	1	2 - 1	J. Skalová
in Hydrology			
Mathematical Modelling of Hydrological and	2	2 - 1	J. Szolgay
Hydraulic Processes			
Simulation Methods, Algorithms and	2	2 - 1	J. Szolgay
Programming			
Geoinformatics	2	2 - 1	K.
			Hlavčová
Landscape Planning	1	2 - 1	V. Macura
Hydrodynamics of a Porous Medium Methods of Terrain and Laboratory Experiments in Hydrology Mathematical Modelling of Hydrological and Hydraulic Processes Simulation Methods, Algorithms and Programming Geoinformatics	2	2 - 1 2 - 1 2 - 1 2 - 1 2 - 1	J. Skalova J. Skalova J. Szolgay J. Szolgay K. Hlavčová

Revitalization of Rivers	1	2 -1	V. Macura
Soil Water Regime	2	2 - 1	V. Macura
Hydrochemistry and Hydrobiology	2	2 - 1	V. Macura
Study of Selected Ecosystems during Droughts	2	2 - 1	V. Macura

2. RESEARCH

2.1 **Research Projects**

- 1. Scenarios of Extreme Hydrological Events for Integrated River Basin Management in Slovakia. Research Grant of the Slovak Grant Agency VEGA 2/5056/25 (2005-2007, K. Hlavčová)
- 2. Water Management and Ecological Evaluation of Water Bodies. Research Grant of the Slovak Grant Agency VEGA 1/2141/05 (2005-2007, V. Macura)
- Modelling of Input Processes for the Design, Optimization and Control of Water 3. Structure Systems and Their Application to Selected Problems in Building. Research Grant of the Slovak Grant Agency VEGA 1/2032/05 (2005-2007, J. Szolgay, R. Mesiar)
- Stochastic Analysis of Hydrometeorological Processes: Modelling of Nonstationarity, 4. Heteroscedascity and Nonlinearity. Research Grant of the Slovak Grant Agency VEGA 1/2032/05 (2005-2007, J. Szolgay, R. Mesiar)
- Predicted Impact of Land Use Changes on Quantity and Quality in Rivers. Research 5. Project of APVT 51-017804 (2005-2007, K. Hlavčová)
- 6. Progressive Methods for Stochastic and Nonstochastic Modelling of Uncertainity and Their Engineering Applications. Research Project of APVT-20-003204 (2005-2007, J. Szolgay)
- 7. Regionalization of Hydrophysical Characteristics of Soils in Slovakia. Research Project of APVT-51-019804 (2005-2007, J. Skalová)
- Economic Irrigation Technologies from the Aspect of Protection of Water from 8. Pollution Caused by Agricultural Production of Nutrients. Research Project of APVT-99-033204 (2005-2007, E. Klementová)
- 9. Conservation, Restoration and Wise Use of Rich Fens in the Slovak Republic. SLO/03/G35/A/1G/72. United Nations Development Programme (2005-2010, J. Skalová)
- Hydrological Drought and Its Impact on Exploitable Groundwater Resources. Research 10. Project of APVV-0335-06 (2007-2009, E. Klementová)
- Regionalization of Quality of Aquatic Parts of Rivers by Bioindicative Methods. 11. Research project of AV 4/0110/06 (2006-2008, V. Macura)
- Hydrometeorological Data Resources and Technologies for Effective Flash Flood 12. Forecasting (HYDRATE). Research Project of the Commission of the European Communities, 6th FP, No. 037024 (2006-2009, J. Szolgay)
- Hydrological Regionalisation Towards a Coherent Framework. Subcontract of Research project of the Austrian Foundation for Education, FWF: P 18993 (2006-2009, J. Szolgay)
- Climate Variability and Land Cover Change Impact on High and Low Flows, Research project of UNESCO – IHP IV- Project Friend 23.1 (2007, J. Szolgay)
- 18. Education in the Building Industry and Geodesy. Project of European Social Fund (2005-2007, J. Szolgay)
- Hydroinformatics. Project of European Social Fund (2005-2007, J. Szolgav) 19.

- 20. Study of Relationships and Spatial Properties of Joined Hydrometeorological and Hydrological Extremes in Mountainous Regions in Slovakia. Research Grant of the Slovak Grant Agency VEGA 1/4024/07 (2007-2009, S. Kohnová)
- Hybrid Flood Modelling and Forecasting Framework for the Real Time Control of 21. Water Resource Systems and Flood Risk Estimation. Research Grant of the Slovak Grant Agency VEGA 1/4209/07 (2007-2009, J. Szolgay, M. Komorníková)
- Evaluation of Low Flows Using the Regional Typology Method. Research Project for 22. the Ministry of the Environment of the SR, HZ 04-296-07 (2007-2008, S. Kohnová)
- Analysis of Potential Changes in Runoff Due to Land Use Changes and Retention 23. Properties of the Hornad River Basin. Research Project for the Ministry of the Environment of the SR, HZ 04-306-04 (2007, K. Hlavčová)

2.2 **International Cooperation**

- Department of Hydraulic Engineering, Faculty of Civil Engineering, Czech Technical 1. University, Prague, Czech Republic
- 2. Department of Landscape and Water Management, Faculty of Civil Engineering, Technical University, Brno, Czech Republic
- Institute of Hydraulics, Hydrology and Water Management, Faculty of Civil 3. Engineering, Vienna University of Technology, Vienna, Austria
- 4. Department of Hydraulic Structures, Warsaw Agricultural University, Poland
- VITUKI Water Research Centre, Budapest, Hungary 5.
- University of Uppsala, Sweden 6.
- Delft Hydraulics, Delft, The Netherlands 7.
- 8. European Joint Research Centre, ISPRA, Italy
- University of Bologna, Italy 9.
- Institute of Hydromechanics and Water Resources Management, Swiss Federal Institute 10. of Technology, Zürich, Switzerland
- 11. University of Padova, Department of Land and Agroforest Environments, Italy
- University of Jean Moulin Lyon 3, Lyon, France 12.

3. THESES

3.1 **Graduate Theses**

No.	Student's name	Title	Supervisor
1	D. F. 'Y		I DI 1
1.	R. Frič	Irrigation of Areas in Chtelnica	J. Blaha
2.	M. Chrappa	Irrigation of Areas in Tomašov	J. Blaha
3.	L. Ačová	Green Roofs	M. Čistý
4.	S. Dvořáková	Evaluation of Small Water Reservoirs and Ponds in Zahorie	
5.	M. Jakubček	Design of Reconstruction of Irrigation System	M. Čistý
6.	P. Masárová	Flood Forecasting System in the Poprad River Basin	K. Hlavčová
7.	B. Kmeťová	Land Protection and Erosion Control in the Olšavica River Basin	K. Hlavčová
8.	L. Šurabová	Land Protection and Erosion Control in the Smižany River Basin	K. Hlavčová

9.	J. Fröhlich.	Time Series Analysis of Monthly Discharges in the Abrod and Belianske Lúky Wetlands	S. Kohnová
10.	 A. Števková 	Estimation of Design Discharges for Small Catchments	S. Kohnová
11.	J. Dobrocká	Application of MIKE BASIN Model for Simulation of Runoff Conditions in the Hron River Basin.	S. Kohnová
12.	B. Zlatner	Restoration of the Nitra River in Partizánske	V. Macura
13.	L. Vajda	Restoration of the Nitra River in Koš	V. Macura
12.	S. Guľášová	Using the Grain Size of Soil for the Assessment of Water Retention Curves	J. Skalová
13.	D. Robineková	Assessment of the Soil Water Regime in an Zelienka Wetland	J. Skalová
14.	N. Nagyová	Evaluation of Soil Water Regimes in Wetland Ecosystems Abroad	J. Skalová
15.	S. Hrúza	Evaluation of the Efficiency of Flood Detention Reservoirs on the Lower Morava River	J. Szolgay
16.	E. Kurkinová	Evaluation of Possibilities for Improvement of Flood Wave Transformations in the Lower Morava	J. Szolgay
17.	D. Burdová	Concept of the Restoration of a Flood Detention Reservoir	J. Szolgay

3.2 Doctoral Thesis

1.	O. Horvát	Parameterization of Hydrological Processes in Runoff	K. Hlavčová
		Modelling	
2.	J. Poórová	Methods of Water Management Balance	K. Hlavčová
3.	M. Ando	Modelling Characteristics of Bioindicators in Aquatic Parts of a Stream	V. Macura
4.	R. Matúš	Modelling of Joined Hydrological Processes Using Aggregation Operators	J. Szolgay
5.	R. Kubeš	Development of a Conceptual Rainfall-Runoff Model for Hydrological Forecasting	J. Szolgay

4. **PUBLICATIONS**

4.1 **Books and Textbooks**

- [1] ČISTÝ, M.: CAD Systems in Landscape Engineering. SUT, Bratislava 2007, ISBN 978-80-227-2749-5 (in Slovak)
- KOHNOVÁ, S. SZOLGAY, J. HLAVČOVÁ, K. GAÁL, L.: Continuing Education [2] in the Building Industry and Geodesy, ESF Course, No. 20. New Methods of Estimating Design Discharges and Design Precipitation from Available Observations for Proposed Water Management Constructions. SUT, Bratislava 2007, 92 pp., ISBN 978-80-227-2687-0 (in Slovak)
- SZOLGAY, J. HLAVČOVÁ, K. LAPIN, M. PARAJKA, J. KOHNOVÁ, S.: Impact of Climate Change on a Runoff Regime in Slovakia. KEY Publishing, Ostrava 2007, 160 pp., ISBN 978-80-87071-50-2 (in Slovak)

4.2 **Journals**

Scientific Papers Abroad

- GAÁL, L. KYSELÝ, J. SZOLGAY, J.: Region-of-Influence Approach to a Frequency Analysis of Heavy Precipitation in Slovakia. Hydrology and Earth System Sciences Discussion, Vol. 4, 2007, No. 4, pp. 2361-2401 (in English)
- MATÚŠ, R. BACIGÁL, T.: Selection of the Right Copula for Hydrological Extremes. Journal of Electrical Engineering, Vol. 58, 2007, No. 7, pp. 93-96 (in English)

Scientific Papers in Slovak Journals

- GAÁL, L. SZOLGAY, J. LAPIN, M. FAŠKO, P.: Process-Based Delineation of [1] Regions for a Regional Frequency Analysis of Multi-Day Precipitation Totals in the Cold Season in Slovakia. Contributions to Geophysics and Geodesy, Vol. 37, 2007, No. 3, pp. 197-224 (in English)
- HLAVČOVÁ, K. HORVÁT, O. SZOLGAY, J. DANKO, M. KOHNOVÁ, S.: Scenarios of Land Use Changes and Simulations of Hydrological Responses in the Poprad River Basin. Meteorological Journal, Vol. 10, 2007, No. 4, pp. 199-203 (in English)
- HLAVČOVÁ, K. SZOLGAY, J. KOHNOVÁ, S. KOSTKA, Z.: Using Rainfall-Runoff Models with Distributed Parameters in Estimating Effect of Land Use on a Runoff Regime in a Basin. The Environment, Vol. 41, 2007, No. 4, pp. 206-211 (in Slovak)
- JAROŠ, B. SKALOVÁ, J. CHILOVÁ, V. KONVIT, I.: Analysis of a Ground Water Regime in the Kláštorské Lúky Wetland. Acta Hydrologica Slovaca, Vol. 8, 2007, No. 1, pp. 79-88 (in Slovak)
- JURÁKOVÁ, M. SKALOVÁ, J. MAJERČÁK, J.: Hydrological Balance of Wetland Systems. Acta Hydrologica Slovaca, Vol. 8, 2007, No. 1, pp. 89-99 (in Slovak)
- JURČÁK, S. HLAVČOVÁ, K. HOLLOVÁ, J. KOHNOVÁ, S.: Development of a [6] Rainfall-Runoff Forecasting System for the Poprad River Basin. Acta Hydrologica Slovaca, Vol. 8, 2007, No. 1, pp. 56-66 (in Slovak)
- KOHNOVÁ, S. SVETLÍKOVÁ, D. KOMORNÍKOVÁ, M. HLAVČOVÁ, K. -[7] SZOLGAY, J.: Analysis of Time Series of Discharges in the Region of the Kláštorské Lúky Wetland. Acta Hydrologica Slovaca, Vol. 8, 2007, No. 1, pp. 67-78 (in Slovak)
- MACURA, V. ŠKRINÁR, A. ANDO, M.: Evaluating the Effect of Discharges on the [8] Quality of Aquatic Parts of Selected Sections of the Váh River. Acta Hydrologica Slovaca, Vol. 8, 2007, No. 1, pp. 183-190 (in Slovak)
- SZOLGAY, J. PARAJKA, J. KOHNOVÁ, S. HLAVČOVÁ, K. LAPIN, M. -FAŠKO, P.: Testing Mapping Approaches for the Estimation of 100-Year Maximum Daily Precipitation Totals in the Upper Hron River Basin. Contributions to Geophysics and Geodesy, Vol. 37, 2007, No. 3, pp. 225-246 (in English)
- [10] SZOLGAY, J. DANÁČOVÁ, M.: Detection of Changes in a Flood's Celerity by Multilinear Routing on the Danube. Meteorological Journal, Vol. 10, 2007, No. 4, pp. 219-224 (in English)

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- DANÁČOVÁ, M.: Flood Protection Assessment in the Lower Morava River. In: Juniorstav 2007. 9th Conference for Doctoral Students, 24.1.2007, Brno. VUT, Brno. 2007. ISBN 978-80-214-3337-3 (in Slovak).
- HLAVČOVÁ, K. LAPIN, M. SZOLGAY, J. KOHNOVÁ, S.: A Simple Model for Estimation of Climate Change - Induced Extreme Daily Precipitation Changes for Flash Flood Modelling. In: Heinonen, M., ed.: Proceedings of Third International Conference on Climate and Water. Finnish Environment Institute SYKE, Helsinki 2007, pp. 188-193 (in English)
- HLAVČOVÁ, K. HORVÁT, O. SZOLGAY, J. KOHNOVÁ, S.: Assessing Land Use Change Impacts on the Runoff Regimes in Selected Basins in Slovakia. In: Petraš, J., ed.: Water Management and Hydraulic Engineering. Proceedings of 10th International Symposium, Croatia, Šibenik, 4. - 9. 9. 2007. Faculty of Civil Engineering, Zagreb 2007, CD, ISBN 978-953-6272-22-8 (in English)

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- [13] MATÚŠOVÁ, E. KOHNOVÁ, S. SZOLGAY, J. HLAVČOVÁ, K. ŠTEVKOVÁ, A.: Selection of a Suitable Method for Estimating 100-Year Maximum Discharges in Small Basins in Slovakia. In: Čejp, J. Julíne, T. Říha, J., eds.: Risks in Water Management. Proceedings of Conference (with international participation), 26. 27. 11. 2007, Brno. ECON Publishing, Brno 2007, pp. 386-395, ISBN 978-80-86433-43-1 (in Slovak)
- [14] PEKÁROVÁ, P. KOHNOVÁ, S. MIKLÁNEK, P. SZOLGAY, J.: Uncertainties in the Estimation of a Design Peak Flow with 100-Year Return Period. In: Heinonen, M., ed.: Proceedings of the Third International Conference on Climate and Water. Finnish Environment Institute SYKE, Helsinki 2007, pp. 372-378
- [15] SKALOVÁ, J. ČISTÝ, M.: Assessment of Water Retention Curves by Different Methods. In: Petraš, J., ed.: Water Management and Hydraulic Engineering. Proceedings of 10th International Symposium, Croatia, Šibenik, 4. 9. 9. 2007. Faculty of Civil Engineering, Zagreb 2007, CD, ISBN 978-953-6272-22-8 (in English)
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- [22] ZVOLENSKÝ, M. HLAVČOVÁ, K. KOHNOVÁ, S. SZOLGAY, J.: Prediction of Rainfall-Runoff Model Parameters in Ungauged Catchments. In: Boegh, E., et al., eds.: Quantification and Reduction of Predictive Uncertainty for Sustainable Water Resources Management. IAHS Publication 313. IAHS Press, The Netherlands 2007, pp. 357-364, ISSN 0144-7815 (in English)

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- [24] BARA, M. DANÁČOVÁ, Z. REMIAŠOVÁ, R.: Occurrence of Extreme Floods in Slovakia. In: Majerčáková, O., Miklánek, P., eds.: 19th Conference of Young Hydrologists. SHMI, SCH, Bratislava 2007, CD, ISBN 978-80-88907-59-6 (in Slovak)
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- [44] SZOLGAY, J. DANÁČOVÁ, M.: Modelled Evaluation of the Effectiveness of Polders and Their Systems. In: Adolf Patera 2007 Workshop on Extreme Hydrological Processes in Basins. 13.11.2007, Bratislava. Slovak Water Management Society, Bratislava 2007, ISBN 978-80-01-03960-1 (in Slovak)

DEPARTMENT OF HYDRAULIC ENGINEERING

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Hydraulics I.
Hydraulic Structures
Groundwater Hydraulics
Weirs
Water Power Utilization
Hydroinformatics

Optional subjects

Inland Waterways
Basics of Hydraulic Structure Design
Hydraulic Research
Small Water Power Plants
Reconstruction of Hydraulic Structures
Hydroenergetics
Complex Hydraulic Structure Project
Projection of Hydraulic Structures
Energy Utilization of Water Sources
Weirs and Inland Waterways
Hydroenergetics

1.2 Postgraduate courses

- 1. Hydrologic and Hydraulic Aspects of Flood Protection. Course No. 16 of ESF Project "Hydroinformatics a Tool for Simulation Modelling, Information Technology in Hydrology, Hydraulics and Water Management", A. Šoltész, 5 days
- 2. Progressive Methods of Solving Water Management Problems Solution. Course No. 23 of ESF Project "Continuing Education in Civil Engineering and Geodesy", P. Dušička, 5 days

2. RESEARCH

2.1 Research projects

- 1. DUŠIČKA, P.: Research Grant No. 1/3316/06 Research of flood diversion through the hydropower plants of the Váh cascade.
- 2. ŠOLTÉSZ, A.: Effect of Drought on a Water Regime and Biodiversity of Valleys in Slovakia and Proposed Countermeasures. APVV-51-044802
- 3. DUŠIČKA, P.: Possibilities of Increasing the Primary Hydroenergy Potential on the Vah Cascade's Hydraulic Structures by the Assurance of Hydropower Plants' Regulatory Functions. VTP Project No. 4/0014/05
- 4. MOŽIEŠIK, Ľ.: Modelling and Research on the Effect of the Operation of Hydraulic Structures on the Safety and Capacity of Water Transport. APVV-20-006704
- 5. HAŠKOVÁ, L.: Research of Design Parameters and Functions of Biocorridors in Water Structures. APVV-20-003705
- 6. KAMENSKÝ, J.: Hydraulic research on artificial water sport channel structures (physical model). AV/4/0017/07

2.2 International cooperation

- 1. Czech Technical University, Prague, Faculty of Civil Engineering, Department of Hydraulic Engineering, Czech Republic
- 2. Technical University of Brno, Faculty of Civil Engineering, Institute of Water

- Structures, Czech Republic
- 3. Institut für Wasserbau und Technische Hydromechanik, Technische Universität, Dresden, Germany
- 4. Fachhochschule Köln, Fachbereich Bauingenieurwesen, Germany
- 5. Institute of Geotechnic and Hydraulic Engineering, Wroclaw, Poland
- 6. Water Resources Research Centre (VITUKI), Institute for Water Pollution Control, Budapest, Hungary
- 7. Delft Hydraulics, Rivers, Navigation and Structures Division, Delft, The Netherlands
- 8. ILRI Wageningen, The Netherlands
- 9. MAVEL, Ltd. Benešov, Czech Republic
- 10. Sts.Cyril and Methodius University, Skopje, Macedonia
- 11. BOKU Vienna, Austria
- 12. TU Zagreb, Croatia
- 13. TU Gdaňsk, Poland
- 14. ETH Zürich, Switzerland
- 15. University of Kaiserslautern, Germany
- 16. University of Hannover, Germany
- 17. Bauhaus-University of Weimar, Germany

3. THESES

3.1 Bachelor Theses – 18

3.2 Graduate Theses

No.	Student's	Title of the diploma work	Supervisor:
1.	name Dolinská	Mathematical Simulation of Groundwater Level	D. Baroková
2.	Zuzana Eliáš Marek	Regime in Southern Part of East-Slovakian Lowland Water Management and Energy Plan of the SHPP	P. Šulek
	_	Garajky	
3.	Justová Miroslava	Waterway at Bodrog, Laborec and Latorica Rivers – A Study	Ľ. Možiešik
4.	Karvašová	Irrigation of Locality of Tajba at Streda nad	J. Kamenský
	Lívia	Bodrogom	
5.	Konček	Design of SHPP on Hron River in the Locality of	P. Dušička
	Marian	Šášovské Podhradie	
6.	Medvecký František	Design of SHPP at the Trenčianske Biskupice Weir	P. Dušička
7.	Ozábal	Design of SHPP on Hron River in the Locality of	P. Dušička
	Marián	Jalná	V
8.	Ozaňáková	Effect of Increase in Water Level at WS Hričov on	P. Šulek
	Kristína	Energy Operation of HPP Hričov	
9.	Pôbiš Pavol	Solution of Water Supply of Tice from the Latorica	J. Kamenský
		River	
10.	Smreček	Weir Structure on the Váh River in the Stankovany	M. Gramblička
	Milan	Profile	

Stuhlová Petra Analysis of Navigational Conditions on Danube River L. Možiešik in Stage from rkm 1811 to rkm 1708 after Start of Operation of WS Gabčíkovo
 Zúbek Marek Hydraulic Solution of Functional Structure at Dry Reservoir in Bardejovsko

3.3 Doctoral Theses

No.	Student's	Title of the diploma work	Supervisor:
	name		
1.	Roman	Effect of Water Flow Inertia on the Behaviour of	Ľ. Možiešik
	Cabadaj	Long By-Pass Filling of Navigation Chambers	
2.	Zuzana	Impact of Navigation on Energy Functions of	P. Dušička
	Čepcová	Regulated Hydropower Plants	
3.	Lea Hašková	Solution of Hydraulic Problems of Biocorridors on	J. Kamenský
		Water Structures and Methodology of Their Design	
4.	Ján Rumann	Optimization of Operation of a Pumped Storage	P. Dušička
		Power Plant with Weekly Regulation Cycle	

4. PUBLICATIONS

4.1 Books and textbooks

- [1] KAMENSKÝ, J., KVĚTON, R.: Hydrologic and Hydraulic Aspects of Flood Protection (Part 1 Surface Water in Rivers). Educational Texts of Course No. 16 of ESF Project "Hydroinformatics a Tool for Simulation Modelling, Information Technology in Hydrology, Hydraulics and Water Management". SvF STU, Bratislava, 2007, CD
- [2] ŠOLTÉSZ, A., BAROKOVÁ, D.: Hydrologic and Hydraulic Aspects of Flood Protection (Part 2 Internal Water Diversion). Educational Texts of Course No. 16 of ESF Project "Hydroinformatics a Tool for Simulation Modelling, Information Technology in Hydrology, Hydraulics and Water Management". SvF STU, Bratislava, 2007, CD

4.2 Journals

Scientific papers in Slovak journals

[1] HAŠKOVÁ, L.: Single Stone Design as a Part of Fish Passes Using a Simple Computational Algorithm. Vodohospodársky spravodajca, Bratislava, 2007, Vol. 50, Nos.1-2, pp.22-25

4.3 Conferences

Contributions to proceedings abroad

[1] SLABÁ, V.: Optimization of Disposition Arrangement of Navigational Stages. In: Proceedings of JUNIORSTAV 2007: 9th scientific conference of PhD. study, p. 241, Brno 2007.

