



SLOVAK UNIVERSITY OF
TECHNOLOGY IN BRATISLAVA
FACULTY OF CIVIL ENGINEERING

2012

ANNUAL REPORT

of the Faculty of Civil Engineering

Bratislava

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INTRODUCTION

The activities of the Faculty are governed by Act No. 131/2002 Coll., on universities, by the Statute of STU, the Statute of the Faculty of Civil Engineering of STU and other principal documents of the Faculty, including the Long-Term Development Goals of the Faculty. An essential and inherent part of the process of evaluating the Faculty includes reassessing whether the Faculty's current administration is meeting the primary tasks and aims which were incorporated in the document "The Long-Term Development Goals of the Faculty of Civil Engineering of STU in Bratislava from 2011 to 2015," which assessed the goals intended for the year 2012.

The roots of the establishment of the Faculty of Civil Engineering as a part of the Slovak University of Technology in Bratislava reach as far back as the year 1937. The first academic year was opened in 1938. Since its founding the Faculty has educated more than 75,000 civil engineers in full-time studies.

The present Faculty of Civil Engineering belongs among the largest faculties in Slovakia; it has 21 departments, an Institute for Forensic Engineering, a Center of Information Technologies, and a Library and Information Center; together, they constitute a significant educational and scientific-research institution. The main tasks of the Faculty are to guarantee an independent scientific and research environment and provide a good standard of education based on proven traditions, as well as disseminate the newest information from all over the world. These tasks are handled by 482 Faculty's employees, including 43 professors, 67 associate professors, 143 senior and junior lecturers, and 65 researchers.

The current period of the Faculty's development can be characterized as a period of searching for genuine quality. In order to meet this aim the Faculty's management is focusing on innovative mechanisms for improving the quality of its education, research and expert activities. The first favorable results from this intensified focus were noticed in the year 2012.

In accordance with the Bologna Declaration, studies at the Faculty of Civil Engineering have three levels that implement a credit system for assessment. At present, there are 2465 students studying for a bachelor's degree, 1160 students studying for an engineering master's degree and 328 students, studying for their doctoral degree. In the academic year 2011/2012, there was a standard structure for the study programs, but the offer of study programs was changed at the bachelor level for the academic year 2012/2013. The study program of Environmental Engineering was replaced by the study program of Constructions for the Creation and Protection of the Environment.

The 2011/2012 entrance examinations for the bachelor and engineering studies took place in compliance with rules that were passed a few years ago. In comparison to the previous academic year, we noticed a slight rise in the number of students enrolled in the first year of bachelor studies. The ratio of bachelor students and students at the engineering level has gradually been changing in favor of the number of students in the engineering study programs.

We have once again noticed a long-lasting trend of a substantial decrease in the number of students who were expected to continue to their second year

of bachelor studies. The reason for the decline is that some students cannot cope with the study requirements and tend to give up their studies during the first year. In the past academic year the number of students decreased by 16% after their first year of study (the figures were 14% and 18% in the previous two years).

There is also a continuing problem for students to pass the last year of their bachelor studies successfully. Out of the total number of 855 students in the final year, only 517 students (60%) achieved their bachelor degree in 2012, compared with 59% in 2011 and 49.5% in 2010. At the engineering level a stable 85% to 90% of the students complete their studies successfully.

In the recent past we have managed to stabilize the number of foreign students interested in studies at the Faculty of Civil Engineering. This is especially noticeable in the Civil Engineering study program, which conducts full-scale instruction in the English language. The instruction is currently proceeding at both the bachelor and master's levels of Civil Engineering studies. We are pleased that the number of foreign students is rising again. In the academic year 2012/2013, the Faculty registered a total of 92 foreign students (apart from Czech students) in all the study programs as of October 31st.

Providing a high-quality education is the primary function of universities. The Faculty's management is fully aware that the quality of teaching extensively depends upon the quality of the control and supervision of this process on all levels. In the previous period we started a new system for the evaluation and control of the quality of the Faculty's teaching. The principal documents for the system were prepared, discussed and approved by the Faculty boards. The system is generating improvements in the monitoring of the quality of the teaching process and is creating efficient feedback. An integral part of the system is supporting the activities and competencies of the guarantors of the study programs.

In accordance with the Law on Universities, evaluations of the teaching process belong among the main rights of students. Not only does the Presidium of the FCE, STU, perceive evaluations of the teaching process to be a student right, but it also sees such evaluations as a source of information on the strong and weak aspects of the teaching process and services provided for the students as well as a means of enhancing their quality.

In the academic year 2011/2012, evaluations of the teaching process via the Academic Information System took place for the fifth time. The survey was made available to the students towards the end of the semester and during the examination periods in December and January for the winter semester and in May and June for the summer semester. Considering the Faculty's experience from previous years, these terms seem to be the best times to conduct the survey. The Presidium of the Faculty organized an information campaign in cooperation with the Student Association of FCE, by which it explained the importance of the survey for enhancing the quality of the teaching process. Moreover, the participants were offered some prizes if they completed the

survey. These efforts resulted in a higher number of respondents to the survey, i.e., 1238. This was an increase from 7% in the academic year 2010/2011 to 35% in the summer semester in the year 2011/2012 out of the total number of students. The number of filled-in ballots also increased from 1,420 to 8,547. The results of the survey showed that the students perceived most of their lecturers in a positive way. Sporadically, there were a few unfavorable evaluations, concerning, for example, a lecturer's late arrival, his/her unwillingness to counsel students, or poor preparation for teaching. The comments and suggestions from the students were considered either by the vice deans in charge of the survey or the Dean of the Faculty. The students could also express their opinions on the teaching process during sessions of the Academic Senate of the Faculty.

In compliance with the provisions of the Act on Higher Education, science and research are an integral part of a university's education activities. Over the long run the strategy of the scientific-research work of FCE, STU in Bratislava, is based on the national science policy as well as predicted European and world trends in civil engineering and geodesy. The bodies of the Faculty discussed, and the Scientific Board approved, a new principal research orientation. They considered the condition of the experimental bases of the departments, the development of which was a priority for achieving a higher standard of outcomes. In the field of scientific-research activities, the Faculty of Civil Engineering will aim at intelligent construction and transportation systems, modern materials and constructions, modeling of the processes of the internal environments of buildings, protection of the environment and renewable energy sources, automatic control systems in civil engineering, the safety and reliability of constructions, optimizing plans, exploitation of hydraulic structures and their interactions with the environment, and integrated protection from hydrospheric extremes, including the monitoring of global and regional changes to the environment. The Faculty will constantly disseminate information to the practice on the creation and updating of international, European and domestic norms, as well as realizing tasks requested by companies or institutions.

In spite of the Faculty's efforts to attract as many financed projects as possible, only twenty-four new projects were added in 2012. Therefore in 2012, the Faculty noticed a decline in the number of ongoing projects in comparison to previous years. A total of seventy-seven projects were in progress, nine of which were completed. In an attempt to increase the number of projects at the Faculty in 2013, the presidium of the Faculty made a greater effort to motivate the Faculty's employees to submit projects. Most research teams responded to the greater demands of particular agencies not just in the process of submitting new projects, but also in the assessment of the results achieved by involving experts in the preparation of new projects. The final decisions about many projects submitted in 2012 have not yet been made, and some of them will be submitted at the beginning of January 2013. The number of programs requiring variable administrative procedures for the submission and management of projects and uncoordinated calls are quite demanding on the employees who submit them. It is extremely hard (especially for the lecturers) to manage these demands under the university's working conditions. The same is true about the quality of the Faculty and university logistics service for employees submitting projects in spite of certain improvements in this area.

The performance of the individual departments in the field of scientific-research work is somewhat inconsistent; there are some very efficient departments, but also departments which could operate better. The Faculty has to prepare for possible changes in the structure of the state policy towards science and research. The Presidium of the Faculty, along with the Scientific

Board of the Faculty, has recommended diversifying research activities and focusing on themes that are a priority from the point of view of the EU and SR (e.g., environmental, energy, and transportation infrastructure issues and efficiency in the production and operation of constructions). At the same time it is necessary to improve the care of the Faculty's young scientific employees. Our Faculty has therefore paid a higher degree of attention to them this year. Fifty-three applications were submitted to the Faculty in 2012 in response to a call by STU within its program of supporting young researchers; out of those, 18 received a subsidy from the University and the Faculty.

The results of the scientific-research work of the universities and faculties have been constantly reflected in the allocation of the subsidy from the Ministry of Education, Science, Research and Sport of the SR. Systematic research work substantiated by publications is one of the primary conditions for the success of the Faculty and the professional growth of its employees. Therefore, the Presidium of the Faculty is striving at all control levels to ensure favorable conditions for creative work, including publishing work. The absolute number of works published could result in a false sense of self-satisfaction, especially due to the rapid increase in the number of publications. It is important to demonstrate a high number of so-called subsidized publications to guarantee financial resources from the Ministry of Education. It is encouraging that the percentage of subsidized titles is growing steadily every year. In 2011, the percentage of unsubsidized publications represented only 7.35% in comparison to the year 2011, when there were 9.5% of such publications. The Faculty is concerned that only a relatively small number of its creative employees considers publishing work as an essential part of their activities and also that the subsidized publications have an unsuitable structure. There are very few outcomes from FCE belonging to the category of the mostly highly valued ones, which is important for the Faculty's future. The successful accreditation of the Faculty, the continuing financial resources for its functioning, and the professional growth of its employees as individuals depend to a great extent upon the quality and amount of its publications. The task for the near future is to create an atmosphere in which any specialized work at a department will result in a publication.

The whole year was devoted to the intensive preparation of the University Scientific Park, which is a project to support the technical infrastructure of the research and development at the university level by means of calls within the framework of the EU structural funds. Through the project and investments intended for the infrastructure and improvement of the standards of the research-development basis, and within the framework of the Park, the Faculty is striving to establish a Regional Center for Research on the Safety and Reliability of Constructions, a competence center for applied research, transfer of technologies and knowledge in the field of research on the physical properties of building constructions and materials, statics and dynamics of load-bearing constructions, constructions for protection of the environment, and monitoring and modeling of objects and phenomena in space.

Within the framework of the operational Research and Development program, the Faculty is involved in a number of university projects aimed at: diagnostics of deformations of the Earth's surface in Slovakia through the application of satellites and gravimetric and troposphere measurements; the development of methods of excavation of high-volume energy wells, the development of accumulative vacuum tanks, and the creation and development of environmental technologies in the flood protection of settlements in the region of the Small Carpathians. It is also aimed at the development of

integration systems for the simulation of drain processes, applied research of methods for determining climate and hydrological design variables, and the development of intelligent technologies to be used in electronics and computations in the systems and services of constructions.

Due to the activities of its employees, FCE, STU, is currently participating in all the significant EU programs, including the TEMPUS-Tacis, SOCRATES-ERASMUS, and LEONARDO da VINCI II educational programs, but we also have to mention other international activities, especially the CEEPUS program and bilateral programs based on our employees' contacts with foreign partner universities. A total of twenty projects within various forms of EU framework programs were submitted in 2012. The number of applications is perceived positively.

The Faculty has to extensively present its activities, even within our own country. Year by year the role of Public Relations has become more important in informing the public about the range of study programs at the Faculty, our graduates' job prospects, and the promotion of the civil engineering professions. In accordance with the Long-Term Goals of the Development of the Faculty of Civil Engineering, the Faculty's Public Relations activities cover the most fundamental areas, including the promotion of studying at STU, student life, representing the Faculty at trade fairs and professional and scientific events, activities of the Industrial Board, competitions, media activities, social events and the care of its employees.

In the previous year the Presidium of the Faculty made, in addition to improving the teaching process, improving the standard of services provided to the students one of its top priorities. This heightened emphasis resulted in the renovation of classrooms and the electrical network's infrastructure, reconstruction of the 230V cabling, and equipping the classrooms with data projectors. Wi-Fi is available in the classrooms in block B, where most classes are held, as well as the atrium, the Faculty Library, and the lecture halls. The students can connect to the Web in these rooms without using any cables in case they need to use their notebooks. The students can also consult on a daily basis with the professionals from the Center of Information Technologies of the Faculty. The computer classrooms are visited by an average of 1,500 students per week, i.e., more than 40,000 students per year. Twenty PC kiosks, which are located at the main entrance of the Faculty's building, the Registrar's Office and the IT Center, primarily serve to assist the students with their individual work. The kiosks are available 24 hours a day, seven days a week. There are 30 connections to the Web in the Library and a powerful self-service scanner to enable students to work individually on their notebooks.

The arrangement of specialized zones in the Library for notebooks to be connected to the Internet has enhanced the capacity of the reading room and the comfort of its users. This has resulted in higher attendance in the Library and Information Center of the FCE, STU, with students spending longer periods of time there on average. The modernization of the Library and its higher quality services has had a positive impact, with attendance at the Library reading room steadily increasing every year. There was a continuing trend of increased attendance in 2012 as well, and the number of visitors reached almost 72,000 per year. The increased attendance at the Library proves that the realization of the modernization project of the academic library at the Faculty of Civil Engineering STU has been successful and that the Library has become a vital center for education and the meaningful use of free time during breaks between classes. However, it must be noted that if the increased rate of attendance and interest from the students continues, it will

be necessary to find more room for an extension of the Library. With a greater number of professional online databases and modern information technologies available, Library and Information Center (LIC) of FCE is trying to actively encourage improvements in the information literacy of its target groups of undergraduates, postgraduates and PhD students through enhancing their ability to achieve excellent results in their educational and scientific outcomes. In the year 2012, the LIC continued providing a series of information seminars for first-year students, as well as the PhD. students on the theme of "Obtaining and preserving scientific information." The LIC is continually providing on-line access to tens of electronic databases for the Faculty's employees and students.

Many projects for the complex reconstruction of the Faculty's buildings have been realized in the previous period. Barrier-free access to the central parts of the Faculty has been achieved as well as the reconstruction of the external cladding of block C of the Faculty of Civil Engineering. In 2012, these positive trends continued. The reconstruction of the heating and cooling facility, the main entrance to the Faculty, numerous lecture rooms in block B, and department laboratories were successfully completed. At the beginning of 2012, the reconstruction of the cafeteria, a set of classrooms on the second floor in block B and, in the second half of the year, the Central Laboratories on Technická Street, and the reconstruction and construction of new buildings at RTEC Kočovce were completed. In October 2012, a trial operation of an aerodynamic tunnel was launched, and in November, a new building at RTEC Kočovce, financed mainly from structural funds, was submitted. The partial reconstruction of the roof construction and external cladding of the mansion in Kočovce was completed at the end of the year.

A stable economic environment is a precondition for the successful realization of the Faculty's future investment goals and the participation of the Faculty's employees in international scientific and research projects. Accordingly, it is significant that the Faculty has made a profit in the last few years. This was possible thanks to the profits made from the Faculty's core and entrepreneurial activities. In the future it will be possible to continue this trend only through a higher degree of quality, both in the Faculty's pedagogy, as well as its science and research activities.

BODIES OF THE FACULTY

1. THE DEAN OF THE FACULTY

Prof. Ing. Alojz Kopáčik, PhD.

2. PRESIDIUM OF THE FACULTY

Prof. Ing. Alojz Kopáčik, PhD.

Prof. Ing. Ján Szolgay, PhD.

Assoc. Prof. Ing. Peter Makýš, PhD.

Prof. Ing. Vladimír Benko, PhD.

Assoc. Prof. Ing. Boris Bielek, PhD.

Ing. Tomáš Šatura

Assoc. Prof. Ing. Stanislav Unčík, PhD.

Bc. Gabriela Szántová,
from Academic Year 2012/2013 Kristína Vaňová

Ing. Miloslav Štujber

- The Dean
- The First Deputy Dean, Vice-Dean for Science, Research and Foreign Relations
- Vice-Dean for Education
- Vice-Dean for Public Relations
- Vice-Dean for Development of the Faculty
- Financial Manager
- Chairman of the Academic Senate FCE STU
- Chairperson of the Students' Association, FCE STU
- Chairman of the Trade Union Organisation

3. THE DEAN'S COUNCIL

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Assoc. Prof. Ing. Peter Makýš, PhD.

Prof. Ing. Vladimír Benko, PhD.

Assoc. Prof. Ing. Boris Bielek, PhD.

Ing. Tomáš Šatura

Assoc. Prof. Ing. Stanislav Unčík, PhD.

Bc. Gabriela Szántová,
from Academic Year 2012/2013 Kristína Vaňová

Ing. Miloslav Štujber

Prof. Ing. Juraj Bilčík, PhD.

- The Dean
- The First Deputy Dean, Vice-Dean for Science, Research and Foreign Relations
- Vice-Dean for Education
- Vice-Dean for Public Relations
- Vice-Dean for Development of the Faculty
- Financial Manager
- Chairman of the Academic Senate FCE STU
- Chairperson of the Students' Association, FCE STU
- Chairman of the Trade Union Organization
- Head of Department of Concrete Construction and Bridges

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Ing. Ivan Slávik, PhD.	– Head of Department of Geotechnics
Prof. Ing. Viliam Macura, PhD.	– Head of Department of Land and Water Resources Management
Prof. Ing. Peter Dušička, PhD.	– Head of Department of Hydraulic Engineering
Prof. Ing. Anton Puškár, PhD.	– Head of Department of Building Construction
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5. THE FACULTY'S ACADEMIC SENATE

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Ing. Dušan Šamudovský, PhD., Managing Director of Doprastav, a.s.
Alan Šišinački, Holcim Slovakia, Chairman
Prof. Ing. Andrej Šoltész, PhD., The Chairman of the Alumni Club of FCE STU
Ing. Miroslav Trnovský, Statutory of SkyBau, Ltd., Žilina
Ing. Vladimír Uhlík, Managing Director of Geodesy a.s. Bratislava
Assoc. Prof. Ing. Stanislav Unčík, PhD., Chairman of the Academic Senate
Ing. Anton Viazanko, Director of Durisol-Stav, Ltd.
Ing. František Zvrškovec, President of Divident Group Slovakia, Bratislava

DEPARTMENTS

DEPARTMENT OF CONCRETE STRUCTURES AND BRIDGES

Head of Department

Prof. Ing. Juraj Bilčík, PhD.

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Design of Composite Structures

Design of Concrete Bridges I, II

Design of Concrete Members (Slovak and English)

Design of Concrete and Masonry Members

Design of Concrete Structures I, II

Execution of Concrete Structures

High – Rise and Span Structures

Masonry Structures of Buildings

Prestressed Concrete

Reinforced and Prestressed Members

Repair of Concrete Constructions

Special Problems of Concrete Structures

Obligatory elective subjects

Masonry Structures

Design of Environmental Constructions

Experimental Testing of Concrete Structures

Modeling of Civil Engineering Works

Optional subjects

Modeling of Concrete Structures

Recommended subjects

Modeling of Reinforced Concrete 2D Structures

Modeling of Reinforced Concrete 3D Structures

1.2 Postgraduate courses

Modeling of Concrete Structures

Experimental Testing of Concrete Structures

2. THESES

2.1 Bachelor theses

There were 11 works.

2.2 Graduate theses

Bednár, M.: "Generali" Office Building: Cast-in-Situ RC Combined Bearing Structure with Flat Slabs and Stiffening Cores

Supervisor: Abrahoim, I.

Beutelová, D.: Zvolen Shopping Centre: Large-Span Cast-in-Situ Concrete Structure

Supervisor: Gajdošová, K.

Brižek, L.: Hotel: Circular Concrete Building

Supervisor: Benko, V.

Buranský, S.: Office Building: Hanging Structure

Supervisor: Benko, V.

Dalkovič, I.: "Uzbecká-Dolné Hony-Bratislava" Multifunctional Apartment Building: RC Cast-in-Situ Structure with Stiffening Cores

Supervisor: Abrahoim, I.

Dömötöröová, A.: Multifunctional Building: 21-Storey RC Slab-Wall Combined Structure

Supervisor: Harvan, I.

Drha, P.: Design of the Bearing System of a Production Factory: Precast Concrete Hall Structure

Supervisor: Šoltész, J.

Đuricová, J.: Office Building of an Automobile Centre-Bratislava, Rožňavská: Cast-in-Situ RC Combined Bearing Structure with a Stiffening Core

Supervisor: Abrahoim, I.

Fabian, P.: Staré Grunty-Bratislava Hotel: Combined Cast-in-Situ RC Structure with a Stiffening Core

Supervisor: Abrahoim, I.

Faragová, J.: "Železná Studnička" Apartment House: Cast-in-Situ Reinforced Concrete Structure

Supervisor: Gajdošová, K.

Frólo, J.: Load-Bearing Structure of a High-Rise Building Office Center

Supervisor: Gramblička, Š.

Halabrinová, A.: Supporting Structure of a High-Rise Building of a Residential Complex

Supervisor: Gramblička, Š.

Chlebík, M.: Static and Dynamic Analysis of a High-Rise Building

Supervisor: Šoltész, J.

Jalšovský, J.: Design of the Bearing System of a Production Factory: Cast-in-Situ RC Structure

Supervisor: Šoltész, J.

Jozeková, A.: "GREEN PARK – VTÁČNIK – PART A, Podkolibská, Bratislava" Apartment House: Cast-in-Situ RC Structure with Stiffening Cores

Supervisor: Abrahoim, I.

Klabník, M.: Bus Station with Hotel: Concrete Structure

Supervisor: Benko, V.

Kollár, T.: Design of Underground Parking Space of "Vtáčnik-Part C" Residential Apartment Building Made as a Watertight Concrete Tank

Supervisor: Šoltész, J.

Kurinec, M.: High-Rise Building of an Office Centre

Supervisor: Benko, V.

Ladiver, M.: Hotel "TULA" – Banská Bystrica: Cast-in-Situ RC Slab-Wall Structure on a Skeleton Pedestal with a Stiffening Core

Supervisor: Harvan, I.

Macoszková, P.: Central Police Office in Bratislava. Multi-Storey RC Skeleton Structure with a Stiffening Core

Supervisor: Harvan, I.

Máčik, J.: Social and Service Building of Jablonecké sklárne: Cast-in-Situ RC Structure with a Stiffening Core

Supervisor: Harvan, I.

Mallo, M.: Office Building

Supervisor: Benko, V.

Matovčík, Š.: Office Building in Banská Bystrica: Cast-in-Situ RC Structure

Supervisor: Borzovič, V.

Matušov, M.: Apartment House in Piešťany: Cast-in-Situ RC Structure

Supervisor: Borzovič, V.

Sticza, G.: "Centrál" Multifunctional Complex: Cast-in-Situ Reinforced Concrete Structure

Supervisor: Gajdošová, K.

Bozsik, J.: Road Bridge over Trnávka Stream on Northern Bypass of Town of Trnava

Supervisor: Borzovič, V.

Fabó, J.: Bridge over the River Váh on the Motorway D1 Built by Cantilever Balanced Method

Supervisor: Halvoník, J.

Chovanec, D.: Load-Bearing Structure of a Post-Tensioned Bridge

Supervisor: Borzovič, V.

Javurek, M.: Cast-in-Situ Bridge on the R2 Expressway

Supervisor: Halvoník, J.

Juhász, G.: Repair of Reinforced Ramp and Footpath at the Faculty of Civil Engineering of Slovak Technical University Bratislava

Supervisor: Bilčík, J.

Novák, M.: Load-Bearing Structure of Post-Tensioned Bridge

Supervisor: Borzovič, V.

Pažma, P.: Prestressed Bridge over the River Poprad, at Road I/68 Plavnica

Supervisor: Halvoník, J.

Schwarz, L.: Incremental Bridge in Poland-Structural Analysis of the Superstructure

Supervisor: Paulík, P.

Skačányiová, S.: Road Bridge over the River at Rabča

Supervisor: Fillo, L.

Světlíková, E.: Bridge Built by the Incremental Launching Method in Poland: Structural Analysis of the Substructure

Supervisor: Paulík, P.

2.3 Doctoral theses

Prítula, A.: Cambers of Precast Bridge Girders – Technological and Static Influences

Supervisor: Halvoník, J.

3. RESEARCH

3.1 Research projects

Holistic Design of Concrete Constructions (2012-2014, BILČÍK, J.), VEGA /0784/12

Resistance Analysis of Concrete, Masonry and Composite Steel-Concrete Structures (2011-2013, FILLO, L.), VEGA 1/0857/11

Factors Affecting the Effectiveness of the Utilization of High-Strength Concrete in Load-Bearing Elements and Structures (2011-2013, HUĐOBA, I.), VEGA1/0458/11

3.2 International cooperation

Cooperating institutions

Klokner Institute ČVUT Prague, Czech Republic

ETH – Laboratory for Building Materials, ETH Zurich, Switzerland

Baustoffinstitut, TU Munich, Germany

Institut für Baustatik und Konstruktion, ETH Zurich, Switzerland

Department of Civil and Materials Engineering, University of Illinois at Chicago, USA
 RIB Bausoftware, Stuttgart, Germany
 Betosan, s.r.o., Prague, Czech Republic
 European Commission, DG Research, Brussels, Belgium
 Imperial College for Science, Technology and Medicine, London, U. K.
 St. Paul University, Brussels, Belgium
 Fachhochschule Braunschweig – Wolfenbütel, Germany
 Institut für Massivbau, TU Darmstadt, Germany
 Fachhochschule Coburg, Germany

Membership in international professional organizations

Bilčík, J.: American Concrete Institute
 Fillo, L.: Representative of the Slovak Republic in CEN TC 250 – SC2 Eurocodes Design of Concrete Structures
 Fillo, L.: Member of Task Group fib TG 1.1 Design Application
 Fillo, L.: Honorary Member of Czech Concrete Society, Hradec Králové, Czech Republic,
 Halvoník, J.: Representative of the Slovak Republic on CEN TC 250 SC1 Eurocodes
 Halvoník, J.: Representative of the Slovak Republic on CEN TC 250 Eurocodes

4. PUBLICATIONS

Books

Bilčík, J. – et al.: Guidelines for Watertight Concrete Structures-White Tanks. – Bratislava: SKSI, 2012, ISBN 978-80-89113-90-3, 67 pp. (in Slovak)
 Paulík, P.: Bridges in Slovakia. In: Bratislava: Jaga Group, s.r.o., 2012, ISBN 978-80-8076-103-5, 260 pp. (in Slovak)

Textbooks

Abrahoim, I. – Borzovič, V.: Reinforced Concrete Supporting Structures. Instructions for Exercises, Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3794-4, 181 pp. (in Slovak)
 Šoltész, J. – Bartók, A.: Digital Modelling of Concrete Structures Using the CAD-FEM Structural Analysis System STRAP: Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3670-1, 141 pp. (in Slovak)

Journals

Bilčík, J. – Holly, I.: Effect of the Corrosion of Reinforcement on the Reliability of Concrete Structures. In: Beton: Technologie – Konstrukce – Sanace, ISSN 1213-3116, Vol.12, No. 3 (2012), pp. 53-57 (in Slovak)
 Bilčík, J. – Chandoga, M.: Strengthening Concrete Structures by External Prestressing. In: Stavebné materiály, ISSN 1336-7617, Vol. 8, No. 7 (2012), pp. 52-54 (in Slovak)

Gramblička, Š.: Reinforcement of Columns and Walls of Cast-in-Situ Reinforced Concrete Structures. In: Konstrukce, ISSN 1213-8762, Vol. 11, No. 3 (2012), pp. 14-21 (in Slovak)

Harvan, I.: Assessment of Prefabricated Panel Buildings According to the Requirements of the Applicable European Standards. In: Stavebnictví, ISSN 1802-2030, Vol. 6, No. 2 (2012), pp. 50-54 (in Slovak)

Hudoba, I.: Technical Tools for Sufficient Reinforcement Cover and Related Reliability Aspects of Reinforced Concrete Structures. In: Beton: Technologie – Konstrukce – Sanace, ISSN 1213-3116, Vol.12, No. 5 (2012), pp. 67-71 (in Slovak)

Šoltész, J. – Abrahoim, I.: Vinohradis Residential Complex in Bratislava. In: Beton: Technologie – Konstrukce – Sanace, ISSN 1213-3116, Vol.12, No.1 (2012), pp. 34-39 (in Slovak)

Conference Proceedings

Abrahoim, I.: Anchorage Regions of Post-Tensioned Concrete Members. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, 2012, ISBN 978-80-8076-104-2, pp. 299-304 (in Slovak)

Abrahoim, I.: Assessment of Cracking of Pre-Tensioned Concrete Members. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 277-282 (in Slovak)

Bellová, M.: Determination of Time for Fire Resistance Classification of Masonry Walls According to Eurocode 6. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 499-506 (in Slovak)

Bellová, M.: Influence of Different Kinds of Mortar on the Resulting Strength of Masonry. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 67-72 (in Slovak)

Benko, V. – Vyskoč, A. – Ďuračka, J.: Verification of Damage Caused by Neglecting Crack Widths During Design of WWTP Tanks. In: Proceedings of 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9 (in Slovak)

Benko, V. – Fillo, L.: Resistance of Columns Subjected to Axial Load. In: Proceedings of Design of Concrete Structures and Bridges Using Eurocodes, International Workshop, Vienna, Austria, 20.-21.09.2012, Technische Universität Wien, ISBN 978-3-902749-03-1, pp. 211-214 (in English)

Bilčík, J.: Additional Sealing of Watertight Concrete Tanks. In: Repair of Concrete Structures 2012, Proceedings of the 22th International Symposium Brno, Czech Republic, 23.-25.05.2012, Brno, The Concrete Structures Repair Association, pp. 40-45 (in Slovak)

Bilčík, J. – Halaša, I.: Applying Guidelines for Watertight Concrete Structures-White Box. In: Proceedings of Concrete Days 2012 Conference, Bratislava,

- Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 35-42 (in Slovak)
- Bilčík, J. – Hollý, I.: Design of Concrete Structures for Durability. In: Life-Cycle and Sustainability of Civil Infrastructure Systems. Proceedings of the Third International Symposium on Life-Cycle Civil Engineering, Vienna, Austria, 3.-6.10.2012, London, Taylor & Francis Group, ISBN 978-0-415-62126-7, pp. 1330-1334 (in English)
- Bilčík, J. – Bajza, A. – Weissmann, L.: Granulation Tower Repair at Duslo Šaľa. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 337-342 (in Slovak)
- Borzovič, V. – Valach, P.: Distribution and Redistribution of Internal Forces in RC Flat Slab. In: 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9, pp. 159-164 (in Slovak)
- Borzovič, V. – Halvoník, J.: Flat Slab Reinforcement with Regard to the Distribution and Redistribution of Internal Forces In: Proceedings of Design of Concrete Structures and Bridges Using Eurocodes, International Workshop, Vienna, Austria, 20.-21.09.2012, Technische Universität Wien, ISBN 978-3-902749-03-1, pp. 223-228 (in English)
- Brondoš, J. – Bilčík, J.: The Strengthening of Columns under the Impact of a Load. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 361-364 (in Slovak)
- Čabrák, M.: A New Standard for the Assessment of Existing Structures. In: Proceedings of the 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9, pp. 259-266 (in Slovak)
- Fillo, L.: Verification of the Strut-and-Tie Models of the D-Regions of Concrete Structures. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 237-242 (in Slovak)
- Gajdošová, K.: Effects of High Temperatures on Structures Strengthened by FRP Materials. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 365-370 (in Slovak)
- Gajdošová, K.: Slender Rectangular Concrete Columns Strengthened by CFRP Confinement and NSMR. In: Proceedings of CICE 2012, Rome, June 2012 (in English)
- Gajdošová, K.: Stress and Crack Width Control According to EN 1992 In: Proceedings of Design of Concrete Structures and Bridges Using Eurocodes, International Workshop, Vienna, Austria, 20.-21.09.2012, Technische Universität Wien, ISBN 978-3-902749-03-1, pp.199-202 (in English)
- Gramblička, Š. – Veróny, P.: Analysis of Influence of Transverse Reinforcement in Reinforced Concrete Columns. In: Proceedings of Design of Concrete Structures and Bridges Using Eurocodes, International Workshop, Vienna, Austria, 20.-21.09.2012, Technische Universität Wien, ISBN 978-3-902749-03-1, pp. 215-222 (in English)
- Gramblička, Š. – Leles, A.: Design of Composite Steel and Concrete Columns: Detailing, Joints and Examples of Application. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 139-144 (in Slovak)
- Gramblička, Š.: Longitudinal Shear Resistance of Composite Slabs. In: Proceedings of the 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9, pp. 151-158 (in Slovak)
- Gramblička, Š. – Veróny, P.: Reinforced Concrete Columns: Analysis of the Influence of Transverse Reinforcement. In: Proceedings of the 9th International Scientific Conference of the Faculty of Civil Engineering, Košice, Slovak Republic, May 22-25, 2012, Košice, University of Technology in Košice, ISBN 978-80-553-0905-7 (in English)
- Halvoník, J.: Design of Foundation Slabs and Footings for Shear. In: Proceedings of Design of Concrete Structures and Bridges Using Eurocodes, International Workshop, Vienna, Austria, 20.-21.09.2012, Technische Universität Wien, ISBN 978-3-902749-03-1, pp. 85-92 (in English)
- Harvan, I.: Some Requirements for Assessing Horizontal Loads in High-Rise Building Design. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 293-298 (in Slovak)
- Harvan, I.: An Approach to the Design of the Concrete Structures of High-Rise Buildings. In: Proceedings of the 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9, pp. 127-138 (in Slovak)
- Harvan, I.: The Design of Concrete Structures of High-Rise Buildings In: Proceedings of the 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9, pp. 139-150 (in Slovak)
- Hollý, I. – Bilčík, J.: Application of Probabilistic Degradation Models for Increasing the Quality of Concrete Structures. In: Proceedings of Conference on Investigation and Quality in Civil Engineering 2012, Brno, Czech Republic, 2.-3.10.2012, University of Technology Brno, ISBN 978-80-214-4578-9, pp. 37-45 (in Slovak)
- Hudoba, I.: Method of Fixing Position of Steel Bar Reinforcement in Reinforced Concrete Elements and Its Consequences for the Reliability of Reinforced Concrete Structure. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 217-222 (in Slovak)
- Laco, J. – Borzovič, V.: Bond Behaviour of Prestressing Units Loaded with Corrosion Protection Emulsions. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 213-216 (in Slovak)

Lelkes, A. – Gramblička, Š.: Analyses of Composite Steel-Concrete Columns-Buckling Effect and Use of High Strength Concrete. In: Proceedings of the 9th International Scientific Conference of the Faculty of Civil Engineering, Košice, Slovak Republic, May 22-25, 2012, Košice, University of Technology in Košice, ISBN 978-80-553-0905-7 (in English)

Lelkes, A.: Theoretical Analyses of Composite Steel-Concrete Columns. In: Juniorstav 2012, Annotations, 14th PhD. Technical Conference, Brno, Czech Republic, 26.1.2012, University of Technology Brno, ISBN 978-80-214-4393-8, 187 pp. (in Slovak)

Paulík, P.: Concrete Bridges on the Territory of Slovakia. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 77-84 (in Slovak)

Paulík, P. - Hudoba, I.: Degradation of High Performance Fibre-Reinforced Concrete Beams in an Aggressive Solution of Ammonium Nitrate in a Loading Condition. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 381-386 (in Slovak)

Paulík, P. – Pánik, M. – Nečas, V.: Use of Radioactive Reinforcement in the Construction of Concrete Bridges. In: Proceedings of Recent Advances in Concrete Technology and Sustainability Issues: 12th International Conference. Prague, Czech Republic, 30.10.-1.11.2012. – Farmington Hills, American Concrete Institute, 2012, ISBN 978-0-87031-780-4, pp. 425-434 (in English)

Sonnenschein, R. – Bolha, L.: Differences in the Design of Concrete Reinforcements for Crack Width Limitations by Different Normative Rules. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 259-264 (in Slovak)

Šoltész, J.: Design of Beam and Shell Concrete Structures in a CS STRAP at DeCoSaB. In: Proceedings of the 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9, pp. 195-203 (in Slovak)

Šoltész, J. – Ignačák, M.: Marginal Seismic Resistance of 3D Shell Concrete Structures. In: Proceedings of Concrete Days 2012 Conference, Bratislava, Slovak Republic, 25.-26.10.2012, Slovak University of Technology in Bratislava, ISBN 978-80-8076-104-2, pp. 243-248 (in Slovak)

Šoltész, J. – Ignačák, M.: Strength Assessment of the HVAC Pipeline Distribution at the EMO34 NPP. In: Proceedings of the 17th Conference on Statics of Buildings 2012, Piešťany, Slovak Republic, 14.-15.03.2012, ISBN 978-80-970037-3-9, pp. 213-220 (in Slovak)

Veróny, P.: Reinforcement of Concrete Columns-Analysis of the Influence of Transverse Reinforcements. In: Juniorstav 2012, Annotations, 14th PhD. Technical Conference, Brno, Czech Republic, 26.1.2012, University of Technology Brno, ISBN 978-80-214-4393-8, pp. 171 (in Slovak)

DEPARTMENT OF TRANSPORTATION ENGINEERING

Head of Department

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Airport Infrastructures

Diagnosis and Reconstruction

Diploma Thesis

The Environment and Transport

Excursions

Modeling and Graphics in Road Construction

Project: Road Constructions

Railways

Roads in Urban Areas

Road Intersections

Design Studio of Urban Planning I

Design Studio of Urban Planning II

Design Studio of Spatial Planning

Predictions and Scenarios for the Development of Transport

Transport Forecasting

Optional subjects

Experiments and Testing

Ecology of Urban Settlements and Urban Transportation Planning

Selected Chapters on Roads and Motorways

Pavement Mechanics

Transport Construction

Urban Transportation Planning

Urban Planning I

1.2 Postgraduate courses

Innovations in Road Construction

Road Safety Audit – RSA

2. THESES

2.1 Bachelor theses

There were 21 works.

2.2 Graduate theses

Lecová, M.: The Impact of Traffic on the Environment

Supervisor: Zuzulová, A.

Fisher, J.: Impacts of Traffic Calming Elements

Supervisor: Nemček, M.

Cíferská, M.: Evaluation of Selected Road Sections in Terms of Resistance

Supervisor: Zuzulová, A.

Bauer, J.: Design of Pavement for a 6-Lane Highway

Supervisor: Gschwendt, I.

Danielová, N.: The Design of the Sereď – Kráľová nad Váhom Bicycle Route

Supervisor: Bezák, B.

Jančo, M.: The Design of the Reconstruction of a Road Section

Supervisor: Bačová, K.

Michalovič, R.: Proposed Reconstruction of a Road Section

Supervisor: Bačová, K.

Šulík, L.: Designing Pavements According to Catalogs

Supervisor: Gschwendt, I.

Dobsonyová, N.: Reconstruction Project for a Road Section

Supervisor: Bačová, K.

Kuna, B.: Elements of Road Junctions

Supervisor: Nemček, M.

Orthová, M.: Regulation of Road Space in Individual Housing

Supervisor: Ondrovič, M.

Pólya, P.: Study of Highway D4 Intersection with Road No. II/502

Supervisor: Nemček, M.

Kreth, M.: Study of the Freeway Interchanges of Highways D1 and D4

Supervisor: Nemček, M.

Masár, M.: D1 Study of a Project for the First Section of the Janovce – Jablonov Motorway

Supervisor: Bartošová, L.

Mokrišová, M.: D1 Study of a Project for the Second Section of the Janovce – Jablonov Motorway

Supervisor: Bačová, K.

Heger, M.: Visual Integration of Road Construction into an Environment

Supervisor: Ondrovič, M.

Hudák, P.: Theory and Calculations of the Deformations of Asphalt Pavements

Supervisor: Zuzulová, A.

Húšťava, E.: Pavements in Airport Movement Areas and Their Evaluation

Supervisor: Bartošová, L.

Janoviček, J.: Long Life Pavements

Supervisor: Zuzulová, A.

Kántor, T.: Calculation of the Traffic Load for a Pavement Design.

Supervisor: Bačová, K.

Puk, B.: Study of the Road Around Stupava with an Emphasis on the Environmental Quality

Supervisor: Bartošová, L.

2.3 Doctoral theses

Zemanová, K.: Application of Recycled Material for Hydraulically Bound Road Bases

Supervisor: Bačová, K.