- [2] BAROKOVÁ, D.-ŠOLTÉSZ, A.: Simulation of Unstable Groundwater Development in Vicinity of Snowed-up Pumping Lakes. In: Proceedings of Hydraulic Engineers Symposium, Lipno, 2007, pp. 141-144
- [3] GRAMBLIČKA, M.: Flood Protection on the Little Danube River. In: Proceedings of Hydraulic Engineers Symposium, Lipno, 2007, pp. 145-150
- [4] HAŠKOVÁ, L.-RUMANN, J.-MACKOVÁ, M.-SLABÁ, V.: Design Procedure for Natural Fish Passes. In: Proceedings of Hydraulic Engineers Symposium, Lipno, 2007, pp. 151-154
- [5] RUMANN, J.-MACKOVÁ, M.: Technical and Economic Evaluation of Ipel' Pumped Storage Power Plant. In: Proceedings of Hydraulic Engineers Symposium, Lipno, 2007, pp. 155-158
- [6] MOŽIEŠIK, Ľ.-ŠULEK, P.-VALENTA, P.-SLABÁ, V.: Modelling the Water Flow and Vessel Trajectory in the Vicinity of Water Structures. In: Proceedings of Hydraulic Engineers Symposium, Lipno, 2007, pp. 159-162
- [7] ŠULEK, P.-DUŠIČKA, P.: Hydromodel of Váh Cascade in the Process of Preparation of Hydropower Plant Operations in the Slovak Electric Power System. In: Proceedings of Hydraulic Engineers Symposium, 2007, pp. 163-168
- [8] HAŠKOVÁ, L., RUMANN, J.: Hydraulic Design of Biocorridors Possibilities of Affecting Water Level. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering, CD, Šibenik, Croatia 2007, p. 27
- [9] BAROKOVÁ, L., ŠOLTÉSZ, A., MALÍK, P.: Simulation of Unsteady Groundwater Flow in the Vicinity of Snowbound Lakes in a Mountain Region. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering, CD, Šibenik, Croatia 2007, p. 41
- [10] CABADAJ, R.: Water Flow Inertia in Long Bypass Filling Systems of Navigational Chambers. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering, CD, Šibenik, Croatia 2007, p. 63
- [11] MOŽIEŠIK, Ľ., ŠULEK, P., SLABÁ, V., VALENTA, P.: Water Flow Regime and Vessel Routing Simulation in the Vicinity of a Water Structure. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering on CD, Šibenik, Croatia 2007, p. 131
- [12] KVĚTON, R., DUŠIČKA, P., RUMANN, J.: Terrain Measurements and Calibration of Hydrodynamical Model of Groups of Channel Hydro Power Plants on the Váh Cascade. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering on CD, Šibenik, Croatia 2007, p. 187
- [13] MACKOVÁ, M., RUMANN, J.: Technical and Economic Assessment of Small Hydro Power Plants in the Market Conditions of the Slovak Republic. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering on CD, Šibenik, Croatia 2007, p. 199
- [14] BAROKOVÁ, D.: Effect of Low Hydro-Power Plant Construction Effect on Groundwater Level Regime. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 171-174
- [15] ŠOLTÉSZ, A., KAMEL, A. H.: Flood Mapping for Latorica River Using MIKE11 GIS. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 175-179
- [16] MACKOVÁ, M., RUMANN, J.: Efficiency Assessment of Small Hydro Power Plants by a Developed Model for the Market Conditions of the Slovak Republic. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 190-193

- [17] ŠULEK, P., DUŠIČKA, P., MOŽIEŠIK, Ľ.: Design Operational Model for Optimization of Gabčíkovo Hydropower Plant. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 194-198
- [18] HAŠKOVÁ, L., RUMANN, J., MACKOVÁ, M., SLABÁ, V., CABADAJ, R.: Measurement of Hydraulic Parameters and Ichthyological Research on Biocorridor of Žilina Water Structure. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 203-206
- [19] MOŽIEŠIK, Ľ., SLABÁ, V.: Design of Safe Navigational Structures Via Numerical Models. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 207-211
- [20] GRAMBLIČKA, M.: Flood Protection in Slovakia and Its Mobile Elements. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 212-215
- [21] GRAMBLIČKA, M.: A Study of a Closing Structure on the Little Danube River. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 219-223
- [22] DUŠIČKA, P., KVĚTON, R., RUMANN, J.: Terrain Measurement of Water Level Regime and Estimation of Roughness Coefficient in Diversion Channel of HPP Group Hričov-Mikšová-Považská Bystrica. In: Proceedings of "Lidé, stavby a příroda 2007" international conference, Brno 2007, pp. 224-228
- [23] MOŽIEŠIK, Ľ.-ŠULEK, P.-VALENTA, P.-SLABÁ, V.: Modelling of Water Flow and Vessel Trajectory in Vicinity of Water Structures. In: Proceedings of "Plavební dny 2007" conference, Hodonín, 2007, pp. 36-41
- [24] MOŽIEŠIK, Ľ., HANDLOVIČOVÁ, A., CABADAJ, R.: Increase in the Capacity of Navigation a Locks by Combined Filling. In: Proceedings of "Plavební dny 2007" conference, Hodonín, 2007, pp. 48-57

Contributions to proceedings in Slovakia

- [1] KVĚTON, R.- DUŠIČKA, P.-RUMANN, J.: Terrain Measurements of Water Level Regime and Estimation of Roughness Coefficient of Derivation Channel of the Hydropower Plant Group Hričov Mikšová Považská Bystrica. In: Proceedings of "50 rokov prevádzky vodnej elektrárne Nosice" conference, Nimnica, 2007, pp. 29-30
- [2] ŠULEK, P. DUŠIČKA, P.: Model of Váh Cascade Operation in the Process of Preparation of Hydropower Plant Operation in Slovak Electric Power System. In: Proceedings of "50 rokov prevádzky vodnej elektrárne Nosice" conference, Nimnica, 2007, pp. 27-28
- [3] HAŠKOVÁ, L.: Analysis of Fish Pass Design Alternatives. In: Proceedings of 6th Conference of Young Water Management Engineers, Bratislava 2007, CD
- [4] ČUBAN, R., HAŠKOVÁ, L.: Measurements on Bodrog River Zemplín Water Way. In: Proceedings of 6th Conference of Young Water Management Engineers, Bratislava 2007, CD
- [5] SLABA, V: Design of Safe Water Structure Using Numerical Models. In: Proceedings of 6th Conference of Young Water Management Engineers, Bratislava 2007, CD
- [6] MACKOVÁ, M.: Technical and Economic Evaluation of SHPP. In: Proceedings of 6th Conference of Young Water Management Engineers, Bratislava 2007, CD
- [7] HAŠKOVÁ, L., RUMANN, J., MACKOVÁ, M., SLABÁ, V.: Alternatives of Fish Pass Design. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 45-54

- [8] ŠOLTÉSZ, A., BAROKOVÁ, D.: Modeling Impact of Underground Railway Construction on Groundwater Flow and Regime. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 81-90
- [9] ŠOLTÉSZ, A..: Development of Common Concept of Environmental and Water Management in Medzibodrožie (INTERREG IIIA project, Neighborhood Programme HU - SK - UA). In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 91-98
- [10] GRAMBLIČKA, M.: Urban Flood Protection. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 159-164
- [11] ŠOLTÉSZ, A., KAMEL, A. H.: Flood Mapping for Latorica River Using MIKE11 GIS. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 205-214
- [12] CABADAJ, R.: Water Flow Inertia in Long By-Pass Filling System. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 245-252
- [13] DUŠIČKA, P., et. al.: Ipeľ Pumped Storage Hydropower Plant Technical Solutions of the Preparation Stage. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 253-264
- [14] GRAMBLIČKA, M.: Studies of a Structure on the Little Danube. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 265-276
- [15] HULÍK, F.: Hydraulic Data for Design of Small Water Structure. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 277-280
- [16] KVĚTON, R., DUŠIČKA, P., RUMANN, J., ČEPCOVÁ, Z.: Terrain Measurements and Calibration of Hydro Dynamic Model of Ladce-Ilava-Dubnica-Trenčín a Kostolná-Nové Mesto-Horná Streda Groups of Channel Hydro Power Plants. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 281-292
- [17] MOŽIEŠIK, Ľ., ŠULEK, P., SLABÁ, V.: RAND Vessel Routing Model a Tool for the Design of a Secure Navigational Structure. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 293-302
- [18] ŠULEK, P., DUŠIČKA, P., MOŽIEŠIK, Ľ.: Possibilities of Optimizing the Operation of the Gabčíkovo Hydropower Plant. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 321-328
- [19] ŠULEK, P., DUŠIČKA, P.: Optimized Model of Operation of Váh Cascade Hydropower Plants. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 329-338
- [20] RUMANN, J., MACKOVÁ, M.: Efficiency Assessment of Prepared Operation of Ipeľ Pumped Storage Hydropower Plant. In: Proceedings of "Vplyv vodohospodárskych stavieb na tvorbu a ochranu životného prostredia" conference, Podbanské 2007, pp. 339-344

DEPARTMENT OF BUILDING STRUCTURES

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E-mail: anton.puskar@stuba.sk

1. EDUCATION

1.1 Graduate Study

Obligatory subjects

Technical Drawing

Building Construction 1

Building Construction 2

Building Construction 3

Building Construction 4

Building Construction 5

Project KPS

Physics of Indoor Environments

Thermal Engineering of Buildings

Building Acoustics and Illumination

Fire Safety of Buildings

Design Studio 1

Design Studio 2

Design Studio 3

Design Studio 4

Special Practice

Final Project

Building Construction

Architectural-Constructional Design Studio 1

Architectural-Constructional Design Studio 2

Architectural-Constructional Design Studio 3

Architectural-Constructional Design Studio 4

Building and Energy

Fire Engineering of Buildings

Pathology of Buildings

Simulations of Energy and Indoor Environments of Buildings

Special Building Construction

Thesis Seminar

Thesis

Methodology of Scientific Experiments

Excursion

Acoustics in Architecture

Solar Technology and Illumination of Buildings

Special Building Materials and Constructions

Building-Physical Experiment

Project 3

Design Studio

Defects and Reconstructions of Building Constructions

Selected Articles from KPS

Low-Energy and Ecological Architecture

Pathology of Constructions

Design Studio - Sanitary Engineering

Design Studio - Heating

Design Studio - Ventilation

Ecological Architecture

Optional Subjects

Project 1: Low-Energy Buildings

Building Acoustics and Illumination

Building Construction 4

Building Construction 2

Aerodynamics and Hydrodynamics of Buildings

Thermal Protection of Buildings

Construction-Physical Design

Computer Graphics and Visualizations

Facade Technology of Intelligent Buildings

Information Technologies

Lifespan of Building Constructions

Architecture-Constructional Design

Physics of Buildings in European Context

Building Construction

Fire Safety of Buildings

Urban and Building Acoustics

Simulations of Energy and Indoor Environments of Buildings

Acoustics in Architecture

Solar Techniques and Illumination of Buildings

Building Construction 5 Thermal Engineering, Acoustics and Illumination

1.2 Postgraduate Courses

Subjects	Semester	Hours Per Semester	Lecturer
Alternative and Renewable			
Energy Sources	1	2	Bielek
Slovak Energy-Saving			
Programs	1	2	Chmúrny
Construction Energy Standards			
and Codes	1	4	Chmúrny
Theory of Low-Energy			
Housing	2	2	Bielek
Basement and Foundation			
Details from the Point of View			
of Energy Savings	2	2	Turček
Non-Transparent Building			
Envelope	2	2	Puškár
Transparent Building Envelope			
The Role of Flat Roofs in	2	2	Puškár
Building Energy Consumption			
The Effect of Brickwork			
Moisture upon Increases in	2	2	Oláh
Heat Transmission Losses			
Heat Regeneration in Energy-			
Efficient Buildings	2	2	Adamská
Architectural Design of Houses	•	o =	vi
from the Point of View of	2	0,5	Hraška
Energy Savings			
Durability of Materials and	•	•	TT V1
Construction from the Point of	2	2	Hraška
View of Energy Savings			
Durability of Materials and	2	1	01 11
Construction from the Point of	2	1	Ohrablo
View of Energy Savings			

2. Research

2.1 Research Projects

- 1. VEGA 1/0314/03 Theory, experiment, simulation and structural design of double transparent facades of intelligent buildings
- 2. VEGA 1/0308/03 Simulation of buildings in the Slovak climate conditions
- 3. VEGA 1/2146/05 Establishment of measuring methods, assessments and criteria for classrooms from the viewpoint of the presence of additional sound sources
- 4. MVTS 1/7138/20 Collaboration of Austrian, Hungarian, German and Slovak institutions of higher education in the redevelopment of rural areas

- 5. MVTS Bil/Nem/SR/STU/06 Reducing Building Construction in the Countryside by Activating the Potential of Existing Urban Spaces
- 6. APVT-51-030704 Complex thermal and moisture performance of buildings

2.2 International Cooperation

- 1. TU Vienna, Austria
- 2. Wolfin WIRN, Austria
- 3. ČVUT Prague, Czech Republic
- 4. VUT Brno, Czech Republic
- 5. KEB Berlin, Germany
- 6. IFT Rosenheim, Germany
- 7. Planungsinstitut für ländliche Siedlung, Stuttgart, Germany
- 8. TU Budapest, Hungary
- 9. TU Győr, Hungary
- 10. CE Haifa, Israel
- 11. TU Eindhoven, The Netherlands
- 12. TU Delft, The Netherlands
- 13. KU Leuven, Belgium
- 14. MISI Moscow, Russia
- 15. TU Kharcow, Ukraine
- 16. University of Strathclyde, United Kingdom

3. THESES

3.1 Bachelor Theses – 225

3.2 Graduate Theses

No.	Student's Name	Title	Supervisor
1.	Peter Cibulka	FBX Office Complex	Milan Bielek
2.	Eduard Grofčík	28-Floor Office Building	Milan Bielek
3.	Juraj Murín	Sports Hall - Structural Design of External Walls with a Ventilated Ceramic Façade	Boris Bielek
4.	Bc. Jana Koropecká	City Hotel	Milan Držka
5.	Andrea Kralovičová	Mountain Hotel	Milan Držka
6.	Bc. Miroslav Čekon	Millenium Tower II	Jozef Hraška
7.	Bc. Rastislav Ingeli	Lakeside Office Park	Jozef Hraška
8.	Bc. Richard Macek	Westend Square	Jozef Hraška
9.	Katarína Škereňová	Office Building	Jozef Hraška
10.	Anna Kosová	Private Grammar School	Erik Jakeš
11.	Branislav Ďurkáč	Swimming Pool with Gymnasium	Jozef Oláh
12.	Jozef Baran	Church	Jozef Oláh
13.	Silvia Papšíková	Hospice for Children	Alena Pernišová, Katarína Minarovičová
	Veronika		
14.	Bednárová	Office Building	Anton Puškár

2.2	TO 4 1 (TO)		
16.	Juraj Jaseňák	Tax Office	Anton Puškár
15.	Peter Bohuš	Shopping Center	Anton Puškár

3.3 Doctoral Theses

No.	Student's Name	Title	Supervisor
1.	Jozef Selep	The Presence of Radon in	Anton Puškár
		Selected Localities and the	
		Protection of the Indoor	
		Environments of Buildings	
		Against Its Effects.	
2.	Slavomír Slivoň	Theoretically Reasoned	Zuzana Sternová
		Solution of Projected	
		Constructions and Their	
		Details.	

4. PUBLICATIONS

4.1 Books and Textbooks

- [1] DRŽKA, M. SLIVOŇ, S.: Do You Intend to Renovate the Balcony, Loggia or Terrace? Bratislava: Eurostav, 2007. 70 pp. ISBN 978-80-89228-07-2 (in Slovak)
- [2] GREŠKO, D. DRŽKA, M. MENĎAN, R. VAVROVIČ, B.: Building Constructions. Defects and Reconstruction, part III. 1st ed. Bratislava: STU in Bratislava, 2007. 162 pp. ISBN 978-80-227-2588-0 (in Slovak)
- [3] CHMÚRNY, I. PETRÁŠ, D. SMOLA, A. STERNOVÁ, Z. SZÉKELYOVÁ, M. VALÁŠEK, J., et al.: Review of Proposed Calculation of Energy Certification of Buildings. Bratislava: SKSI, 2007. 270 pp. ISBN 978-80-89113-44-6 (in Slovak)
- [4] MENĎAN, R. VAVROVIČ, B. MINAROVIČOVÁ, K.: Details of Building Structures: Recommended Solutions of Details Usable in CAD Programs for the Design and Realization of Buildings. Basic work. Current state: January 2007. Bratislava: Verlag Dashöfer, 2007 (in Slovak)
- [5] ŽILINSKÝ, J.: We Build in a Modern Effective Way. Bratislava: Antar, s.r.o., 2007. 131 pp. ISBN 978-80-967718-7-5 (in Slovak)

4.2 Journals

Scientific Papers Abroad

- [1] BIELEK, B. BIELEK, M.: The Sun Alternative Source of Energy, Natural Physical Cavities and New Building Envelope Technology of Intelligent Buildings. In: Polska energetyka sloneczna, 2007, No.1-2, pp 24-43. ISSN 1730-2420
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DEPARTMENT OF STEEL AND TIMBER STRUCTURES

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1. EDUCATION

1.1 Graduate Study

Obligatory subjects

Steel Structures

Preparation of the First Degree Thesis

Steel and Timber Structures

Execution of Steel and Timber Structures

Construction Project

Steel Bridges II

High-Rise and Long-Span Steel Structures

Timber Structures

Diagnosis and Reconstruction of Steel and Timber Structures

Thin-Walled Steel Structures

Advanced Steel and Timber Structures

Special Seminar

Steel and Timber Members

Metal and Timber Structures

Steel Bridges I

Urban Engineering Structures

Composite Structures

Metal and Timber for Buildings

Steel, Timber and Glass in Architecture

Steel Structures and Bridges

Stability and Plasticity of Metal Structures

Steel Bridges

High-Rise and Long-Span Steel Structures

Stability and Plasticity of Steel and Timber Structures

Special Seminar

Special Timber Structures

Thin-Walled Steel Structures

Advanced Steel Structures

Optional Subjects

Composite Steel-Concrete Structures

Special Timber Structures

Structures of Ecological Buildings

Technological Steel Structures

Diagnosis and Reconstruction of Steel and Timber Structures

2. **RESEARCH TARGETS**

2.1 Research Projects

VEGA 1/3310/06 Stability Problems of One-Dimensional and Plane Structures Made from Aluminium Alloys and Steels of Various Strengths (including High-Strength Steels). Verification and Improvement of Methods Used in Eurocodes (Prof. Baláž)

VEGA 1/3309/06 Combined Timber Beams – Real Behaviour, Development, Reconstructions (Assoc. Prof. Draškovič)

VEGA 1/3317/06 Theoretical and Experimental Analysis of Modern Lightweight Structural Systems Made from Steel, Glass, Membranes and Cables. Diagnoses and Reconstruction of Important Structures and Pipelines (Assoc. Prof. Brodniansky)

2.2 International Cooperation

1. Leonardo da Vinci Project: EURING - Development of ICT supported, flexible training to enable designers to apply Eurocodes in accordance with the national regulations of different member states (Ároch, Štujberová)

3. THESES

3. 2 Graduate Theses

No.	Student's name	Title	Supervisor
1.	František Bartal	Bus Station in Bratislava	J. Brodniansky
2.	Margaréta		J. Brodniansky
	Pásztorová	Aquapark in Poprad	
3.	Ivan Tamaškovič	Mlynské Nivy Bus Station in Bratislava	J. Brodniansky
4.	Zsuzsanna		J. Brodniansky
	Csölleová	Tower 3 High-Rise in Bratislava	
5.	Štefan Dudáš	CBC 1 High-Rise Building in Bratislava	J. Brodniansky
6.	Igor Janiška	Design of a Waterworks Building	 A. Benková
7.		Design of a Sewerage Treatment Plant	
	Jozef Leško	Building	 A. Benková

3. 3 Doctoral Theses

No	Student's name	Title	Supervisor
•			
1.	Robert Renczés	Analysis of Wind Effects on a Building with a Moveable Roof	Z. AgócsJ. Brodniansky

PUBLICATIONS 4.

4.1 Books and Textbooks

- [1] BALÁŽ I. ÁROCH R. CHLADNÝ E. KMEŤ S. VIČAN J.: Design of Steel Structures According to Eurocodes STN EN 1993-1-1:2006 and STN EN 1993-1-8:2007. Engineering and Consulting Centre of the Slovak Chamber of Civil Engineers, Bratislava, May 2007, ISBN 978-80-89113-35-4.
- [2] CHLADNÁ, M.: Fire Resistance of Composite Steel-Concrete Floor Structures: Research Series Book No. 44. Bratislava: SUT in Bratislava, Faculty of Civil Engineering, 2007. ISBN 978-80-227-2617-7 (in Slovak)
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- [5] BALÁŽ, I. KOLEKOVÁ, Y.: Lateral Torsional Buckling of Beams, Resistances and Critical Moments. In: Hommages á René Maquoi: René Maquoi 65th Birthday Anniversary. Liege, Belgium, Dec. 14, 2007. pp. 39-50 (in English)

4.2 Journals

Scientific Papers Abroad

- [1] AGÓCS, Z. BRODNIANSKY, J. SLIVANSKÝ, M. SÓGEL, K. VANKO, M.: Renewal of the Ipel Bridges and Competition for a Danube Bridge at Štúrovo. In: Silnice a železnice. ISSN 1801-822X. Vol. 2, No. 1 Annex (2007), pp. 10-12 (in English)
- [2] AGÓCS, Z. BRODNIANSKY, J. SLIVANSKÝ, M. BEZÁK, I. MAGURA, M.: New Roof of the West Stand of the A. Malatinský Stadium in Trnava. In: Konstrukce. ISSN 1213-8762. Vol.6, No.1 (2007), pp. 53-54 (in Slovak)
- [3] AGÓCS, Z. BRODNIANSKY, J. SANDANUS, J. SÓGEL, K.: Reconstruction of the Zvolen Winter Stadium's Roof Structure. In: Materiály pro stavbu. ISSN 1213-0311. Vol.13, No. 6 (2007), pp. 54-56 (in Slovak)
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- [6] MAGURA, M. BRODNIANSKY, J.: Geiger Cable Domes. In: Konstrukce. ISSN 1213-8762. Vol.6, No.2 (2007), pp. 5-8 (in Slovak)
- [7] MAGURA, M. BRODNIANSKY, J.: Construction Solution of Anchor Block Sockets on a Transit Pipeline. In: All For Power. Vol.1, No.1 (2007), pp. 30-33 (in Slovak)
- [8] SÓGEL, K. DRAŠKOVIČ, F.: Deformations of Timber Structures Over Time. In: Konstrukce. ISSN 1213-8762. Vol.6, No.6 (2007), pp. 20-22 (in Slovak)

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Contributions to proceedings abroad

- [1] AGÓCS, Z. BRODNIANSKY, J. SLIVANSKÝ, M. SÓGEL, K.: Diagnoses of Steel Pipeline Bridges. In: Cooperation of Universities and Practice in the Field of Load-Bearing Structures: Proceedings of the Seminar in Hustopeče, 2007. Brno: CERM, 2007. ISBN 978-80-7204-499-3. pp. 15-16 (in Slovak)
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- [3] AGÓCS, Z. BRODNIANSKY, J. ÁROCH, R. SLIVANSKÝ, M.: Examples of Expert Opinions on Steel Structures. In: Proceedings of the 45th Conference on Steel Structures, Hustopeče 2007, Czech Republic, Dec. 6, 2007, ČSVS, ISBN 978-80-02-01959-6. pp. 3-8 (in Slovak)

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- [7] AGÓCS, Z. BRODNIANSKY, J. ÁROCH, R. SLIVANSKÝ, M.: Reconstruction of Clinker Silos at Holcim (Slovakia) a.s. in Rohožník. In: Cooperation of Universities and Practice in the Field of Load-Bearing Structures: Proceedings of the Seminar in Hustopeče, 2007. Brno: CERM, 2007. ISBN 978-80-7204-499-3. pp. 9-10 (in Slovak)
- [8] AGÓCS, Z. CHLADNÝ, E. BRODNIANSKY, J. ÁROCH, R.: Verification of the Danube Dunaújváros Main Bridge Design by Independent Structural Calculations. In: Bridges in the Danube Basin: Proceedings of the 6th International Conference on Bridges across the Danube 2007, Hungary, Budapest, Sept. 12-14, 2007. Budapest: Müegyetemi Kiadó, 2007. ISBN 978 963 420 925 6. pp. 129-140 (in English)
- [9] BALÁŽ, I.: Normalisation Activity of the Department of Steel and Timber Structures of the Civil Engineering Faculty, Slovak University of Technology in Bratislava. In: Cooperation of Universities and Practice in the Field of Load-Bearing Structures: Proceedings of the Seminar in Hustopeče, 2007. Brno: CERM, 2007. ISBN 978-80-7204-499-3. pp. 21-22 (in Slovak)
- [10] BRODNIANSKY, J. AGÓCS, Z.: Bridges With Cables in Slovakia. Bangalore, 2007. In: Structural Engineers World Congress 2007: Proceedings of the Third International Congress, India, Bangalore, Nov. 2-7, 2007 (in English)
- [11] BRODNIANSKY, J. MAGURA, M.: Experimental Measurements of Stresses and Deformations of Transit Pipeline Lines. In: Experiment '07 Important Source of Knowledge and Verification of Design Methods of Load-Bearing Structures: Proceedings of Czech and Slovak Conference, Czech Republic, Brno, Oct. 25-26, 2007. Brno: Academic Publishing House CERM, 2007. ISBN 978-80-7204-543-6. pp. 31-36 (in Slovak)
- [12] BUČEK, P.: Critical Loads of Cold-Formed Cross-Sections Closed by Frame Battens Determined by GBT Theory. In: Juniorstav 2007: Proceedings of the 9th Professional Postgraduate Study Conference. Brno, Jan. 24, 2007. Brno: VUT in Brno, 2007. ISBN 978-80-214-3337-3. p. 127 (in Slovak)
- [13] LAPOS, J.: Lessons Learned from Cooperation in Bridge Design. In: Cooperation of Universities and Practice in the Field of Load-Bearing Structures: Proceedings of the Seminar in Hustopeče, 2007. Brno: CERM, 2007. ISBN 978-80-7204-499-3. pp. 41-42 (in Slovak)