3. RESEARCH

3.1 Research projects

CENEX subcentre CETIS – Transportation Centre Infrastructure of Settlements (BEZÁK, B., 2011-2013) Project No.: 26240120002

Road Safety Management – ROSEMAN

(RAKŠÁNYI, P., 2010-2012), Project No.: 00022

Austria-Slovakia Traffic Model

(BEZÁK, B., 2010-2013), Project No.: 00043

BRAWISIMO

(BEZÁK, B., 2010-2013), Project No.: 00127

3.2 International cooperation

Cooperating institutions

Czech Technical University in Prague, Faculty of Transportation Sciences, Prague, Czech Republic

VŠB-Technical University of Ostrava, Czech Republic

University of Pardubice, Jan Perner Transport Faculty, Pardubice, Czech Republic

University of Natural Resources and Applied Life Sciences Institute for Transport, Vienna, Austria

University of Applied Sciences, Faculty of Business, Logistics and Transport, Erfurt, Germany

Szechenyi Istvan University, Department of Transport Infrastructure and Municipal Engineering, Gyor, Hungary

Vilnius Gediminas Technical University, Faculty of Transport Engineering, Vilnius, Lithuania

University of Technology, Faculty of Civil Engineering, Cracow, Poland

University of Maribor, Faculty of Civil Engineering, Maribor, Slovenia

Hellenic Institute of Transport, Thessaloniki, Greece

Politechnika Wroclawska, Katedra Dróg I Lotnisk, Poland

Membership in international professional organizations

Bezák, B.: Member of the PIARC – TC 3.2 Design and Operation of Safer Road Infrastructure, Paris, France

Bezák, B.: Member of the Southeast European Transport Research Forum, SETREF, Thessaloniki, Greece

Bezák, B.: Member of the Editorial Board -Transport Review, London, UK

Bezák, B.: Member of the Editorial Board – Acta Technica Jaurinensis, Gyor, Hungary

Bezák, B.: CEI Vienna – Central European Initiative – Subgroup for Transport and the Environment, Austrian Federal Ministry of Agriculture, Forestry, the Environment and Water Management, Vienna

Gschwendt, I.: Member of the PIARC – D2 TC 4.2 Road Pavements, Paris, France

Gschwendt, I.: Member of the Editorial Board – Silniční obzor, Prague

Gschwendt, I.: The American Bibliographical Institute: Research Board of Advisors

Gschwendt, I.: Czech Association for Mechanics, ČSM Prague, Czech Republic

Ondrovič, M.: Member of the PIARC – TC 3.2 Design and Operation of Safer Road Infrastructure, Paris, France

Rakšányi, P.: CEI Vienna – Central European Initiative – Subgroup for Transport and the Environment, Austrian Federal Ministry of Agriculture, Forestry, the Environment and Water Management, Vienna

Rakšányi, P.: DASL (German Academy of Spatial and Landscape Planning, Committee for Transport and the Environment), Landesgruppe Niedersachsen-Bremen, Hannover, Member-Correspondent

Rakšányi, P.: IFHP International Federation for Housing and Planning, The Hague, The Netherlands, Member-delegate

Štefunková, S.: Member of the PIARC – D2 TC 4.2 Road Pavements, Paris, France

4. PUBLICATIONS

Books

Bačová, K. – Gschwendt, I. – Staňo, R. – Schlosser, F. – Komačka, J.: Road and Highway Construction, Publishing House STU, Bratislava 2012. – 329 pp. ISBN 978-80-227-3831-6

Bezák, B. – Kapusta, V. – Nemček, M. – Ondrovič, M. – Rakšányi, P. – Bogner, J. – Mayer, E. – Pröll, M. – Pumberger, A. – Resch, A. – Schneider, F.: Roseman Compendium: Cross Border Road Safety Management. – Vienna: Kuratorium für Verkehrssicherheit, 2012. – 215 p. – ISBN 978-3-7070-0109-9 (in Slovak)

Parts of books

Bačová, K.: Road Objects, In: Road and Highway Construction, Publishing House STU, Bratislava 2012. –pp. 89 – 128, ISBN 978-80-227-3831-6

Ondrovič, M.: Example of RSI – Malacky, Road No. I/2, In: Roseman – Cross Border Road Safety Management: Guidelines. Vienna: Kuratorium für Verkehrssicherheit, 2012, pp. 195-215. ISBN 978-3-7070-0112-9 (in Slovak)

Journals

Bačová, K.: 17th Seminar of Ivan Poliaček with international participation, Lessons Learned from Motorway and Expressway Construction. In: Journal of Building Mechanism and Mechanization, ISSN1336-958X, Vol. 7, Nov.-Dec./2012, No. 6, pp. 57-58 (in Slovak)

Bačová, K. – Patriková, K.: Use of Concrete Recycled Material in Road Construction. In: Roads and Trucks. – ISSN 1336-7501. –Vol. 8, No. 1 (2012), pp. 31-36 (in Slovak)

Gschwendt, I. – Štefunková, S.: Solar Heat-Blocking Pavement. In: Engineering Constructions. – ISSN 1335-0846. – Vol.60, No.3 (2012), pp. 28-29 (in Slovak)

Štefunková, S.: Characteristics of Asphalt Mixes with FT Additive. In: Slovak Journal of Civil Engineering. – ISSN 1210-3896. – Vol. 20, No. 1 (2012), pp. 35-40 (in English)

Zuzulová, A. – Gschwendt, I.: Impact of Cement-Concrete Pavement Design on Tensions in Cement-Concrete Slabs. In: Roads and Trucks. – ISSN 1336-7501. – Vol. 8, No. 1 (2012), pp. 11-20 (in Slovak)

Conference Proceedings

Bačová, K. – Kőröš, K.: Geosynthetic Use in Motorways, In: Proceedings of Knowledge of the Construction of Highways and Motorways: 17th Seminar of Ivan Poliaček with international participation. Bratislava, Slovak Republic, 22.-23.11.2012. Bratislava: Kongres STUDIO, spol. s.r.o., 2012, pp. 189-192. ISBN 978-80-89565-06-1(in Slovak)

Bačová, K. – Sitárik, J.: Developments in Asphalt Mixture Layers on Motorways, In: Proceedings of 17th Seminar of Ivan Poliaček with international participation. Bratislava, Slovak Republic, 22.-23.11.2012. Bratislava: Kongres STUDIO, spol. s.r.o., 2012, pp. 189-192. ISBN 978-80-89565-06-1 (in Slovak)

Balkó, G.: Effective Design of New Urban Public Transport Route. In: Proceedings of Advances in Architectural, Civil and Environmental Engineering [electronic document]: 22nd Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Surveying, Geodesy, and Applied Mathematics. Bratislava, Slovak Republic, November 15, 2012. – Bratislava: Faculty of Civil Engineering STU, 2012. – ISBN 978-80-227-3853-8. – pp. 415-420 (in Slovak)

Balkó, G.: Evaluation of Proposed Variants for New Tram Routes in Big Cities. In: Proceedings of Young Scientist 2012 [electronic document]: The 4th PhD. Student Conference of Civil Engineering and Architecture. Proceedings. Košice, Slovak Republic, May 22-25, 2012. – Košice: TU Košice, 2012. – ISBN 978-80-553-0904-0. – unpaginated (in Slovak)

Balkó, G.: Evaluation of the Suggested Alternative Routes of Tram-lines in Cities. In: Proceedings of International Transport Conference for Engineers and PhD Students. Budapest, Hungary, June 19, 2012. – Budapest: Budapest University of Technology and Economics, 2012. – ISBN 978-963-313-068-1. – pp. 16-20 (in English)

Bartošová, L.: Evaluation of the Serviceability of Cement Concrete Pavements. In: Proceedings of Airport Pavements 2012: 21.-22.5.2012. –: Kongres STUDIO, spol. s.r.o., 2012. – ISBN 978-80-89565-03-0. – pp. 37-44 (in Slovak)

Bartošová, L.: The Management of Pavements in an Airport Movement Area. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22-25, 2012. – Košice: TU Košice, 2012. – ISBN 978-80-553-0905-7. – unpaginated (in Slovak)

Bezák, B. – Rakšányi, P. – Kapusta, V.: Cross Border Management of Road Safety. In: Proceedings of 13th Traffic Engineering Days: Reconstruction and Construction of Roads and Findings from the Application of Transport Measures in Rural and Urban Areas. In: Proceedings of International Seminar. Hustopeče, CZ, 6.-7.6.2012, 2012. – pp. 99-109 (in Slovak)

Bezák, B.: Improving Mobility in Urban Areas. In: Benefits 24th World Road Congress [electronic source]: International Conference. Kroměříž, CZ, 10.-11.5.2012, 2012, – unpaginated (in Slovak)

Bezák, B. – Hamaďáková, Z.: Mobility Surveys in Cross Border Regions. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22-25, 2012. – Košice: TU Košice, 2012. – ISBN 978-80-553-0905-7. – unpaginated (in Slovak)

Bezák, B. – Ripka, I. – Emberger, G.: Multimodal Traffic Model for a Cross Border Region. In: Proceedings of 8th Rail Transport Forum: International Conference. Bratislava, SR, 13.-14.3.2012., 2012. – ISBN 978-80-88973-85-0. – pp. 116-121 (in Slovak)

Hodáková, D.: The Impact of Climate Conditions on the Behavior of Concrete Pavements. In: Proceedings of Juniorstav 2012 [electronic source]: 14th

- Technical Conference for Doctoral Studies with international participation. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)
- Köröš, K.: Effective Use of Geosynthetics in Road Construction. In: Proceedings of Juniorstav 2012 [electronic source]: 14th Technical Conference for Doctoral Studies with international participation. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)
- Köröš, K.: Effective Use of Geosynthetics in Road Construction, In: 22nd Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Geodesy and Applied Mathematics, STU Publishing House, Bratislava Nov. 2012, pp. 499-504, ISBN 978-80-227-3853-8
- Nemček, M.: Speed Management of Roads in Urban Areas. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22-25, 2012. – Košice: TU Košice, 2012. – ISBN 978-80-553-0905-7. – unpaginated (in Slovak)
- Patriková, K.: Application of Recycled Material for Hydraulically Bound Road Bases. In: Proceedings of Juniorstav 2012 [electronic source]: 14th Technical Conference for Doctoral Studies with international participation. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)
- Rakšányi, P.: DID: Why Not? In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22-25, 2012. – Košice: TU Košice, 2012. – ISBN 978-80-553-0905-7. – unpaginated (in Slovak)
- Rakšányi, P. – Kapusta, V.: Specifics of Traffic Safety Work in the Slovak Model Towns of Kostolište and Malacky. In: Proceedings of Safety on Road Networks: Conference on the Occasion of the Completion of the CBC ROSEMAN Project, ITMS – N00022. Malacky, SR, 19.9.2012. – Bratislava: STU Publishing House, 2012. – ISBN 978-80-227-3815-6. – pp. 6-17 (in Slovak)
- Sitárik, J.: Energy Consumption, Saving Energy and Materials in Road Construction, In: Proceedings of 22nd Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Geodesy and Applied Mathematics, STU Publishing House, Bratislava XI. 2012, pp. 499-504, ISBN 978-80-227-3853-8
- Štefunková, S. – Bačová, K.: Changes in Traffic Load and Their Impact on Road Dimensions. In: Proceedings of Knowledge of the Construction of Highways and Motorways: 17th Seminar of Ivan Poliaček with international participation. Bratislava, Slovak Republic, 22.-23.11.2012. Bratislava: Kongres STUDIO, spol. s.r.o., 2012, pp. 193-198. ISBN 978-80-89565-06-1 (in Slovak)
- Štefunková, S. – Žák, J. – Vavříčka, J.: Comparison of the Selected Properties of Low-Temperature Bituminous Mixtures. In: Proceedings of Road and Rail Infrastructure II. CETRA 2012: 2nd International Conference. Dubrovnik, Croatia, 7.-9.5.2012. – Zagreb: University of Zagreb, 2012. – ISBN 978-853-6271-50-1, pp. 351-356 (in English)
- Štefunková, S. – Sitárik, J.: Importance of Using Reclaimed Material and Low-Viscosity Additives in an Asphalt Mixture. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22.-25.2012. – Košice: The Technical University of Košice, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Štefunková, S. – Zuzulová, A.: The Quality of the Road Network in Relation to the Safety of the Road Traffic, In: Bezák, B. – Schneider, F. – Nemček, M.: Safety on a Road Network [electronic source]: Proceedings of Conference on the Occasion of the Completion of the CBC ROSEMAN Project, ITMS – N00022. Malacky, Slovak Republic, 19.9.2012. Bratislava: STU Publisher, 2012, pp. 1-7. ISBN 978-80-227-3815-6 (in Slovak)
- Štefunková, S. – Zuzulová, A.: Traffic Safety in Relation to the Technical Condition of a Road and Its Maintenance. In: RDIT 2012 [electronic source]: Proceedings of specialized seminar. Ostrava, Czech Republic, 11.10.2012. – Ostrava: VŠB-Technical University of Ostrava, 2012. – ISBN 978-80-248-2829-9. -pp. 110-117 (in Slovak)
- Zuzulová, A. – Hodáková, D.: Analysis of the Calculation of Stresses and Behavior in a Cement Concrete Pavement by Temperature Load. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22.-25.2012. – Košice: The Technical University of Košice, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Zuzulová, A. – Hodáková, D.: Analysis of the Calculation of Stresses and Behavior in Cement Concrete Pavement by Temperature Load (poster). In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22.-25.2012. – Košice: The Technical University of Košice, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Zuzulová, A. – Štefunková, S.: Energy Consumption in Road Construction. In: Proceedings of Road 2012: Conference with foreign participation [electronic source]: Prague, Czech Republic, 21.6.2012. – Prague: Czech Technical University in Prague, 2012. – ISBN 978-80-01-05054-5 (in Slovak)
- Zuzulová, A. – Štefunková, S.: Energy Consumption in Road Construction (Poster). In: Proceedings of Road 2012: Conference with foreign participation [electronic source]: Prague, Czech Republic, 21.6.2012. – Prague: Czech Technical University in Prague, 2012. – ISBN 978-80-01-05054-5 (in Slovak)
- Zuzulová, A. – Gschwendt, I.: Impact of Cement-Concrete Pavement Design on Tensions in Cement-Concrete Slabs (Poster). In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22.-25.2012. – Košice: The Technical University of Košice, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Zuzulová, A. – Hodáková, D.: Economic Efficiency of the Maintenance and Repair of Concrete Airport Pavements. In: Proceedings of Road 2012: Conference with foreign participation [electronic source]: Prague, Czech Republic, 21.6.2012. – Prague: Czech Technical University in Prague, 2012. – ISBN 978-80-01-05054-5 (in Slovak)
- Zuzulová, A. – Hodáková, D.: Economic Efficiency of the Maintenance and Repair of Concrete Airport Pavements (Poster). In: Proceedings of Road 2012:

Conference with foreign participation [electronic source]: Prague, Czech Republic, 21.6.2012. – Prague: Czech Technical University in Prague, 2012. – ISBN 978-80-01-05054-5 (in Slovak)

Zuzulová, A. – Štefunková, S.: Requirements for Properties of Roads in Urban Areas. In: Proceedings of RDIT 2012, Specialized Seminar [electronic source]. Ostrava, Czech Republic, 11.10.2012. – Ostrava: VŠB-Technical University of Ostrava, 2012. – ISBN 978-80-248-2829-9. – pp.169-176 (in Slovak)

Zuzulová, A. – Hodáková, D.: Stress Distribution and Behavior of Cement Concrete Pavements. In: Proceedings of CzechSTAV 2012: Innovations in Civil Engineering [electronic source], Hradec Králové, Czech Republic, 22.-26.10.2012. – Hradec Králové: Magnanimitas, 2012. – ISBN 978-80-905243-1-6. – pp. 376-384 (in Slovak)

Zuzulová, A.: Options for the Improvement of a Pavement Subgrade During the Pavement's Construction. In: Proceedings of Knowledge of the Construction of Highways and Motorways: 17th Seminar of Ivan Poliaček with international participation. Bratislava, Slovak Republic, 22.-23.11.2012. Bratislava: Kongres STUDIO, spol. s.r.o., 2012, pp. 183-188. ISBN 978-80-89565-06-1 (in Slovak)

Patents and Standards

Ondrovič, M.: Design of Barrier-Free Roads, Technical Conditions TP 10/2011, Ministry of Transport, Construction and Regional Development of the Slovak Republic, 2011, 41 pp., (in Slovak)

DEPARTMENT OF THEORETICAL GEODESY

Head of Department

Assoc. Prof. Ing. Juraj Janák, PhD.

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Information Technologies

Processing and Analysis of Measurements 1

Processing and Analysis of Measurements 2

Geoinformatics

Local Geodetic Networks

Global Geodesy 1

Geodesy and Cartography (Institute of Management)

Programming

Physical Geodesy 1

Spherical Astronomy and Space Geodesy

Global Navigation Systems

Field Education in Geodetic Controls

Global Geodesy 2

Space Geodesy

Processing and Analysis of Measurements 3

Physical Geodesy 2

Management of Spatial Data

Satellite Geodesy

Spatial Modelling in GIS

Metrology in Geodesy

Mathematical Models in Geodesy

Specialized Field Education

Obligatory elective subjects

Gravimetry

Geodynamics

GIS Design and Implementation

Database Systems in GIS

Optional subjects

Analysis of Geodata Quality

Geometry and Relativity in Geodesy

Object-Oriented Programming in C#

Programming Web Pages Using PHP and JavaScript

1.2 Postgraduate courses

Processing and Analysis of Measurements

Global Geodesy

Geodynamics

Geoinformation Systems

2. THESES

2.1 Bachelor theses

There were 12 works.

2.2 Graduate theses

Horňák, M.: Analysis of Land Passability in a GIS Environment

Supervisor: Ďuračiová, R.

Paľáková, L.: Comparison of the Digital Density Models of Surface Topographic Masses

Supervisor: Janák, J.

Bakoň, M.: Application of InSAR Technology for Monitoring Ground Stability

Supervisor: Papčo, J.

Portašik, B.: Effective Computing of the Gravitational Effect of Distant Topographic Masses

Supervisor: Janák, J.

Majkráková, M.: Determination of Physical Heights Using Modern Methods

Supervisor: Papčo, J.

Šiftářová, H.: Reflection of Relativity in Cosmic Methods

Supervisor: Husár, L.

Haníková, J.: Spatial Analysis Based on the High Tatras' Geographic Information System

Supervisor: Ďuračiová, R.

Šlíková, M.: Programming of Selected Tasks within the Framework of the Local Analysis Centre of SUT

Supervisor: Haque Igondová, M.

Magač, T.: Different Approaches for Processing Geodetic Network Measurements – Development of Educational Programs

Supervisor: Haque Igondová, M.

Jančovič, S.: Testing Elements of a Gravitational Tensor Measured by the GOCE Satellite

Supervisor: Janák, J.

Karell, L.: Validation of Archeological Predictive Models Made by Means of Fuzzy Sets in GIS

Supervisor: Ďuračiová, R.

Bucha, B.: The Contribution of Residual Gravity Disturbances to the Computation of Normal Heights

Supervisor: Mojzeš, M.

Skurčáková, D.: Distribution of Reference Sites for the Accuracy and Reliability of Geo-Kinematical Parameters in Central Europe

Supervisor: Hefty, J.

Dekan, T.: Use of GPS Measurements to Monitor Soil Moisture

Supervisor: Hefty, J.

Šišolák, P.: The Use of Different Types of Measurements for Determining Positions by GNSS

Supervisor: Gerhátová, L.

Jakubcová, D.: A Comparison of the Results of Simultaneous Measurements by Two GNSS Receivers at the Permanent Station in Modra – Piesok

Supervisor: Hefty, J.

Lackovič, L.: Statistical Interpolation Methods in Geoinformatics

Supervisor: Bacigál, T.

2.3 Doctoral theses

Cibulka, D.: The Application of Web Services in Making Geodata Accessible and It's Processing

Supervisor: Hefty, J.

3. RESEARCH

3.1 Research projects

National Centre for Diagnosing the Earth's Surface Deformations in Slovakia (2010-2013, MOJZEŠ, M.), ITMS 26220220108

Use of the Data of the GOCE European Satellite Mission and Its Effective Combination with Surface Gravity Data (2011-2013, JANÁK, J.), VEGA 1/1092/11

Detection of Ground Deformation Using the Radar Interferometry Technique (2011-2014, PAPČO, J. – BAKOŇ, M.), ESA Earth Observing Principal Investigator Project, No. 9981

Bouguer New Generation Anomalies and the Gravimetric Model of the Western Carpathians (2011-2014, PAPČO, J., principal investigator PAŠTEKA, R. from Comenius University in Bratislava), APVV-0194-10

Impact of Local Hydrology on Gravimetric Measurements (2011-2012, MIKOLAJ, M.), Fund of STU BA: Program for the Support of Young Researchers

Verification and Improvement of Precipitable Water Vapor Models Obtained from GPS Measurements (2011-2012, IGONDOVÁ, M.), Fund of STU BA: Program for the Support of Young Researchers

Tidal Analysis of Gravity Measurements by a Superconducting Gravimeter (2011-2012, HÁBEL, B.), Fund of STU BA: Program for the Support of Young Researchers

Recognition of Objects Based on High Resolution Radar Imagery. TSX-Archive-2012 project ID LAN1583 accepted by Deutschen Zentrum für Luft- und Raumfahrt (DLR), (2012-2015, PAPČO, J. – BAKOŇ, M.)

Solving an Inverse Gradiometric Problem (2012-2013, PITOŇÁK, M.), Fund of STU BA: Program for the Support of Young Researchers

Vertical Gravity Gradients in Geodetic Reference Networks (2012-2013, PAPČO, J.), Fund of STU BA: Program for the Support of Young Researchers

3.2 International cooperation

Cooperating institutions

CEGRN Consortium, Budapest, Hungary

Department of Meteorology and Geophysics, University of Vienna, Austria

EPN – EUREF Permanent Network, Brussels, Belgium

Freie Universität Berlin – Tell Fecheriye Research Project, Germany

Italian National Research Council, Institute for Marine Sciences, Bologna, Italy

Kiel University, Institute of Geosciences, Germany

Research Institute of Geodesy, Topography and Cartography, Zdiľby, Czech Republic

Technical University of Ostrava, Institute of Geoinformatics, Czech Republic

UNAVCO, Boulder, Colorado, USA

University of New Brunswick, Department of Geodesy and Geomatics Engineering, Canada

University of Stuttgart, Institute of Navigation, Germany

University of Trieste, Department of Earth Sciences, Italy

University of Trieste, Faculty of Science, Department of Mathematics and Geosciences, Italy

University of West Bohemia in Pilsen, Faculty of Applied Sciences, Department of Mathematics, Czech Republic

Warsaw University of Technology, Faculty of Geodesy and Cartography, Poland

Membership in international professional organizations

Hefty, J.: International Astronomical Union

Hefty, J.: International Association of Geodesy

Hefty, J.: European Geosciences Union
 Hefty, J.: American Geophysical Union
 Haque Igondová, M.: European Geosciences Union
 Mojzeš, M.: International Association of Geodesy
 Mojzeš, M.: European Geosciences Union
 Mojzeš, M.: American Geophysical Union
 Mojzeš, M.: CEGRN Consortium
 Pitoňák, M.: European Geosciences Union

4. PUBLICATIONS

Books

Janák, J.: Future of Satellite Gradiometry in Modelling a Regional Gravity Field. Bratislava: STU, 2012. – 99 pp. – ISBN 978-80-227-3796-8 (in Slovak)

Journals

Danek, L. – Gálová, L. – Kliment, T. – Fencík, R.: Model of a Web Flood Portal for Municipalities. In: Acta Hydrologica Slovaca. – ISSN 1335-6291. – Vol.13, No. 1 (2012), pp. 186-195 (in Slovak)

Hefty, J. – Hipmanová, L. – Pospíšil, L.: Risk and Geodynamically Active Areas of the Carpathian Lithosphere Based on Geodetical and Geophysical Data. In: Acta Geodaetica et Geophysica Hungarica. – ISSN 1217-8977. – Vol. 47, No. 3 (2012), pp. 287-309

Kliment, M. – Fraštia, M. – Kliment, T.: Spatial Mapping by Low-Cost Photogrammetry for Landscape Projections. In: Acta Horticulturae et Regiotecturae. – ISSN 1335-2563. – Vol.15, special issue (2012), pp. 23-26 (in Slovak)

Kliment, T. – Tuchyňa, M. – Kliment, M.: Methodology for Conformance Testing of Spatial Data Infrastructure Components, Including an Example of Its Implementation in Slovakia. In: Slovak Journal of Civil Engineering. – ISSN 1210-3896. – Vol. 20, No. 1 (2012), pp. 10-19

Pánisová, J. – Fraštia, M. – Papčo, J. – Pašteka, R.: The Calculation of Building Corrections in Microgravity Surveys Using Close Range Photogrammetry. In: Near Surface Geophysics. – ISSN 1569-4445. – Vol.10, No. 5 (2012), pp. 391-399 (in English)

Hefty, J. – Gerháťová, L.: Potential of Precise Point Positioning Using 1 Hz GPS Data for Detection of Seismic-Related Displacements. In: Acta Geodynamica et Geomaterialia. – ISSN 1214-9705. – Vol.9, No. 3 (2012), pp. 303-313

Hefty, J. – Gerháťová, L.: Combination of 3D Epoch-Wise and Permanent Geodetic Networks Observed by GNSS. In: Acta Universitatis Palackianae Olomucensis. – ISSN 0231-9721. – Vol. 50, No. 2 (2011), pp. 37-44

Conferences

Cibulka, D.: Publication of Selected Geodata in a Web Environment. In: Juniorstav 2012: Proceedings of 14th Professional Conference of Postgraduate Students. Brno, VUT, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)

Daňová, K.: Analysis of the Accuracy of Digital Elevation Models in Terms of Land Cover. In: Juniorstav 2012: Proceedings of 14th Professional Conference of Postgraduate Students. Brno, VUT, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)

Đuračiová, R. – Lieskovský, T. – Karell, L.: Mathematical Methods for the Creation and Validation of Predictive Archaeological Models in GIS. In: Activities in Cartography 2012: Proceedings of the Seminar. Bratislava, Slovak Republic, 11.10.2012: Cartographic Society of the Slovak Republic, 2012. – ISBN 978-80-89060-21-4. – pp. 34-41 (in Slovak)

Gálová, L.: Draft of Conceptual Model for Solving a Flood Crisis Situation in Accordance with the INSPIRE Directive. In: Juniorstav 2012: Proceedings of 14th Professional Conference of Postgraduate Students. Brno, VUT, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)

Hábel, B.: A Comparison of Tidal Parameters for a Selected Network of Superconducting Gravimeters in Europe. In: Juniorstav 2012: Proceedings of 14th Professional Conference of Postgraduate Students. Brno, VUT, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)

Hefty, J. – Gerháťová, L.: Biases Related to Combination of GPS, GLONASS and Galileo Observations in the PPP Approach. In: Proceedings of Satellite Methods in Geodesy and Cadastre: seminar with international participation. Brno, ČR, 2.2.2012. – Brno: ECON, 2012. – ISBN 978-80-86433-55-4. – pp. 43-48 (in Slovak)

Janák, J. – Wild-Pfeiffer, F. – Heck, B.: Smoothing Gradiometric Observations Using Different Topographic-Isostatic Models: A Regional Case Study. In: Proceedings of 7th Hotine-Marussi Symposium on Mathematical Geodesy, Rome, Italy, 6.7. – 10.7.2009 – Berlin: Springer Verlag, 2012. – ISBN 978-3-642-22078-4. – pp. 245-250 (in English)

Mikolaj, M.: Estimating the Uncertainty of Absolute Gravity Corrections. In: Juniorstav 2012: Proceedings of 14th Professional Conference of Postgraduate Students. Brno, VUT, 2012. – ISBN 978-80-214-4393-8. – unpaginated (in Slovak)

Mojzeš, M. – Papčo, J. – Valko, M.: Repeated Geodetic Measurements in the Tatra Mountains. In: Proceedings of 7th Hotine-Marussi Symposium on Mathematical Geodesy, Rome, Italy, 6.7. – 10.7.2009 – Berlin: Springer Verlag, 2012. – ISBN 978-3-642-22078-4. – pp. 373-380 (in English)

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- Hefty, J. – Gerhátová, L. – Dekan, T.: Using a GPS Multipath for Soil Moisture and Snow Depth Sensing: First Experience with Data from Permanent Stations in Slovakia. In: Proceedings of 13th Czech-Polish Workshop on Recent Geodynamics of the Sudeten Mountains and Adjacent Areas, Wroclaw, Poland, 22-24.11.2012 (in Slovak)
- Papčo, J. – Bakoň, M.: Application of InSAR Technology for Monitoring Ground Stability (case study in Bratislava). In: Proceedings of Requested Lecture. Vienna University of Technology, Department of Geodesy and Geoinformation, Vienna, Austria, 6.6.2012 (in English)
- Bakoň, M. – Papčo, J.: Monitoring Ground Deformation of Bratislava Area Using PSInSAR Technology. EARSeL's Prague Workshop on 4D Radar Applications for Young Researchers, Prague, Czech Republic, 26.6.2012 (in English)
- Kročková, K.: An Analysis of Data Sources and Possibilities for Their Harmonisation in the Domain of Cultural Heritage Protection. In: Proceedings of Advances in Architectural, Civil and Environmental Engineering. 22nd Annual PhD Student Conference, Bratislava, Slovakia, 15.11.2012. Bratislava: STU, 2012, pp. 178-187. ISBN 978-80-227-3853-8 (in Slovak)

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DEPARTMENT OF SURVEYING

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Engineering Surveying I, II

History of Surveying

Industrial Surveying

Photogrammetry II

Special Seminar

Surveying I, II, III

Surveying (branch of study: Building Constructions and Architecture)

Surveying (branch of study: Building Technology and Management)

Surveying (branch of study: Hydraulic Engineering and Water Resources Management)

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

Surveying in Civil Engineering (English)

Obligatory elective subjects

Applied Close-Range Photogrammetry

Bachelor's Thesis

Diploma Thesis

Geodetic Work Legislation

Photogrammetry I

Surveying in Underground Areas

Optional subjects

Measuring Systems in Engineering Surveying

1.2 Postgraduate courses

Engineering Surveying

Photogrammetry

2. THESES

2.1 Bachelor theses

There were 22 works.

2.2 Graduate theses

Bujiňák, L.: Testing Surveying Instruments According to STN ISO 17 123
Supervisor: Ježko, J.

Compeľová, A.: Mathematical Models for Expressing the Impact of a Vertical Refraction in the Processing of Vertical Networks
Supervisor: Lipták, M.

Gnidová, M.: The Impact of a Horizontal Refraction on Measurements in a Geodetic Network
Supervisor: Bajtala, M.

Goldiňáková, G.: Possibilities of Using Data Obtained with TLS for a Nondestructive Archaeological Investigation
Supervisor: Kopáček, A.

Karásek, R.: Automated Monitoring of Steel Bridge Construction
Supervisor: Kyrinovič, P.

Krištofiková, M.: Measurement and Processing of a Thematic Map for Railway Reconstructions
Supervisor: Sokol, Š.

Murín, T.: Determination of the Spatial Position of Objects Using IMS
Supervisor: Kopáček, A.

Poláčková, S.: Geodetic Monitoring of the Dynamic Deformations of a Technological Construction
Supervisor: Kyrinovič, P.

Telúchová, A.: Photogrammetric Reconstruction of the Church Ruins of Sts. Kozmu and Damián
Supervisor: Fraštia, M.

3. RESEARCH

3.1 Research projects

Deformation Monitoring of Bridge Construction Using Terrestrial Laser Scanning (2012-2013, ERDÉLYI, J.), Young Research Project

New Trends and Technologies in Teaching Photogrammetry for Scientific Area Surveying and Geodetic Cartography (2011-2013, SOKOL, Š), KEGA 008STU-4/2011

3.2 International cooperation

Cooperating institutions

Department of Special Geodesy, Czech Technical University in Prague, Czech Republic

Institute of Geodesy, Brno University of Technology, Czech Republic

Institute of Geodesy and Mine Surveying, Technical University of Ostrava, Czech Republic

Membership in international professional organizations

Frašťia, M.: International Society for Photogrammetry and Remote Sensing (ISPRS)

Kopáčik, A.: Deutsche Geodätische Kommission bei der Bayerischen Akademie der Wissenschaften

Kopáčik, A.: National delegate to International Federation of Surveyors (FIG), Commission 2: Professional Education

Lukáč, Š.: National delegate to International Federation of Surveyors (FIG), Commission 1: Professional Standards & Practice

Lukáč, Š.: International Federation of Surveyors (FIG). Working Group 6.1: Deformation Measurements and Analysis

4. PUBLICATIONS

Journals

Frašťia, M. – Marčíš, M. – Chlepková, M. – Haličková, J.: Image-Based Scanning and Laser Scanning of Banská Štiavnica Calvary. In: Pamiatky a múzeá. ISSN 1335-4353, Vol. 61, No. 4 (2012), pp. 64-66 (in Slovak)

Frašťia, M.: Laser vs. Optical Scanning of Rock Massifs. In: Mineralia Slovaca. ISSN 0369-2086, Vol. 44, No. 2 (2012), pp. 177-184 (in Slovak)

Frašťia, M. – Beck, J. – Plakinger, M.: Photogrammetric Monitoring of a Shaft in the Nováky Mine. In: Geodetický a kartografický obzor. ISSN 0016-7096, Vol. 58 (100), No. 9 (2012), pp. 194-202 (in Slovak)

Frašťia, M. – Müller, L. – Uhrin, Z. – Čílik, J.: Aerial Mapping System Gatewing X100. In: Slovenský geodet a kartograf. ISSN 1335-4019, Vol. 17, No. 4 (2012), pp. 5-11 (in Slovak)

Ježko, J.: Some Results from the Testing of Levelling Instruments According to STN ISO 17123-2:2010. In: Geodetický a kartografický obzor. ISSN 0016-7096, Vol. 58 (100), No. 2 (2012), pp. 21-25 (in Slovak)

Ježko, J.: The Procedure and Results of Testing Digital Levelling Instruments According to STN ISO 17123-2. In: Slovenský geodet a kartograf. ISSN 1335-4019, Vol. 17, No. 2 (2012), pp. 4-9 (in Slovak)

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Kopáčik, A. – Lipták, I.: Spectral Analysis of a Structural Deformation – A Case Study. In: Journal of Applied Geodesy. ISSN 1862-9024, Vol. 6, No. 3-4 (2012), pp. 159-166. (in English)

Lukáč, Š.: Application of Legal and Technical Regulations in the Performance of Selected Surveying and Cartographic Activities in Construction. In: Slovenský geodet a kartograf. ISSN 1335-4019, Vol. 17, No. 1 (2012), pp. 5-11 (in Slovak)

Pánisová, J. – Frašťia, M. – Papčo, J. – Pašteka, R.: The Calculation of Building Corrections in Microgravity Surveys Using Close-Range Photogrammetry. In: Near Surface Geophysics. ISSN 1569-4445, Vol. 10, No. 5 (2012), pp. 391-399 (in English)

Conference Proceedings

Bajtala, M. – Lipták, M. – Kubinec, J. – Sokol, Š.: TLS Application in Determining the Geometry of a Factory Chimney. In: Geodesy, Cartography and Geographic Information Systems 2012. Tatranská Lomnica, Slovak Republic, 24.-25.10.2012. Košice: The Technical University of Košice, 2012. ISBN 978-80-553-1173-9 (in Slovak)

Brunčák, P. – Bajtala, M. – Lipták, M.: Effect of the Density of the Input Data and Interpolation Method on the Accuracy of Calculating Volumes. In: Juniorstav 2012: 14th Professional Conference of Postgraduate Students. Brno, Czech Republic, 26.1.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4393-8 (in Slovak)

Erdélyi, J. – Kyrinovič, P.: Creation of a Spatial Model of a Turbine Using Terrestrial Laser Scanning. In: The Impact of Waterworks on the Creation and Protection of an Area: 20 Years of Gabčíkovo Waterworks Operations. CONECO 2012 international conference. Bratislava: Publisher SUT, 2012. ISBN 978-80-227-3593-3, pp. 25-30 (in Slovak)

Erdélyi, J.: Determination of the Deformation of a Reinforced Concrete Footbridge. In: Juniorstav 2012: 14th Professional Conference of Postgraduate Students. Brno, Czech Republic, 26.1.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4393-8 (in Slovak)

Erdélyi, J. – Lipták, I. – Kyrinovič, P. – Kopáčik, A.: Geodetic Monitoring of Reinforced Concrete Constructions Using TLS. In: Geodesy, Cartography and Geographic Information Systems 2012. Tatranská Lomnica, Slovak Republic, 24.-25.10.2012. Košice: The Technical University of Košice, 2012. ISBN 978-80-553-1173-9 (in Slovak)

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- Fraštia, M.: Photogrammetry as an Efficient Measuring Tool. In: *5th Conference of Expert Witnesses 2012*. Bratislava, Slovak Republic, 15.-16.6.2012. Bratislava: MABAG Ltd., 2012. ISBN 978-80-89113-93-4 (in Slovak)
- Fraštia, M.: Potential of Close-Range Photogrammetry in Engineering Surveying. In: *3rd Thematic Days of Surveyors 2012: "Engineering Surveying"*. Bratislava, Slovak Republic, 8.2.2012. Bratislava: 2012 (in Slovak)
- Fraštia, M. – Müller, L. – Uhrin, Z. – Čílik, J.: Verification of the Position and Elevation Accuracy of Mapping by Gatewing X100 Technology. In: *20th Slovak Geodetic Days*. Žilina, Slovak Republic, 8.-9.11.2012. Bratislava: Chamber of Surveyors and Cartographers, 2012. ISBN 978-80-969809-9-4 (in Slovak)
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- Ježko, J.: Optical Plumbing Instruments – Testing and Control According to STN ISO17123-7. In: *Geodesy, Cartography and Geographic Information Systems 2012*. Tatranská Lomnica, Slovak Republic, 24.-25.10.2012. Košice: The Technical University of Košice, 2012. ISBN 978-80-553-1173-9 (in Slovak)
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- Lipták, I. – Kopáčik, A. – Erdélyi, J. – Kyrinovič, P.: Dynamic Deformation Monitoring of Bridge Structure. In: *IX. International Scientific Conference of the Faculty of Civil Engineering*. Košice, Slovak Republic, 22-25.5.2012. Košice: The Technical University of Košice, 2012. ISBN 978-80-553-0905-7 (in English)
- Lipták, I. – Erdélyi, J. – Kyrinovič, P. – Kopáčik, A.: Determination of Dynamic Deformations by Tilt Sensors. In: *Geodesy, Cartography and Geographic Information Systems 2012*. Tatranská Lomnica, Slovak Republic, 24.-25.10.2012. Košice: The Technical University of Košice, 2012. ISBN 978-80-553-1173-9 (in Slovak)
- Lipták, I.: Frequency Analysis of the Dynamic Deformations of Building Structures. In: *Juniorstav 2012: 14th Professional Conference of Postgraduate Students*. Brno, Czech Republic, 26.1.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4393-8 (in Slovak)
- Lipták, I.: Exploitation of Accelerometers for Dynamic Deformation Monitoring of Bridge Structures. In: *Advances in Architectural, Civil and Environmental Engineering: 22nd Annual PhD Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Geodesy, and Applied Mathematics*. Bratislava, Slovak Republic, 15.11.2012. Bratislava: Slovak University of Technology in Bratislava, Faculty of Civil Engineering, 2012. ISBN 978-80-227-3853-8, pp. 188-196 (in Slovak)

Lukáč, Š.: Application of Legal and Technical Regulations in the Performance of Selected Surveying and Cartographic Activities in Construction. In: 3rd Thematic Days of Surveyors 2012: "Engineering Surveying". Bratislava, Slovak Republic, 8.2.2012. Bratislava: 2012 (in Slovak)

Lukáč, Š. – Prvý, M.: Geodetic Monitoring of the Structures of the Gabčíkovo Waterworks. In: The Impact of Waterworks on the Creation and Protection of an Area: 20 Years of Gabčíkovo Waterworks Operations. CONECO 2012 international conference. Bratislava: Publisher SUT, 2012. ISBN 978-80-227-3593-3, pp. 7-15 (in Slovak)

Marčíš, M.: Automated Modelling of Castle Walls By Image-Based Scanning. In: Juniorstav 2012: 14th Professional Conference of Postgraduate Students. Brno, Czech Republic, 26.1.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4393-8 (in Slovak)

Sokol, Š. – Bajtala, M. – Ježko, J. – Lipták, M.: Code Collection of 3D Data for the Creation of a Thematic Map. In: Geodesy, Cartography and Geographic Information Systems 2012. Tatranská Lomnica, Slovak Republic, 24.-25.10.2012. Košice: The Technical University of Košice, 2012. ISBN 978-80-553-1173-9 (in Slovak)

Sokol, Š. – Bajtala, M. – Ježko, J. – Krištofiková, M.: Measuring and Processing of a Thematic Map for Railway Reconstruction. In: 19th SDMG Conference. Jihlava, Czech Republic, 10.-12.10.2012. Ostrava: VŠB-Technical University of Ostrava, 2012. ISBN 978-80-248-2824-4, pp. 162-169 (in Slovak)

DEPARTMENT OF GEOTECHNICS

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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

Obligatory elective subjects

Bachelor's Thesis

Bachelor's Thesis Seminar

Optional 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

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

1.2 Postgraduate courses

Foundations of Water Structures

Selected Topics in Soil Mechanics

Complex Dam Projects

2. THESES

2.1 Bachelor theses

There were 15 works.

2.2 Graduate theses

Bakeš, M.: What Do We Need to Know Further about the Safety of the Vihorlat Water Structure Dams?

Supervisor: Bednárová, E.

Baranyay, A.: Ensuring a Foundation Pit on a Sloped Ground

Supervisor: Súľovská, M.

Barczy, P.: The Impact of the Settlement of Soil on a Surface by Tunnelling

Supervisor: Chabroňová, J.

Demian, I.: Effectiveness of a Grout Curtain on Selected Water Structures in Slovakia

Supervisor: Bednárová, E.

Fuzák, A.: Geotechnical Analysis of the Foundation of Bridge 223-00 on the D3 Highway (over the Hričov Reservoir)

Supervisor: Hruštinec, Ľ.

Horváthová, T.: Geotechnical Aspects of River Levees
Supervisor: Masarovičová, M.

Kapinová, J.: Alternative Proposal for the Bracing System of a Foundation Pit in the Quaternary Soils in Bratislava
Supervisor: Súľovská, M.

Kapušanský, J.: Influence of the Determination of the Permeability of Soil on Filter Calculations of Dams
Supervisor: Minárik, M.

Kapustová, A.: Proposal to Ensure a Deep Excavation by Nailing
Supervisor: Súľovská, M.

Olléová, T.: Alternative Design of the Excavation Pit for CBC1
Supervisor: Turček, P.

Schubert, M.: Polder – Element of Flood Protection
Supervisor: Minárik, M.

Šustová, M.: Safety Measures Taken for the Deep Notch on the D3 Motorway in km 21.600
Supervisor: Súľovská, M.

Zat'ko, M.: Design and Assessment of the Diaphragm Wall Sheet piling of a Deep Excavation on Pribinova Street, Bratislava
Supervisor: Hruštinec, Ľ.

2.3 Doctoral theses

Černý, M.: Analysis of the Interaction Between Layered Subsoil and the Spread Foundation
Supervisor: Kuzma, J.

Galliková, Z.: Prediction of Soil Structure Deformations of High-Rise Building Foundations
Supervisor: Masarovičová, M.

Guz'ik, M.: Designing Micropiles
Supervisor: Turček, P.

Meszáros, T.: New Approaches to Solving Unsteady-State Seepage in Embankments of Water Constructions
Supervisor: Bednárová, E.

3. RESEARCH

3.1 Research projects

Implementation of Progressive Methods for Reviewing the Safety and Reliability of Water Structures (2009-2012, BEDNÁROVÁ, E.), VEGA 1/0704/09

Prediction and Verification of the Geotechnical Aspects of Environmental Burdens and Constructions (2012-2014, MASAROVÍČOVÁ, M.), VEGA 1/1309/12

Estimating the Effect of Geotechnical Soil Properties on an Effective Design for Treating Landslides (2011-2013 KOPECKÝ, M.), VEGA 1/0944/11

Risks Taken into Account in the Design of Geotechnical Constructions (2009-2012, TURČEK, P.), VEGA 1/0619/09

3.2 International cooperation

Membership in international professional organizations

Frankovská, J.: Representative of the Slovak Republic on the Czech and Slovak Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Frankovská, J.: Representative of the Slovak Republic on CEN – TC 250/SC7 Geotechnics

Frankovská, J.: Representative of the Slovak Republic on ETC 10 Evaluation of Eurocode 7 of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Hruštinec, Ľ.: Representative of the Slovak Republic on the Czech and Slovak Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Hulla, J.: Representative of the Slovak Republic on the Czech and Slovak Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Kopecký, M.: Representative of the Slovak Republic on the Slovak Committee of the International Association of Engineering Geology (IAEG)

Masarovičová, M.: Representative of the Slovak Republic on the Regional Committee of the International Association for Computer Methods and Advances in Geomechanics (IACMAG)

Masarovičová, M.: Representative of the Slovak Republic on the Czech and Slovak Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Minárik, M.: Representative of the Slovak Republic on the International Committee of ICOLD (International Commission on Large Dams) – Computational Aspects of Analysis and Design of Dams.