- [14] SANDANUS, J. SÓGEL, K.: Reconstruction of the Roof of the Winter Stadium in Zvolen. In: Timber Structures: Proceedings of an Expert Seminar (with international participation), Volyně, April 4-5, 2007. Volyně: Secondary Professional School and Secondary Technical School Volyně, 2007. ISBN 978-80-86837-15-4. pp. 97-102 (in Slovak)
- [15] SANDANUS, J. SLIVANSKÝ, M.: Are Independent Project Control and Control of an Executed Load-Bearing Structure Necessary?. In: Timber Structures: Proceedings of an Expert Seminar (with international participation), Volyně, April 4-5, 2007. Volyně: Secondary Professional School and Secondary Technical School Volyně, 2007. ISBN 978-80-86837-15-4. pp. 89-96 (in Slovak)
- [16] SÓGEL, K. DRAŠKOVIČ, F.: Deformations of Timber Structures Over Time. In: Experiment '07 – Important Source of Knowledge and Verification of Methods of Design of Load-Bearing Structures: Proceedings of Czech and Slovak Conference, Czech Republic, Brno, Oct. 25-26, 2007. Brno: Academic Publishing House CERM, 2007. ISBN 978-80-7204-543-6. pp. 437-442 (in Slovak)

Contributions to proceedings in Slovakia

- [1] AGÓCS, Z. BEZÁK, I.: Theoretical Analysis of Behaviour of a Pin Connection. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 43-48 (in Slovak)
- [2] ARMSTRONG, S. ÁROCH, R. ŠTUJBEROVÁ, M.: EURING International Education Programme for Engineers. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 7-10 (in Slovak)
- [3] BALÁŽ I. ÁROCH R. CHLADNÝ E.: Proceedings of Seminar on New European Standards for Design of Steel Structures Eurocodes 3 and 9, March 27-28, 2007, ESF, SÚTN.
- [4] BALÁŽ, I. KOLEKOVÁ, Y.: Resistance of Metal Beams in Bending. In: New Trends in the Statics and Dynamics of Buildings: 6th International Conference. Bratislava, Slovakia, Oct. 18.-19, 2007. Bratislava: SUT in Bratislava, 2007. ISBN 978-80-227-2732-7. pp. 311-314 (in English)
- [5] BALÁŽ, I. ŽIVNER, T.: Critical Bending Moments of Double-Sided Clamped Beams in Clause H.2 of STN 73 1401:1998. In: Proceedings of the 8th Scientific Conference of the Civil Engineering Faculty, TU in Košice. Section 2: Engineering Structures and Transport Structures. Steel and Timber Structures. Košice, May 28-30, 2007. Košice: Technical University in Košice, 2007. ISBN 978-80-8073-802-0. pp. 19-24 (in Slovak)
- [6] BALÁŽ, I. KOLEKOVÁ, Y.: Collapse of a Bridge in the USA and Two Bridges in China in 2007. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 11-18 (in Slovak)
- [7] BENKOVÁ, A.: Use of Steel in Load-Bearing Timber Structures. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel

- Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 19-26 (in Slovak)
- [8] BENKOVÁ, A.: Ecological Symbiosis of Timber and Steel in the Design of Load-Bearing Systems. In: Timber: Resource of the 21st Century in Architecture and Construction, Proceedings of the 6th Conference (with international participation), Slovakia, Smolenice, Sept. 6-7, 2007. Bratislava: ADAPT, 2007. ISBN 978-80-89145-04-1. pp. 100-108 (in Slovak)
- [9] BENKOVÁ, A.: Ecological Symbiosis of Timber and Steel in the Design of Load-Bearing Systems. In. Proceedings of the International Conference on Urban, Architectural and Technical Characteristics of Rural Renewal VI: Renewal of the Spiritual, Cultural and Economic Capacity of the Countryside, Bratislava, Slovakia, May 14, 2007. Bratislava: SUT in Bratislava, 2007. ISBN 978-80-227-2780-8. pp. 145-150 (in Slovak)
- [10] BRODNIANSKY, J. MAGURA, M. SLIVANSKÝ, M.: Analysis of Pipeline Bridges on a Transit Pipeline. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 187-190 (in Slovak)
- [11] BRODNIANSKY, J. MAGURA, M.: Expert Opinion and Experimental Work on a Transit Pipeline. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 181-186 (in Slovak)
- [12] BRODNIANSKY, J. SLIVANSKÝ, M.: Problems in the Design of Load-Bearing Structures Made from Glass. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 129-134 (in Slovak)
- [13] DRAŠKOVIČ, F. SÓGEL, K.: Deformations of Timber Structures Over Time. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 55-60 (in Slovak)
- [14] BUČEK, P. BALÁŽ, I.: Determination of Coefficient Alpha for the Calculation of the Critical Force of Centrically Loaded Columns. In: Proceedings of the 8th Scientific Conference of the Civil Engineering Faculty, TU in Košice. Section 2: Engineering Structures and Transport Structures. Steel and Timber Structures. Košice, May 28-30, 2007. Košice: Technical University in Košice, 2007. ISBN 978-80-8073-802-0. pp. 45-50 (in Slovak)
- [15] DRAŠKOVIČ, F.: Approaches in the Design of Timber Structures According to STN EN 1995-1 and STN 73 1701. In: Timber: Resource of the 21st Century in Architecture and Construction, Proceedings of the 6th Conference (with international participation), Slovakia, Smolenice, Sept. 6-7, 2007. Bratislava: ADAPT, 2007. ISBN 978-80-89145-04-1. pp. 95-99 (in Slovak)
- [16] GUGUTSIDZE, G.: Selection of Best Type of Cross-Section for Composite Timber Beams Reinforced with Carbon Fiber-Reinforced Plastics. In: Timber: Resource of the 21st Century in Architecture and Construction, Proceedings of the 6th Conference (with

- international participation), Slovakia, Smolenice, Sept. 6-7, 2007. Bratislava: ADAPT, 2007. ISBN 978-80-89145-04-1. pp. 27-30 (in English)
- [17] MAGURA, M. BRODNIANSKY, J.: Constructional Solution of Anchor Block Sockets on a Transit Pipeline. In: Proceedings of the 8th Scientific Conference of the Civil Engineering Faculty, TU in Košice. Section 2: Engineering Structures and Transport Structures. Steel and Timber Structures. Košice, May 28-30, 2007. Košice: Technical University in Košice, 2007. ISBN 978-80-8073-802-0. pp. 157-162 (in Slovak)
- [18] RECKÝ, J. VANÍK, P.: Light Cable-Stayed `Meteo` Masts. In: Metal, Composite and Timber Structures and Bridges: Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 165-170 (in Slovak)
- [17] SANDANUS, J.: Safety of Timber Truss Structures. In: Building Statics 2007: Proceedings of the 12th Conference in Piešťany, March 15-16, 2007. Piešťany: Association of Structural Engineers of Slovakia, 2007. ISBN 978-80-969127-6-6. pp. 145-150 (in Slovak)
- [18] SANDANUS, J.: Hall Buildings with a Timber Load-Bearing Structure. In: Timber: Resource of the 21st Century in Architecture and Construction, Proceedings of the 6th Conference (with international participation), Slovakia, Smolenice, Sept. 6-7, 2007. Bratislava: ADAPT, 2007. ISBN 978-80-89145-04-1. pp. 74-79 (in Slovak)
- [19] SLIVANSKÝ, M. BRODNIANSKY, J.: Problems in the Design of Load-Bearing Structures Made from Glass. In: Proceedings of the 8th Scientific Conference of the Civil Engineering Faculty, TU in Košice. Section 2: Engineering Structures and Transport Structures. Steel and Timber Structures. Košice, May 28-30, 2007. Košice: Technical University in Košice, 2007. ISBN 978-80-8073-802-0. pp. 203-208 (in Slovak)
- [20] SLIVANSKÝ, M. SANDANUS, J.: Reconstruction of a Swimming Pool Roof in Topoľčany. In: Metal, Composite and Timber Structures and Bridges, Proceedings of the 33rd Meeting of Experts on Steel Structures, Oščadnica, Oct. 3-5, 2007. Žilina. University of Žilina, 2007. ISBN 978-80-969161-5-3. pp. 209-214 (in Slovak)
- [21] SÓGEL, K. DRAŠKOVIČ, F.: Deformations of Timber Structures Over Time. In: Proceedings of the 8th Scientific Conference of the Civil Engineering Faculty, TU in Košice. Section 2: Engineering Structures and Transport Structures. Steel and Timber Structures. Košice, May 28-30, 2007. Košice: Technical University in Košice, 2007. ISBN 978-80-8073-802-0. pp. 209-214 (in Slovak)
- [22] ŠTUJBEROVÁ, M.: Design of Fire-Resistant Load-Bearing Structures Review of Standards. In: Building Fire Safety: Proceedings of a Professional Seminar, Slovakia, Bratislava, Oct. 24-25, 2007. Bratislava: SÚTN, 2007. pp. 17-34 (in Slovak)
- [23] ŠTUJBEROVÁ, M.: Fire Resistance of Steel Structures. In: Building Fire Safety: Proceedings of a Professional Seminar, Slovakia, Bratislava, Oct. 24-25, 2007. Bratislava: SÚTN, 2007. pp. 35-51 (in Slovak)
- [24] ŠTUJBEROVÁ, M.: Design of Fire-Resistant Steel-Concrete Structures. In: Building Fire Safety: Proceedings of a Professional Seminar, Slovakia, Bratislava, Oct. 24-25, 2007. Bratislava: SÚTN, 2007. pp. 52-70 (in Slovak)

DEPARTMENT OF MAPPING AND LAND CONSOLIDATION

Head of the Department: Assoc. Prof. Jozef Čižmár, PhD. Tel.: +421 2 52494 330 E-mail: jozef.cizmar@stuba.sk

1. EDUCATION

1.1 Graduate Study

Obligatory Subjects

Cartographic Techniques and Norms
Topography
Cadastral Mapping
Cartographic Creation and Reproduction
Land Surveying, Cartography and Cadastre of Real Estate
Cadastre of Real Estate
Land Consolidation
Management of Geodetic Activities
Field Practise in Cadastre of Real Estate
Land Consolidation 2
Mathematical Cartography

Optional Subjects

Specialised Field Practise

Environmental Landscape Model Cartometry Cadastral Data Analysis Methods Value and Cost of Land Digital Cartographic Model

Realisation of Land Consolidation

2. RESEARCH

2.1 Research Projects

Model of Common Systems in a Land Consolidation Project.
Multi-Criterial Analysis of Risks of Floodplains during Floods.
Geometric Aspect of Modelling Landscape Elements and Their Spatial Application.

2.2 International Cooperation

- 1. Central European Land Knowledge Center (CELK), Budapest, Hungary
- 2. ICA-Commission on Theoretical Cartography, Federal Republic of Germany
- 3. Department of Geodesy, Faculty of Civil Engineering, VUT Brno, Czech Republic
- 4. Czech Technical University, Prague, Czech Republic
- 5. Military Academy, Department of Military Information, Brno, Czech Republic
- 6. G.E.O.S., Freiberg, Federal Republic of Germany

3. Theses

3.2 Graduate Theses

No.	Student's Name	Title	Supervisor
1.	Andrejiová, Z.	Technology of Renewal of Cadastral Documentation by a Summary Form	Bartaloš
2.	Bakoňová, M.	Records of Rights to Non-Housing Spaces in a Cadastre of Real Estate	Bartaloš
3.	Barčiková, V.	Elementary Land Consolidation Project	Geisse R.
4.	Bergl, O.	Conical Projections in the History of Mathematical Cartography	Vajsáblová
5.	Čief, B.	Visualisation of Maps in an Internet Environment	Fencík
6.	Dzurec, Š.	Variants of Technological Processes in the Creation of Thematic Maps	Čižmár
7.	Džubák, A.	Transformation of Analogue Maps in a Computerized Environment	Fencík
8.	Hrnčárová, P.	Roadside Field Project	Geisse R.
9.	Jurčík, L.	Analysis of the Accuracy of Areas in Measuring and Representation of Changes in a Cadastre of Real Estate	Bartaloš
10.	Lesayová, L.	Cartographic Projections in a Computerized Environment	Vajsáblová
11.	Mičicová, P.	Identification of Boundaries of a Cadastral District in a Field	Bartaloš
12.	Muránsky, P.	Thematic Altimetry Maps of a Land Consolidation Project in the GRASS System	Fencík
13.	Petrle, M.	A Cadastre of Real Estate and Restriction and Prohibition of Plot Fragmentation and Shareholding Ownerships in a Non-Built-Up Municipal Area	Čižmár
14.	Pevalová, J.	Geoinformation Sources in the Creation of Thematic Maps	Bartaloš
15.	Sekerková, R.	Reliability of Expression of Areal Objects in GIS	Vajsáblová
16.	Spišák, J.	Dimensioning a Road Network in a Land Consolidation Project	Geisse R.
17.	Sýkora, M.	Introductory Basis for Solution of a Complex Land Consolidation Project in the Region of Kysuce	Geisse R.
18.	Turoňová, M.	Survey Sketches from ROEP Base Sources	Bartaloš

4. PUBLICATIONS

4.1 Books and Textbooks

[1] BARTALOŠ, J.: Education of Topographers and Cartographers, Mapping - Historical Overview, Slovak Association of Land Surveyors and Cartographers, Bratislava 2007, pp. 209-219.

4.2 Journals

Scienfific Papers Abroad:

[1] GEISSE, R.: Thematic Mapping and Visualisation of Altimetry for Land Consolidation Projects in the Slovak Republic. In: IT CAD, Vol. 17, 2/2007, Brno 2007, pp. 54-55.

Scientific Papers in Slovak Journals:

- [1] ČIŽMÁR, J. HUDEC, P.: Creation of Flood Maps. In: Geodetický a kartografický obzor, Vol. 53/95, 7-8/2007, Prague 2007, pp. 129-133.
- [2] DROPPOVÁ, V. FENCÍK, R.: Possibilities of Tools of Automated Generalization in ArcGIS Software. In: Geodetický a kartografický obzor, Vol. 53/95, 7-8/2007, Prague 2007, pp. 157-160.
- [3] GEISSE, R.: Designing Secondary Roads using Atlas DMT Software. In: Slovak Land Surveyor and Cartographer, Vol. XII, 1/2007, Chamber of Surveyors and Cartographers, Bratislava 2007, pp. 8-13.

4.3 Conferences

Contributions to Proceedings Abroad

- [1] DROPPOVÁ, V.: Problems of Geographical Space Modelling in a GIS Environment. In: Proceedings of 9th Specialized Doctoral Study Conference, Technical University of Brno, Brno (Czech Republic) 2007, 7 pp. [CD-ROM].
- [2] FAIXOVÁ CHALACHANOVÁ, J. <u>FENCÍK, R.</u>: Education in Geoinformatics at the Faculty of Civil Engineering of the Slovak University of Technology in Bratislava. In: Proceedings of GIS Ostrava 2007, VŠB Technical University of Ostrava, Ostrava (Czech Republic) 2007, 9 pp. [CD-ROM].

Contributions to Proceedings in Slovakia:

- [1] ČIŽMÁR, J.: Field Practise at the Department of Mapping and Land Consolidation. In: Proceedings of History, Present and Future of Concerted Field Practise in Land Surveying, Slovak University of Technology, Bratislava 2007, pp. 31-36.
- [2] ČIŽMÁR, J.: Education in Land Consolidation at the Faculty of Civil Engineering of the Slovak University of Technology in Bratislava. In: Proceedings of Land Consolidation in Slovakia II, Rokus Ltd., Prešov 2007, 3 pp.

DEPARTMENT OF MATHEMATICS AND DESCRIPTIVE GEOMETRY

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1. EDUCATION

1.1 Graduate Study

Obligatory subjects

Mathematics I

Mathematics II

Descriptive Geometry

Descriptive Geometry

Mathematics I

Mathematics II

Mathematics II

Descriptive Geometry

Mathematics I

Mathematics II

Mathematics III

Descriptive Geometry

Descriptive Geometry

Mathematics III

Mathematics IV

Informatics

Informatics

Mathematics

Mathematical Statistics

Mathematical Statistics

Mathematical Cartography

Mathematical Analysis I

Engineering Geometry and AutoCAD I

Engineering Geometry and AutoCAD II

Geometry

Algebraic Structures and Math. Logic

Programming in C Language

Software

Software

Probability Theory

Numerical Mathematics

Modelling and Data Analysis

Finite Element Methods

Functional Analysis and Variational Methods

Stochastic and Differential Equations

Fluid Flow

Time Series Analysis

Financial Mathematics

Software (ANSYS)

1.2 Postgraduate courses

Semester Hours Per Semester Lecturer

Linear Models of Time Series	1	26	M. Komorníková
Nonlinear Models of Time Series	2	26	M. Komorníková
Mathematical Methods in Fluid Flow, Diffusion and Heat Transfer	1	26	K. Mikula
Numerical Methods in Fluid Flow, Diffusion and Heat Transfer	2	26	K. Mikula
Mathematical Basis of a Finite Element Method I	1	26	K. Mikula
Mathematical Basis of a Finite Element Method II	2	26	K. Mikula
Stochastic Processes I	1	26	M. Kalina
Probability and Statistical Estimation	1	26	O. Nánásiová
Multidimensional Statistics	2	26	O. Nánásiová
Statistical Methods in Geodesy	1	26	O. Nánásiová
Mathematics	2	26	R. Mesiar
Decision Theory	1	26	R. Mesiar
Aggregation Operators	2	26	R. Mesiar
Proposed Experiment in Optimisation	1	26	M. Komorníková
Time Series Analysis in Civil Engineering	2	26	M. Komorníková
Dynamic and Stochastic Optimisation	2	26	J. Širáň
Discrete Mathematics	1	26	J. Širáň
Graph Theory	2	26	J. Širáň

2. RESEARCH

2.1. Research projects

- 1. VEGA 1/3014/06, Fuzzy Relations and Conditioning (2006-2008, Kalina M.)
- 2. VEGA 1/3006/06, Uncertainty Modelling, Theory and Applications (2006-2008, Komorníková M.)
- 3. VEGA 1/4209/07, Hybrid Flood Modelling and Forecasting Framework for Real Time Control of Water Resources Systems and Flood Risk Estimation (2007-2009, Mesiar R.)
- 4. VEGA 1/3321/06, Modern Methods of Mathematical and Computer Modelling in Civil Engineering Applications (2006-2008, Mikula K.)
- 5. VEGA 1/2004/05, Graphs, Groups, Surfaces and Symmetries (2005-2007, Širáň J.)
- 6. APVT-20-003204, Modern Methods of Stochastic and Non-Stochastic Uncertainty Modelling and Their Applications in Engineering (2005-2007, Mesiar R.)
- 7. APVV-0375-06, Joint States and Conditioning (2007-2009, Mesiar R.)
- 8. APVT-20-000704, Maps, Designs and Groups (2005-2007, Širáň J.)

- 9. APVV-0040-06, Large Graphs and Communication Networks of a Given Degree and Diameter (2007, Širáň J.)
- 10. LPP-0203-06, Symmetries of Graphs and Maps (2006-2009, Širáň J.)
- 11. LPP-0145-06, Exponents of Cayley Maps (2006-2009 Širáň J.)
- 12. RPEU-004-06, Image Analysis by Nonlinear Diffusion Equations (2007-2009 Mikula K.)
- 13. APVV-LPP-0216-06, Effective Numerical Methods for Modelling the Earth's Gravitation (2005-2008, Mikula K.)
- 14. EMBRYOMICS, EU Project No. 012916, Part of 6th European Programme (2005-2008, Mikula K., Contractor)
- 15. BIOEMERGENCIES, EU Project, Part of 6th European Programme (2005-2008, Mikula K., Contractor)
- 16. UOA316 Marsden Fund, Royal Society of New Zealand (Principal Investigator of the Royal Society, Širáň J.)
- 17. VEGA 1/4026/07, Uncertainty in Representation of a Landscape Element in Spatial Modelling (2007-2009, Vajsáblová M.)

2.2 International Cooperation

- 1. University of Linz, Austria
- 2. University of Novi Sad, Yugoslavia
- 3. University of Haifa, Israel
- 4. CTU Prague, Czech Republic
- 5. University of Ostrava, Czech Republic
- 6. University of Liberec, Czech Republic
- 7. WB University, Plzeň, Czech Republic
- 8. Czech Academy of Sciences, Czech Republic
- 9. University of Ghent, Belgium
- 10. TU Budapest, Hungary
- 11. University of Waterloo, Canada
- 12. University of Central Lancashire, Preston, U.K.
- 13. University of Freiburg, Germany
- 14. University of Bremen, Germany
- 15. University of Heidelberg, Germany
- 16. University of Vermont, Burlington, VT, USA
- 17. University of California, Berkeley, CA, USA
- 18. University of Newcastle, Australia
- 19. University of Bologna, Italy
- 20. CINECA Supercomputing Centre, Bologna, Italy
- 21. University of Gröningen, The Netherlands
- 22. University of the Balearic Islands, Palma de Mallorca, Spain
- 23. La Sapienza University, Rome, Italy
- 24. Syracuse University, Syracuse, NY, USA
- 25. University of Dortmund, Germany
- 26. Weierstrass Institute for Applied Analysis and Stochastics, Berlin, Germany
- 27. Western Australia University, Perth, Australia

- 28. University of Auckland, New Zealand
- 29. TU Cracow, Poland
- 30. Pohang University of Science and Technology, South Korea
- 31. Western Washington University, Bellingham, WA, USA
- 32. McMaster University, Hamilton, Canada

3. Theses

3.3 Doctoral theses

- [1] BACIGÁL, T.: Advanced Methods of Time Series Modelling and Their Application in Geodesy, supervisor KOMORNÍKOVÁ, M.
- [2] MATÚŠA, R.: The Modelling of Hydrological Joint Events Using Aggregation Operators, supervisor MESIAR, R.
- [3] STRUK, P.: Special Classes of Fuzzy Measures and and Their Identification, supervisor MESIAR, R.

4. Publications

4.1 Books and Textbooks

- [1] MIKULA, K. SARTI, A.: Parallel Co-Volume Subjective Surface Method for 3D Medical Image Segmentation, In: Parametric and Geometric Deformable Models: An Application in Biomaterials and Medical Imagery, Volume-II, Springer Publishers (Eds. Jasjit S. Suri and Aly Farag), 2007, pp. 123-160 (in English)
- [2] ŠIRÁŇ, J.: Graph Embeddings and Design, Handbook of Combinatorial Designs, New York, 2007, pp. 486-489 (in English)
- [3] MIKULA, K.: Nonlinear Diffusion Equations in Image Filtering and Segmentation, GAKUTO International Series, Mathematical Sciences and Applications, Gakkou Tosho Co., Tokyo, 2007
- [4] HANDLOVIČOVÁ, A. SCHIESSLOVÁ, A.: Different Methods for Solving Engineering Problems, STU Publishing Centre, Bratislava, 2007, 100 pp. (in Slovak)
- [5] KRIVÁ, Z.: Mathematics I, STU Publishing Centre, Bratislava 2007, 99 pp. (in English)
- [6] OLEJÁR, M., OLEJÁR, M., Jr.: Integrals II., Young Scientist, Vol. 26, 2007, 80 pp. (in Slovak)

4.2 Journals

Scientific papers abroad

- [1] BACIGÁL, T.: Multivariate Smooth Transition AR Model with Aggregation Operators and Application to Exchange Rates, Kybernetika, Vol. 43, No. 2, 2007, pp. 245-254 (in English)
- [2] BACZYŃSKI, M. KLEMENT, E., P. MESIAR, R.: Special Issue: Editorial, Kybernetika, Vol. 43, No. 2, 2007, pp. 113-114 (in English)

- [3] DURANTE, F. KOLESÁROVÁ, A. MESIAR, R. SEMPI, C.: Copulas with Given Values on a Horizontal and a Vertical Section, Kybernetika, Vol. 43, No. 2, 2007, pp. 209-220 (in English)
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- [5] RICCI GHISELLI, R. MESIAR R.: On the Lipschitz Property of Strict Triangular Norms, International Journal of General System, Vol. 36, No. 2, 2007, pp. 127-146 (in English)
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- [2] DRBLÍKOVÁ, O. KOMORNÍKOVÁ, M. REMEŠÍKOVÁ, M. BOURGINE, P. MIKULA, K. PEYRIERAS, N. SARTI, A.: Estimate of the Cell Number Growth Rate Using PDE Methods of Image Processing and Time Series Analysis, Journal of ELECTRICAL ENGINEERING, Vol. 58, No. 7/s, pp. 86-92 (in English)
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4.3 Conferences

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- [1] BENEŠ, M. CHABINIOK, R. KIMURA, M. MIKULA, K.: Nonlinear Gauss-Seidel Scheme for Allen Cahn Type System, Proceedings of MAGIA 2007, Kočovce 2007, pp. 29-36 (in English)
- [2] BACIGÁL, T.: Multivariate LSTAR in Geodesy, Proceedings of Abstracts, ISCAM 2007, Bratislava, 2007, p. 6 (in English)

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- [11] STANEKOVÁ, Ľ.: One-Vertex Maps and Their Balance, Proceedings of MAGIA 2007, Kočovce 2007, pp. 67-71 (in English)
- [12] TEREŇOVÁ, Z. SOLČAN, Š.: Computing the Lines on Quartics, Proceedings of APLIMAT 2007, Bratislava, 2007, pp. 251-260 (in English)
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- [15] MINÁROVÁ, M.: Application of Diffusion Equation in Building Physic, Temperature Fields, Undesirable Condensation Prevention and Alleviation, Proceedings of 15th International Scientific Conference on Mathematical Methods in Economics and Industry, Herl'any 2007, p. 26 (in English)

DEPARTMENT OF ECONOMICS AND MANAGEMENT OF THE BUILDING INDUSTRY

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1. EDUCATION

1.1 Graduate Study – Bachelor Degree

Obligatory Subjects

Economics and Management of the Building Industry Building Economics Information Systems in the Building Industry Accounting and Controlling Microeconomics Costs and Processes

Worksite Equipment

Optional Subjects

Financial Management I.