Ondrášik, M.: Representative of the Slovak Republic on the International Association for Engineering Geology and the Environment (IAEG)

Slávik, I.: Representative of the Slovak Republic on the Czech and Slovak Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Súľovská, M.: Representative of the Slovak Republic on the Czech and Slovak Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Turček, P.: Representative of the Slovak Republic on the Czech and Slovak Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Turček, P.: Representative of the Slovak Republic on CEN – TC 250/SC7 Geotechnics

Turček, P.: Representative of the Slovak Republic on the ETC 10 Evaluation of Eurocode 7 of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

4. PUBLICATIONS

Books

Frankovská, J.: *New Approaches to the Determination of the Geotechnical Parameters of Fine-Grained Soils*. Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3771-5, 114 pp. (in Slovak)

Parts of books

Stankoviansky, M. – Barka, I. – Boltžiar, M. – Hók, J. – Ištók, P. – Lehotský, M. – Minár, J. – Ondrášik, M. – Ondrášik, R. – Pecho, J. – Pišút, P. – Trizna, M. – Urbánek, J. – Bella, P. – Grešková, A. – Michalková, M.: *Recent Landform Evolution in Slovakia*. In: *Recent Landform Evolution: The Carpatho-Balkan-Dinaric Region*. – Dordrecht, Springer Science-Business Media, ISBN 978-94-007-2447-1, 2012, pp. 141-176 (in English)

Journals

Antal, J. – Novák, V. – Húska, D. – Macura, V. – Bednárová, E. – Dušička, P. – Jakubis, M. – Halaj, P. – Reháč, Š. – Skalová, J. – Možiešik, L. – Miklánek, P. – Hlavčová, K. – Fendeková, M. – Jurík, L. – Heinige, V. – Stančíková, D. – Slaninka, V. – Mišík, M. – Jalčovníková, M. – Podkonický, B. – Barek, J. – Stradiot, P. – Stančík, A. – Horvát, O.: *The Concept and Implementation of the Revitalisation of the Country and Integrated River Basin Management of the Slovak Republic*. In: *Vodohospodársky spravodajca*, ISSN 0322-886X. – Vol. 55, Nos. 3-4 (2012), pp. 12-13 (in Slovak)

Baliak, F. – Stríček, I.: *Principles of Engineering Geological Research of Unstable Areas and Methods for the Stabilization of Slopes Disturbed by Slope Movements (1st part: General Principles)*. In: *Almanach znalca*, ISSN 1336-3174. – Vol.11, No. 1 (2012), pp. 12-15 (in Slovak)

Baliak, F. – Stríček, I.: *50 Years after the Catastrophic Landslide in Handlova*. In: *Mineralia Slovaca*, ISSN 0369-2086. – Vol. 44, No. 2 (2012), pp. 119-130 (in Slovak)

Kopecký, M. – Ondrášik, M. – Antolová, D.: *Atlas of Landslides in Slovakia*. In: *AGH Journal of Mining and Geoengineering*, ISSN 1732-6702. – Vol. 36, No. 1 (2012), pp. 211-217 (in English)

Súľovská, M. – Turček, P.: *Design of the Temporary Support for the Eastern Portal of the Rojkov Tunnel*. In: *Geotechnika*, ISSN 1211-913X. – Vol.15, Nos. 1-2 (2012), pp. 38-42 (in Slovak)

Conference Proceedings

Antolová, D.: *Geotechnical Monitoring of a Landslide on the Liptovska Mara Water Reservoir*. In: *Proceedings of 14th PhD. Student Conference Juniorstav*, Brno, Czech Republic, 2012, ISBN 978-80-214-4393-8 (in Slovak)

Antolová, D.: *The Effectiveness of the Horizontal Drainage Boreholes on the Veľkomarsky Landslide*. In: *Proceedings of CONECO 2012 International Scientific Conference on the Effect of Water Structures on the Creation and Protection of Land – 20 Years of the Operation of the Gabčíkovo Hydraulic*

Structure, Bratislava, Slovakia, 2012, ISBN 978-80-227-3593-3, pp. 150-159 (in Slovak)

Baliak, F. – Janták, V.: *Landslides on the Expressway R1 Nitra West – Tekovské Nemce*. In: *Proceedings of 13th Geotechnika – Geotechnics Conference*, Horný Smokovec, Slovakia, 2012, ISBN 978-80-248-2785-8, pp. 202-209 (in Slovak)

Bartoš, V.: *Two-Dimensional Numerical Model of an Exploration Gallery*. In: *Proceedings of 14th PhD. Student Conference Juniorstav*, Brno, Czech Republic, 2012, ISBN 978-80-214-4393-8 (in Slovak)

Bednárová, E. – Minárik, M. – Grambličková, D. – Mészáros, T. – Uhorščák, L. – Mišík, M.: *Effect of Long Term Operation of Water Structure Vičia Dolina on Function of Grouting Curtain*. In: *Proceedings of 24th Congress on Large Dams*, Kyoto, Japan, 2012 (in English)

Bednárová, E. – Merešová, M.: *Functioning of the Seepage Measures on the Right Dike on the Left Bank of the Danube in the Area of HS Čunovo after 20 Years of Operation*. In: *Proceedings of 33rd Dam Days Conference*. Seč-Ústupky, Czech Republic, 2012, pp. 113-120 (in Slovak)

Bednárová, E. – Hulla, J.: *Protection Dikes and the Stability of Structures on Flooded Areas*. In: *Proceedings of 13th Geotechnika – Geotechnics Conference*, Horný Smokovec, Slovakia, 2012, ISBN 978-80-248-2785-8, pp. 287-292 (in Slovak)

Bednárová, E.: *Reservoirs and Sustainable Development*. In: *Proceedings of 12th Seminar on World Water Day*, Tatranská Štrba, Slovakia, 2012 (in Slovak)

Frankovská, J. – Balucha, M.: *Design Approaches and the Reliable Design of Foundations*. In: *Proceedings of 40th International Conference on the Foundations of Structures*, Brno, Czech Republic, 2012, pp. 66-69 (in Slovak)

Frankovská, J.: *Evolution and Revisions of Geotechnical Standards*. In: *Proceedings of 7th International Conference on Engineering Geology*, Nový Smokovec, Slovakia, 2012, ISBN 978-80-227-3721-0, pp. 252-255 (in Slovak)

Frankovská, J.: *Ground Investigation of Cut-off Walls for the Remediation of Contaminated Sites*. In: *Proceedings of Conference on Contaminated Sites*, Bratislava, Slovakia, 2012, ISBN 978-80-969958-8-2, pp. 104-106 (in Slovak)

Frankovská, J. – Stríček, I. – Prítrský, J.: *Influence of a Specific Surface Area on the Geotechnical Parameters of Fine-Grained Soils*. In: *Proceedings of 7th International Conference on Engineering Geology*, Nový Smokovec, Slovakia, 2012, ISBN 978-80-227-3721-0, pp. 74-84 (in Slovak)

Frankovská, J.: *Reliability of the Design of Geotechnical Constructions*. In: *Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering*, Košice, Slovakia, 2012, ISBN 978-80-553-0905-7 (in Slovak)

Galliková, Z.: *Prediction of the Deformations of Subsoil Using Numerical and Analytical Solutions*. In: *Proceedings of 14th Conference on the Foundations of Structures*, Stará Lesná, Slovakia, 2012, ISBN 978-80-970037-9-1, pp. 9-14 (in Slovak)

- Gatíal, M.: Field Tests – Dynamic Penetration Test. In: Proceedings of 14th PhD. Student Conference Juniorstav, Brno, Czech Republic, 2012, ISBN 978-80-214-4393-8 (in Slovak)
- Grambličková, D. – Bednárová, E.: Flood Protection Dike of the Tailrace Channel under HPP Gabčíkovo – Optimisation of the Treatment Works. In: Proceedings of Conference on the 20th Anniversary of the Operation of the Gabčíkovo – Nagymaros Hydraulic Scheme, Bratislava, Slovakia, 2012, ISBN 978-80-971182-8-0, pp. 29-32 (in Slovak)
- Grambličková, D. – Bednárová, E.: Remediation Measures on the Flood Protection Dike of the Tailrace Channel under Gabčíkovo. In: Proceedings of CONECO 2012 International Scientific Conference on the Effect of Water Structures on the Creation and Protection of Land – 20 Years of the Operation of the Gabčíkovo Hydraulic Structure, Bratislava, Slovakia, 2012, ISBN 978-80-227-3593-3, pp. 165-174 (in Slovak)
- Hruštinec, L. – Sumec, J. – Kuzma, J.: Influences of the Stiffness and Contact Bonding on the Contact Stresses Distribution of the Circular, Square and Strip Foundations. Proceedings of 12th VSU International Scientific Conference, Sofia, Bulgaria, 2012, pp. 1-6 (in English)
- Hruštinec, L. – Sumec, J. – Kuzma, J.: Influences of the Stiffness and Contact Bonding on the Displacements of the Circular, Square and Strip Foundations. Proceedings of 12th VSU International Scientific Conference, Sofia, Bulgaria, 2012, pp. 7-12 (in English)
- Kopecký, M.: Active Landslide in the Slum Near the Village of Varhaňovce. In: Proceedings of 13th Geotechnika – Geotechnics Conference, Horný Smokovec, Slovakia, 2012, ISBN 978-80-248-2785-8, pp. 261-267 (in Slovak)
- Ladicsová, E.: Design Methods and Displacements of Retaining Structures. In: Proceedings of 8th International PhD & DLA Symposium on Architectural, Engineering and Information Science, Pécs, Hungary, 2012, ISBN 978-963-7298-48-6, pp. 93 (in German)
- Ladicsová, E.: Effect of Shear Strength Parameters on the Deformation from the Excavation of Anchor Pile Walls in Coarse Soils. In: Proceedings of 7th International Conference on Engineering Geology, Nový Smokovec, Slovakia, 2012, ISBN 978-80-227-3721-0, pp. 219-228 (in Slovak)
- Ladicsová, E.: Estimation and Provisional Calculation of Surface Declines during the Excavation and Creation of a Foundation Pit. In: Proceedings of 14th PhD. Student Conference Juniorstav, Brno, Czech Republic, 2012, ISBN 978-80-214-4393-8 (in Slovak)
- Minárik, M. – Bednárová, E. – Grambličková, D. – Schubert, M.: The Conceptual Design of a Polder on the Vištucký Brook. In: Proceedings of 33rd Dam Days Conference. Seč-Ústupy, Czech Republic, 2012, pp. 91-98 (in Slovak)
- Prítrský, J. – Frankovská, J.: Derivation Clearance Levels for Solid Radioactive Materials from Nuclear Installations Decommissioning. In: Proceedings of 20th International Conference on Nuclear Engineering Collocated with the ASME 2012 Power Conference, Anaheim, California, USA, 2012 (in English)
- Slávik, I. – Masarovičová, M.: Dam Failure of an Ash Impoundment. In: Proceedings of 13th Geotechnika – Geotechnics Conference, Horný Smokovec, Slovakia, 2012, ISBN 978-80-248-2785-8, pp. 275-280 (in Slovak)
- Slávik, I.: Geotechnical Education at the Faculty of Civil Engineering in Bratislava. In: Proceedings of 13th Geotechnika – Geotechnics Conference, Horný Smokovec, Slovakia, 2012, ISBN 978-80-248-2785-8, pp. 17-20 (in Slovak)
- Stacho, J.: Design of Calculations of Bored Piles. In: Proceedings of 14th PhD. Student Conference Juniorstav, Brno, Czech Republic, 2012, ISBN 978-80-214-4393-8 (in Slovak)
- Stacho, J.: Impact of Execution Technology on Replacement Pile Design by Calculation. In: Proceedings of 8th International PhD & DLA Symposium on Architectural, Engineering and Information Science, Pécs, Hungary, 2012, ISBN 978-963-7298-48-6, pp. 130 (in English)
- Stacho, J.: Interaction of the Soil and Pile Foundations. In: Proceedings of 7th International Conference on Engineering Geology, Nový Smokovec, Slovakia, 2012, ISBN 978-80-227-3721-0, pp. 229-238 (in Slovak)
- Súľovská, M. – Turček, P.: Design of a Deep Excavation Pit Using Soil Nailing. In: Proceedings of 13th Geotechnika – Geotechnics Conference, Horný Smokovec, Slovakia, 2012, ISBN 978-80-248-2785-8, pp. 312-316 (in Slovak)
- Turček, P.: Adaptation of the Design of Retaining Structures Due to a Change in the Soil Conditions. In: Proceedings of 7th International Conference on Engineering Geology, Nový Smokovec, Slovakia, 2012, ISBN 978-80-227-3721-0, pp. 182-189 (in Slovak)
- Turček, P. – Súľovská, M. – Ladicsová, E.: Design of a Reservoir for Artificial Snow in Tatranska Lomnica. In: Proceedings of 16th EPKO International Conference on Civil Engineering and Architecture, Ciuc, Romania, ISBN 1843-2123, pp. 394-400 (in Hungarian)
- Turček, P.: Sealing of Deep Excavation Pits in Bratislava. In: Proceedings of 17th International Seminar on Hardening, Sealing and Anchoring of Rock Masses and Constructions, Ostrava, Czech Republic, 2012, ISBN 978-80-248-2548-9, pp. 14-20 (in Slovak)
- Vozár, M.: Screw and Helical Piles in Geotechnics. In: Proceedings of 14th PhD. Student Conference Juniorstav, Brno, Czech Republic, 2012, ISBN 978-80-214-4393-8 (in Slovak)

DEPARTMENT OF LAND AND WATER RESOURCES MANAGEMENT

Head of Department

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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 Structures in a Landscape
River Training
Pedology
River Restoration
Integrated River Basin Management
Water Management
Hydrological Field Measurements
CAD Systems in Landscape Engineering
Water Regime of a Landscape
Irrigation and Drainage
GIS in Water Management

Optional subjects

Project 1 – Sustainable Landscape Development
Basics of the Design of Landscape Structures
CAD Systems in Water Management
Project Work
Computer Modelling in Water Management
Design of Small Water Reservoirs
Revitalization of Wetlands
CAD Systems in Environmental Engineering

1.2 Postgraduate courses

Hydrology
Hydrology of Surface Waters
Hydrology of Sub-Surface Waters
Hydrodynamics of Porous Media
Methods of Field and Laboratory Experiments in Hydrology
Mathematical Modelling of Hydrological and Hydraulic Processes

Simulation Methods, Algorithms and Programming
Evaluation of the Risk of Extreme Hydrological Processes
Geoinformatics
Methods and Models of Hydrological Balance
Methods of Hydrological Forecasting
Deterministic and Stochastic Models of Hydrological Processes
Landscape Planning
Revitalization of Rivers
Soil Water Regime
Hydrochemistry and Hydrobiology

2. THESES

2.1 Bachelor theses

There were 16 works.

2.2 Graduate theses

Bednár, I.: Application of Data-Driven Methods in Hydrology
Supervisor: Čistý, M.

Benko, T.: River Training of the Rieka River in Čadca
Supervisor: Macura, V.

Blahová, A.: Assessment of Climate Change in the Póplie Region
Supervisor: Skalová, J.

Husák, J.: Design of an Irrigation System by the Application of Simulation Methods
Supervisor: Čistý, M.

Jarabíková, M.: Impact of Vegetation Change on a Soil Water Regime
Supervisor: Skalová, J.

Klačanská, L.: Rainfall-Runoff Modeling of Extreme Hydrological Events
Supervisor: Kohnová, S.

Králik, M.: Recreational Use of the Surroundings of the Podhradský Creek in Košické Podhradie
Supervisor: Škrinár, A.

Mihalik, E.: Comparison of Short-Term Design Rainfalls Estimated Using Various Methodological Approaches

Supervisor: Kohnová, S.

Miháliková, M.: Scenarios of Extreme Runoff for Flood Protection Purposes

Supervisor: Hlavčová, K.

Miklíková, P.: Impact of Climate Change on the Runoff Regime of a Selected River Basin

Supervisor: Hlavčová, K.

Laštík, T.: Analysis of the Groundwater Level Regime in the Locality of Abrod

Supervisor: Skalová, J.

Studvová, Z.: Proposals for Soil Erosion Control in a River Basin

Supervisor: Hlavčová, K.

Szaboová, M.: Pooling of Mean Monthly Runoff in Slovakia

Supervisor: Kohnová, S.

Tóthová, K.: River Training of the Žitava River in Obyce

Supervisor: Škrinár, A.

Zechelová, K.: Scaling of the Short-Term Rainfall in a Selected Region of Slovakia

Supervisor: Kohnová, S.

2.3 Doctoral theses

Bulantová, M.: Evaluating the Impact of Land Use Change on the Runoff Processes in a Catchment

Supervisor: Hlavčová, K.

Danáčová, Z.: Indicator Methods for Estimating Discharges in Natural Rivers in Slovakia

Supervisor: Szolgay, J.

Kočický, D.: Parameterization of Hydrological Processes in Distributed Runoff Modelling

Supervisor: Szolgay, J.

Lešková, D.: Application of Local Warning Systems and Artificial Neural Networks in Hydroforecasting Practice

Supervisor: Hlavčová, K.

Škrovinová, M.: Assessing the Impact of Riparian Vegetation on the Quality of Aquatic and Terrestrial Habitats

Supervisor: Macura, V.

Števková, A.: Seasonality Analysis of Low Flows and Their Regional Distribution

Supervisor: Kohnová, S.

Vitková, J.: Impact of Climate Change on a Soil Water Regime

Supervisor: Skalová, J.

3. RESEARCH

3.1 Research projects

Hydrological Regionalisation – Towards a Coherent Framework (2010-2013, SZOLGAY, J.), Subcontract of a research project of the Austrian Foundation for Research FWF P 18993

Hybrid Methods for the Modelling and Evaluation of Hydrological Extremes for a Risk Analysis (2011-2015, HLAVČOVÁ, K.), VEGA 1/0908/11

Effect of the Biotic and Abiotic Characteristics of Stream Ecosystems on the Water Regime of Soils (2011-2015, MACURA, V.), VEGA 1/0243/11

Evolutionary Algorithms and Data-Driven Methods in the Water Management of a Landscape (2011-2015, ČISTÝ, M.), VEGA 1/1044/11

Heuristic Models for the Optimization of Water Management Interventions in a Landscape (2009-2013, ČISTÝ, M.), APVV LPP-0319-09

Spatial Interpretation of Soil Hydrophysical Characteristics in Relation to Their Hydrological Regime (2011-2014, SKALOVÁ, J.), APVV-0139-10

Multivariate Frequency Analysis of Hydrological Extremes for Water Resources Planning and Design (2011-2014, SZOLGAY, J.), APVV-0496-10

Development of Methods for Determining Climatic and Hydrological Design Characteristics (2011-2015, KOHNOVÁ, S.), Research project of the European Fund for Regional Development

Integrated System for the Simulation of Runoff Processes (2011-2014, HLAVČOVÁ, K.) Research project of the European Fund for Regional Development

Development of a Regional System of Climate and Rainfall Models for the Prediction of Runoff under Changed Climate in the Mountainous Regions of Slovakia (2012-2015, HLAVČOVÁ, K.), APVV-0303-11

3.2 International cooperation

Cooperating institutions

Department of Hydraulic Engineering, Faculty of Civil Engineering, Czech Technical University, Prague, Czech Republic

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 Engineering, Vienna University of Technology, Vienna, Austria

Department of Hydraulic Structures, Warsaw Agricultural University, Poland
VITUKI – Water Research Centre, Budapest, Hungary

University of Uppsala, Sweden

Delft Hydraulics, Delft, The Netherlands

European Joint Research Centre, ISPRA, Italy

University of Bologna, Italy

Institute of Hydromechanics and Water Resources Management, Swiss Federal Institute of Technology, Zürich, Switzerland

University of Padova, Department of Land and Agroforest Environments, Italy

University of Jean Moulin Lyon 3, Lyon, France

Membership in international professional organizations

Hlavčová, K.: Member of the International Association of Hydrological Sciences

Hlavčová, K.: Member of the European Geosciences Union

Kohnová, S.: Member of the European Geosciences Union

Kohnová, S.: Member of the International Association of Hydrological Sciences

Szolgay, J.: Member of the Editorial Board of the Journal of River Basin Management

Szolgay, J.: Member of the Editorial Board of the Water Resources Management

Szolgay, J.: Member of the Editorial Board of the Journal of Hydrology

Szolgay, J.: Member of the Editorial Board of the Journal of Hydrological Sciences

Szolgay, J.: National Correspondent of IAHS for Water Management Systems

Szolgay, J.: National Representative of the International Association for Hydrological Sciences

Szolgay, J.: Chairman of the Subdivision for Hydrological Forecasting of the Hydrological Division of the EGU

Szolgay, J.: Member of the Association of Hydrological Sciences

Bacigál, T. – Kohnová, S. – Szolgay, J. – Hlavčová, K.: Design Flood: Estimation of the Parameters of the Joint Distribution Function of Discharges and Flood Volumes by Copulas. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol.13, No. 2 (2012), pp. 297-305 (in Slovak)

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DEPARTMENT OF HYDRAULIC ENGINEERING

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Hydraulics I

Hydraulics II

Water Management Structures

Weirs

Groundwater Hydraulics

Inland Waterways

Computer Exploitation in Engineering

Special Issues of Weirs

Special Issues of Waterways

Operation and Reconstruction of Hydraulic Structures

Small Water Power Plants

Stability and Static Solutions for Hydraulic Structures

Water Power Utilization

Field Measurements

Hydroenergetics

Construction of Metallic Hydraulic Structures

Hydraulic Research

Engineering Networks and Water Structures

Automation of Engineering Problems

Special Issues of Hydraulic Engineering

Numerical Modelling of Hydraulic Processes

Water and Road Constructions

1.2 Postgraduate courses

Hydroenergy Systems

Hydraulic Modeling of Hydrodynamic Phenomena

Fluid Mechanics

Advanced Chapters of Hydraulic Structures

2. THESES

2.1 Bachelor theses

There were 18 works.

2.2 Graduate theses

Hatváni, P.: Construction of the Weir at the Selice Water Structure
Supervisor: Možešik, L.

Piatnica, M.: Hydraulic Design of a Fish Pass at the Hliník nad Hronom SHPP
Supervisor: Čubanová, L.

Varchola, D.: Bobrovec Small Hydropower Plant
Supervisor: Dušička, P.

Sedláček, P.: Measurements and Computations on a Triangular Weir
Supervisor: Čubanová, L.

Hanes, M.: Model of the Operational Planning of the Gabčíkovo HPP
Supervisor: Šulek, P.

Janko, I.: Design of a Small Hydropower Plant on the Hron River in Banská Bystrica – Majer
Supervisor: Šulek, P.

Roth, P.: Design of the Hrboltová Small Hydropower Plant
Supervisor: Rumann, J.

Feja, J.: Design of a Small Hydropower Plant in Hniezdne on the Poprad River
Supervisor: Dušička, P.

Strelcová, D.: Design of a Structure for Overcoming Water Level Differences in Selected Locations on the Hron River
Supervisor: Cabadaj, R.

Mikuš, R.: Design of the Kolárovo Navigation Lock on the Váh River
Supervisor: Cabadaj, R.

Zerényi, T.: Design of a Weir on the Hron River in Jalná
Supervisor: Gramblička, M.

Guľašová, J.: Design of a Whitewater Course on the Hornád River
Supervisor: Rumann, J.

Tóthová, B.: Structures for Sports and Recreational Navigation on the Váh River at the Kráľová WS – Komárno Stage
Supervisor: Možiešik, L.

Miškovič, L.: Forecasting Groundwater Level Developments After an Interference with Its Natural Regime
Supervisor: Baroková, D.

Jurenková, L.: Technical Data for EIA – Design of a Structure for Sports and Recreational Navigation at a Selected Location on the Hron River
Supervisor: Cabadaj, R.

Harmanová, M.: Variant Design of Polders in the Little Carpathian Mountains and Hydraulic Design of Their Functional Structures
Supervisor: Šoltész, A.

Palkovičová, A.: The Effect of an Emergency Shutdown of the Gabčíkovo Hydropower Plant on the Water Level and Discharge Regimes with Respect to Navigation
Supervisor: Možiešik, L.

2.3 Doctoral theses

Kožáková, K.: Hydraulic Aspects of Urban Flood Protection
Supervisor: Květon, R.

Orfánus, M.: Research on the Impact of Lateral Spillway Parameters on Hydraulic Flow Characteristics Using 3D Modeling
Supervisor: Šoltész, A.

3. RESEARCH

3.1 Research projects

Possibilities of the Solution of Flood Situations on Rivers by Means of Technical Interference (2012-2015, ŠOLTÉSZ, A.), VEGA 1/1011/12

Transformation of Flow Waves in Stages without Direct Hydraulic Bonds of Water Management-Energy Systems (2011-2014, DUŠIČKA, P.), APVV-0680-10

Research on the Use of Heuristic Optimization Methods in the Process of Generating Water Management / Energy Plans for the Regulation of Hydropower Plants (2011-2014, ŠULEK, P.), VEGA 1/0578/11

EU Danube strategy – to Increase the Operational Safety and Transport Capacity of Large Ship Locks by Optimization of Hydraulic Filling and Emptying Systems Through Mathematical Modeling Research and Heuristic Optimization Methods (2012-2015, MOŽIEŠIK, L.), VEGA 1/0660/12

Teaching and Learning Civil Engineering in a European Context (2005-2016, ŠOLTÉSZ, A.), CEEPUS CIII-BG-0022-08-1213

Creation and Development of Environmental Technologies in the Flood Protection of the Small Carpathian Region – Modra Case Study (2009-2012, ŠOLTÉSZ, A.), ITMS Code 26240220019

Terrain Research on Water Flow in the ESL-3 Channel Network (PS Čičarovce, Pavlovce nad Uhom and Ptrukša) (2012-2013, PALINKÁŠOVÁ, Z.), 7626-781000

3.2 International cooperation

Cooperating institutions

Czech Technical University, Prague, Faculty of Civil Engineering, Department of Hydraulic Engineering, Czech Republic

Technical University of Brno, Faculty of Civil Engineering, Institute of Water Structures, Czech Republic

Membership in international professional organizations

Šoltész, A.: International Commission on Irrigation and Drainage (ICID) – Vice President of ICID Slovak Committee, Member of European Workgroup (ERWG)

Šoltész, A.: International Association of Hydrological Sciences (IAHS) – National Correspondent of Ground Water Workgroup

4. PUBLICATIONS

Books

Benda, V. – Doležalová, H. – Dušička, P. – Hanslian, D. – Jevič, P. – Matuška, T. – Myslík, V. – Pastorek, Z. – Stupavský, V. – Šejvl, R. – Šrefl, J. – Šulek, P.: Renewable Energy Sources, 1st ed., Profi Press s.r.o., Prague, 2012, ISBN 978-80-86726-48-9, 208 pp. (in Czech)

Textbooks

Dušička, P. – Šulek, P.: Water Resources Energy Utilization, 1st ed., Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3647-3, 90 pp. (in Slovak)

Možiešik, L. – Dušička, P. – Šulek, P.: Hydraulic Engineering Constructions – Weirs, Inland Waterways and Navigation Constructions, Hydropower Plants and Utilization of Hydropower, 1st ed., Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3656-5, 203 pp. (in Slovak)

Journals

Antal, J. – Novák, V. – Húska, D. – Macura, V. – Bednárová, E. – Dušička, P. – Jakubis, M. – Halaj, P. – Reháč, Š. – Skalová, J. – Možiešik, L. – Miklánek, P. – Hlavčová, K. – Fendeková, M. – Jurík, L. – Heinige, V. – Stančíková, D. – Slaninka, V. – Mišík, M. – Jalčovníková, M. – Podkonický, B. – Berek, J. – Stradiot, P. – Stančík, A. – Horvát, O.: The Concept and Implementation of the Revitalisation of the Countryside and Integrated River Basin Management of the Slovak Republic. In: Vodohospodársky spravodajca, ISSN 0322-886X, Vol. 55, Nos. 3-4 (2012), pp. 12-13 (in Slovak)

Baroková, D. – Čubanová, L. – Šoltész, A.: Possibilities for Wetland Recreation in the Senianska Depression Using Controlled Flooding. In: Journal of

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Pindjaková, T.: Groundwater Level Regime Model during a Flood Situation. In: Vodohospodársky spravodajca, ISSN 0322-886X, Vol. 55, Nos. 5-6 (2012), pp. 28-29 (in Slovak)

Šoltész, A. – Baroková, D. – Čubanová, L.: Wetlands Restoration in the Senné Area. In: "Ovidius" University Annals – Constantza, ISSN 1584-5990, Vol. 14, Issue 14 (2012), pp. 237-242 (in English)

Šulek, P.: A Hydro Power System Operation Using Genetic Algorithms and Mixed-Integer Nonlinear Programming. In: Slovak Journal of Civil Engineering, ISSN 1210-3896, Vol. 20, No. 1 (2012), pp. 1-9 (in English)

Šulek, P. – Dušička, P. – Možiešik, L. – Šebestová, Z.: Managing Operations at the Gabčíkovo Hydro Plant. In: Inžinierske stavby, ISSN 1335-0846, Vol. 60, No. 6 (2012), pp. 25-27 (in Slovak)

Šulek, P.: Solving a Hydrothermal Coordination Problem by Hybrid Optimization. In: Energetika, ISSN 0375-8842, Vol. 62, No. 4 (2012), pp. 201-206 (in Slovak)

Šulek, P. – Šebestová, Z.: The Use of the Muskingum Method for the Simulation of Artificial Discharge Waves (A Case Study on the Danube, Downstream from the Gabčíkovo Water Structure). In: Acta Hydrologica Slovaca, ISSN 1335-6291, Vol. 13, No. 1 (2012), pp. 175-185 (in Slovak)

Conference Proceedings

Andrássy, T. – Baroková, D. – Šoltész, A.: Interaction Processes of Surface and Ground Water Flow Simulated by Means of TRIWACO Modelling System. Proceedings of Colloquium on Landscape Management 2012, Brno, ČR, 3.2.2012, Mendel University in Brno, Brno, 2012, ISBN 978-80-7375-612-3, pp. 17-20 (in English)

Andrássy, T. – Čubanová, L.: Specification and Design of Whitewater Courses. Proceedings of Transport of Water, Chemicals and Energy in the Soil-Plant-Atmosphere System. 20th International Poster Day and Open Day at ÚH SAV. Bratislava, SR, 15.11.2012, Department of Hydrology of the Slovak Academy of Science, Bratislava, 2012, ISBN 978-80-89139-28-6, pp. 12-18 (in Slovak)

Andrássy, T. – Čubanová, L.: Specialities by the Whitewater Course Design. Proceedings of Colloquium on Landscape Management 2012, Brno, ČR, 3.2.2012, Mendel University in Brno, Brno, 2012, ISBN 978-80-7375-612-3, pp. 25-29 (in English)

Baroková, D. – Dušička, P. – Šoltész, A.: The Issue of Dealing with a Groundwater Level Regime and Its Effect Due to the Construction and Operation of a SHP. Proceedings of Transport of Water, Chemicals and Energy in the Soil-Plant-Atmosphere System. 20th International Poster Day and Open Day at ÚH SAV. Bratislava, SR, 15.11.2012, Department of Hydrology of the Slovak Academy of Science, Bratislava, 2012, ISBN 978-80-89139-28-6, pp. 35-60 (in Slovak)

Baroková, D. – Dušička, P.: Use of Mathematical Modeling for Underground Water Level Predictions During the Design of a Small Hydropower Plant. Proceedings of Hydroturbo 2012. 21st International Conference on Water

Power Utilization. Brno, ČR, 25.-27.9.2012, Brno University of Technology, 2012. pp. 461-470 (in Slovak)

Cabadaj, R. – Rumann, J.: Design of a Slide for Recreational Boats for Small Hydropower Plants. Proceedings of Hydroturbo 2012. 21st International Conference on Water Power Utilization. Brno, ČR, 25.-27.9.2012, Brno University of Technology, 2012. pp. 455-460 (in Slovak)

Cabadaj, R. – Královič, O.: Water Level Regime for Different Variants of the Navigable Zemplín Waterway. Proceedings of Colloquium on Landscape Management 2012, Brno, ČR, 3.2.2012, Mendel University in Brno, Brno, 2012, ISBN 978-80-7375-612-3, pp. 53-55 (in English)

Cipovová, K.: Design of a Retention Dam from a Geotechnical Point of View. Proceedings of the Effects of Water Structures on Landscape Development and Protection: 20 Years of the Operation of the Gabčíkovo Water Structure. CONECO 2012 international scientific conference. Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3593-3, pp. 175-187 (in Slovak)

Cipovová, K.: Stability of a Retention Reservoir. Proceedings of Colloquium on Landscape Management 2012, Brno, ČR, 3.2.2012, Mendel University in Brno, Brno, 2012, ISBN 978-80-7375-612-3, pp. 4-7 (in English)

Čubanová, L.: Branch Systems and Migratory Capacity. Proceedings of the Effects of Water Structures on Landscape Development and Protection: 20 Years of the Operation of the Gabčíkovo Water Structure. CONECO 2012 international scientific conference. Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3593-3, pp. 188-192 (in Slovak)

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Gramblička, M.: Alternative Flood Protection of the Lower Section of the Little Danube. Proceedings of the Effects of Water Structures on Landscape

- Development and Protection: 20 Years of the Operation of the Gabčíkovo Water Structure. CONECO 2012 international scientific conference. Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3593-3, pp. 199-204 (in Slovak)
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DEPARTMENT OF BUILDING CONSTRUCTION

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Building Acoustics and Illumination
Building and Energy
Building Constructions 1
Building Constructions 2
Building Constructions 3
Building Constructions 4
Building Constructions 5
Building Constructions V
Building Energy and Environmental Simulation
Building Energy and Indoor Environment Simulation
Building Pathology
Building Physics (in English)
Constructions in Architecture 1 (in English)
Constructions in Architecture 2 (in English)
Constructions in Architecture 3 (in English)
Design Basics
Design of Architectural Constructions
Design Studio
Design Studio 3
Design Studio 4
Ecological Architecture
Excursion
Final Thesis
Fire Engineering of Buildings
Fire Safety of Buildings
Master's Seminar
Master's Thesis
Methodology of Scientific Experiment
Modelling of Climatic Processes
Physics of Indoor Environment
Practical Training
Professional Practice
Project 1 – Low Energy Buildings
Reconstruction of Buildings and Preservation of Monuments 1

Renovation of Buildings
Selected Problems of Building Constructions
Special Architectural Structures
Special Building Constructions
Studio of Buildings Design I
Studio of Buildings Design II
Studio of Buildings Design III
Technical Drawing
Thermal Performance of Buildings

Obligatory elective subjects

Acoustics in Architecture
Advanced Building Materials and Constructions
Aerodynamics and Hydrodynamics of Buildings
Facade Technique of the Intelligent Buildings
Solar Technology and Illumination of Buildings
Thermal Protection of Buildings

Optional subjects

Building-Physical Construction
Computer Graphics
Computer Graphics and Visualization
Computer Graphics and Visualization I
Information Technologies
Building Design

1.2 Postgraduate courses

Aerodynamics and Hydrodynamics of Buildings
Building and Energy
Building and Urban Acoustics
Building Climatology
Building Constructions – Selected Essays
Building Simulation
Fire Safety Engineering
Renewal and Protection of Historic Buildings
Selected Essays from Building Constructions
Thermal Performance of Buildings

2. THESES

2.1 Bachelor theses

There were 209 works.

2.2 Graduate theses

Adamov, J.: Health Center
Supervisor: Držka, M.

Bezúrová, D.: Tax Office
Supervisor: Vargová, A.

Farkasová, K.: Atrial Apartment Complex
Supervisor: Bielek, B.

Grék, L.: Energy Efficient House
Supervisor: Rabenseifer, R.

Gyurász, P.: Logistics Center
Supervisor: Jamnický, M.

Chabada, D.: Office Building
Supervisor: Vavrovič, B.

Chatrnúchová, M.: Auditorium
Supervisor: Dlhý, D.

Jákliová, L.: Boarding House
Supervisor: Minarovičová, K.

Jurkovič, J.: Main Integrated Fire and Rescue Station in Malacky
Supervisor: Olbřemek, J.

Kocandová, M.: Complex VINO
Supervisor: Jakeš, E.

Kociha, P.: Passive House Hotel
Supervisor: Palko, M.

Kubů, M.: Family Farm – Livery (hypotherapy)
Supervisor: Mikolaj, I.

Lackovič, J.: Administrative Building in Prievidza
Supervisor: Miklósiová, T.

Macuška, P.: Auction Hall
Supervisor: Tomašovič, P.

Mauerová, I.: Low-Energy Residential House
Supervisor: Mendán, R.

Murín, P.: Hotel
Supervisor: Buday, P.

Považanová, M.: Public Library
Supervisor: Oláh, J.

Pukančíková, M.: Hotel
Supervisor: Chmúrny, I.

Sloboda, T.: Elementary School
Supervisor: Puškár, A.

Šedo, A.: Hotel
Supervisor: Gieciová, M.

Švábik, M.: Roman Catholic Church
Supervisor: Hraška, J.

Trochta, M.: Administrative-Business Center Rajska
Supervisor: Žilinský, J.

Vráblik, M.: Multi-Purpose Building – Bojnice
Supervisor: Pernišová, A.

2.3 Doctoral theses

Hanuliak, P.: Assessment of Glazing Systems in a Building According to Chronobiology and Circadian Photometry
Supervisor: Hraška, J.

3. RESEARCH

3.1 Research projects

Building Simulation in the Climate Conditions of the Slovak Republic (2012, HRAŠKA, J.), VEGA 1/0320/12

Symbiosis of the Interaction of Renewable Energy Sources and System Link Building-Climate-Energy in the Ecology of Low-Energy, Green and Sustainable Architecture (2011-2014, BIELEK, M.), APVV-0624-10

Theoretical-Experimental Evaluation of Realized Pilot Projects: Pilot Project for Reconstruction of a School to a Low-Energy Building and a Pilot Project for the Construction of a Low-Energy Residential House. (2010-2012, PUŠKÁR, A.), State program

Thermal Protection for Passive and Low Energy Buildings (2012 – 2014, CHMÚRNY, I.) VEGA 1/0281/12

Research of Indoor Lighting Environment Based on Chronobiology and Circadian Photometry (2011-2014, HRAŠKA, J.) APVV-0150-10

3.2 International cooperation

Cooperating institutions

TU Vienna, Austria

Wolfen WIRN, Austria

ČVUT Prague, Czech Republic

VUT Brno, Czech Republic
 KEB Berlin, Germany
 IFT Rosenheim, Germany
 Planungsinstitut für ländliche Siedlung, Stuttgart, Germany
 TU Budapest, Hungary
 TU Győr, Hungary
 CE Haifa, Israel
 TU Eindhoven, The Netherlands
 TU Delft, The Netherlands
 KU Leuven, Belgium
 MISI Moscow, Russia
 TU Kharcow, Ukraine
 University of Strathclyde, United Kingdom
 Chungnam National University, Daejeon, Korea

Membership in international professional organizations

Rabenseifer, R., Hraška, J.: IBPSA – International Building Performance Simulation Association
 Rychtáriková, M.: EAA – European Acoustic Association

4. PUBLICATIONS

Parts of books

Držka, M.: Defects in a Multipurpose Flat Roof and Their Repair. In: Defects and Renewal of External Building Constructions. [electronic source]: Proceedings of conference with international attendance. Podbanské, SR, 7. – 9.3.2012. Košice: Technical University of Košice, 2012. ISBN 978-80-553-0798-5. pp. 71-75 (in Slovak)

Rychtáriková, M. – Heylighen, A. – Herssens, J.: Towards More Inclusive Approaches in Soundscape Research: The Soundscape of Blind People. In: INTER-NOISE 2012 [electronic source]: Proceedings. New York, USA, Aug. 19-22, 2012. New York: Institute of Noise Control Engineering, 2012. unpaginated (in English)

Journals

Bielek, B. – Bielek, M. – Szabó, J. – Míle, S.: The Verification of the Function of a Narrow-Cavity Double-Skin Transparent Facade – in Situ Experiment. In: Czasopismo Techniczne Technical Transactions. ISSN 1897-628X. Year 109, 2-B/2012, No. 3 (2012), pp. 19-28 (in English)

Chmúrny, I.: Study of Energy Needs for Heating by Glazing with an Increased Solar Factor. In: Tepelná ochrana budov. ISSN 1213-0907. Vol. 15, No. 1 (2012), pp. 19-22 (in Slovak)

Čekon, M.: Spectral Emissivity Properties of Reflective Coatings. In: Slovak Journal of Civil Engineering. ISSN 1210-3896. Vol. 20, No. 2 (2012), pp. 1-7 (in English)

Fabian, M. – Darula, S.: Saving Electric Energy in a Daytime Lighting Regime. In: TZB Haustechnik. ISSN 1210-356X. Vol. 20, No. 5 (2012), pp. 50-53 (in Slovak)

Juráš, P.: Impact of Wind-Driven Rain on Building Facades. In: Almanach znalca. ISSN 1336-3174. Vol.11, No. 2 (2012), pp. 23-27 (in Slovak)

Juríčková, M. – Kovár, M.: Humidity in a House. In: Kopaničiar expres. ISSN 1338-9076. Vol. 16, No. 46 (2012), p. 24 (in Slovak)

Kamenický, L.: Energy-Efficient Building Systems. In: Eurostav. ISSN 1335-1249. Vol. 18, Nos. 1-2 (2012), pp. 32-34 (in Slovak)

Kittler, R. – Fabian, M. – Darula, S.: Design Pertaining to the Size of Vertical Windows Depending on Local Daylight Conditions. In: Světlo. ISSN 1212-0812. Vol. 15, No. 4 (2012), pp. 56-58 (in Slovak)

Mend'án, R.: Simple Method for Calculation of the Internal Surface Temperature in the Vertical Corners of Buildings (Type L Corners). In: Almanach znalca. ISSN 1336-3174. Vol.11, No. 1 (2012), pp. 24-33 (in Slovak)

Oláh, J.: Patagonia and Roofs. In: Střechy, fasády, izolace. ISSN 1212-0111. Vol. 19, No. 6 (2012), pp. 10-15 (in Slovak)

Panáček, P. – Puškár, A. – Polásek, M.: Effect of the Type of Wood on the Thermal Properties of a Window. In: Ateliér otvorových výplní, izolací a vybavení staveb. ISSN 1212-4370. Vol.16, No. 4 (2012), pp. 28-31 (in Slovak)

Pernišová, A.: Roof Drainage and the Possibility of Using Rain Water. In: Stavebné hmoty. ISSN 1336-6041. Vol. 8, Nos. 4-5 (2012), pp. 21-22 (in Slovak)

Puškár, A. – Bánó, B.: Restoring the Facade of STU – Faculty of Civil Engineering Building in Bratislava. In: Správa budov. ISSN 1337-6233. Vol. 6, No. 1 (2012), pp. 18-21 (in Slovak)

Rabenseifer, R. – Benešová, A. – Füle, P.: Low-Energy Houses and the Quality of the Indoor Environment. In: Stavebnictví. ISSN 1802-2030. Vol. 6, No. 9 (2012), pp. 49-53 (in Slovak)