Economic Mathematical Methods

Project Management I.

Project Management II.

Quality Management

Economic Project I.

Strategic Management and Marketing

Economic Project II.

Spatial Economics

Special Seminar

Excursion

Mathematical Statistics

Engineering Networks and Water Management

Management Basics

Concrete Technology

Renovation Technology

Transport Construction

Application Software

Accounting II.

Commercial Law

Construction Law

Marketing Basics

Personnel Management

Testing

Housing Policy

European Challenge Program

Financial Management II.

Facility Management

Business Ethics

Economics of Renovation

Controlling

Logistics

Technology of Historical Buildings

2. RESEARCH

2.1 Research Projects

[1] European Dimension of Housing Policy and Housing Sector Development in Slovakia. (VEGA 1/3781/06, 2006, Prof.Ivanička, PhD.)

Supervisor

- [2] The Risks of the Increasing Costs of Public Works (VEGA 1/3793/06, 2006, Ing.Petráková, PhD.)
- Optimization Costs of Building Administration Using the Facility Management Method [3] (VEGA 1/2573/05, 2005, Ing.Somorová, PhD.)
- IVANIČKA, K., Socrates Project, ENTPE Lyon [4]
- PETRÁKOVÁ, Z.: (Project manager): Project JPD 3 105/2005. Educational Programme for Students in Support of Their Preparation for Entrepreneurship, 2005 – 2007
- [6] PETRÁKOVÁ, Z.: Project JPD 3 2004/4-051 "Educational Programme for Postgraduate Students in Support of Their Preparation for Entrepreneurship, 2006-2007
- SOMOROVÁ, V.: SOCRATES: FHS Kufstein Tirol Austria, Austria Kufstein, [7]
- SOMOROVÁ, V.: ERASMUS, University of Bolton [8]

2.2 **International cooperation**

- E.N.T.P.E. Vaulx-en-Velin, Lyon, France
- Institute of Economics and Management, Technical University, Brno, Czech Republic
- Technical University, Faculty of Economics, Ostrava, Czech Republic
- Faculty of Building Technology, Ostrava, Czech Republic
- Institute of Economics and Management, Technical University, Prague, Czech Republic
- Economics Academy in Cracow, Poland
- Hanze University, Groningen, The Netherlands
- Kingston University, Great Britain
- Dublin Institute of Technology, Ireland
- International University, Reichartshausen Castle, Germany
- Copenhagen Polytechnic, Denmark
- Warsaw School of Economics, Poland
- University of Alicante, Spain
- Fachhochschule Biberach, Germany
- University of Illinois, USA
- Windsor University, Ontario, Canada
- University of Economics, Prague, Czech Republic
- FHS Kufstein, Austria
- University of Bolton, UK
- Vilnius Gediminas Technical University, Lithuania

3. Theses

3.1 Graduate Theses

No. Student's name Title

1.	Árendárik Andrej	Cost Management in a Building Company	Bollová
2.	Behúl Tomáš	Renovation of Housing Stock	Špirková
3.	Brazdovičová Silvia	Renewal and Development in an Urban District	Zúbková

4.	Bukovčan Juraj	Preparation and Management of a Project (Financed from EU Structural Funds)	Petráková
5.	Čaňo Juraj	Investment Incentives vs. Industrial Parks	Zúbková
7.	Činčurová Andrea	Motivation of Managers in Building Comp	oanies Kalinová
8.	Granec Rastislav	Standards for Nursery in a High – Rise Building	g Somorová
9.	Gross Peter	Housing Stock Renovation and Modernization	Jankovichová
10.	Gulač Tomáš	Financing of Housing in a Selected Country of the EU	Zúbková
11.	Haraslinová Michaela	Housing for a Low Income Group	Zúbková
12.	Hartl Juraj	Business Plan for the Construction of a Buildin in Ružinov	g Trávnik
13.	Chýlik Silvester	Risk Management in a Building Company	Zúbková
14.	Kollár Michal	Preparation and Management of a Project (Financed from EU Structural Funds)	Petráková
15.	Kondis Jozef	Management of Financial Needs in the Process of Realizing Buildings (the Viewpoint of a Building Contractor)	Petráková
16.	Kopecsni Roland	Management Model for Public Works	Bollová
17.	Matula Michal	Implementation of the Controlling Instruments in a Selected Property Management Company	Chodasová
18.	Nagyová Eva	Possibility for Implementing Telephone Marketing in the Building Industry	Trávnik
19.	Ondrášik Peter	Effect of a Building's Area on Its Price – Determination of a Floor Area Coefficient	Púchovský
20.	Osvaldová Barbora	Logistical Management in Building Firms	Romancová
21.	Pokorný Marián	Preparation and Management of a Project (Financed from EU Structural Funds)	Petráková
22.	Puchel Marek	Activity-Based Costing and the Possibility of Its Application in the Management of a Building Company	Chodasová

23.	Praško Martin	Factors Influencing the Cost of Real Estate	Romancová
24.	Renert Roman	Improvement of the Planning Process of a Proj Manager	ject Kalinová
25.	Siekel Marián	Financing Housing in a Selected Country of the EU	Zúbková
26.	Sobotovičová Lucia	Revitalization of a Hotel in the Town of Quaw	ra Ivanička
27.	Stuhlová Alexandra	Housing Stock Renovation and Modernization	Jankovichová
28.	Szakalová Eva	Classification System of Building Production in the EU's Conditions	Ellingerová
29.	Šebo Patrik	Marketing Concept for RAVAGO Firm	Trávnik
30.	Šimek Branislav	Meetings as an Effective Management Tool	Kalinová
31.	Števulová Petronela	Assumption of the Development of Ethics in a Building Firm	Jankovichová
32.	Štóra Peter	Quality of Housing Stock in a European Conte	ext Zúbková
33.	Tropeková Anna in Slovakia: Com	=	Chodasová
34.	Turaz Viliam	Foreign Countries Management of Non-Profit Housing Organizations	Ivanička
35.	Urbanovský Peter	Comparison of Real Estate Costs in a Selected Region of the SR	Nič
36.	Vicen Miroslav	Housing Property Management Organisations Slovakia and Their Classification	in Chodasová
37.	Vrábel Peter	Calculation and Comparison of the Supply Pric of the Residential Buildings in Various Localities	_
38.	Walachová Andrea	Communication Strategy Draft of XY Building Firm	Ellingerová
39.	Zbuňák František	Rent Analysis of the Administration Spaces	

in Bratislava Jankovichová

3.2 Doctoral Theses

No.Name		Title	Adviser
1.	Andrej Adamuščin	Investment Instruments in a Real Estate Market	Zúbková
2.	Martin Babulic	Territorial and Economic Possibilities for Regional Development in EU Countries	Ivanička
3.	Brazdovičová Silvia	Transfer of Technologies from University to Practice	Zúbková
4.	Silvia Brazdovičová	Total Renewal of Urban Areas	Zúbková
5.	Haraslinova Michaela	Transfer of Technologies from University to Practice	Zúbková
5.	Dana Janíková	Effect of Developers' Activities on the Growth of Current Development Areas	Zúbková
6.	Dušan Uhrin	Research Methods and Instruments for a Real Estate Market	Ivanička

4. PUBLICATIONS

Books, textbooks and chapters in books/textbooks

- [1] KALINOVÁ, G., et al.: Corporate Human Resource Management. Workbook Instruction. STU. Bratislava. 2007. 7,8 AH. pp. 1-109, ISBN 978-80-227-2739-6
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DEPARTMENT OF PHYSICS

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1. Education

1.1 Graduate Study

Obligatory Subjects

Physics I

Physics I

Physics I

Physics I

Physics II

Physics II

Physics II

Physics III

Optional Subject

Engineering Thermodynamics

1.2 Postgraduate Courses

Subject	Semest	Hours Per Semester	Lecturer
	er		
Physical Principles of Measurements	1	30	I. Baník
			J. Veselský
Special Aspects of Physics	1	28	I. Baník
			J. Lukovičová
			J. Veselský
Modelling Transport Phenomena	1	28	J. Lukovičová
Physical Fields, Waves	1	28	J. Veselský
Engineering Thermodynamics	1	28	J.Lukovičová
Measuring Thermal and Moisture	1	28	J.Lukovičová
Properties			

2. Research

2.1 Research Projects

- 1. Untraditional Physics on the Web, Grant No. 3/1187/03 (Baník I.)
- 2. Implementation of New Untraditional Forms of Physics Education Methods of Improving the Physics Ability of Students of Technical Universities with the Aim of Innovating and Practicing Modern Technologies and Their Transfer to Technical Practice. No. 13120120117 (I. Baník)
- 3. Complex Thermo Humidity Behaviour of Buildings, APVT 51 030704 (Veselský)
- 4. ESF 738211; JPD 3 2004/4024 č. 13120200041: Higher Education Program for Graduate Students and Young Research Workers in the Area of the Hydrothermal Behavior of a Building (Lukovičová)
- 5. VEGA project Nº 1/4204/07 Study and Modelling of Heat and Moisture Properties of Porous Building Materials (Lukovičová)

2.2 International Cooperation

- 1. Centre for Science Education, Sheffield Hallam University, Sheffield, GB
- 2. Katholieke Universiteit Leuven, Belgium
- 3. Faculty of Civil Engineering, Czech Technical University, Prague, Czech Republic
- 4. Faculty of Civil Engineering, Technical University, Brno, Czech Republic
- 5. Politechnika Opole, Poland
- 6. Silesian University of Technology, Gliwice, Poland

4. Publications

4.1 Books and Textbooks

- [1] BANÍK, I., BANÍK, R., BANÍK, I.: Physics and Electronics 1 Resources of Modern Technique. Bratislava. STU in Bratislava, 2007. 508 pp. ISBN 978-80-227-2625-2.
- [2] BANÍK, I. BANÍK, R., BANÍK, I., ZÁMEČNÍK, J.: Untraditional Physics. 1: Mechanics. Bratislava: STU in Bratislava, 2007. 469 pp. ISBN 978-80-227-2613-9.
- [3] CHOVANCOVÁ, M.: Pictorial Tasks in Physics. Bratislava: Príroda, 2007. 120 pp. ISBN 978-80-07-01573-9.
- [4] BANÍK, I. ZÁMEČNÍK, J.: Physics 1. STU Bratislava 2007. STU Bratislava. 87 pp. ISBN 80-227-2473-4.
- [5] KORONTHÁLYOVÁ, O., MATIAŠOVSKÝ, P., VESELSKÝ, J., PUŠKÁR, A.: Complex Transfer of Heat, Air and Water in Building Structures. STU Bratislava. 123 pp. ISBN 978-80-227-2794-5.
- [6] VESELSKÝ, J.: Physics. Mechanics, Elasticity and Rigidity, Hydromechanics. STU, Bratislava 2007. 197 pp. ISBN 978-80-227-2747-1.
- [7] BANÍK, I., CHOVANCOVÁ, M., ZÁMEČNÍK, J.: Physics 1 Mechanics, Hydromechanics. Bratislava: STU in Bratislava, 2007. 221 pp. ISBN 978-80-227-2590-3.
- [8] JANETKA, I.: Textbook of Mechanics. Bratislava: STU in Bratislava, 2007. 108 pp. ISBN 978-80-227-2787-7.
- [9] VESELSKÝ, J.: Physics. Electricity and Magnetism. Trnava: University Sts. Cyril and Method in Trnava, 2007. 135 pp. ISBN 978-80-89220-74-8.
- [10] BANÍK, I., ZÁMEČNÍK, J.: Physics 1. 2007, STU Bratislava. 87 pp. ISBN 80-227-2473-4.

4.2. Journals

Scientific Papers Abroad

- [1] BANÍK, I.: Electroabsorption in Chalcogenide Glasses and Its Explanation Based on Barrier-Cluster Model. In: Journal of Optoelectronics and Advanced Materials. 2007 / 10. pp. 3171-3176.
- [2] BANÍK, I.: Barrier-Cluster Model Applied to Chalcogenide Glasses. In: Journal of Non-Crystalline Solids. Amsterdam: North-Holland. Vol. 353, pp. 1920-1924. ISSN 0022-3093.

Scientific Papers in Slovak Journals

- [1] BANÍK, I.: Optical Experiments with DATA Projector. In: Mathematics, Physics, Informatics. Vol. 16, No. 7 (2007), pp. 418-423. ISSN 1210-1761.
- [2] YANETKA I.: On Transmissions Through a Biased Delta Barrier Embedded in a Crystalline Lattice. Acta Physica Universitatis Comenianae. 2005-2006, vol. XLVI-XLVII, No. 1, 2, pp. 7-20. ISBN 978-80-223-2328-4.

4.3. Conferences

Contributions to Proceedings Abroad

- [1] BANÍK, I.: To the Question of Optical Absorption in Chalcogenide Glasses Problem of Optical Edge. In: Physical and Material Engineering 2007: Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 8-13. ISBN 978-80-7204-537-2.
- [2] CHOVANCOVÁ, M.: Momentum of Inertia. In: Physical and Material Engineering 2007: Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 20-22. ISBN 978-80-7204-537-2.
- [3] JANETKA, I.: Harmonic Motion Damped with a Constant Frictional Force. In: Physical and Material Engineering 2007: Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 33-36. ISBN 978-80-7204-537-2.
- [4] JANETKA, I.: Measurement of the Current Decay in an LR Circuit by the CoachLab Interface. In: Physical and Material Engineering 2007: Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 37-40. ISBN 978-80-7204-537-2.
- [5] JANETKA, I.: Voltage on a Discharging Capacitor Measured by the CoachLab Interface. In: Physical and Material Engineering 2007: Proceedings of International Workshop Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 41-44. ISBN 978-80-7204-537-2.
- [6] LUKOVIČOVÁ, J., MATIAŠOVSKÝ, P.: Estimation of Porous Material's Thermophysical Properties. In: Physical and Material Engineering 2007: Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 23 28. ISBN 978-80-7204-537-2.

- [7] PALACKOVÁ, A.: Laser Infrared Photothermal Radiometry Introduction to the Measurement. In: Physical and Material Engineering 2007: Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 28-30. ISBN 978-80-7204-537-2.
- [8] HOLÚBEK, M.: Application of Software ANSYS Using the Finite Element Method for Solving Heat Transport Equation. In: Physical and Material Engineering 2007: Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 14- 20. ISBN 978-80-7204-537-2.
- [9] VESELSKÝ, J., BANÍK, I.: Measurement of Thermal Conductivity of Soils with Inviolate Structure. In: Physical and Material Engineering 2007. Proceedings of International Workshop. Velke Losiny, CR, 4.-6.9.2007. Brno: CERM, 2007. pp. 31-32. ISBN 978-80-7204-537-2.
- [10] KORONTHÁLYOVÁ, O., MATIAŠOVSKÝ, P., VESELSKÝ, J., SZABÓ, D., PUŠKÁR, A.: Determination of the Dynamic Moisture Response of Calcium Silicate and Cellular Concrete. In: 12th Symposium of Building Physics: Proceedings of Vol.2./Dresden, 29.-31.3.2007. Dresden: Technische Universität, Dresden, 2007. pp. 839-846. ISBN 978-3-86005-564-9.
- [11] LEJA, J., GMUCA, Š.: Calculations of the Binding Energies of Exotic Atomic Nuclei. In: Proceedings of New Trends in Physics Conference. Brno, Czech Republic, 15.-16.11. 2007. Brno: University of Technology, 2007. pp. 259-261. ISBN 978-80-7355-078-3.

Contributions to Proceedings in Slovakia

- [1] ČULÍK, F., LUKOVIČOVÁ, J.: Derivation of the Boundary Condition for a Heat Source. In: Thermophysics 2007: Proceedings of the Seminar. Kočovce, SR, 11.-12.10.2007. Bratislava: STU in Bratislava, 2007. pp. 41-46. ISBN 978-80-227-2746-4.
- [2] PALACKOVÁ, A.: Laser Infrared Photothermal Radiometry of an Isotopic Magnetite Composite. In: Thermophysics 2007: Proceedings of the Seminar. Kočovce, SR, 11.-12.10.2007. Bratislava: STU in Bratislava, 2007. pp. 81-85. ISBN 978-80-227-2746-4.
- [3] JANETKA, I.: Charging and Discharging a Capacitor with the CoachLab Interface. In: Research and Teaching of Physics in the Context of University Education: Proceedings of International scientific conference. Nitra, 5.-6.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 96-101. ISBN 978-80-8069-898-0.
- [4] HOLÚBEK, M: Simulation of Heat Transfer Equation Using ANSYS Software. In: Proceedings of International Workshop on Thermophysics 2007, Thermophysics 2007, STU Bratislava. pp. 120-126. ISBN 978-80-227-2746-4.
- [5] BANÍK, I.: Chalcogenide Glasses and Barrier-Cluster Model. In: Research and Teaching of Physics in the Context of University Education: Proceedings. International scientific conference. Nitra, 5.-6.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 204-209. ISBN 978-80-8069-898-0.

- [6] BANÍK, I., LUKOVIČOVÁ, J.: Problem of Elimination of Undesirable Thermal Flows at Thermophysical Measurements. In: Thermophysics 2007: Proceedings of the Seminar. Kočovce, SR, 11.-12.10.2007. Bratislava: STU in Bratislava, 2007. pp. 107-119. ISBN 978-80-227-2746-4.
- [7] BANÍK, I.: Thermodynamics in Non-Traditional Way? One Helpful Didactic Aid. In: Research and Teaching of Physics in the Context of University Education: Proceedings of International scientific conference. Nitra, 5.-6.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 229-232. ISBN 978-80-8069-898-0.
- [8] CHOVANCOVÁ, M.: Motivation in Physics. In: Research and Teaching of Physics in the Context of University Education: Proceedings of International scientific conference. Nitra, 5.-6.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 117-118. ISBN 978-80-8069-898-0.
- [9] LUKOVIČOVÁ, J., MATIAŠOVSKÝ, P.: Inverse Analysis of Heat Transport in Porous Media. In: Research and Teaching of Physics in the Context of University Education: Proceedings of International scientific conference. Nitra, 5.-6.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 15-21. ISBN 978-80-8069-898-0.
- [10] PALACKOVÁ, A.: Teaching and Learning Physics at KU Leuven from the Point of View of a Short-Term Visitor. In: Research and Teaching of Physics in the Context of University Education: Proceedings of International scientific conference. Nitra, 5.-6.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 119-120. ISBN 978-80-8069-898-0.
- [11] BANÍK, I.: Chalcogenide Glasses and a Barrier-Cluster Model. In: Physics Research and Education: Proceedings of Enlarged Abstracts. Nitra, 4.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 6. ISBN 978-80-8069-899-7.
- [12] BANÍK, I.: Thermodynamics in Non-Traditional Way? One Helpful Didactic Aid. In: Physics. Research and Education: Proceedings of Enlarged Abstracts Nitra, 4.6.2007. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 7. ISBN 978-80-8069-899-7.
- [13] JANETKA, I.: Charging and Discharging a Capacitor with a CoachLab Interface. In: Physics Research and Education. Nitra: Slovak University of Agriculture in Nitra, 2007. pp. 65-66. ISBN 978-80-8069-899-7

DEPARTMENT OF STRUCTURAL MECHANICS

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1. EDUCATION

1.1 Graduate Study

Obligatory Subjects

Subjects

Statics

Statics (English)

Theory of Elasticity

Structural Mechanics

Building Analysis

Structural Analysis

Structural Dynamics

Plate and Spatial Structures

Non-Linear Mechanics

Interaction of Structures and Foundations

Special Problems in Dynamics and Statics

Statics

Structural Mechanics I

Theory of Elasticity I

Theory of Elasticity II

Structural Analysis

Structural Dynamics

Structural Mechanics (in English)

Optional Subjects

Aeroelastics Seismic Engineering Modelling Subgrades Life Span and Reliability of Structures

Recommended Subjects

Use of Computers in Civil Engineering Structural Modelling Using FEM Automation in the Statics of Structures CAD in the Design of Structures Automation in Structural Dynamics Viscoelasticity of Structural Systems Automation in Non-Linear Structural Analysis Stability of Structures Plasticity Analysis of Structures Statics of Reconstructions

RESEARCH

2.1 Research Projects

- 1. Application of Reliability and Durability Aspects in the Optimal Design of Structures Having Unilateral Bonds with Respect to the Non-Linear Behaviour of Materials (2006-2008, J. DICKÝ, VEGA 1/3312/06)
- 2. Biomechanical Response of the Lumbar Part of a Spine under Degenerative Changes and After Implantation of Stabilizing Instrumentaria and Their Clinical Use (2005 2007, J. SUMEC, VEGA 1/2156/05)
- 3. Effect of Dynamic Effects on the Design and Systemic Identification of Structural Systems (2005 2007, M. SOKOL, VEGA 1/2142/05)
- 4. Electronic System of Teaching Selected Subjects at the Faculty of Civil Engineering STU Bratislava. (M. SOKOL Grant of Ministry of Education SR)
- 5. European Civil Engineering Education and Training. (DICKÝ, J. ERASMUS Project 2006-2373/001-001)
- 6. Interaction Between Foundation Structures and Subsoil Considering the Rheological Characteristics of Materials (2005 2007, N. JENDŽELOVSKÝ, VEGA 1/2147/05)
- 7. Probability of Damage to Reinforced Concrete Structures Considering Their Interaction with Subsoil, Extreme Loads and Degradation of Material Properties. Safety and Reliability of Nuclear Power Plants (2005 2007, J. KRÁLIK, VEGA 1/2147/05)
- 8. Research and Training in Restoration and Protection of an Urban Environment in Industrial Regions. (DICKÝ, J. 6th Marie Curie Action Framework MTKD-CT-2004-509775)
- 9. Residue of the Load-Carrying Capacity and Mechanism of the Collapse of a Structure (2005 2007, J. RAVINGER, VEGA 1/2149/05).
- 10. Timber-Bearing Elements Reinforced by Fibre-Based Materials. (J. DICKÝ, APVV-99-015805 KP 24).
- 11. Transferring EU Evaluation Models in KAUIR Functions and Processes. (DICKÝ, J.: Project SM SCM-T45A06 -2006 (KZ,RU)).
- 12. Transferring Quality Management in KSTU Functions and Processes. (DICKÝ, J. Project T078A06 KYR QM- KSTU).