Rychtáriková, M. – Shtrepi, L. – Astolfi, A. – Pelzer, S.: Influence of Scattering on the Prediction of Room Acoustic Parameters. In: Akustika. ISSN 1801-9064. Vol. 17, March (2012), pp. 27-29 (in English)

Szabó, J.: Special Type of Glazing and Thermal Protection of Buildings – Solar Diode Glazing. In: TZB-info. ISSN 1801-4399. Apr. 2012 (2012), unpaginated (in Slovak)

Šída, M.: Movement of Snow Masses on Sloping Roofs. In: Střechy, fasády, izolace. ISSN 1212-0111. Vol. 19, No. 3 (2012), pp. 38-40 (in Slovak)

Šutliak, S.: Incompatible Combinations of Flat Roof Materials. In: Střechy, fasády, izolace. ISSN 1212-0111. Vol. 19, No. 3 (2012), pp. 65-67 (in Slovak)

Vargová, A. – Mend'án, R.: Assessment of Mildew Formation in an Apartment of a Residential House (Panel House) in Bratislava. In: Almanach znalca. ISSN 1336-3174. Vol.11, No. 1 (2012), pp. 3-5 (in Slovak)

Žilinský, J.: The Protection of Foundations and the Lower Structure. In: Stavajte a bývajte s nami. ISSN 1336-1295. Vol.11, No. 2 (2012), pp. 6-7 (in Slovak)

Conference Proceedings

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Bielek, M. – Bielek, B. – Híreš, J. – Szabó, J.: The Annual Temperature Regime of a Natural Physical Cavity and New Possibilities for Utilizing Its Energy. In: 9th International Scientific Conference of the Faculty of Civil Engineering [electronic source]: Košice, Slovak Republic, May 22-25, 2012. Košice: Technical University of Košice, 2012. ISBN 978-80-553-0905-7. unpaginated (in Slovak)

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Chmelík, V. – Rychtáriková, M. – Nijs, L. – Glorieux, C. – Nuyts, G.: Reduction of Noise Levels in Sport Halls by Geometrical Optimization. In: Euronoise 2012 [electronic source]: Proceedings of 9th European conference on Noise Control. Prague, Czech Republic, 10-13 June.2012. b. m.: European Acoustics Association, 2012. ISBN 978-80-01-05013-2. pp. 38-41 (in English)

Chmurný, I.: Measured Energy Rating of the Heating Season of a Low Energy House. In: Vykurovanie 2012: Proceedings of 20th international conference on Sustainability, Energy Efficiency and Environmental Safety. Ľubovňa Spa, Slovak Republic, 27.2.-2.3. 2012. Bratislava: SSTP, 2012. ISBN 978-80-89216-45-1. pp. 63-67 (in Slovak)

Čekon, M.: Twin-Boxes: Testing Phase and Initial Experimental Measurements. In: Buildings and Environment 2012 [electronic source]: Proceedings of international conference. Brno, Czech Republic, 25.-26.10.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4600-7. pp. 308-313 (in English)

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Hraška, J.: Integral Approximating Sums for Goniophotometric Measurements. In: Proceedings of LUMEN V4: 4th Lighting Conference of the Visegrad Countries. Bratislava, Slovakia, 26.-28.9.2012. Bratislava: KONGRES management s.r.o., 2012. ISBN 978-80-89275-32-8. pp. 86-93 (in English)

Hrebík, P.: Heat Transfer Coefficient of Window Using Monte Carlo Methods (Latin Hypercube Sampling). In: Proceedings of 1st international conference on Architecture and Urban Design (1-ICAUD): Tirana, 19.-21.4.2012. Tirana: Epoka University Press, 2012. ISBN 9789928-135-01-8. pp. 1169-1176 (in English)

Hrebík, P. – Matiašovský, P.: Uncertainty Parameters of the Random Behaviors of Residential Building Occupants in Terms of the Energy Performance of Buildings (EPB). In: Buildings and Environment 2012: Proceedings of international conference. Brno, Czech Republic, 25.-26.10.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4505-5. pp. 234-236 (in Slovak)

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Juráš, P.: Wind-Driven Rain Load on a Building Envelope. In: Juniorstav 2012 [electronic source]: Proceedings of 14th professional conference of PhD study with international attendance. Brno, 26.1.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4393-8. unpaginated (in Slovak)

Juríčková, M.: Active Fire Protection of a Building – Fixed Fire Extinguishing Equipment. In: Advances in Fire & Safety Engineering 2012: Proceedings of 1st international scientific conference, Zvolen, 15.-16.11.2012. Zvolen: Technical University in Zvolen, 2012. ISBN 978-80-228-2375-3(P). pp. 80-89 (in Slovak)

Majsnar, V.: Controlled Ventilation Systems. In: Buildings and Environment 2012 [electronic source]: Proceedings of international conference. Brno, Czech Republic, 25.-26.10.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4600-7. pp. 321-325 (in English)

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- Mikolaj, I.: Fire Protection of a Building – Complicated Buildings (or City in the City). In: Advances in Fire & Safety Engineering 2012: Proceedings of 1st international scientific conference, Zvolen, 15.-16.11.2012. – Zvolen: Technical University in Zvolen, 2012. ISBN 978-80-228-2375-3(P). pp. 138-142 (in Slovak)
- Minarovičová, K. – Dlhý, D.: Deficiencies of Renovated Apartment Buildings Entrances. In: Buildings and Environment 2012 [electronic source]: Proceedings of international conference. Brno, Czech Republic, 25.-26.10.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4600-7. pp. 84-87 (in English)
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- Olbřímek, J. – Leitnerová, S.: Fire Barriers in the Timber Constructions. In: Wood & Fire Safety: 7th international scientific conference. High Tatras, Štrbské Pleso, 13-16 May, 2012. ŠMIRA-PRINT s.r.o., 2012. ISBN 978-80-87427-23-1. pp. 139-142 (in English)
- Pavčeková, M. – Vargová, A. – Rychtáriková, M. – Džurná, N.: Improvement of the Acoustical Comfort in a Sport Hall by Changes in Architectural Design. In: Euronoise 2012 [electronic source]: Proceedings of 9th European conference on Noise Control. Prague, Czech Republic, 10-13 June, 2012. b.m.: European Acoustics Association, 2012. ISBN 978-80-01-05013-2. pp. 52-54 (in English)
- Pušár, A. – Vavrovič, B.: Joint of Opening Constructions and Building Envelope with ETICS. In: Theory and Building Constructions. Proceedings of 19th international conference on Twenty Years of the Realization of Additional Thermal Insulation in Slovakia and New Requirements. March 28, 2012, Bratislava EXPO Club INCHEBA, a.s. Bratislava: BB Print, s.r.o., 2012. ISBN 978-80-970595-9-0. pp. 58-61 (in Slovak)
- Rabenseifer, R.: Environmental Assessment of Buildings. In: Proceedings of 18th Building Services, Mechanical and Building Industry Days: International conference. Debrecen, Hungary, 11.-12.10.2012. ISBN 978-963-473-591-5. unpaginated (in English)
- Reháková, M. – Olbřímek, J. – Mikolaj, I.: Comparison of the Legislative Requirements and the Standards of Partially Protected Escape Routes by Regulation No. 94/2004 Z. z. In: Fire Protection 2012: Proceedings of 21st international conference. Ostrava, VŠB-TU, September 5 – 6, 2012. Ostrava: Association of Fire and Safety Engineering, 2012. ISBN 978-80-7385-115-6. pp. 287-289 (in Slovak)
- Rychtáriková, M. – Chmelík, V. – Glorieux, C. – Geentjens, G. – Bruyninckx, W. – Wursten, E. – Frederickx, R. – Roozen, B.: Determination of the Sound Reflection Index of Noise Barriers: Guidelines to Improve Measurement Accuracy. In: INTER-NOISE 2012 [electronic source]: Proceedings. New York, USA, August 19-22, 2012. New York: Institute of Noise Control Engineering, 2012. – unpaginated (in English)
- Rychtáriková, M. – Chmelík, V. – Glorieux, C. – Mülner, H. – Stani, M.: Does the Living Noise Spectrum Adaptation of Sound Insulation Match the Subjective Perception? In: Euronoise 2012 [electronic source]: Proceedings of 9th European conference on Noise Control. Prague, Czech Republic, 10-13 June, 2012. b. m.: European Acoustics Association, 2012. ISBN 978-80-01-05013-2. pp. 180-184 (in English)
- Szabó, J.: Solar Diode Glazing as a Part of the Thermal Protection of Buildings and Control of Interior Climate. In: Buildings and Environment 2012 [electronic source]: Proceedings of international conference. Brno, Czech Republic, 25.-26.10.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4600-7. pp. 287-290 (in Slovak)
- Šutliak, S.: Incompatible Combinations of Materials in the Composition of Flat Roofs. In: Juniorstav 2012 [electronic source]: Proceedings of 14th professional conference of PhD Study with international attendance. Brno, 26.1.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4393-8. unpaginated (in Slovak)
- Tomašovič, P. – Urbán, D.: Introduction to the Problems of Sound Propagation in Double Transparent Facades (DTF). In: Proceedings of New Trends of Acoustics Spectrum. Zvolen, Slovak Republic, 12.-14.9.2012. Zvolen: Technical University in Zvolen, 2012. ISBN 978-80-228-2371-5. pp. 171-176 (in Slovak)
- Vargová, A. – Pavčeková, M.: Acoustic Climate in Residential Building Environment. In: Buildings and Environment 2012 [electronic source]: Proceedings of international conference. Brno, Czech Republic, 25.-26.10.2012. Brno: Brno University of Technology, 2012. ISBN 978-80-214-4600-7. pp. 447-450 (in English)
- Zajac, J. – Gašparovičová, V.: Sound Insulation of a Construction in Relation to Detail Modifications and Maas. In: Noise and Vibration in Practice: Proceedings of 17th international Acoustic Conference. Kočovce, Slovak Republic, 4.-5.6.2012. Bratislava: STU Publisher, 2012. ISBN 978-80-227-3714-2. pp. 105-108 (in Slovak)

Patents and Standards

Hermanská, B. – Tomašovič, P.: (ISO 3382-3:2012) Acoustics. Measurement of Room Parameters. Part 3: Open Plan Offices. Bratislava: SUTN, 2012. 20 pp. (in Slovak)

Olbřímek, J.: STN ISO 23601 Safety Identification. Escape and Evacuation Plan Signs. Bratislava: SUTN, 2012. 16 pp. (in Slovak)

DEPARTMENT OF STEEL AND TIMBER STRUCTURES

Head of Department

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Metal Load-Bearing Elements

Steel Load-Bearing Systems

Metal and Timber Load-Bearing Elements

Steel and Timber Load-Bearing Systems

Structural Metal Design

Steel, Timber and Glass in Architecture

Steel Structures and Bridges

Special Problems of Steel Structures

Metal Bridges

Metal and Timber Structures in Civil Engineering

High-Rise and Long-Span Steel Structures

Stability and Plasticity of Steel and Timber Structures

Experimental Verification

Construction Project

Preparation of the First Degree Thesis

Steel Structures and Bridges

Obligatory elective subjects

High-Rise and Long-Span Steel Structures

Composite Structures

Stability and Plasticity of Steel and Timber Structures

Metal and Timber Structures and Bridges

Repair of Metal and Timber Structures

Metal and Timber Structures

Metal and Timber Structures II

Steel, Timber and Glass in Architecture

Steel and Timber Load-Bearing Systems

Steel Structures of Water Works

2. THESES

2.1 Bachelor theses

There were 5 works.

2.2 Graduate theses

Bačíková, M.: Timber Roofing Structure of Sport Hall
Supervisor: Slivanský, M.

Baláž, I.: Footbridge
Supervisor: Sógel, K.

Balcierák, L.: The M. R. Štefánik Airport in Bratislava
Supervisor: Brodniansky, J.

Brodniansky, J.: Design of Footbridge. Atypical Cable Structure.
Supervisor: Ároch, R.

Butor, K.: Hockey Hall in Zvolen
Supervisor: Sógel, K.

Duchoň, V.: Sport Center in Prievidza
Supervisor: Magura, M.

Fehér, P.: The Load-Bearing Structure of a Hangar in the M. R. Štefánik Airport in Bratislava
Supervisor: Slivanský, M.

Hajdóny, M.: Design of Road Bridge over the River Ipeľ
Supervisor: Ároch, R.

Kamenčík, J.: Sport Hall in Stará Lubovňa
Supervisor: Magura, M.

Katona, O.: The Load-Bearing Structure of a Footbridge in Vrútky
Supervisor: Sandanus, J.

Kramarčík, L.: Swimming Pool in Námestovo
Supervisor: Sógel, K.

Kvasniak, J.: Sport Hall in Žilina
Supervisor: Sógel, K.

Lörinc, M.: Design of Bridges without Bearings – Integral Bridges
Supervisor: Ároch, R.

Mach, M.: Tennis Center in Liptovský Mikuláš
Supervisor: Magura, M.

Machyniaková, E.: The Load-Bearing Structure of a Multifunctional Training Hall in Bratislava
Supervisor: Slivanský, M.

Miške, M.: Design of a Footbridge over the River Váh in Ružomberok
Supervisor: Ároch, R.

Rišianová, M.: Ice Rink for 5000 People in Liptovský Mikuláš
Supervisor: Slivanský, M.

Sokol, M.: Swimming Pool, Liptovský Mikuláš
Supervisor: Magura, M.

Trubač, M.: Bridge 201 on the I/66 Road at Brezno – Bypass at Km 0.85 over the River Hron and Railway
Supervisor: Živner, T.

2.3 Doctoral theses

Kowalski, L.: Theoretical and Experimental Analysis of a Cylindrical Shell Construction. Diagnostics and Monitoring of Exposed Steel Structures.
Supervisor: Brodniansky, J.

3. RESEARCH

3.1 Research projects

Strength and Stability of Metal Bars, Bar Systems and Arches (2012-2014, BALÁŽ, I.), VEGA 1/1101/12

Design and Analysis of Hybrid Steel Load-Bearing Systems for Buildings and Transmission Line Systems (2012-2014, BRODNIANSKY, J.), VEGA 1/0929/12

Composite Beams Made of Wood, Concrete, and High-Strength Materials. Their Real Features, Serviceability, Reconstructions, Joints, Rheology and Ecology (2011-2013, DRAŠKOVIČ, F.), VEGA 1/1032/11

Operational Analysis of Timber Truss Constructions during Short-Term and Long-Term Loading; Spatial Interaction with Reinforcements (2012-2014, SANDANUS, J.) VEGA 1/0947/12

3.2 International cooperation

Cooperating institutions

Brno University of Technology, Czech Republic

Czech Technical University in Prague, Czech Republic

Technical University of Ostrava, Czech Republic

Vienna University of Technology, Austria

Budapest University of Technology and Economics, Hungary

Graz University of Technology, Austria

Brandenburg University of Technology, Cottbus, Germany

Membership in international professional organizations

Ároch, R.: ECCS (European Convention for Constructional Steelwork), TC 7 Thin-Walled Structures

Ároch, R.: ECCS (European Convention for Constructional Steelwork), TC 10 Structural Connections

Baláž, I.: Member of Eurocode National Correspondents Working Group

Baláž, I.: Member of CEN TC 250 SC3 Subcommittee SC3 Design of Steel Structures

Baláž, I.: Member of CEN TC 250 SC9 Subcommittee SC9 Design of Aluminium Structures

Baláž, I.: Member of SC3 Evolution group for EN 1993-1-1 Design of Buildings

Baláž, I.: Member of SC3 Evolution group for EN 1993-1-3 Design of Cold-Formed Members and Sheeting

Baláž, I.: Member of SC3 Evolution group for EN 1993-1-5 Design of Plated Structural Elements

Baláž, I.: Member of SC3 Evolution group for EN 1993-2 Design of Steel Bridges

Baláž, I.: Member of SC9 Evolution group for EN 1999-1-1 Design of Aluminium Structures

Baláž, I.: Member of TC 7, TWG 7.5, ECCS (European Convention for Constructional Steelwork), Technical Committee 7: Thin-Walled, Cold-Formed Sheet Steel in a Building. TC 7.5: Practical Improvement of Design Procedures: European Recommendations for the Application of Metal Sheeting Acting as a Diaphragm

Baláž, I.: Member of IABSE (International Association for Bridge and Structural Engineers)

Baláž, I.: P. E., M. ASCE, Member of ASCE (American Society of Civil Engineering) since 1997

Brodniansky, J.: IASS (International Association for Shell and Spatial Structures)

Magura, M.: IASS (International Association for Shell and Spatial Structures)

Slivanský, M.: IASS (International Association for Shell and Spatial Structures)

Sandanus, J.: IASS (International Association for Shell and Spatial Structures)

4. PUBLICATIONS

Books

Csölleová, Zs.: Theoretical Analysis of Tensegrity Prisms, Slovak University of Technology, 2012, ISBN 978-80-227-3704-3, 105 pp. (in Slovak)

Klas, T.: Stability of Metal Isotropic and Orthotropic Walls, Slovak University of Technology, Faculty of Civil Engineering, Edition of Scientific Papers, Book No. 116, 2012, ISBN 978-80-227-3680-0, 201 pp. (in Slovak)

Kováč, M.: Buckling Resistance of Metal Members and Frames, Application of New Methods from Eurocodes, University of Technology, Faculty of Civil

Engineering, Edition of Scientific Papers, Book No. 115, 2012, ISBN 978-80-227-3681-7, 248 pp. (in Slovak)

Parts of books

Blesák, L. – Sandanus, J.: The Impact of the Local Reinforcement of Wood Joints and the Effect of Timber Structures. In: Conservation Science, Technology and Industry, The Slovak National Museum, 2012, ISBN 978-80-8060-288-8, pp. 180-182 (in Slovak)

Sandanus, J. – Sógel, K.: Refurbishment of Historic Buildings and Religious Structures. In: Conservation Science, Technology and Industry, The Slovak National Museum, 2012, ISBN 978-80-8060-288-8, pp. 119-123 (in Slovak)

Sandanus, J. – Slivanský, M. – Šmíra, P. – Štěpánek, J.: Thermal Remediation of the Roof Structure of the St. Martin's Cathedral. In: Wood & Fire Safety, Proceedings of 7th International Scientific Conference, the High Tatras, Štrbské Pleso, 13-16 May, 2012, ŠMÍRA-PRINT s.r.o., 2012, ISBN 978-80-87427-23-1, pp. 251-258 (in English)

Journals

Baláž, I.: Brick Arch Bridges. In: Eurostav. ISSN 1335-1249, Vol.18, No. 9 (2012), pp. 58-59 (in Slovak)

Baláž, I.: 40 Years of the SNP Bridge in Bratislava. In: Eurostav. ISSN 1335-1249, Vol.18, Nos.7-8 (2012), pp. 17-19 (in Slovak)

Blesák, L. – Sandanus, J.: Local Reinforcement of Timber, Part 2. In: Transfer. ISSN 1337-9747. Vol. 4, No. 1 (2012), pp. 14-15 (in Slovak)

Blesák, L. – Sandanus, J.: "Bahnorama" Observation Tower. In: Eurostav. ISSN 1335-1249. Vol.18, Nos. 1-2 (2012), pp. 54-55 (in Slovak)

Brodniansky, J. – Magura, M. – Klas, T.: Monitoring Works on Technological Construction in Terrain. In: Konstrukce. ISSN 1213-8762, Vol. 11, No. 1 (2012), pp. 2-4 (in Slovak)

Masma, P. – Brodniansky, J. – Magura, M.: Rectification of Bridge Crossing Watercourses for Increasing the Lifecycle and Transportation of Natural Gas. In: Neftegazovye Technologiji, No. 6 (2012), pp. 71-75 (in Russian)

Masma, P. – Brodniansky, J. – Magura, M.: Rectification of Bridgings over Rivers – Stage of Increasing Durability and Safe Transportation of Natural Gas. In: SLOVGAS. ISSN 1335-3853, Vol. 21, No. 1 (2012), pp. 24-27 (in Slovak)

Sandanus, J. – Sógel, K. – Michálik, J.: Determination of the Mechanical Properties of Wood. In: Eurostav. ISSN 1335-1249, Vol.18, No. 9 (2012), pp. 56-57 (in Slovak)

Sandanus, J. – Slivanský, M.: Draft Reinforcement of Roof Systems. In: Materiály pro stavbu. ISSN 1213-0311, Vol.18, No. 5 (2012), pp. 34-37 (in Slovak)

Sandanus, J.: Rozálka Health Resort in Pezinok. In: Eurostav. ISSN 1335-1249, Vol.18, No. 3 (2012), pp. 52-53 (in Slovak)

Sandanus, J.: Include Timber in Bridge Building? In: Eurostav. ISSN 1335-1249, Vol.18, Nos. 7-8 (2012), pp. 58-61 (in Slovak)

Sandanus, J. – Augustin, M.: Load-Bearing Construction of Cross-Laminated Timber. In: Materiály pro stavbu. ISSN 1213-0311, Vol.18, No.3 (2012), pp. 20-25 (in Slovak)

Sandanus, J. – Augustin, M.: Load-Bearing Construction of Cross-Laminated Timber – Examples of Realizations. In: Materiály pro stavbu. ISSN 1213-0311, Vol.18, No. 4 (2012), pp. 28-31 (in Slovak)

Sandanus, J. – Slivanský, M.: Strain Measurement of Shrubs at St. Martin's Cathedral in Bratislava during Thermal Refurbishment. In: Materiály pro stavbu. – ISSN 1213-0311. – Vol.18, No. 7 (2012), pp. 54-57 (in Slovak)