2.2 International Cooperation

- 1. Civil Engineering Institute of the Polish Academy of Science, Poland
- 2. Technical University of Opole, Poland
- 3. Silesian University of Technology, Gliwice, Poland
- 4. Cracow University of Technology, Poland
- 5. Fakultät der Bauingenieurwesen Ruhr-Universität, Bochum, Germany
- 5. Bundesformschung und Prufzentrum, Arsenal, Vienna, Austria
- 6. Czech Academy of Sciences, Prague, Czech Republic
- 7. Technical University of Ostrava, Czech Republic
- 8. Brno University of Technology, Czech Republic

- 9. Czech Technical University in Prague, Czech Republic
- 10. Budapest University of Technology and Economics, Budapest, Hungary
- 11. Palacky University in Olomouc, Czech Republic
- 12. Higher School of Civil Engineering (VSU) "Lyuben Karavelov", Sofia, Bulgaria

THESES

3.1 Bachelor Theses -5

3.2 Graduate Theses

No.	Student's name	Title	Supervisor
INO.			
1.	Galliková Zuzana	31-Storey High-Rise Office Building	M. Sokol
2.	Gubric Marek	Dynamic Analysis of the Seismic	J. Králik
		Resistance of a Multifunctional	
		Building Considering the Effects of	
		Ductility	
3.	Kmet' Marián	High-Rise Building - Comparison of	M. Sokol
4	77	Calculations Using Various Methods	X7 X7 1 1 /
4.	Konečný Michal	Plastic Resistance of Metal Cross-	Y. Koleková
		Sections Loaded by Various	
_	Kráľ Emil	Combinations of the Internal Forces	V. V. alakarrá
5.	Krai Emii	Effect of Wave Propagation in an Elastic Medium on a Building Structure	Y. Koleková
6.	Nagyová Monika	Static and Dynamic Analysis of an	O. Ivánková
0.	Nagyova Monika	Office Building	O. Ivalikova
7.	Olescháková Valéria	Analysis of a Lightened Reinforced	N. Jendželovský
<i>,</i> .	Olesenakova valena	Ceiling Plate	11. Jenazelovsky
8.	Rozsár Peter	Static Analysis of Multifunctional	J. Králik
		Building Resistance to Extreme	•••
		Explosion Loads	
9.	Somorovský Marek	Wind Effects for a High-Rise Structure	O. Hubová
	•	of an Apartment Building Having an	
		Atypical Ground Plan	
10.	Štellmach Marián	Static and Dynamic Analysis of a	O. Ivánková
		Multifunctional Building	
11.	Tomašovic Ján	Analysis of a Frame Considering the	J. Ravinger
		Plasticity of Its Joints	

3.3 Doctoral Theses

No.	Student's name	Title	Supervisor
1.	Bekő Adrián	Identification of Damage to Cables via Piezodiagnosis	M. Sokol
2.	Šimonovič	Solution of a Structure-Subsoil	J. Králik

Miroslav Interaction Problem Using Infinite

Elements

Tvrdá Katarína Optimal Design of Plates J. Dický
 Véghová Ivana New Calculations and Experimental M. Sokol

Methods in the Verification of Structures

Subjected to Seismic Effects

4. PUBLICATIONS

4.1 Books and Textbooks

- [1] DICKÝ, J. MISTRÍKOVÁ, Z. SUMEC, J.: Elasticity and Plasticity I. ES STU 2007. 300 pp. ISBN 978-80-227-2742-6 (in Slovak)
- [2] RAVINGER, J. PSOTNÝ, M: Structural Analysis. Nonlinear Problems. Bratislava, ES STU 2007. 174 pp. ISBN 978-80-227-2713-6 (in Slovak)
- [3] RAVINGER, J.: Statics. Lecture Notes. KSME SvF STU 2007.
- [4] SOKOL, M. JUHÁSOVÁ, E. BENKO, V.: Design of Structures for Seismic Resistance According to the Eurocodes. Bratislava, IKS SKSI 2007. 201 pp., ISBN 978-80-89113-41-5 (in Slovak)

4.2 Journals

Scientific Papers Abroad

- [1] PSOTNÝ, M. RAVINGER, J.: Post-Buckling Behaviour of an Imperfect Slender Web. Engineering Mechanics, Vol. 14, 2007, No. 6, pp. 1-7. ISSN 1210-2717
- [2] SUMEC, J. MALAST, M. VÉGHOVÁ, I.: Modelling Non-Linear Viscoelasticity. Roczniki Inžynierii Budowlanej, Issue 7, 2007, pp. 105-108. ISSN 1505-8425.

Scientific Papers in Slovak Journals

- [1] BALÁŽ, I. KOLEKOVÁ, Y.: Correct Terminology of Section Characteristics and Its Usage in the Translation of EN 1993-1-1(E) 2005. Projekt stavba, Vol. 3, No. 2, 2007, pp. 6-9. ISSN 1336-6327 (in Slovak)
- [2] HUBOVÁ, O.: The Effect of Wind on a Structure. Slovak Journal of Civil Engineering, Vol. 15, 2007, No. 4, pp. 28-31. ISSN 1210-3896.
- [3] HUBOVÁ, O.: Wind Effects in the Systems of European and Slovak Codes. Stavba, Vol. 10, 2007, No. 6, pp. 56-57. ISSN 1335-5406 (in Slovak)
- [4] HUBOVÁ, O.: Wind Load of Structures in the System of European Codes. Normalizácia, Vol. 13, No. 2, 2007, pp. 7-10. ISSN 1335-5511 (in Slovak)
- [5] KOLEKOVÁ, Y. SCHMID, G. STOJANOVSKI, K.: Soil-Structure Interaction under Seismic Excitation. Slovak Journal of Civil Engineering, Vol. 15, 2007, No. 4, pp. 18-21. ISSN 1210-3896

- [6] KRÁLIK, J. KRÁLIK, J., Jr.: Deterministic and Probabilistic Approaches to Assessment of the Reliability of High-Rise Buildings. Civil and Environmental Engineering, Vol. 3, 2007, No. 1, pp. 2-17. ISSN 1336-5835 (in Slovak)
- [7] KRÁLIK, J. KRÁLIK, J., Jr.: Probability and Sensitivity Analysis of Soil-Structure Interaction of High-Rise Buildings. Slovak Journal of Civil Engineering, Vol. 14, 2006, Nos. 3-4, pp. 23-32. ISSN 1210-3896.
- [8] MISTRÍKOVÁ, Z. JENDŽELOVSKÝ, N.: Effect of Subgrade Models on the Strain and Stress of a Foundation Plate. Civil and Environmental Engineering, Vol. 3, 2007, No. 2, pp. 139-148. ISSN 1336-5835 (in Slovak)
- [9] RAVINGER, J. PSOTNÝ, M.: Residual Stresses on Steel Plate Girders. Building Research Journal, Vol. 55, No. 4, 2007, pp. 227-233. ISSN1335-8863.
- [10] SOKOL, M.: Reduction of Soil Vibration Induced by Traffic. Slovak Journal of Civil Engineering, Vol. 14, 2006, Nos. 3-4, pp. 33-36. ISSN 1210-3896.
- [11] TESÁR, A. TVRDÁ, K.: Energy Approach for a Solution to Nonlinear Natural Vibration. Building Research Journal, Vol. 55, 2007, Nos. 1-2, pp. 71-84. ISSN 1335-8863
- [12] TVRDÁ, K. DICKÝ, J.: Optimal Design of the Thickness of a Plate Resting on an Elastic Foundation. Slovak Journal of Civil Engineering, Vol. 15, 2007, No. 4, pp. 22-27. ISSN 1210-3896

4.3 Conferences

Contributions to Proceedings Abroad

- [1] BALÁŽ, I. KOLEKOVÁ, Y.: Lateral Torsional Buckling of Beams. Resistance and Critical Moments. Hommages à René Maquoi. Liège Belgium. December 14, 2007, pp. 39-50.
- [2] BARJAMI, N. SCHMID, G. KOLEKOVÁ, Y.: System Analysis with Spectral Beam Elements. In: 12th International MASE Symposium Award Papers. Struga, Macedonia, 27-29 September 2007. pp. 283 288. ISBN 9989-9785-1-7.
- [3] DICKÝ, J. JURÍČEK, T.: Optimal Design of Wooden Structures Reinforced with Fibres. In: International VSU Conference 2007, Sofia, Bulgaria, May 15-16, 2007. Vol. I. pp. I- 175-180. ISBN 978-954-331-015-9.
- [4] DICKÝ, J. TVRDÁ, K.: Evolutionary Optimization in the Structural Design of Plates. In: International VSU Conference 2007, Sofia, Bulgaria, May 15-16, 2007. Vol. I. pp. I-169-174. ISBN 978-954-331-015-9.
- [5] HUBOVÁ, O. SOKOL, M.: Aerodynamic Wind Actions on a Bridge Deck. In: International VSU Conference 2007, Sofia, Bulgaria, May 15-16, 2007. Vol. I. pp. I-127-132. ISBN 978-954-331-015-9.
- [6] HUBOVÁ, O.: Two Approaches for Calculating Cross Wind Amplitude. In: International VSU Conference 2007, Sofia, Bulgaria, May 15-16, 2007. Vol. I. pp. I-123-126. ISBN 978-954-331-015-9.

- [7] JENDŽELOVSKÝ, N. LENK, P.: Modelling of Primary Consolidation. In: International VSU Conference 2007, Sofia, Bulgaria, May 15-16, 2007. Vol. I. pp. I-91-96. ISBN 978-954-331-015-9.
- [8] JENDŽELOVSKÝ, N. MISTRÍKOVÁ, Z.: Analysis of Foundation Plates Resting on an Elastic Half-Space. In: International VSU Conference 2007, Sofia, Bulgaria, May 15-16, 2007. Vol. I. pp. I- 87-90. ISBN 978-954-331-015-9.
- [9] JENDŽELOVSKÝ, N.: Modelling of Consolidation in the Solution of Foundation Structures. In: 15th ANSYS Users Meeting, Lednice, October 3 5, 2007. Brno, SVS FEM. pp. 1-6. ISBN 978-80-254-0301-3 (in Slovak)
- [10] JURÍČEK, T.: Optimization of Structures. In: Modelling in Mechanics 2007. Faculty of Civil Engineering VŠB TU Ostrava, February 14 15, 2007. pp. 55-56. ISBN 978-80-248-1330-1.
- [11] KRÁLIK, J. KRÁLIK, J., Jr.: Deterministic and Probabilistic Analysis of the Seismic Resistance of Nonsymmetrical Mass Distribution in Symmetrical High-Rise Buildings. In: 15th ANSYS Users Meeting, Lednice, October 3 – 5, 2007. Brno, SVS FEM. pp. 1-14. ISBN 978-80-254-0301-3
- [12] KRÁLIK, J. IVÁNKOVÁ, O.: Analysis of the Seismic Resistance Limit of the Ventilation Chimney of a Nuclear Power Plant by SMA Methodology. In: Modelling in Mechanics 2007. Faculty of Civil Engineering VŠB TU Ostrava, February 14 15, 2007. pp. 15-16. ISBN 978-80-248-1330-1 (in Slovak)
- [13] KRÁLIK, J. IVÁNKOVÁ, O.: Deterministic and Probability Analysis of the Reliability of a Nuclear Power Plant's Ventilating Chimney. In: 8th Conference on the Reliability of Structures. April 12, 2007, Prague, ÚTAM AV ČR, pp. 75-80, ISBN 978-80-86246-33-8 (in Slovak)
- [14] KRÁLIK, J. IVÁNKOVÁ, O.: Deterministic and Probabilistic Analysis of the Seismic Resistance of a Nuclear Power Plant's Ventilating Chimney. In: 15th ANSYS Users Meeting, Lednice, October 3 5, 2007. Brno, SVS FEM. pp. 1-9. ISBN 978-80-254-0301-3 (in Slovak)
- [15] KRÁLIK, J. JAVOREK, T.: Dynamic Analysis of Steel Frame Bracing Systems with Energy-Dissipation Devices. In: International VSU Conference 2007, Sofia, Bulgaria, May 15-16, 2007. Vol. I. pp. I- 188-194. ISBN 978-954-331-015-9.
- [16] KRÁLIK, J. KRÁLIK, J., Jr.: Reliability Analysis of Manufacturing Defects of Coupled Steel Frames in Halls. In: Modelling in Mechanics 2007. Faculty of Civil Engineering, VŠB TU Ostrava, February 14 15, 2007. pp. 23-24. ISBN 978-80-248-1330-1 (in Slovak)
- [17] KRÁLIK, J. KRÁLIK, J., Jr.: Probability and Sensitivity Analysis of the Seismic Resistance of Symmetrical Structures to a Random Change of a Non-Symmetrical Distribution of Weight. In: 8th Conference on the Reliability of Structures. April 12, 2007, Prague, ÚTAM AV ČR, pp. 205-210, ISBN 978-80-86246-33-8 (in Slovak)
- [18] KRÁLIK, J. ROZSÁR, P.: Dynamic Analysis of a High-Rise Building's Resistance to Extreme Loading by Explosions. In: 15th ANSYS Users Meeting, Lednice, October 3 5, 2007. Brno, SVS FEM. pp. 1-14. ISBN 978-80-254-0301-3 (in Slovak)
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- [14] MÍKA, R. VYSKOČ, E.: Problems Occurring During the Design, Construction and Operation of the Foundation Structures of Grain Silos. In: New Trends in the Statics and Dynamics of Buildings, October 18 19, 2007, Svf STU Bratislava, pp. 315-316. ISBN 978-80-227-2732-7 (in Slovak)
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- [22] ŠPÁNIK, P. RAVINGER, J.: Load-Carrying Capacity of Thermo-Steel Sandwich Panels. In: Proceedings of the 12th Statics of Structures 2007 Conference. SSS, Piešťany, March 15 16, 2007. pp. 156-161. ISBN 978-80-969127-6-6 (in Slovak)
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DEPARTMENT OF MATERIAL ENGINEERING

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Concrete Technology
Technological Project
Concrete Technology II
Ceramics
Prefabricated Constructions
Testing

Optional subjects

Microstructure of Building Materials Technology of Repairs

2. RESEARCH

2.1 Research projects

- 1. Degradation of Alkali-Resistant Fibreglass-Reinforced Cement Composites by Solutions of Ammonium Nitrate. VEGA Project 1/2157/05. Leader: I. Rouseková
- 2. Effect of the Pore Structure of Brick Shatter on the Size of a Reduction Core. VEGA Project 1/2139/05. Leader: M. Šveda

2.2 International cooperation

- 1. Klokner Institute, TU Prague, Czech Republic
- 2. Department of Building Materials, FCE TU Opole, Poland
- 3. Research Institute of Building Materials, Joint Stock Company, Brno, Czech Republic
- 4. Brno University of Technology, Brno, Czech Republic
- 5. Czech Technical University, Prague, Czech Republic
- 6. VŠB Technical University of Ostrava, Czech Republic
- 7. Dansk Beton Teknik A/B, Hellerup, Denmark
- 8. NNC AB, Solna, Sweden
- 9. Institute of Fundamental Technological Research Polish Academy of Sciences, Warsaw, Poland

3. THESES

3.2 Graduate thesis

No.	Student's Name	Title
1.	Klinčoková, M.	The Effect of Freezing and Thawing on Changes in the Pore Structure of a Roofing Tile (Šveda, M.)
2.	Štefunková, Z.	Cement Composites with the Addition of Alkali-Resistant Glass Fibres (Rouseková, I.)
3.	Macaláková, J.	The Effect of Ammonium Chloride Solution on a Hardened Cement Paste (Pavlík, V.)
4.	Matúšová, A.	Modification of Plasticizing Admixtures Based on Polycarboxylates (Unčík S.)

4. PUBLICATIONS

4.1 Books and textbooks

- [1] ŠVEDA, M.: Insulating Materials I Water Insulation Based on Asphalt. Slovak University of Technology in Bratislava, 2007. 99 pp. ISBN 978-80-227-2596-5.
- [2] ŠVEDA, M.: Insulating Materials II Water Insulation Based on Plastic. Slovak University of Technology in Bratislava, 2007. 155 pp. ISBN 978-80-227-2612-2.

4.2 Journals

Scientific papers abroad

- [1] PAVLÍK, V. BAJZA, A. ROUSEKOVÁ, I. UNČÍK, S. DUBÍK, M.: Degradation of Concrete by Flue Gases from Coal Combustion. In: Cement and Concrete Research. 2007, Vol. 37, No. 7, pp. 1085-1095. ISSN 0008-8846.
- [2] ŠVEDA, M.: Mathematical Correlations Between Properties of Brick at Various Equilibrium Humidity Content (Part 2). In: Materials Science. 2007, Vol. 13, No. 1, pp. 52-56. ISSN 1392-1320.
- [3] ŠVEDA, M. UNČÍK, S.: Utilization of Industrial Wastes in the Manufacture of Roofing Tile. In: Silika. 2007, Vol. 17, Nos. 3-4, pp. 91-96. ISSN 1213-3930.

Scientific papers in Slovak journals

- [1] STRUHÁROVÁ, A.- ROUSEKOVÁ, I: Porous Structure of Cellular Concrete and Its Impact on Selected Physical-Mechanical Properties of Cellular Concrete. In: Slovak Journal of Civil Engineering. 2007, Vol. 15, No. 2, pp. 35-43. ISSN 1210-3896.
- [2] STRUHÁROVÁ, A.: Effectiveness of Hydrophobization Admixture on Moisture in Cellular Concrete Materials. In: Stavebné hmoty. 2007, Vol. 3, No. 2, pp. 38-43. ISSN 1336-6041.
- [3] HALAŠA, I. PULLMAN, J. UNČÍK, S.: Concrete Foundation Slab of a Cyclotron Centre. In: Eurostav. 2007, Vol.13, No.6, pp. 22-23.ISSN 1335-1249.
- [4] ŠVEDA, M.: Reinforcement of Bitumen Membranes. In: Stavebné hmoty. 2007, Vol. 3, No. 1, pp. 36-39.ISSN 1336-6041.
- [5] ŠVEDA, M.: Surface Treatment and Ageing Process of Bitumen Membranes. In: Stavebné hmoty. 2007, Vol. 3, No. 2, pp. 54-57. ISSN 1336-6041.

4.2 Conferences

Contributions to proceedings abroad

[1] UNČÍK, S.: Combination of Plasticizing Admixtures. In: Proceedings of 13th International Conference on Building Materials. CONSTRUMAT 2007. Ostrava, VŠB, TU in Ostrava, 2007, pp. 32-35. ISBN 978-80-248-1536-7.

- [2] BAJZA, A ROUSEKOVÁ, I: The Conversion of Alumina Cement Concrete. In: Proceedings of 5th Conference on Special Concretes. Prague, 2007, pp. 73-80. ISBN 978-80-86604-32-9.
- [3] BAJZA, A ROUSEKOVÁ, I: Formation of Thaumasite as a Result of Sulfate-Carbonate Attack on Cement Composite. In: Proceedings of 13th International Conference on Building Materials. CONSTRUMAT 2007. Ostrava, VŠB, TU in Ostrava, 2007, pp. 1-4. ISBN 978-80-248-1536-7.
- [4] LEDEREROVÁ, M.: Building Waste and Optimization of Its Treatment Technology. In: Proceedings of 13th International Conference on Building Materials. CONSTRUMAT 2007. Ostrava, VŠB, TU in Ostrava, 2007, pp. 5-9. ISBN 978-80-248-1536-7.
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- [7] BAJZA, A. ROUSEKOVÁ, I: Sustainable Development in Concrete Production. In: Ecology and New Building Materials and Products. In: Proceedings of 11th International Conference on Ecology and New Building Materials and Products. Brno, VÚSH, 2007, pp. 24-27. ISBN 978-80-239-9347-9.
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- [10] ŠVEDA, M.: Application of Asphalt Shingles. In: Proceedings of 13th International Conference on Building Materials. CONSTRUMAT 2007. Ostrava, VŠB, TU in Ostrava, 2007, pp. 27-31. ISBN 978-80-248-1536-7.
- [11] ŠVEDA, M.: Utilization of Industrial Waste in the Manufacture of Roofing Tile. In: Ecology and New Building Materials and Products: In: Proceedings of 11th International Conference on Ecology and New Building Materials and Products. Brno, VÚSH, 2007, pp. 125-128. ISBN 978-80-239-9347-9.

- [12] LEDEREROVÁ, M.: Recycling of Building Waste in Slovakia. In: Waste Forum 2007. Milovy, 2007, pp. 3236-3240. ISBN 978-80-02-01894-0.
- [13] LEDEREROVÁ, M.: The Environment and Building Waste. In: RECYCLING 2007: Possibilities and Future of the Recycling of Building Waste as a Source of Valuable Raw Materials. Brno, VUT Brno, 2007, pp. 47-51. ISBN 978-80-214-3381-6.
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- [15] ŠVEDA, M.: Utilization of Fine Zeolite Dust in a Roofing Tile Manufacturing. In: RECYCLING 2007: Possibilities and Future of the Recycling of Building Waste as a Source of Valuable Raw Materials. Brno, VUT Brno, 2007, pp. 47-51. ISBN 978-80-214-3381-6.

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- [1] ROUSEKOVÁ, I. BAJZA, A.: Degradation of Alumina Cement Concrete. In: Betón 2007, Štrbské Pleso, 2007, pp. 76-81. ISBN 978-80-8073-851-8.
- [2] LEDEREROVÁ, M.: The Environment and Building Waste. In: Recycling of Materials in Buildings. Košice, Dom techniky, 2007, pp. 33-37. ISBN 978-80-232-0274-8.
- [3] ŠVEDA, M.: Reduction Core in a Roofing Tile. In: Streethy 2007, STU Bratislava, 2007, pp. 93-97. ISBN 978-80-227-2764-8.
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DEPARTMENT OF BUILDING TECHNOLOGY

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- 1. EDUCATION
- 1.1 Graduate Study

Obligatory subjects

Technology of Construction Processes 1 (PSA)

Professional Practice

Studio Design

Thesis Seminar

Technology of Construction Processes 2 (PSA)

Technology of Construction Processes 2 (PSA)

Pre-Construction Design

Technology of a Building Renovation I

Modelling of Construction Processes

Construction Site Facility (ERS)

Technology of Finishing Processes

Professional Practice

Quality Management in Construction Industry

Technological Project I

Professional Field Trip

Technological Project II

Thesis Seminar

Environmental Protection During Construction

Optional subjects

Pathology of Buildings

Technology of Building Renovation II

Technology of Building Service Renovations

Forensic Engineering

Technology for the Reconstruction of Traditional Buildings

Recommended subjects

Computer-Aided Pre-Construction Design

Non-Destructive Testing

Technology of Construction Processes 1 (PSA)

Construction Site Facility (ERS)

Historical Construction Technologies (ERS)

Protection and Restoration of Architectural Heritage (PSA-A/U)

Historical Construction Technologies (PSA- A/U)

Quality Management in Construction Industry (AKP)

Pre-Construction Design (ERS)

Quality Management in Construction Industry (ERS)

Technology Processes in Building Services (SŽP)

In English

Quality Management in CE (CE)

1.2 Postgraduate Courses

Subjects	Lecturer	Semester	Hours per Semester
Technology of Construction			
Technology of Construction	Gašparík, J.	1/1	02000-000

Postgraduate Study Project I	Gašparík, J.	1/1	00002-000
Postgraduate Study Project II	Gašparík, J.	1/2	00002-000
Postgraduate Study Project III	Gašparík, J.	2/1	00002-000
Postgraduate Study Project IV	Gašparík, J.	2/2	00002-000
Postgraduate Study Project V	Gašparík, J.	3/1	00002-000
Postgraduate Study Project VI	Gašparík, J.	3/2	00002-000
Pedagogic Activity I	Gašparík, J.	1/1	00000-004
Pedagogic Activity II	Gašparík, J.	1/2	00000-004
Pedagogic Activity III	Gašparík, J.	2/1	00000-004
Pedagogic Activity IV	Gašparík, J.	2/2	00000-004
Pedagogic Activity V	Gašparík, J.	3/1	00000-004
Publication Activity I	Gašparík, J.	2/2	
Publication Activity II	Gašparík, J.	3/1	

2. RESEARCH

2.1 Research projects

- 1. GAŠPARÍK, J.: Grant VEGA No. 1/3322/06 Proposed Integrated Management System in the Process of the Preparation and Realisation of a Construction, 2006-2008.
- 2. JURÍČEK, I.: Grant VEGA Project No. 1/2155/05 Proposed Heating Systems and Regulating Their Speed during the Hardening of Concrete by Electric Heating, 2006.
- 3. MAKÝŠ, O.: MK SR Grant in the OSSD Programme, No.5813/2007/1.3 Days of Architectural Heritage Conservation Technology, 2007.
- 4. MAKÝŠ, O.: MK SR Grant in the OSSD Programme, No.5812/2007/1.3 Posters for PG Study of Architectural Heritage Conservation, 2007.
- 5. MAKÝŠ, O.: MK SR Grant in the OSSD Programme, No.5810/2007/1.3 Photographic exhibition Built Heritage in Restoration II, 2007.
- 6. FILLO, Ľ. JURÍČEK, I. et al.: ESF JPD 3 2004/4-056, Project Code: 13120120137 (05-07) Renovation of Blocks of Flats A Complex Solution of Constructional, Technological, Hygienic and Energy Problems, 2006.
- 7. ESF: FILLO, Ľ. JURÍČEK, I. et al.: JPD BA Task 3-2005/ NP1-016, Project Code 13120120281 (06-08) Construction and Traffic Buildings in English, 2006.

International Cooperation

- 1. Bundesdenkmalamt Restaurierungswerkstätten Baudenkmalpflege Kartause Mauerbach, Viena.
- 2. District Institute for the Preservation of Cultural Heritage, Brno, Czech Republic.
- 3. Czech Technical University (ČVUT), Faculty of Building Engineering, Prague, Czech Republic.
- 4. ICCROM (International Centre of the Study of the Preservation and Restoration of Cultural Property), Rome, Italy.
- 5. Purdue University, Division of Construction Engineering and Management, School of Civil Engineering, West Lafayette, IN, USA.

- 6. National Institute for the Preservation of Cultural Heritage, Prague, Czech Republic.
- 7. Southampton Institute, Built Environment Division, Southampton, England, UK.
- 8. Technical University (VUT), Faculty of Building Engineering, Department of Building Technology, Brno, Czech Republic.
- 9. University of Brighton, Faculty of Engineering and Environmental Studies, Brighton, England, UK.
- 10. CONTEC, Kralupy n. Vltavou, Czech Republic.
- 11. CNAM, Paris, France.

3. THESES

3.2 Graduate Theses

No.	Student's Name	Title	Supervisor
1.	Michal	Selected Parts of a Building-Technological	Bizub, J
	Bocán	Design for the Construction of a Multifunctional House	
2.	Peter Bodó	Selected Parts of a Building-Technological	Gašparík, J.
		Design for the "Koloseo" Multifunctional and Residential House in Bratislava	
3.	Peter Briatka	Selected Parts of a Building-Technological	Juríček, I.
		Design for the "Vienna Gate" Building in Bratislava, Petržalka	
4.	Martin Buček	Selected Parts of a Building-Technological	Gašparík, J.
		Design for the "Dominant" Multifunctional House in Bratislava	
5.	Matúš Buček	Selected Parts of a Building-Technological	Juríček, I.
		Design for the "Europa" Commercial Centrum in Banská Bystrica	
6.	Michal	Preparation of the Realisation of a	Makýš, P.
	Cápay	Multifunctional Centre (Commercial,	
		Administrative and Residential House) – III. Stage in Bratislava, Petržalka	
7.	Zuzana	Part of a Building-Technological Design for a	Božík, M.
0	Čížová	Commercial Building	II 1/ / 7
8.	Ľubomír	Selected Parts of a Construction-Technological	Hulínová, Z.
	Ecker	Design for a Residential House in Bratislava – Rača, Záhumenice Estate	
9.	Stanislav	Selected Parts of a Building-Technological	Gašparík, J.
	Gajdošík	Design for "Dominant" Building in Bratislava,	
1.0		Petržalka	T /V 1 T
10.	Ladislav Gál	Selected Parts of a Building-Technological	Juríček, I.
		Design for "Koloseo" Multifunctional and Residential Houses in Bratislava, Tomášikova	
		Street	
11.	Silvia Hlavová	Preparation of Realisation of a Multifunctional	Makýš, P.
		Centre (Broadening of a Commercial Passage) –	
10	M // II 1	3 rd Stage in Bratislava, Petržalka	T /V 1 T
12.	Matus Hornok	Selected Parts of a Building-Technological	Juríček, I.

		Design for the Administrative Centre of the County of Trenčín	
13.	Peter Hudec	Selected Parts of a Building-Technological Design for the "Ice Hockey Hall" in Partizánske	Prokopčáková, K.
14.	Martin Katuša	Selected Parts of a Building-Technological Design for the "Ružinov Centre" Multifunctional Building in Bratislava	Gašparík, J.
15.	Peter Krajčí	Selected Parts of a Construction-Technological Design for Construction of a Multifunctional Building	Bizub, J.
16.	Martin Kupka	Selected Parts of a Building-Technological Design for a Commercial Building in Bratislava – Petržalka	Juríček, I.
17.	Pavol Majdlen	Preparation of the Realisation of Restoration of Dessewffy Palace in Bratislava	Makýš, O.
18.	Peter Mitter	Preparation of Realisation of the "Slanec" Complex – Multifunctional Residential House in Bratislava, Pekná cesta	Makýš, P.
19.	Juraj Motyčka	Selected Parts of a Building-Technological Design for the "Panorama City" in Bratislava	Búciová, M.
20.	Tomáš Mrlák	Parts of a Building-Technological Preparation of a Underground Garages	Božík, M.
21.	Martin Obst	Parts of a Building-Technological Preparation of an Administrative Building	Božík, M.
22.	Martin Paldan	Selected Parts of a Building-Technological Design for Construction of the "Dominant" Multifunctional House in Bratislava, Petržalka	Klímek, V.
23.	Michal Pokorný	Selected Parts of a Building-Technological Design for Construction of a Residential House in Bratislava	Gašparík, J.
24.	Roman Račev	Selected Parts of a Building-Technological Design for Construction of the "Hrachova Street" Residential Complex in Bratislava	Gron, A.
25.	Andrea Rysuľová	Selected Parts of a Building-Technological Design for Construction of the "Dominant" Multifunctional House in Bratislava, Petržalka	Klímek, V.
26.	Adrián Sabo	Selected Parts of a Building-Technological Design for Construction of the "Slavín" Town Villa in Bratislava, Stará Vinárska Street	Gron, A.
27.	Jozef Salaj	Selected Parts of a Building-Technological Design for Construction of the "Humenné Square" Residential House in Bratislava	Prokopčáková, K.
28.	Milan Sedláček	Selected Parts of a Building-Technological Design for Construction of the "Industrial Area IPEC-REAL" in Dubnica nad Váhom.	Klímek, V.
29.	Jaroslav Studénka	Preparation of the Realisation of Restoration of a Manor House in Brhlovce	Makýš, O.
30.	Dušan Šimončič	Selected Parts of a Building-Technological Design for Construction of the "IPEC Industrial Area" in Šahy	Klímek, V.

31.	Peter Škoda	Preparation of the Realisation of the "Slanec –	Makýš, P.
		Residential House No.1" Complex in Bratislava	
		 Pekná cesta 	
32.	Robert	Parts of a Building-Technological Design for the	Božík, M.
	Škrkoň	"SLCP Research and Evaluation Centre"	
33.	Antónia	Preparation of Realisation of the "Slanec –	Makýš, P.
	Šnábelová	Residential House No.2" Complex in Bratislava	-
	~	Pekná cesta	
34.	Michal Ťažár	Parts of a Building-Technological Design for an	Božík, M.
		Administrative Building	
35.	Juraj Záhorec	Selected Parts of a Building-Technological	Klímek, V.
		Design for the "Beskydska Street" Residential	
		house in Bratislava	

Doctoral thesis

1. Robert Non Destructive Testing of Masonry Work Nič, M. Gašparík

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- [2] BÚCIOVÁ, M.: Housing Maintenance and Repair Work against Fungal Contamination, Bratislava: STU Publishing 2007, 61 pp., ISBN 978-80-227-2784-6
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- [4] GAŠPARÍK, J.: Minimizing Energy Consumption of Mechanized Construction Processes, Bratislava: STU Publishing, 2007, 81 pp., ISBN 978-80-227-2754-9
- [5] JURÍČEK, I.: Realising the Renovation of Panel Buildings. Bratislava: STU Publishing, 2007, 203 pp., ISBN 978-80-227-2793-8.
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- [13] BIZUB, J.: Composite Thermal Insulation System, In: Do it Yourself, 2007, September 2007, pp. 42-50, ISSN 1335-4604.
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DEPARTMENT OF SANITARY AND ENVIROMENTAL ENGINEERING

Head of the Department: Prof. Jozef Kriš, PhD.

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1. Education

1.1 Graduate Study

Obligatory subjects

Environmental Technology VHVS **Environmental Technology** Water Chemistry and Hydrobiology Chemistry of Water, Soil, Air and Waste Environmental Hygiene Landscape Engineering Infrastructure of Urban Regions Landscape Eng. and Infrastr. of Urban Regions Water Pollution Control Sanitary Engineering Structures Design and Execution of Water Management Structures Water Supplies and Water Treatment **Public Utility Networks** Solid Waste Management Public Utility Networks and Water Management Structures Sewerage and Waste Water Treatment **In-Situ Training**

Practical Training
Solid Waste Management
Urban Hygiene
Selected Chapters of Water Supply and Water
Treatment
Selected Chapters of Sewerage and Waste Water
Treatment
Spas and Mineral Waters

Special Excursion
Special Seminar
Execution of Sanitary Structures
Water Management
Automation of Engineering Works
Theory and Techniques of Air Protection
Final Thesis

Optional Subjects

Pumping Stations
Industrial Water Management
Urban and Regional Planning
Rehabilitation of Old Waste Disposal Sites
Urban Hydrology
Operation and Maintenance of Sanitary
Engineering Structures

2. Research

2.1 Research projects

- 1. Management of Water Distribution Systems (2003-2005, J. Kriš)
- 2. Water Supply (2003-2005, J. Kriš)
- 3. Vulnerability of Water Supply Systems (2005-2007, K. Tóthová)
- 4. Management of Water Losses in Water Distribution Systems (2005-2007, K. Tóthová)
- 5. The Use of Life Cycle Assessment Tools for the Development of Integrated Waste Management Strategies for Cities and Regions with Rapidly Growing Economies, 5th EU Program (2002 2005, O. Čermák)
- 6. Systemic Analysis of Composition of Municipal Solid Waste (2005-2007 O. Čermák)
- 7. Development and Improvement of Rural Settlement Infrastructure as a Part of the Restoration of Its Material Environment (2005-2007 M. Čermáková)
- 8. Appraisal of the Impact of CSO in Communal Sewages on Receiving Waters during Storms (2003-2005, Rusnák)
- 9. Changes In Water Quality in Receiving Waters Caused by Urban Catchment Runoffs (2005-2007, Sokáč)
- 10. Implementation of Optical Data Cable Works in a Sewage System (2005-2007, Stanko)
- 11. Evaluation of Water System Distributions (2006-2008 Kriš)

2.2 International cooperation

- Technical University, Prague, Czech Republic 1.
- 2. Technical University, Brno, Czech Republic
- Technical University, Vienna, Austria 3.
- Universität für Bodenkultur, Vienna, Austria 4.
- Danish Hydraulic Institute, Horsholm, Denmark, and Prague, Czech Republic 5.
- National Water Research Institute, Burlington, Canada 6.
- Instytut Inžynierii Sanitarnej i Ochrany Šrodowiska, Politechnika Czestochowska, 7. Czestochowa, Poland
- Hokkaido University, Sopporo, Japan 8.
- University of Pavia, Pavia, Italy 9.
- 3. Theses
- **3.1 Bachelor theses** 53
- 3.2 Graduate Theses

No.	Student	Title	Supervisor
1.	Katarína Bothgalová	Sustainable Development of Water Supply and Sewerage System.	Katarína Tóthová
2.	Miroslav Hamacek	Disinfection By-Products	Ivona ŠkultétyovA
3.	Martin Hlaváč	Region of Šurany – Water Supply and Sewerage System.	Jozef Kriš
4.	Tomáš Krafčík	Removal of Heavy Metals from Water	Ján Ilavský
5.	Matúš Letko	Dewatering Channels and Infiltration Structures for Rain Waters from Surface Runoff from Reinforced Surfaces.	Dušan Rusnák
6.	Tomáš Martiš	Sustainable Development and Problems of the Infrastructure in Bernolákovo	Ľubomíra Horanová
7.	Martina Matušková	Public Utility Networks for Region of Šurany	Jarmila Božíková
8.	Marcel Móro	Design of Sewage System of Village S	Štefan Stanko
9.	Zuzana Slanická	Water Supply for Bílkové Humence	Danica Barloková
10.	Michal Šiandor	Pool Technology of Spa Building	Jarmila Božíková
11.	Michal Švihra	Impact of Expansion of Urbanization on Rain- Runoff Condition of Urbanizing Areas	Štefan Stanko
12. 13.	Marek Wild Tomáš Žemla	Design of Sewage System of Village M Study of Sewage System of Village of Východná	Dušan Rusnák Marek Sokáč
14.	Michal Plaskúr	Design of Mechanical-Biological Waste Treatment	Oskár Čermák
3. D	octoral Theses		
1.	Martin Faško	Evaluation of Water Distribution Systems	Jozef Kriš
2.	Jana Nagyová	Monitoring of the Conjunction of Nitrates to the Water Environment in Slovak Conditions	Juraj Námer

4. Publications

4.1 Books and textbooks

- ČERMÁK, O.: Waste Management: Waste Collection and Disposal. Publishing House [1] STU Bratislava, 2007, ISBN 978-80-227-2662-7.
- ČERMÁK, O.: Waste Collection-Waste Systems, Collection, Disposal. Waste Management. Operating Program of Agricultural Sector, Development of Country. Publishing House ATU Nitra.

4.2 Journals

Scienfific papers abroad

- [1] BARLOKOVÁ, D., ILAVSKÝ, J.: Natural Zeolites in Water Treatment. In: Vodní hospodářství, Vol. 57, No. 6, 2007, ISSN 0862-5549, pp. 213-215.
- ILAVSKÝ, J., BARLOKOVÁ, D., MUNKA, K.: Removal of Heavy Metals from Water by Sorption Materials. In: Vodní hospodářství, Vol. 57, No. 8, 2007, ISSN 0862-5549, pp. 301-303.
- URCIKÁN, P., RUSNÁK, D.: How to Design a Minimal Slope for a Sewer. In: Vodní hospodářství. Vol. 57, No. 8, 2007, ISSN 0862-5549, pp. 169-171.
- URCIKÁN, P., RUSNÁK, D.:Combination of Infiltration Depression and Trench for Rainwater from Roads. In: Silniční obzor, Vol. 68, No. 4, 2007, ISSN 0322-7154, pp. 101-105.
- STANKO, Š.: Sewerage: New Information Highway. In: Vodní hospodářství. Vol. 57, No. 7, 2007, ISSN 0862-5549, pp. 244-247.

Scientific papers in Slovak Journals

- MAHRÍKOVÁ, I.: Slovak National Committee IWA-2006: Review of Activities. In: [1] Vodohospodársky spravodajca, Vol. 50, Nos. 3-4, 2007, ISSN 0322-886X, p. 36.
- [2] ČERMÁK O.: Design of Compost Basin Building. In: STAVBA, Vol.10, No.10, 2007, ISSN 1335 – 5406, pp. 46 – 48.
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- ČERMÁK O.: Solution to Rural Settlement Infrastructure. In: STAVBA, Vol. 10, No. [4] 6, 2007, ISSN 1335 - 5406, pp. 34 - 37.
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- [8] TÓTHOVÁ K.: Water is the Element which Gives Life. In: Dieťa, Vol. XIII, No. 1, 2007, ISSN 1335-0919, pp. 31-33.
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- BOŽÍKOVÁ, J.: Contemporary Slovak Spa Legislation. In: Proceedings of [3] International Balneotechnical Days Conference in Františkovy Lázně, Františkovy Lázně, 21.-23.11.2007, pp. 3-8.
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- [10] ILAVSKÝ, J., BARLOKOVÁ, D., MUNKA, K.: Heavy Metals in Water: Health Risks and Removal by Sorption Materials. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering, Croatia, Šibenik, 4.-9.9.2007, Zagreb Faculty of Civil Engineering, ISBN 978-953-6272-21-1, CD.
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- [25] KRIŠ, J., FAŠKO, M.: Protection of Water Resources in the Slovak Republic. In: Contemporary Problems of Environmental Law and Policies in the Russian Federation, Izhevsk, 2006.
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- [29] RUSNÁK, D. STANKO, Š.: Impact of Operation of CSO Structures on Receiving Water Quality in Slovakia In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering, Solaris, Šibenik, Croatia, 4.-9.9.2007, Zagreb Faculty of Civil Engineering, ISBN 978-953-6272-21-1, CD
- [30] STANKO, Š.: Integrated System for Design of Sewerage Networks. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering,

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- [31] STANKO, Š.: Information on Exploitation of Sewage Systems. In: Proceedings of 10th International Symposium on Water Management and Hydraulic Engineering, Solaris, Šibenik, Croatia, 4.-9.9.2007, Zagreb Faculty of Civil Engineering, ISBN 978-953-6272-21-1, CD.
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- [33] STANKO, Š., TÓTHOVÁ, K., KRIŠ, J., ŠKULTÉTYOVÁ, I.: Performance Monitoring and Benchmarking of Water Utility Sector, In: Proceedings of International Congress, Best Practices in Water Management, Finance and Performance Improvement Workshop, Herceg Novi, Monte Negro, October 2007
- [34] TÓTHOVÁ, K., MRNČO, I.: Optimal Exploitation of Gravitational Potential of Maximum Yield of Springs Versus Long Distribution Water Systems. In: Proceedings of 10th International Symposium on Management and Hydraulic Engineering, Croatia, Šibenik, 4.-9.9.2007, Zagreb Faculty of Civil Engineering, ISBN 978-953-6272-21-1, CD.
- [35] TÓTHOVÁ, K., STANKO, Š.: Sustainable Growth of the Water Supply and Waste Water Sewerage in Slovakia In: Proceedings of 10th International Symposium on Management and Hydraulic Engineering, Croatia, Šibenik, 4.-9.9.2007, Zagreb Faculty of Civil Engineering, ISBN 978-953-6272-21-1, CD.
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Contributions to Proceedingss in Slovakia

- [1] BARLOKOVÁ, D., ILAVSKÝ, J.: Removal of Iron and Manganese from Water by Natural Zeolites. In: Proceedings of 10th International Conference on Drinking Water 2007, Trenčianske Teplice, October 2007, pp. 143-146
- [2] BARLOKOVÁ, D.: Operating Pumps of Water and Sewage Networks. In: Proceedings of Seminar on Dispatching Control and Operation of Water Supply Systems and Water Structures in BVS, a.s., Bratislava: SvF STU, Bratislava, 2007, CD.

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- [25] RUSNÁK, D.: Impact of Climate Changes on Sewage Systems. In: Proceedings of AQUA 2007 International Conference, Impact of Climate Changes on the Water Supply

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DEPARTMENT OF BUILDING SERVICES

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1. **EDUCATION**

1.1 **Graduate Study**

Obligatory subjects:

Technical Equipment of Buildings

Technical Equipment of Buildings II

Technical Equipment of Buildings III

Internal Water Piping

Internal Drainage

Heating I

Heating II

Design IV

Design V

Design VI

Design VII

Air Conditioning

Sanitary Techniques

Water Delivery and Drainage

Computer Design Systems

Measuring and Control I

Measuring and Control II

Energy Supply of Buildings

Excursions

Building Control Systems

Special Seminar

Heating Systems

Industrial Installations

Renewable Energy in Technical

Equipment of Buildings

Ventilation & Air Conditioning Systems I

Fire-Fighting Equipment

Diploma Seminar

Optional subjects:

Technical Equipment

Sanitary-Technical Equipment

Heating Systems

Combustion Theory and Techniques

Ventilation and Air Conditioning Systems

Industrial Air Conditioning Systems II

Sanitation Audit

Heating Audit

Ventilation Audit

Operation of Air Conditioning Systems

Heat Delivery to Buildings

Renovation of Building Services

Indoor Environment of Buildings

Environmental Audit of Buildings

1.2 Postgraduate Courses

Indoor Environment of Buildings Energy Audit of Buildings Petráš Petráš Ph.D. Project I, II, III Petráš
Ph.D. Project IV, V, VI Petráš
Teaching I IV Petráš
Publication Petráš
Sanitary Installations Petráš
Heating Petráš
Ventilation and Air Conditioning Petráš

2 RESEARCH

2.1 Research projects

- 1. SOCRATES / ERASMUS Student Mobility PH Pinkafeld (Austria, 2 students), DTU Lyngby (Denmark, 2 students), TU Vienna (Austria, 1 Ph.D. student), CVUT Prague (Czech Republic, 1 student)
- 2. AUSTRIA SLOVAKIA Kooperation im Bereich Ausbildung, mit Schwerpunkt Konzeption Eines Double Degree Programms im Bereich Gebäudetechnik und Forschung auf dem Gebiet der TGA im Jahr 2007 (Assoc. Prof. Lulkovičová, O.; 2007)
- 3. CEEPUS II AT 0050 01 0506 M 1600 Education without Borders (Assoc. Prof. Lulkovičová, O.; 2007; 2 students)
- 4. KEGA Preparation of Teaching Materials for Building Service Specializations (Assoc. Prof. Lulkovičová, O.; 2007)
- 5. VEGA Optimization of the Process of Production, Distribution and Consumption Based on Energy Audits of Buildings (3 years, Prof. Petráš)
- 6. VEGA Prediction of Energy and Ecological Impacts on the Minimization of an Environmental Load Through Utilization of Renewable Energy Sources (3 years, Assoc. Prof. Lulkovičová)
- 7. VEGA Determination of Criteria for Recovery of Energy and Fluids in Technical Energy Systems: Concerning Sustainable Indoor Environmental Quality (3 years, Assoc. Prof. Peráčková)

2.2 International Cooperation

- 1. ENSI Energy Saving International AS, Oslo, Norway
- 2. Hansa, AG, Burglengenfeld, Germany
- 3. Geberit, AG, Rottenbrunn, Germany
- 4. GAS, Ltd. Prague, Czech Republic
- 5. ČVÚT Civil Engineering Faculty, Prague, Czech Republic
- 6. VÚT, Brno, Czech Republic
- 7. Deutsche Institute für Bautechnik, Berlin, Germany
- 8. Czech Association of Civil Engineers, Prague, Czech Republic
- 9. ASHRAE Atlanta, Georgia, USA
- 10. REHVA Brussels, Belgium

- 11. Fachhochschule Pinkafeld, Austria
- 12. Fachhochschulstudiengänge Burgenlad, G.m.b.H., Austria
- The Danish Technical University International Center for the Indoor Environment and 13. Energy, Lyngby, Denmark
- Technical University, Budapest, Hungary 14.
- Hansa, Ltd., Kralovice, Czech Republic 15.
- LDM, Ltd., Česká Třebová, Czech Republic 16.
- VOGEL and Noot, Ltd., Austria 17.
- 18. JIKA Laufen, Znojmo, Czech Republic
- HERZ Ges.m.b.H, Austria 19.

3. THESES

3.2 **Graduate theses**

No	Student's Name	Title	Supervisor
1.	Civáň, M.	Final Project for Sanitary-Technical Installations and Firefighting Water Pipe in a Multistorey Building	Valášek, J.
2.	Kuniková, Z.	Final Project for Selected Sanitary-Technical Installations in an Office Building	Peráčková, J.
3.	Lešeický	Design of Permanent Water Sprinkler Firefighting Equipment in a Factory	Jánošková
4.	Meľuchová, S.	1 1	Jánošková
5.	Petrovič, P.	Design of Gas, and Gas Service Pipes. Final Project for Gas Installations in a Factory Area	Tonhauzer, I.
6.	Roháčová, L.	Final Project for a Separated Drainage in a Residential Building	Peráčková, J.
7.	Straňánek, R.	Design of a Permanent Gas Firefighting Equipment	Jánošková, T.
8.	Štefánik, P.	Final Project for Selected Parts of Sanitary- Technical Installations in a Residential Building	
9.	Vnenčák, M.	Canteen for Employees in an Office Building Complex	Peráčková, J.
10.	Boledovič, M.	Renovation of a Heat Source for Residential Area	Lulkovičová, O.
11.	Keszegh, M.	Heating, Ventilation and Air Conditioning for a Building	Kalús, D.
12.	Masopust, R.	Heat Sources for a Boarding House in Malacky-Earth- Water Heat Pump Base	Takács, J.
13.	Glasnák, L.	Use of Solar Energy for Preparing Hot Water and Heating Swimming Pool Water	Valášek, J.
14.	Štefanička, F.	Infiltration, and Rain Water Use	Valášek, J.
15.	Bogár, M.	Energy Audit of Residential Building	Petráš, D.
16.	Dubová, K.	Hydronic Control of a Heating System in a High-Rise Residential Building	Petráš, D.
17.	Dutko, M.	Design of Solar Energy System with Year-Round Operation in an Office Building	Lulkovičová, O.
18.	Fillová, E.	Analysis of Use of Biomass and Energy Plants	Kalús, D.
19.	Galbavý, R.	Design of a Gas Boiler Room - Low-Pressure Gas	Lulkovičová,

		n	0
20	Canallary C	Base Removation of a Reguling House in Torol ^o žionky	O.
20.	Gőncőlová, S.	Renovation of a Boarding House in Topol'čianky	Kalus, D.
21	II	Using Renewable Energy Sources	T-1-4 I
21.	Hanzalíková,	Calculation and Design of Heat Source for Biomass	Takacs, J.
22	J.	Combustion – Wood Waste Base	T 1 / I
22.	Hodossy, Z.	Review of a Heat Source – Heat Delivery Plant for	Takacs, J.
		Geothermal Outdoor Swimming Pool Resort in Vel'ký	
		Meder	
23.	Hoďovský, R.	Heating a Multifunctional Building	Kalús
24.	Janega, P.	Calculation and Design of a Heat Source – Gas	Takács, J.
		Combined with Condensation Techniques	** 1/ 5
25.	Kováč, J.	Energy Audit of a Shopping Center	Kalús, D.
26.	Kováčik, M.	Design of Solar System with Year-Round Operation	
		in a Residential Building	0.
27.	Krajči, P.	Low-Temperature Boiler Room with 860 kW Heat	
		Output	O.
28.	Krasnay, M.	Warm Water Boiler Room for a Hiking - Relaxation	Takács, J.
•		Resort in Liptovská Osada – Wood Waste Base	- 44
29.	Kriško, A.	Design of Solar Energy System with Year-Round	
•		Operation for a Service Centre	0.
30.	Matúš, I.	Energy Audit of School Buildings	Petráš, D.
31.	Minarovský,	Calculation and Design of a Heat Source - Heat	Takacs, J.
	P.	Delivery Plant for a Geothermal Outdoor Swimming	
22	3.6° V:V T	Pool Complex in Veľký Meder	T 11 'V /
32.	Minčič, L.	Design of Solar Energy System in a Family Dwelling	Lulkovičová,
22	74.^^. I	II 1 . A 1 . C C 1 . 1D . CW W.	O.
33.	Mišči, J.	Hydronic Analysis for Selected Parts of Warm Water	Takacs, J.
2.4	Dogtonlyový 7	Heating System in a School Building in Bratislava	Talvána I
34.	Pastorková, Z.	Heating an Office Building	Takács,J.
35.	Sith, R.	Energy Audit of a Residential Building	Petráš, D.
36.	Šifra, E.	Design of Low-Temperature Heating in a Resort	Petráš, D.
37.	Valovičová, V.	Application of an Underground Heat Reservoir in a	Kalus, D.
38.	v. Litomerický,	Passive Energy House	Kalúa D
30.	V.	Indoor Climate of a Room with Hung Radiant Panels	Kalús, D.
39.	Záhorcová,	Heating a Large-Area Building	Kalús, D.
3).	M.	Treating a Large-Area Dunding	Kaius, D.
40.	Hornáček, M.	Air Conditioning of Renovated Operating Spaces	Székyová, M.
41.	Hirsch, R.	Ventilation and Air Conditioning of Shopping Centers	Bod'o, R.
42.	Horváth, J.	Ventilation of a Car Repair Service	Bod'o, R.
43.	Janščák, M.	Warm Air Ventilation and Cooling in a Car Repair	· ·
15.	Junioux, 1vi.	Service in Petržalka	Szekyova, ivi.
44.	Kopanišová,	Ventilation of a Kitchen	Boďo, R.
	L.	· · · · · · · · · · · · · · · · · · ·	
45.	Krcheň, Ľ.	Ventilation and Air Conditioning	Boďo, R.
46.	Ondrovič, P.	Warm Air Ventilation and Cooling of Production and	· ·
	,	Storage Halls – Light Production in Levice	· · ·
47.	Majerník, M.	The Effect of Coolants on the Environment and	Székyová, M.
		Energy Efficiency of Air Conditioning Systems	
48.	Hanic, M.	Air Conditioning of an Office Building	Székyová, M.
		172	

- 49. Beneš, I. Ventilation of a Multifunctional Sport Hall Bod'o, R.
 50. Šagát, Š. Ventilation and Air Conditioning of Selected Spaces Székyová, M. in a Hotel
 51. Vokel, M. Ventilation of an Indoor Swimming Pool Bod'o, R.
 52. Total M. Ventilation of A. Maria and Air Conditioning of Selected Spaces Székyová, M.
- 52. Tatranský, M. Ventilation and Air Conditioning of a Multifunctional Székyová, M. Building

3.3 Doctoral theses

No.	Student's Name	Title	Supervisor
1.	Babiak Ján	Low Temperature Heating and High Temperature Cooling (in English)	Petráš, D.
2.	Bekö Gabriel	Removal of Particles from the Air Supply of Ventilation Systems: Avoiding the Formation of a Sensory Pollution Source (in English)	Petráš, D.
3.	Sumec Andrej	Hydronic Stability of Warm Water Distribution Systems	Valášek, J.

4. PUBLICATIONS

4.1 Books and Textbooks

- [1] BABIAK, J.-OLESEN, BW.-PETRÁŠ, D.: Low Temperature Heating and High Temperature Cooling. In: REHVA Guidebook No 7: Rehva Brussels, ISBN 2-9600468-6-2, 108 pp. 2007
- [2] VALÁŠEK, J.: Energy Demand for Hot Water Systems. In: Commentary on Calculation of Energy Certification of Buildings. Bratislava: SKSI, 16 pp., 2007 (in Slovak)
- [3] BOLDIŠ, T.: Heating with Local Heating Structures. In: Heating of Large-Scale Structures and Halls. Bratislava: JAGA group, 2007, pp. 146-159 (in Slovak)
- [4] PETRÁŠ, D.- KOTRBATÝ, M., et al.: Heating in Large Buildings and Halls. Bratislava: Publisher JAGA group, 2007, 216 pp.
- [5] PETRÁŠ, D.: Energy Demands for Heating. In: Comments and Proposed Calculations for Energy Certification of Buildings. Bratislava: Publisher SKSI, 2007, 38 pp.
- [6] LULKOVIČOVÁ, O.: Thermal Protection of Buildings. In: Comments on Proposed Calculation of Energy Certification of Buildings. Bratislava: Publisher SKSI, 2007, 8 pp.
- [7] BOLDIŠ, T.: Heating with Local Heaters. In: Heating in Large Buildings and Halls. Bratislava: Publisher JAGA Group, 2007, pp. 146-159
- [8] REPKA, N.: Combined Heating. In: Heating in Large Buildings and Halls. Bratislava: Publisher JAGA Group, 2007, pp. 181-187

- [9] PETRÁŠ, D., et al.: Course on Energy Audits and Certification of Residential Buildings. SvF STU Bratislava, April 2006, CD
- [10] PETRÁŠ, D.- KALÚS, D.- KOUDELKOVÁ, D.: Heating Systems. Exercises and Design. Publisher STU Bratislava, 2006, p. 298

4.2 Journals

Scientific papers abroad

- [1] BOLDIŠ, T.-KYNCL, J.: Combined Electric Heating Systems. Heating, Installation. Vol. 41, 2007/4, pp. 46-49 (in Slovak)
- [2] BEKÖ, G.-HALÁS, O.-CLAUSEN, G.: Initial Studies of Oxidation Processes on Filter Surfaces and Their Impact on Perceived Air Quality. Indoor Air, 16/2007, No.1, pp. 56-64
- [3] KOTENKO,A.; PETRÁŠ,D.: Air Destratification in Heating Systems Industrial Buildings. C. O. K/Cantechnika, otoplenie, kondicionirovanie, Vol. 10, 2007, No. 5, pp. 94-100
- [4] BEKÖ, G.-CLAUSEN, G.- WESCHLER, CH J.: Continuing Studies of Oxidation Processes on Filter Surfaces: Evidence of Oxidation Products and the Effect of Time on Service. ATMOSPHERIC ENVIRONMENT, No 41/2007, No.25, pp. 5202-5212
- [5] BOLDIŠ, T.-KYNCL, J.: Combined Electrical Heating Systems. Topenářství instalace, Vol. 41, 2007, 4, pp. 46-49
- [6] BABIAK, J.; OLESEN, B. W.; PETRÁŠ, D.: Low Temperature Heating and High Temperature Cooling Types of Systems and Estimation of Heating/Cooling Capacity. REHVA Journal, vol. 44, 2007, 3, pp. 28-36
- [7] KALÚS, D.: An Example of a Panel Passive Energy House. Facility Management News, 2/2006, vol. 8, Appendix of Journal of Development News 7/2006, p. 12
- [8] TÓTHOVÁ, V.: Current State and Future of Geothermal Water in Slovakia. Facility Management News, 2/2006, vol. 8, Appendix of Journal of Development News 7/2006, pp. 10-11

Scientific papers in Slovak Journals

- [1] PERÁČKOVÁ, J.: Shower Systems Slightly Different. Stavba, Vol. 10, 2007/3, pp. 42-44 (in Slovak)
- [2] VALÁŠEK, J.: Energy Efficiency of Buildings Contribution to Designation of Energy Categories for Hot Water Systems. TZB Haustechnik, Vol. 15, 2007/2, pp. 25-27 (in Slovak)
- [3] VALÁŠEK, J.: Do We Design and Realise Internal Water Piping in Buildings According to STN EN? TZB Haustechnik, Vol. 15, 2007/3, pp. 34-36 (in Slovak)

- [4] BOLDIŠ, T.: Local Heating of Large-Scale Structures. Stavba, Vol. 10, 2007/6, pp. 22-23 (in Slovak)
- [5] JÁNOŠKOVÁ, T.: Design of Water-Based Fire Extinguishing Systems. TZB Haustechnik, Vol. 15, 2007/4, pp. 28-31 (in Slovak)
- [6] PERÁČKOVÁ, J.: Implementation of European Standards for Sanitary Techniques. TZB Haustechnik, Vol. 15, 2007/5, pp. 52-53 (in Slovak)
- [7] VALÁŠEK, J.: Energy Certification of Buildings with Regard to Hot Water Systems. Eurostav, Vol. 13, 2007/7, pp. 73-75 (in Slovak)
- [8] VALÁŠEK, J.: Calculating Energy Demands for Hot Water Systems. TZB Haustechnik, Vol. 15, 2007/6, pp. 38-40 (in Slovak)
- [9] PERÁČKOVÁ, J.: Implementation of European Standards for Sanitary Techniques. PROJEKT STAVBA, Vol. 2, 2007/3, pp. 7-8 (in Slovak)
- [10] PETRÁŠ, D.: Low Temperature Heating for Low-Energy Buildings. TZB Haustechnik, vol. 15, 2007, 1, pp. 16-17
- [11] MATEJ, P.: Heat Pumps in Low Temperature Systems of Buildings. TZB Haustechnik, vol. 15, 2007, 1, pp. 18-20
- [12] LULKOVIČOVÁ, O.: Low Temperature and Condensation Boilers. TZB Haustechnik, vol. 15, 2007, 1, pp. 21-23
- [13] KALÚS, D.-MENDAN, R.: Application of Active Thermal Protection in Passive Energy Houses (EPD). TZB Haustechnik, vol. 15, 2007, 1, pp. 47-50
- [14] PETRÁŠ, D.: Heating Systems and Energy Certification of Buildings. TZB Haustechnik, vol. 15, 2007, 2, pp. 19-21
- [15] TAKÁCS, J.- KURČOVÁ, M.: Is It Necessary to Have a Realization Project for Building a Heating System? Stavba, vol. 10, 2007, 4, pp. 48-50
- [16] LULKOVIČOVÁ, O.: Optimal Design Principles of the Size and Number of Boilers. TZB Haustechnik, vol. 15, 2007, 3, pp. 20-23
- [17] KALÚS, D.: Heating Systems. TZB Haustechnik, vol. 15, 2007, 3, pp. 24-27
- [18] BOLDIŠ, T.:Local Heating of Large Buildings. Stavba, vol. 10, 2007, 6, pp. 22-23
- [19] KALÚS, D.: Passive Energy Houses Using Solar and Geometric Energy. Stavba, vol. 10, 2007, 6, pp. 26-30
- [20] TAKÁCS, J.- TÓTHOVÁ, V.: How to Use Geothermal Energy for Outdoor Thermal Swimming Pools. Stavba, vol. 10, 2007, 6, pp. 42-45
- [21] PETRÁŠ, D.: Sydney. Eurostav, vol. 13, 2007, 1, pp. 66-68

- [22] PETRÁŠ, D.: Technological Systems for Indoor Environments in High-Rise Buildings. Eurostav, vol. 13, 2007, 2, pp. 46-48
- [23] PETRÁŠ, D.: Melbourne. Eurostav, vol. 13, 2007, 2, pp. 102-104
- [24] PETRÁŠ, D.: Auckland. Eurostav, vol. 13, 2007, 3, pp. 101-103
- [25] PETRÁŠ, D.: Heating Systems in the Assessment of the Energy Efficiency of Buildings. Eurostav, vol. 13, 2007, 4, pp. 72-73
- [26] PETRÁŠ, D.: Moscow. Eurostav, vol. 13, 2007, 4, pp. 80-82
- [27] PETRÁŠ, D.: I am Looking for Solutions Acceptable to the Majority. ASB, vol. 14, 2007, 1-2, pp. 53-55
- [28] PETRÁŠ, D.: High Credentials of Slovak Specialists. Energo Eco, vol. 1, 2007, 1, p. 9
- [29] LULKOVIČOVÁ, O.: Efficiency and Level of Use of Different Boiler Constructions. TZB Haustechnik, vol. 15, 2007, 4, pp. 20-22
- [30] PETRÁŠ, D.: Perth. Eurostav, vol. 13, 2007, 7, pp. 86-88
- [31] PETRÁŠ, D.-KONKOĽ, R.: Definition of Energy Demands for Heating for Energy Certification of Buildings. TZB Haustechnik, vol. 15, 2007, 6, pp. 34-36
- [32] KALÚS, D.-CVÍČELA, M.-KESEGH M.: Passive Energy Houses Made of Traditional Materials. Stavba, vol. 10, 2007, 11, pp. 39-43

4.3 Conferences

Contributions to proceedings abroad

- [1] TÓTHOVÁ, V.: Heating Systems of Greenhouses Using Geothermal Energy. In: 9th JUNIORSTAV conference of PhD students, VUT Brno, January 2007, CD, p. 6
- [2] JANUŠKA, J.: Analysis of Hydraulic Conditions of Heating Systems in Residential Buildings. In: 9th JUNIORSTAV conference of PhD students, VUT Brno, January 2007, CD, p. 7
- [3] LULKOVIČOVÁ, O.: Evaluation of Efficiency of a Gas Boiler Room Operation for a Housing Development. In: VYTÁPĚNÍ International conference, Třeboň, Czech Republic, May 2007, pp. 83-86
- [4] TAKACS,J. TÓTHOVÁ, V.: Use of Geothermal Energy in Slovakia. In: VYTÁPĚNÍ International conference, Třeboň, Czech Republic, May 2007, pp. 32-36
- [5] PETRÁŠ, D.: Low Temperature Heating and High Temperature Cooling Types of Construction and Principles of Calculating Thermal Output. In: VYTÁPĚNÍ International conference, Třeboň, Czech Republic, May 2007, pp. 17-22

- [6] TÓTHOVÁ, V.- TAKÁCS, J.: How Can We Improve the Efficiency of the Exploitation of Geothermal Energy? In: REHVA World Congress Clima 2007 Well-Being Indoors. Helsinki, Finland, June 2007, 5 pp. CD
- [7] BEKÖ, G.-CLAUSEN, G.-WESCHLER, CH.: Sensory Pollution from Bag Filters, Carbon Filters and Combinations. In: REHVA World Congress Clima 2007 Well-Being Indoors. Helsinki, Finland, June 2007, 1 pp., CD
- [8] BABIAK, J.- MINÁROVÁ, M.- OLESEN, B. W.: What is the Effective Thickness of a Thermally Activated Concrete Slab? In: REHVA World Congress Clima 2007 Well-Being Indoors. Helsinki, Finland, June 2007, 5 pp., CD
- [9] SIMONE, A.-BABIAK, J.- BULLO, M.-LANDKILDE, G.-OLESEN, B. W.: Operative Temperature Control of Radiant Surface Heating and Cooling Systems. In: REHVA World Congress Clima 2007 Well-Being Indoors. Helsinki, Finland, June 2007, 8 pp., CD
- [10] BALÁŽOVÁ, I.- CLAUSEN, G.-WYON, D P.: The Effect of Exposure to Multiple Indoor Environmental Parameters on Human Perception, Performance and Motivation. In: REHVA World Congress Clima 2007 Well-Being Indoors. Helsinki, Finland, June 2007, 8 pp., CD
- [11] PETRÁŠ, D.: Energy and Environmental Audit for Sustainable Buildings. In: CESB 07 International conference, Prague, Czech Republic, September 2007, pp. 537-546
- [12] LULKOVIČOVÁ, O.: Low Temperature and Condensing Boilers for Intelligent Buildings. In: 5th TZB 2007 Summer School, CHOCERADY, Czech Republic, October 2007, pp. 59-66
- [13] TÓTHOVÁ, V.: Energy Savings Through Use of Geothermal Energy. In: 5th TZB 2007 Summer School, CHOCERADY, Czech Republic, October 2007, pp. 101-108

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- [1] VALÁŠEK, J.: Hot Water Preparation and Energy Efficiency of Buildings. In: Proceedings of the 15th VYKUROVANIE 2007 Conference, Tatranské Matliare, 2007, pp. 44-47 (in Slovak)
- [2] BOLDIŠ, T.: Direct Electric Heating Systems for Halls. In: Proceedings of the 15th VYKUROVANIE 2007 Conference, Tatranské Matliare, 2007, pp. 44-47 (in Slovak)
- [3] PERÁČKová, J.: Heat Recovery in Drainage. In: Proceedings of the 13th TOP 2007 Conference. SjF STU Bratislava, 2007, pp. 263-268 (in Slovak)
- [4] VALÁŠEK, J.: Energy Certification of Hot Water Systems. In: Proceedings of the 1st Conference on New Trends and Technologies in Complex Renovations of Dwellings. Žilina, 2007, pp. 69-70 (in Slovak)

- [5] VALÁŠEK, J.: Commentary on Revision of STN 73 6760: Internal Drainage. In: Proceedings of the 12th SANHYGA 2007 Conference, Trenčianské Teplice, SSTP Bratislava, 2007, pp. 5-8 (in Slovak)
- [6] PERÁČKová, J.: Commentary on Revision of STN 73 6655 Design of Internal Water Supply and STN 73 6660 Internal Water Supply. In: Proceedings of the 12th SANHYGA 2007 Conference, Trenčianské Teplice, SSTP Bratislava, 2007, pp. 9-20 (in Slovak)
- [7] LULKOVIČOVÁ, O.: Future Utilization of Renewable Energy. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 265-268
- [8] PETRÁŠ, D.: Energy Audit of Halls. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 476-479
- [9] LULKOVIČOVÁ, O.- TOMANOVÁ, K.: Analysis of Computational Methods in the Design of Solar Panel Areas. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 269-272
- [10] MATEJ, P.- PETRÁŠ, D.: Possibilities of Using Heat Pumps for Heating Detached Houses. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 235-238
- [11] TÓTHOVÁ, V.- TAKÁCS, J.: Analysis of Current State of Geothermal System in Topolniky. In HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 254-257
- [12] KALÚS, D.: Utilization of Underground Energy for Heating a Low-Energy House. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 273-278
- [13] LULKOVIČOVÁ, O.- PETRÁŠ, D.- BOLDIŠ, T.: Energy Concepts for Heat Supply for the Town of Trnava. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 94-98
- [14] REPKA, N.- PETRÁŠ, D.: Combined Heating of Halls. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 470-475
- [15] BOLDIŠ, T.: Direct Electrical Heating in Halls. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 458-461
- [16] KURČOVÁ, M.- EHRENWALD, P.: Regulation and Hydraulics as a Guarantee of the Optimal Functioning of Multivalent Heating Systems. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 347-352
- [17] JANUŠKA, J. TAKÁCS, J.: Method of Determining Heat Output of Heater in Connection with Mass Flow Rate of Hydraulically Balanced Heating System. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 396-399

- [18] PETRÁŠ, D.: Heating Systems and Energy Efficiency of Buildings. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 40-43
- [19] PETRÁŠ, D.: Requirements for Indoor Environments of Large Buildings and Halls. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 437-440
- [20] PETRÁŠ, D.- KONKOĽ, R.: Energy Balance of Halls. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 441-445
- [21] PETRÁŠ, D.: Warm Water Floor Heating in Halls. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 450-453
- [22] PETRÁŠ, D.-KOUDELKOVÁ, D.: Electric Floor Heating in Halls. In: HEATING 2007: 15th International Conference, Tatranské Matliare, March 2007, pp. 462-465
- [23] PETRÁŠ, D.: Energy Demands of Buildings and European Legislation. In: Casoviatherm Expert Conference 2007, ZSVTS Košice, February 2007, pp. 15-20
- [24] KONKOĽ, R.- PETRÁŠ, D.- BOLDIŠ, T.: Results of the Energy Audits of Schools. In: Casoviatherm Expert Conference 2007, ZSVTS Košice, February 2007, pp. 28-33
- [25] PETRÁŠ, D.: Energy Audit of Buildings. In: Energy Audits and Certification of Residential Buildings. SvF STU Bratislava, May 2007, pp. 34-39
- [26] KONKOĽ, R.- REPKA, N.: Energy Saving Measures. In: Energy Audits and Certification of Residential Buildings. SvF STU Bratislava, May 2007, pp. 40-50
- [27] LULKOVIČOVÁ, O.: Energy Certification of Boilers and Condensation Devices. In: Energy Audits and Certification of Residential Buildings. SvF STU Bratislava, May 2007, pp. 29-33
- [28] PETRÁŠ, D.: Requirements for Indoor Environment Technology for EPD. In: 2nd International Conference on Passive Energy Houses 2007, Institute for Passive Energy Houses Bratislava, June 2007, pp. 92-97
- [29] LULKOVIČOVÁ, O.: Education of Engineers in Accredited Building Services Study Programs. In: 8th Expert Conference of Faculty of Civil Engineering TU in Košice, TU Košice, May 2007, pp. 151-154
- [30] EHRENWALD, P.: Is JC Management the Route to an Intelligent Building? In: 5th Facility Management 2007 Conference, Bratislava, SSTP Bratislava, September 2007, pp. 119-122
- [31] LULKOVIČOVÁ, O.: Regular Control of Boilers. In: 5th Facility Management 2007 Conference, Bratislava, SSTP Bratislava, September 2007, pp. 115-118
- [32] PETRÁŠ, D.: Facility Management and Heating Certification. In: 5th Facility Management 2007 Conference, Bratislava, SSTP Bratislava, September 2007, pp. 109-113

- [33] PETRÁŠ, D.: EU Guidelines on Energy Certification and Audits of Buildings. In: 1st International Conference on New Trends and Technologies in the Complex Renovations of Residential Buildings. Žilina, ZPoBD Martin, October 2007, pp. 15-17
- [34] LULKOVIČOVÁ, O.: Regular Inspection of Boilers. In: 1st International Conference on New Trends and Technologies in the Complex Renovations of Residential Buildings. Žilina, ZPoBD Martin, October 2007, pp. 64-65
- [35] KONKOĽ, R..: Heating Energy Certificate. In: 1st International Conference on New Trends and Technologies in the Complex Renovations of Residential Buildings. Žilina, ZPoBD Martin, October 2007, pp. 66-68
- [36] PETRÁŠ, D.- KONKOĽ, R.- REPKA, N.: Energy-Saving Measures in Residential Buildings. In: 1st International Conference on New Trends and Technologies in the Complex Renovations of Residential Buildings. Žilina, ZPoBD Martin, October 2007, pp. 71-75
- [37] DAHLSVEEN, T.- PETRÁŠ, D.: Energy Audits for Reconstruction of Residential Buildings. In: 1st International Conference on New Trends and Technologies in the Complex Renovations of Residential Buildings. Žilina, ZPoBD Martin, October 2007, pp. 76-78
- [38] PETRÁŠ, D.- KONKOĽ, R..: Mathematical Model Defining Energy Demands for Heating and Cooling. In: International Conference on Buildings and the Environment 2007, Bratislava, SSTP Bratislava, November 2007, pp. 29-31
- [39] TÓTHOVÁ, V.: Utilization of Geothermal Energy in Greenhouses. In: Conference on Geothermal Waters: Their Utilization and Disposal, Liptovský Mikuláš, MŽP SR, November 2007, pp. 74-79
- [40] TAKÁCS, J.: Utilization of Geothermal Energy in Recreational Facilities. In: Conference on Geothermal Waters: Their Utilization and Disposal, Liptovský Mikuláš, MŽP SR, November 2007, pp. 125-130
- [41] TAKÁCS, J.: Geothermal Energy in Centralized Heating Systems. In: Conference on Geothermal Waters: Their Utilization and Disposal, Liptovský Mikuláš, MŽP SR, November 2007, pp. 119-124
- [42] PETRÁŠ, D.: Energy Certification and Energy Audits in Regard to Calculating Heat Supplies. In: 7th International Conference on Measurement and Calculation of Heat Supply 2007, Piešťany, November 2007, pp. 49-57
- [43] KONKOĽ, R..: Example of Energy Certification of a Heating System. In: 7th International Conference on Measurement and Calculation of Heat Supply 2007, Piešťany, November 2007, pp. 35-40
- [44] BALÁŽOVÁ, I. et al.: Noise in Open-Plan Office Environments: a Laboratory Experiment on Human Perception, Comfort and Office Work Performance. In: 6th

- International Conference on Indoor Climates of Buildings 2007, Štrbské Pleso, November 2007, pp. 77-84 (in English)
- [45] BABIAK, J.- OLESEN, B. W.- PETRÁŠ, D.: Low Temperature Heating and High Temperature Cooling: From Theory to Practise. In: 6th International Conference on Indoor Climates of Buildings 2007, Štrbské Pleso, November 2007, pp. 333-341 (in English)
- [46] PETRÁŠ, D.: Energy Audits of Existing Dwellings in Slovakia. In: 6th International Conference on Indoor Climates of Buildings 2007, Štrbské Pleso, November 2007, pp. 375-380 (in English)

DEPARTMENT OF LANGUAGES

Head of the Department: Dagmar Špildová Tel.: + 421 2 59274 262 e-mail:dagmar.spildova@stuba.

1. EDUCATION

1.1 Graduate Study

Optional subjects

English German

1.2 Postgraduate courses

Ph.D. courses in advanced English and German. UNIcert – ESP certificate courses in English and German.

2. RESEARCH

2.1 Research projects

1. VEGA 1/2135/05 Soil - Structure Interaction Under an Intensive Load. Research team leader: doc. Ing. Jozef Kuzma, PhD. Recipient: Viera Pišteková, Viola Števove

- 2. VEGA 1/2148/05: Geotechnical Structures Under Special Loading Conditions. Recipients: Dagmar Špildová, Debra Gambrill, Alžbeta Pálová
- 3. ESF Project JPD BA Target 3, No. 131 1202 42 Improvement of the Awareness of Students of Secondary Schools and Their Preparation for Study at the Faculty of Civil Engineering in Bratislava Research team leader: prof. Ing. Jozef Oláh, PhD. Recipients: D. Špildová, I. Habajová, T. Filipoiu, A. Pálová, D. Ondrejkovičová, S. Vašková
- 4. Project LLP/LdV/TOI/2007/IRL-501 VOCAL VOCAL LdV Project Lifelong Learning Programme 2007-2013, Leonardo da Vinci Research team leader: Kristin Brogan Recipient: D. Špildová, V. Lesňáková
- 5. Erasmus Project Teacher Mobility Basque Country University, Vitoria Gasteiz, Spain Recipient: T. Filipoiu

2.2 International cooperation

- 1. Britisch Council, Bratislava, Slovakia
- 2. University of Washington, Washington, USA
- 3. Institute of Technology, Tralee, Ireland

4. PUBLICATIONS

4.1 Journals

Scientific papers in Slovak Journals

- [1] Něničková J.: The Pit and the Pendulum Friendship for Learners of English, February 2007, Published by: FLP for the SR and the CR
- [2] Něničková J.: Teacher Friendship for Learners of English, March 2007, Published by: FLP for the SR and the CR
- [3] Něničková J.: Animal Farm Friendship for Learners of English, March 2007, Published by: FLP for the SR and the CR
- [4] Něničková J.: Mother of Frankenstein Friendship for Learners of English, April 2007,
 Published by: FLP for the SR and the CR
- [5] Něničková J.: The Murder in the Cathedral Friendship May June 2007, Published by: FLP for the SR and the CR
- [6] Něničková J.: Class Reunion Friendship May June 2007, Published by: FLP for the SR and the CR
- [7] Něničková J.: Balmoral Castle Friendship September October 2007, Published by: FLP for the SR and the CR

- [8] Něničková J.: Castles Friendship September October 2007, Published by: FLP for the SR and the CR
- [9] Něničková J.: Warwick Castle Friendship November 2007, Published by: FLP for the SR and the CR
- [10] Něničková J.: Castles, Friendship November 2007, Published by: FLP for the SR and the CR
- [11] Něničková J.: Castle Coch Friendship December January 2007, Published by: FLP for the SR and the CR
- [12] Filipoiu T.: USS Arizona National Memorial Friendship April 2007, Published by: FLP for the SR and the CR
- [13] Filipoiu T.: Shrek the Third Friendship September October 2007, Published by: FLP for the SR and the CR
- [14] Habajová I.: Oral Presentation Friendship September October 2007, Published by: FLP for the SR and the CR
- [15] Gambrill D.: Friendship November 2007, Published by: FLP for the SR and the CR, editorial
- [16] Gambrill D.: A Super Sweet 15 Birthday Party Friendship May June 2007, Published by: FLP for the SR and the CR
- [17] Gambrill D.: James Brown Friendship May June 2007, Published by: FLP for the SR and the CR
- [18] Špildová D.: How to Do Your Best in an Interview Friendship May June 2007, Published by: FLP for the SR and the CR
- [19] Špildová D.: Alternative Sources of Energy Friendship December January 2007, Published by: FLP for the SR and the CR
- [20] Vašková S.: Der kluge Smiedt Hurra, March 2007
- [21] Vašková S.: Ein Ratsel Hurra, March 2007

Editing

- 1. Gambrill, D., Pišteková, V.: Annual Report 2006
- 2. Gambrill, D.: Journal of Civil Engineering

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DEPARTMENT OF PHYSICAL EDUCATION

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1. EDUCATION

1.1 Graduate study

Optional subjects

Aerobics

Basketball

Swimming

Volleyball

Football

Skiing

Bodybuilding

Water Sports /Kayaking, Canoeing/

Tennis

Squash

Floorball

Hiking

Aquagymnastics

Recommended subjects

swimming courses

skiing courses white water rafting cross-country skiing physical fitness exercises cardio-vascular fitness

2. RESEARCH

Cooperation

Training at the University, the Faculty of Physical Education and Sports, Comenius University, Bratislava

DEPARTMENT OF HUMAN SCIENCES

Head of the Department: Ing. Katarína Heretiková, PhD. Tel: + 421 2 59274 591

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1. EDUCATION

1.1. Graduate Study

Obligatory subjects

Political Science

History of Civil Engineering

Macroeconomics

Construction and Commercial Law

Construction and Land Law

Law I

Civil Law

Construction and Commercial Law

Enterpreneurship Law

Public Administration

Philosophy

Law II

Basic Law

Environmentalism

Land Law

Geoecology

Optional subjects

Land Law

Commercial Law Engineering Ethics

2. RESEARCH

- [1] Tempus-Tacis Joint European Project 25186-2004: FRELP Master's Degree in Environmental Law and Policies in the Russian Federation, Š. Huszár
- [2] Sustainable Development and Globalization, K. Heretiková, PhD.

2.2. International cooperation

Tambov State Technical University, Tambov, Russian Federation Technical University, Brno, Czech Republic Czech Technical University, Prague, Czech Republic

4. PUBLICATIONS

4.1. Books, textbooks and chapters in books/textbooks

- [1] RYBÁRIK, J., et al.: Humanization and the Environment. STU, Bratislava 2007, 165 pp., ISBN 978-80-227-2591-0
- [2] DUDA, E.: Humanization of Techniques and the Environment. In: RYBÁRIK, J., et al.: Humanization and the Environment. STU, Bratislava 2007. ISBN 978-80-227-2591-0, pp. 9-21.
- [3] RYBÁRIK, J.: The Environmental Crisis, Globalization and Politics. In: Rybárik, J., et al.: Humanization and the Environment. STU, Bratislava 2007, ISBN 978-80-227-2591-0, pp. 121 137.
- [4] RYBÁRIK, J.: Humanization Starting Point for Solving Environmental Crises and Political Tasks (Possibilities). In: Rybárik, J., et al.: Humanization and the Environment. STU, Bratislava 2007, ISBN 978-80-227-2591-0, pp. 138–157.
- [5] HUSZÁR, Š.: Sustainable Development and the Humanization of the Environment. In: RYBÁRIK, J., et al.: Humanization and the Environment. STU, Bratislava 2007. ISBN 978-80-227-2591-0, pp. 22-33
- [6] KOPŠOVÁ,O.: Right to a Favorable Environment from the Point of View of Human Rights. In: RYBÁRIK, J., et al.: Humanization and the Environment. STU, Bratislava 2007. ISBN 978-80-227-2591-0, pp. 93-104
- [7] KOPŠOVÁ, O.: Ownership Acquisition of a Building Structure by Means of a Contract (Facility Manager). In: SOMOROVÁ, V., et al.: Optimization Costs of Construction Building Management with the Facility Management Method. Bratislava 2007, ISBN 978-80-227-2782-2, pp. 186-196

- [8] ZAJACOVÁ, J.: Legal Aspects of Contractual Relations in the Development Process. In: IVANIČKA, K., et al.: Real Estate Market and the Development Process. Bratislava 2007, ISBN 978-80-227-2661-0. (10%), pp. 157-172.
- [9] KOPŠOVÁ, O. HERETIKOVÁ, K. HUSZÁR, Š.: Ethics, Communications and Legal Problems of Management. In: Continuing Education in Construction and Geodesy. Bratislava 2007, 112 pp., ISBN 978-80-227-2689-4
- [10] ZAJACOVÁ, J.: Legal Aspects of Handling with the Property in a Public Council. In: IVANIČKA, K., et al.: Application of the Principles of Non-Profit Housing Associations. Functioning in Public Administration and Education. Bratislava 2007, ISBN 978-80-85661-08-8, pp. 22-25, pp.15-21, pp.119-129, (15%)
- [11] ZAJACOVÁ, J.: Characteristic Features of Public Councils. In: IVANIČKA, K., et al.: Application of Principles of Non-Profit Housing Associations Functioning in Public Administration and Education. Bratislava 2007, ISBN 978-80-85661-08-8, pp. 15-21.
- [12] ZAJACOVÁ, J.: Forms of Valid Council Housing Fund Legislation in the Slovak Republic. In: IVANIČKA, K., et al.: Application of Principles of Non-Profit Housing Associations Functioning in Public Administration and Education. Bratislava 2007, ISBN 978-80-85661-08-8, pp. 119-129
- [13] KOPŠOVÁ, O.: Labor Code. In: Personnel Management in an Enterprise. STU Bratislava 2007, ISBN 978-80-227-2739-6, pp. 143-150 (Instructions for Exercises).
- [14] KOPŠOVÁ, O.: Foundation of e Commercial Business. In: Foundation of Enterprises, STU Bratislava 2007, ISBN 978-80-227-2735-8, pp. 93-105 (Instructions for Exercises).

4.2. Journals

Scientific Proceedings in Slovak Journals

- [1] GAJNIAK, J.: Legal Aspects of the Construction of Residential Houses. In: STAVBA: mesačník pre stavebníctvo a architektúru. Nos.7-8/2007, VKÚ a.s. Harmanec 2007, ISSN 1335-5406, pp. 62-63
- [2] HERETIKOVÁ, K.: Ethical Problems of Management. In: Projekt-stavba 4/2007, MABAG spol. s.r.o. Bratislava 2007, p. 28
- [3] KOPŠOVÁ, O.: Liability of Licensed Civil Engineers. In: Projekt stavba 2/2007, MABAG spol. s.r.o. Bratislava 2007, pp. 4-5
- [4] ZAJACOVÁ, J.: Forms of Flat Administration in Residential Buildings. In: Nehnuteľnosti a bývanie No.1/2007, vol. 2, Bratislava 2007, ISSN 1336-944X, pp. 72-80.
- [5] ZAJACOVÁ, J.: Position of Experts, Interpreters and Translators from the Standpoint of Social Insurance. In: Almanach znalca No.3/2007, vol. 6, Bratislava 2007, ISSN 1336-3174, pp. 26-27.

[6] ZAJACOVÁ,J.: Rights of Use and Administration of Condominiums in Ownership. In: Almanach znalca No.4/2007, vol.6, Bratislava 2007, ISSN 1336-3174, pp. 8-13.

4.3 Conferences

Contributions to proceedings abroad

- [1] HERETIKOVÁ, K.: Sustainable Development and the Global Economy, Izhevsk 2006. In: Contemporary Problems of Environmental Law, Policies and Education. Proceedings of International Conference, Izhevsk 2007, ISBN: BBK 28.081, pp. 303-311
- [2] HUSZÁR, Š.: Slovakia's Sustainable Development Strategy, Izhevsk 2006. In: Contemporary Problems of Environmental Law, Policies and Education. Proceedings of International Conference, Izhevsk 2007, ISBN: BBK 28.081, pp. 34-45
- [3] KOPŠOVÁ, O.: Sustainable Development and the Social Responsibilities of Companies, Izhevsk 2006. In: Contemporary Problems of Environmental Law, Policies and Education. Proceedings of International Conference, Izhevsk 2007, ISBN: BBK 28.081, pp. 297-302

Contributions to proceedings in Slovakia

- [1] DUDA, E.: Sustainable Development and Scientific and Technological Progress. In: Sustainable Development and Globalization. International Conference, Bratislava 12 Sept. 2007, ISBN 978-80-227-2725-9, pp. 39-41.
- [2] GAJNIAK, J.: Legal Aspects of the Responsibility of a Manager in Contractual Relations. In: Responsibility of a Specialist (Engineer, Manager, Teacher) in Today's World. Bratislava 25.1.2007, ISBN 978-80-227-2600-9, pp. 29-55
- [3] GAJNIAK, J.: Three Attributes of Lessons on Juridical Disciplines. In: Place and Role of Social Sciences in the Process of Globalization, International Colloquium Bratislava, 2007, ISBN 978-80-227-2606-1, pp. 25-28
- [4] GAJNIAK, J.: Effect of Globalization on Law and Order in the Slovak Republic. In: Sustainable Development and Globalization. International Conference, Bratislava 12. Sept. 2007, ISBN 978-80-227-2725-9, pp. 43-47.
- [5] HERETIKOVÁ, K.: The Information Society Consequences of the Transformations in the Structure of the Economy and Globalization.In: Place and Role of Social Sciences in the Process of Globalization, International Colloquium Bratislava, 2007, ISBN 978-80-227-2606-1, pp. 29-33
- [6] HERETIKOVÁ, K.: Globalization and Transformations in the Structure of a Economy. In: Sustainable Development and Globalization. International Conference, Bratislava 12. Sept. 2007, ISBN 978-80-227-2725-9, pp. 55-58.
- [7] HUSZÁR, Š.: Globalization and Sustainable Development. In: Sustainable Development and Globalization. International Conference, Bratislava 12. Sept. 2007, ISBN 978-80-227-2725-9, pp. 73-76.
- [8] HUSZÁR, Š.: Process of Globalization in the Humane and Social Sciences. In: Place and Role of Social Sciences in the Process of Globalization, International Colloquium Bratislava, 2007, ISBN 978-80-227-2606-1, pp. 33 39.

- [9] KOPŠOVÁ, O.: The Fifteenth Anniversary of the Departments of Human Sciences. In: Place and Role of Social Sciences in the Process of Globalization, International Colloquium Bratislava, 2007, ISBN 978-80-227-2606-1, pp. 4-6.
- [10] KOPŠOVÁ, O.: Rights of Lien on Real Property. In: Facility management metóda efektívneho spravovania stavebných objektov. Proceedings of 2nd International Conference. Bratislava 2007, ISBN 978-80-227-2781-5, p. 4.
- [11] KOPŠOVÁ, O.: Employment Relationships in the Globalization Process. In: Sustainable Development and Globalization. International Conference, Bratislava 12. Sept. 2007, ISBN 978-80-227-2725-9, pp. 83-86.
- [12] KOPŠOVÁ, O.: Project Manager and His Responsibilities. In: Responsibility of Specialist (Engineer, Manager, Teacher) in Today's World. Bratislava 25.1.2007, ISBN 978-80-227-2600-9, pp. 83-86.
- [13] RYBÁRIK, J.: Politics, Political Parties and Elections under the Conditions of Globalisation (Situation in Slovakia and V4 Countries and Predictions). International Scientific Conference. Institute of Politology, Faculty of Arts, University of Prešov. Prešov 28. 29.9.2006. In: Gbúrová, M. (ed.): Elections 2006 in V4. SLOVACONTACT, Prešov 2007, ISBN 978-80-8068-595-9, pp. 13 25.
 - [14] RYBÁRIK, J.: Consumerism and Individualism Versus Sustainable Development. In: Sustainable Development and Globalisation. International Conference, Bratislava, 12.9.2007. Scientific Journal. STU, Bratislava 2007, ISBN 978-80-227-2725-9, pp. 125 132.
 - [15] ZAJACOVÁ, J.: Globalization and Multinational Companies. In.: Sustainable Development and Globalization. International Conference, Bratislava 12. Sept. 2007, ISBN 978-80-227-2725-9, pp. 55-58.

DEPARTMENT OF ARCHITECTURE

Head of the Department:

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+ 421 2 52961 448

E-mail: elena.dohnanska@stuba.sk

1. EDUCATION

1.1 Graduate Study

1.11 Bachelor's Degree Study

Obligatory subjects

History of Architecture

History of Architecture and Art I.

Drawing and Composition

Typology I.

Typology II.

Typology III.

Design Studio I.

Design Studio II.

Restoration and Preservation of Monuments

Optional subjects

Drawing and Composition Color in Architecture Urbanism History of Architecture and Art II.

1.12 Master's Degree Study

Building Construction and Architecture Building Construction Architecture and Town Planning

Obligatory subjects

Typology

Design Studio I.

Design Studio II.

History of Architecture and Art I.

Urban Planning

Restoration and Preservation of Monuments

Practice

Urban Planning II

Interior Design I.

History of Architecture and Art II.

Design Studio III.

Design Studio IV.

Special Seminar

Diploma Work

Excursion

Humanisation and Revitalisation of the Architectural Environment

Town and Village Design

Project 2

Urban Planning Management

Regional Development

Urban Planning

Restoration and Preservation of Monuments

Optional Subject

Philosophical, Aesthetic and Compositional Principles in Design History of Urban and Rural Settlements History of Drawing and Sketching Landscape Architecture

Recommended subjects

Colour in Architecture Ecological Design in the Solar Age Interior Design III.

2.1 RESEARCH PROJECTS

EU Project, Intereg III a, Manager Asoc. Prof. Ing. Arch. J. Húsenicová, PhD.

2.2 International Cooperation

Universität für Bodenkultur - Vienna, Austria Akademia Danubiana, Neusiedl am See, Austria VUT Brno, Czech Republic ČVUT Prague, Czech Republic

3. THESIS

3.1 Graduate Thesis

Student	Supervisor	Title
Zuzana Michnová	Elena Dohňanská	Low-Energy Housing Unit
Peter Rozkoš	Elena Dohňanská	Hotel
Tomáš Moravčík	Elena Dohňanská	Low-Energy Housing Unit
Peter Nagy	Elena Dohňanská	Šamorín Accommodation
Martin Jurečka	Jozef Liščák	Office Building
Ľubomír Bizík	Jozef Liščák	Shopping Centre
Petra Mancalová	Jozef Liščák	Church
Marián Kriššák	Jozef Liščák	Market Hall
Slavomíra	V 0 = 0 2 = 0 2 V 0 1	Parish Centre
Horváthová	Jozef Liščák	
Katarína Šimonová	Anna Grandtnerová	Senior Accomodation
Tomáš Leššo	Anna Grandtnerová	Martin Airport
Juraj Domorák	Anna Grandtnerová	Swimming Pool
Martin Pekár	Anna Grandtnerová	Bus and Railway Station in Martin
Dávid Vadkerti	Peter Sedlák	Theatre
Martin Wagner	Peter Sedlák	Cultural Centre
Martin Šabík	Peter Sedlák	Fire Station
Eva Takácsová	Peter Sedlák	Gallery
Gabriela Horváthová	Peter Sedlák	Funeral Home
Lucia Rybová	Peter Sedlák	Multifunctional Building
Tomáš Máté	Margita Kubišová	Museum in Munster
Zuzana Kráľová	Margita Kubišová	Multifunctional Building
Ľubomír Kmety	Margita Kubišová	Low-Energy Housing Unit
Marek Vereš	Zuzana Nádaská	Gallery of Glass
Barbara Bašová	Zuzana Nádaská	Multifunctional Building
Marta Krivošíková	Zuzana Nádaská	Swimming Pool
Ján Kováč	Vladimíra Šimkovičová	Parish Centre
Marcel Hipík	Vladimíra Šimkovičová	Sports Centre
Roman Murčo	Vladimíra Šimkovičová	Office Centre
Michal Kobza	Vladimíra Šimkovičová	Gallery
Soňa Számelová	Ľubomír Titl	Gallery
Martin Šlahor	Ivan Turček	Multifunctional Building
Pavol Sojka	Ivan Turček	Leisure Centre
Lenka Rozsívalová	Ivan Turcer	The Concept and Design of
Lelika Rozsivalova		Ecological Buildings in
	Werner Kvarda	Obermarkersdorf
	vv Citici ix varua	Obermarkersuuri

4. PUBLICATIONS

4.1 Books and textbooks

[1] Šimkovičová, Vladimíra: History of Architecture I, Edited by STU Bratislava (2007), ISB 978-80-227-2691-7

4.2 Journals

Scientific papers abroad

- [2] Húsenicová, Jarmila: Some Examples of Soil Property Rights Issues in the Slovak Republic: Academia Danubiana Ipsoil III, 4/2007, ISSN 1817-3349, Austria
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- [4] Húsenicová, Jarmila: Problems of Soil Property Rights in the Slovak Republic: Academia Danubiana Ipsoil III, 4/2007, ISSN 1817/3349, Austria
- [5] Húsenicová, Jarmila: Sustainable Urban and Architectural Structures: Academia Danubiana Ipsoil III, ISSN 1817-3349, Austria
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- [6] Nádaská, Zuzana: Multifunctional Building in Modra, Proceedings of International Exhibition X, Salón obce architektú ČR, Prague Castle, Prague, October 3, 2007, In: OA ČR 2007
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DEPARTMENT OF FORENSIC ENGINEERING

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1. EDUCATION

1.1 Graduate Study

Optional subjects

Basics of Legal Expertise Real Estate Valuation

1.2 Postgraduate Courses

Obligatory subjects

Basics of Legal Expertise

Basics of Civil Law

Basics of Criminal Law

Basics of Commercial Law

Methodology of Expert Opinions

Building Constructions

Building Materials and Conformity

Real Estate Register

Transport Engineering

Building Physics

Planning and Construction Technology

Soil Mechanics, Foundations and Mining Work

Static Analysis of Building Construction

Real Estate Valuation Theory

Cost Estimates of Corporations

Real Estate Valuation According to Previous Price Legislation

General Value of Real Estate

Building Codes and Related Regulation
Water Construction
Real Estate Valuation, Restitution
Real Estate Valuation, Foreign Methodology
Defects in Buildings and Their Diagnosis
Estimation of Value of Construction and Design Work
Automated Engineering Work

2. RESEARCH

2. 1 Research projects

- 1. NIČ, M., et al.: Estimation of General Value of Buildings in Conditions of Entry of the Slovak Republic to the EU. Grant VEGA 1/260005, 2005 2007
- 2. NIČ, M., et al.: Concept of Educational Program to Establish General Value of Buildings. Grant KEGA 3/4104/06, 2006 2008

2.2 International Cooperation

Institute for Forensic Engineering, Brno, Czech Republic TZUS, Prague, Czech Republic

3. THESES

Graduate theses

No.	Student's name	Title	Supervisor
1.	URBANOVSKÝ, P:	Analysis of Supply and Prices of Flats in Selected Municipal Parts of Bratislava	Nič

Doctoral thesis

No.	Student's name	Title	Supervisor
1.	GAŠPARÍK R.:	Application of Non-Destructive Examination Method	
		Process of Checking Quality of Masonry Construction	on Nič

4. PUBLICATIONS

4.2 Journals

Scientific papers abroad

1. NIČ, M.: Estimation of Value of Flats Based on the Prices Supplied. Forensic Engineering 3/2007, ISSN 1211-443X, pp. 141 – 149.

Scientific papers in Slovak journals

- 1. NIČ, M.: Estimation of Value of Flats in Bratislava Dúbravka Based on the Prices Supplied. In: Experts Almanac 3/2007, pp. 13-19, ISSN 1336 3174.
- 2. NIČ, M.: Regional Planning Inputs for Experts' Activity. In: Expert Almanac 4/2007, pp. 26-32, ISSN 1336 3174.

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- [1] NIČ, M.: Estimation of Value of Flats Based on the Prices Supplied. In: Sborník příspěvků XVI. Konference absolventů studia technického znalectví s mezinárodní účastí, Brno, leden, 2007. ISBN 978-80-7204-491-7.
- [2] NIČ, M.: Building Inspection. In.: Stroitel'stvo i nedvižimost': ekspertiza i ocenka, Materialy 4. –j. meždunarodnoj konferencii Praga nojabr 2006 g. Abtomnaja nekommerčeskaja organizacija nezavisimoj ekspertizy "AKADEMSTROJNAUKA" Prague Moscow 2007, pp. 145-162, ISBN 5-9028-5404-0.

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- [2] NIČ, M.: Assessment of Universal Value of Real Estate in Conditions of Entry of the SR to the EU, In: Proceedings of International Conference on Assessment of Universal Value of Real Estate in Conditions of Entry of the SR to the EU, 16.10.2007, Bratislava: Slovak University of Technology in Bratislava, Faculty of Civil Engineering 2007, ISBN 978-80-227-2788-4
- [3] NIČ, M.: Utilization of Offer Prices of Flats Using the Comparative Method, In: Proceedings of International Conference on Assessment of Universal Value of Real Estate in Conditions of Entry of the SR to the EU, 16.10.2007, Bratislava: Slovak University of Technology in Bratislava, Faculty of Civil Engineering 2007, ISBN 978-80-227-2788-4
- [4] NIČ, M.- PÚCHOVSKÝ, B. TROPEKOVÁ, A.: Updating Budget Indicators for Individual Types of Constructions, In: Proceedings of International Conference on Assessment of Universal Value of Real Estate in Conditions of Entry of the SR to the EU, 16.10.2007, Bratislava: Slovak University of Technology in Bratislava, Faculty of Civil Engineering 2007, ISBN 978-80-227-2788-4
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