Sandanus, J. – Sógel, K.: The Role of Statics in the Refurbishment of Historic Buildings: Examples from Slovakia. In: Materiály pro stavbu. ISSN 1213-0311, Vol.18, No.1 (2012), pp. 40-43 (in Slovak)

Sandanus, J.: Timber in the City: Residential House in Vienna. In: Eurostav. ISSN 1335-1249, Vol.18, No.5 (2012), pp. 60-61 (in Slovak)

Sandanus, J. – Kierulf, B.: Wooden Facades. In: Eurostav. ISSN 1335-1249, Vol.18, No.4 (2012), pp. 58-59 (in Slovak)

Conference Proceedings

Ároch, R. – Živner, T.: The Contribution of Columns' Torsional Stiffness to Lateraltorsional Buckling of Beams. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering, Košice, Slovak Republic, May 22-25, 2012, Technical University of Košice, 2012, ISBN 978-80-553-0905-7, unpaginated (in English)

Baláž, I. – Koleková, Y.: Bending Moments Due to Elastic Buckling Mode Applied as Uniform Global and Local Initial Imperfection of Frames. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference, Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 32-37 (in English)

Baláž, I. – Koleková, Y.: Influence of Transverse Bending Moment in the Flange of Corrugated I-Girders. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference, Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 26-31 (in English)

Baláž, I. – Koleková, Y.: LTB Resistance of Beams Influenced by Plastic Reserve or Local Buckling. In: Engineering Mechanics 2012. Proceedings of 18th International Conference. Svratka, Czech Republic, May 14-17, 2012. Prague, Institute of Theoretical and Applied Mechanics Academy of Sciences of the Czech Republic, 2012, ISBN 978-80-86246-40-6, pp. 639-655 (in English)

Baláž, I. – Koleková, Y.: Modified Generalized Beam Theory. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering, Košice, Slovak Republic, May 22-25, 2012. Technical University of Košice, 2012, ISBN 978-80-553-0905-7, unpaginated (in English)

- Baláz, I. – Koleková, Y.: Structures with Imperfections. In: Engineering Mechanics 2012. Proceedings of 18th International Conference. Svratka, Czech Republic, May 14-17, 2012. Prague, Institute of Theoretical and Applied Mechanics, Academy of Sciences of the Czech Republic, 2012, ISBN 978-80-86246-40-6, pp. 61-84 (in English)
- Blesák, L. – Distler, P. – Semanová, V.: Highway Section D1, Jablonov – Studenec, Bridge 205 at 1.650km, Right Traffic Lane. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference, Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 85-90 (in English)
- Blesák, L.: The Impact of the Local Strengthening of Wood and Joints on the Behaviour of Timber Structures. In: Juniorstav 2012. Proceedings of 14th Scientific PhD Conference. Brno, 26.1.2012. Brno University of Technology, 2012, ISBN 978-80-214-4393-8, unpaginated (in Slovak)
- Brodniansky, J. – Klas, T. – Magura, M.: Different Types of Strain Gauges for Strain Measurements. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering. Košice, Slovak Republic, May 22-25, 2012. Technical University of Košice, 2012, ISBN 978-80-553-0905-7, unpaginated (in Slovak)
- Brodniansky, J. – Slivanský, M.: Reinforced Glass Beams: Experimental and Theoretical Verification. In: Proceedings of IASS – APCS 2012: From Spatial Structures to Space Structures. Seoul, South Korea, 21.-24.5.2012. Korean Association for Spatial Structures, Seoul 2012, unpaginated (in English)
- Brodniansky, J. – Magura, M.: Repair Works, Experimental Research and Monitoring on Pipeline and Pipeline Bridges. In: Proceedings of IASS – APCS 2012: From Spatial Structures to Space Structures. Seoul, South Korea, 21.-24.5.2012. Korean Association for Spatial Structures, Seoul 2012, unpaginated (in English)
- Csölleová, Zs.: The Analyses of Triangular Tensegrity Prisms' Pairs. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference. Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 74-78 (in English)
- Dallemule, M.: Buckling Mode as an Imperfection. In: Juniorstav 2012. Proceedings of 14th Scientific PhD Conference. Brno, 26.1.2012. Brno University of Technology, 2012, ISBN 978-80-214-4393-8, unpaginated (in Slovak)
- Forgács, J.: Resistance of Craneway Beams According to the Eurocodes. In: Juniorstav 2012. Proceedings of 14th Scientific PhD Conference. Brno, 26.1.2012. Brno University of Technology, 2012, ISBN 978-80-214-4393-8, unpaginated (in Slovak)
- Húska, M. – Medľa, M. – Mikula, K. – Novysedlák, P. – Remešíková, M.: A New Form-Finding Method Based on Mean Curvature Flow of Surfaces. In: ALGORITMS 2012. Proceedings of 19th Conference on Scientific Computing. Podbanské, Slovak Republic, 9.-14.9.2012. Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3742-5, pp. 120-131 (in English)
- Ilanovský, V. – Djubek, J.: Assessment of Fatigue of Structural Steels. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference, Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 148-153 (in English)
- Kováč, M.: Lateral-Torsional Buckling of Web-Tapered I-Beams. 1D and 3D FEM Approach. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference. Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 217-222 (in English)
- Magura, M. – Brodniansky, J. – Klas, T.: Experimental Research of Buried Pipelines. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference. Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 50-55 (in English)
- Magura, M. – Brodniansky, J.: Structural Analysis and of Braking Block Sleeves on Transit Gas Pipeline. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference. Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 257-261 (in English)
- Nittmannová, L.: Sliding Parts of Bridge Bearings. In: Procedia Engineering. Proceedings of Steel Structures and Bridges 2012. Czech and Slovak International Conference. Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 328-332 (in English)
- Novysedlák, P.: Finding the Form of Cable Net and Membrane Structures with the Linear Force Density Method. In: Juniorstav 2012. Proceedings of 14th Scientific PhD Conference. Brno, 26.1.2012. Brno University of Technology, 2012, ISBN 978-80-214-4393-8, unpaginated (in Slovak)
- Nyársik, P.: Fire Resistance of Ceiling Structures. In: Juniorstav 2012. Proceedings of 14th Scientific PhD Conference. Brno, 26.1.2012. Brno University of Technology, 2012, ISBN 978-80-214-4393-8, unpaginated (in Slovak)
- Proksa, D.: Consideration of Changes to Component Timber-Concrete Structures over Time. In: Juniorstav 2012. Proceedings of 14th Scientific PhD Conference. Brno, 26.1.2012. Brno University of Technology, 2012, ISBN 978-80-214-4393-8, unpaginated (in Slovak)
- Sandanus, J. – Sógel, K.: Refurbishment of Significant Timber Structures in Slovakia. In: Proceedings of IASS – APCS 2012: From Spatial Structures to Space Structures. Seoul, South Korea, 1.-24.5.2012. Korean Association for Spatial Structures, Seoul 2012, unpaginated (in English)
- Živner, T.: The Influence of Constructional Detail on the Lateral-Torsional Buckling of Beams. In: Proceedings of Procedia Engineering: Steel Structures and Bridges 2012. Czech and Slovak International Conference. Podbanské, Slovak Republic, 26.-28.9.2012, ISSN 1877-7058, Vol. 40, pp. 504-509 (in English)

DEPARTMENT OF MAPPING AND LAND CONSOLIDATION

Head of Department

Ing. Róbert Fencík, PhD.

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E-mail: robert.fencik@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

Field Practice in the Cadastre of Real Estate and Cadastral Mapping

Land Consolidation 2

Mathematical Cartography

Specialised Field Practice

Optional Subjects

Environmental Modelling and Evaluations of Landscapes

Cartometry and Data Analysis of the Cadastre of Real Estate

Spatial Modelling in GIS

2. THESES

2.1 Bachelor Theses

There were 4 works.

2.2 Graduate Theses

Marček, M.: Analysis of Map TOPO 5 000 for Flood Protection Requirements
Supervisor: Fencík, R.

Novotný, M.: Elevation Models of the Earth's Surface According to the INSPIRE Directive
Supervisor: Fencík, R.

Straka, J.: Model of Content Generalization for a Basic Map of the Slovak Republic on a Scale 1: 25000
Supervisor: Fencík, R.

Simončíčová, E.: Thematic Layer Model of Underground Services of Maps TOPO 5 000

Supervisor: Fencík, R.

Uhrík, M.: Model of Derived Thematic Map TOPO 500 000

Supervisor: Fencík, R.

Grajzingerová, M.: Land Distribution for Different Types of Soil Management

Supervisor: Geisse, R.

Jaššová, P.: Road System Dimensioning and Project Development of a Rural Road

Supervisor: Geisse, R.

Kozák, M.: Modelling of the Flood Protection Measurements in a Land Consolidation Project

Supervisor: Geisse, R.

Šimurková, R.: 3D Modeling the Spatial Objects of a Country

Supervisor: Geisse, R.

Dobosová, V.: Double Property

Supervisor: Hudecová, L.

Janišová, K.: Optimization of a Real Estate Register Management

Supervisor: Hudecová, L.

Kačúr, M.: Spatial Data Sources and Possibilities for Their Harmonization

Supervisor: Hudecová, L.

Kekláková, D.: Mutual Transformation Between the Coordinates of Points in the Slovak Republic in Lambert's Projection and Other Mandatory Geodetic Coordinate Systems

Supervisor: Vajsáblová, M.

Staňová, G.: Length Correction of Geodesic in a Lambert Conformal Projection of the Slovak Republic

Supervisor: Vajsáblová, M.

2.3 Doctoral theses

Nemcová, P.: Large-scale mapping as a part of the positioning base for Information system of geodesy, cartography and cadastre
Supervisor: Čižmár, J.

Straka, J.: Creation of the state map series from BD GIS

Supervisor: Čižmár, J.

3. RESEARCH

3.2 International cooperation

Cooperating institutions

Department of Geoinformation and Cartography, Vienna University of Technology, Vienna, Austria

Department of Geoinformatics, Palacký University Olomouc, Olomouc, Czech Republic

Department of Mathematics, University of West Bohemia, Pilsen, Czech Republic

4. PUBLICATIONS

Parts of books

Hudecová, L. – Repáň, P. – Zámečník, P.: Multiple Use of Spatial Data Sources. In: Geodesy, Cartography and Geographic Information Systems 2012: 7th International Scientific Conference, Tatranská Lomnica, Slovak Republic, 24.-25.10.2012. – Košice: Technical University of Košice, ISBN 978-80-553-1173-9, 2012 (in Slovak)

Straka, J. – Fencík, R. – Hutková, V.: Cartographic Model for a Basic Map of the Slovak Republic on a Scale 1:25000. In: Geodesy, Cartography and Geographic Information Systems 2012: 7th International Scientific Conference, Tatranská Lomnica, Slovak Republic, 24.-25.10.2012. – Košice: Technical University of Košice, ISBN 978-80-553-1173-9, 2012 (in Slovak)

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Conference Proceedings

Čižmár, J.: Cartometric Analysis of Topographic Maps. In: Proceedings of Conference Activities in Cartography 2012, Bratislava: Cartographic Society of the Slovak Republic, 2012. – ISBN 978-80-89060-21-4. – pp. 29-33 (in Slovak)

Čižmár, J. – Fencík, R.: 250th Anniversary of University Technical Education in Slovakia. In: Proceedings of 20th Slovak Geodetic Days, Žilina: Chamber of Surveyors and Cartographers, 2012.

Danek, L. – Daneková, J.: Evaluation of Flood Web Portals. In: Proceedings of 14th Specialized Doctoral Study Conference [electronic source], Technical University of Brno, Brno (Czech Republic), 2012. – ISBN 978-80-214-4393-8. – p. 456 (in Slovak)

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Fencík, R. – Ebner, R. – Sojčáková, M.: Calibration of Peripheral Devices Used in Digital Cartography. In: Proceedings of Activities in Cartography 2012 Conference, Bratislava: Cartographic Society of the Slovak Republic, 2012. – ISBN 978-80-89060-21-4. – pp. 42-51 (in Slovak)

Horňanský, I. – Hudecová, L. – Sojková, V.: Legislative Aspects of Forensic Expertise in the Field of Geodesy and Cartography. In: Proceedings of 5th Conference on Expertise in the Field of Geodesy and Cartography, Bratislava, SR, 15.-16.6.2012. – Bratislava: MABAG spol. s r. o., 2012. – ISBN 978-80-89113-93-4 (in Slovak)

Hudecová, L.: Changes in the Regulations of Property Cadastre. In: Professional Training for Examination of Certificate Holders to Obtain Authorization to Design Land Consolidation. – Bratislava: MPRV SR, 2012. – ISBN 978-80-970552-4-0. – pp. 31-44 (in Slovak)

Hudecová, L. – Nemcová, P.: New Communication Interfaces of Real Estate Cadastre. In: Proceedings of Conference Activities in Cartography 2012, Bratislava: Cartographic Society of the Slovak Republic, 2012. – ISBN 978-80-89060-21-4. – pp. 64-73. (in Slovak)

Nemcová, P.: Additional Update of a Basic Database for a Geographic Information System. In: Proceedings of 14th Specialized Doctoral Study Conference [electronic source], Technical University of Brno, Brno (Czech Republic), 2012. – ISBN 978-80-214-4393-8. – p. 465 (in Slovak)

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Straka, J.: Basic Database for GIS as a Background for the Creation of a State Map Series. In: Proceedings of 2nd Conference on Digital Technologies in Geoinformatics, Cartography and Remote Sensing, Prague (Czech Republic), 23.10.2012. – Prague: Czech Technical University in Prague, 2012. – ISBN 978-80-01-05131-3. – pp. 98-106 (in Slovak)

DEPARTMENT OF MATHEMATICS AND DESCRIPTIVE GEOMETRY

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Descriptive Geometry

Mathematics I

Mathematics II

Mathematics III

Mathematics IV

Informatics

Mathematical Statistics

Mathematical Cartography

Mathematical Analysis I

Engineering Geometry and AutoCAD I

Engineering Geometry and AutoCAD II

Geometry

Algebraic Structures and Mathematical Logic

Programming in C Language

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)

Optional subjects

Mathematical Statistics

Architectural Mathematics

Numerical and Stochastic Methods

Informatics and Statistics

Recommended subjects

Computer Graphics

Fuzzy Management

1.2 Postgraduate courses

Linear Models of Time Series

Nonlinear Models of Time Series

Mathematical Methods in Fluid Flow, Diffusion and Heat Transfer

Numerical Methods in Fluid Flow, Diffusion and Heat Transfer

Mathematical Basis of the Finite Element Method I

Mathematical Basis of the Finite Element Method II

Stochastic Processes I

Probability and Statistical Estimation

Multidimensional Statistics

Statistical Methods in Geodesy

Mathematics

Decision Theory

Aggregation Operators

Proposed Experiment in Optimisation

Time Series Analysis in Civil Engineering

Dynamic and Stochastic Optimisation

Discrete Mathematics

Graph Theory

2. THESES

2.1 Bachelor theses

There were 18 works.

2.2 Graduate theses

Prokopec, P.: Solutions of Partial Differential Equations on Adaptive Networks
Supervisor: Krivá, Z.

Lackovič, L.: Statistical Interpolation Methods in Geoinformatics
Supervisor: Bacigál, T.

2.3 Doctoral theses

Prčúch, I.: Numerical Solutions of Partial Differential Equations on Surfaces
Supervisor: Mikula, K.

3. RESEARCH

3.1 Research projects

Effective Numerical Methods for the Solution of Geometric Partial Differential Equations (2010-2012, FROLKOVIČ, P.), VEGA 1/0733/10

Extremal Graphs of a Given Degree and Diameter, or Girth, with a High Level of Symmetry (2010-2012, ŠIAGIOVÁ, J.), VEGA 1/0280/10

Stochastic Processes (2009-2012, KOMORNÍKOVÁ, M.), LPP-0111-09

Multiregimes and Multidimensional Time Series: Models and Application (2011-2014, KOMORNÍKOVÁ, M.), VEGA 1/0143/11

Efficient Numerical Methods and Parallel Computing in Geodesy (2011-2014, ČUNDERLÍK, R.), VEGA-1/1063/11

Uncertainty from the Point of View of Probability Theory, Algebra, Self-adjoint Operators and Quantum Structures (2012-2015, JENČA, G.), APVV-0178-11

Mathematical Models of Quantum Structures and Uncertainty (2012-2014, KALINA, M. – JENČA, G. – SARKOCI, P.), VEGA 2/0059/12

Aggregation Functions and Their Applications (2012 – 2014, MESIAR, R.), VEGA 1/0171/12

Wiener Index and Symmetric Maps (2011 – 2012, KNOR, M.), APVV SK-SI-0012-10

3.2 International cooperation

Cooperating institutions

University of Linz, Austria

University of Novi Sad, Serbia

University of Haifa, Israel

Communication University of China, Beijing, China

Beijing Institute of Technology, China

CTU Prague, Czech Republic

University of Ostrava, Czech Republic

University of Liberec, Czech Republic

WB University, Plzeň, Czech Republic

Czech Academy of Sciences, Czech Republic

Charles University in Prague, Czech Republic

University of Ghent, Belgium

TU Budapest, Hungary

University of Waterloo, Canada

University of Freiburg, Germany

University of Bremen, Germany

University of Heidelberg, Germany

University of Newcastle, Australia

University of Bologna, Italy

University of Sannio, Benevento, Italy

University of Ljubljana, Slovenia

University of Pamplona, Spain

CINECA – Supercomputing Centre, Bologna, Italy

CNRS, Paris, France

ICS, Paris, France

University of Groningen, The Netherlands

University of the Balearic Islands, Palma de Mallorca, Spain

La Sapienza University, Rome, Italy

Open UNI London, Great Britain

University of Dortmund, Germany

Weierstrass Institute for Applied Analysis and Stochastics, Berlin, Germany

Western Australia University, Perth, Australia

University of Auckland, New Zealand

TU Cracow, Poland

Pohang University of Science and Technology, South Korea

Western Washington University, Bellingham, WA, USA

University of Latvia, Latvia

Membership in international professional organizations

Jenča, G.: International Quantum Structures Asociacion (IQSA)

Kalina, M.: International Quantum Structures Asociacion (IQSA)

Komorníková, M.: SEFI Mathematics Working Group

Mikula, K. – Čunderlík, R. – Fašková, Z.: Joint Working Group 0.1.1: Vertical Datum Standardisation (JWG 0.1.1 – VDS)

4. PUBLICATIONS

Parts of books

Bodjanova, S. – Kalina, M.: Uninorms, Nullnorms and Evaluators. In: SISY 2012: IEEE 10th Jubilee International Symposium on Intelligent Systems and Informatics, September 20-22, 2012 Subotica, Serbia. Piscataway: IEEE, ISBN 978-1-4673-4750-1, 2012, pp. 531-536 (in English)

Frolkovič, P.: Modelling of Free Groundwater Table. In: Enhancement of the Codes d3f and r3t. – Cologne: Appliances Company and Reactor Safety, ISBN 978-3-939355-68-7, 2012, pp. 131-155 (in English)

Minarechová, Z. – Čunderlík, R. – Mikula, K.: Finite Elements Solutions of Boundary Value Problems Relevant to Geodesy. In: 7th Hotine-Marussi Symposium on

Mathematical Geodesy: Proceedings of Rome, Italy, 6.-10.7.2009. Berlin: Springer Verlag, ISBN 978-3-642-22078-4, 2012, pp. 205-209 (in English)

Textbooks

Beganová, J. – Tereňová, Z.: Fundamentals of Computer Aided Programming, 1st edition, Bratislava: STU in Bratislava, 2012, ISBN 978-80-227-3671-8, 132 pp. (in Slovak)

Kalina, M.: Mathematics, Bratislava: STU Publisher, (CD-ROM), 2012, ISBN 978-80-227-3655-8, 297 pp. (in Slovak)

Kollár, J.: Solved Mathematical Exercises for Acceptance Test, Faculty of Management 2008-2011, Bratislava: Comenius University in Bratislava, 2012, ISBN 978-80-223-3200-2, 313 pp. (in Slovak)

Journals

Agahi, H. – Mesiar, R. – Ouyang, Y. – Pap, E. – Strboja, M.: General Chebyshev Type Inequalities for Universal Integral. In: Information Sciences, ISSN 0020-0255. – Vol. 187 (2012), pp. 171-178 (in English)

Agahi, H. – Mohammadpour, A. – Mesiar, R. – Mansour Vaezpour, S.: Liapunov-Type Inequality for Universal Integral. In: International Journal of Intelligent Systems. – ISSN 0884-8173. – Vol. 27, No.10 (2012), pp. 908-927 (in English)

Agahi, H. – Mesiar, R. – Ouyang, Y.: On Some Advanced Type Inequalities for Sugeno Integral and T- (S-) Evaluators. In: Information Sciences. – ISSN 0020-0255. – Vol. 190 (2012), pp. 64-75 (in English)

Bacigál, T.: Recent Tools for Modelling Dependence with Copulas and R. In: Forum Statisticum Slovacum. – ISSN 1336-7420. – Vol. 8, No. 1 (2012), pp. 62-67 (in English)

Bedregal, B. R. C. – Beliakov, G. – Bustince, H. – Calvo, T. – Mesiar, R. – Paternain, D.: A Class of Fuzzy Multisets with a Fixed Number of Memberships. In: Information Sciences. – ISSN 0020-0255. – Vol. 189 (2012), pp. 1-7 (in English)

Bodjanova, S. – Kalina, M.: Fuzzy Integral-Based T- and S-Evaluators. Shilkret and Choquet Integrals. In: Integration: Mathematical Theory and Applications. – ISSN 1948-5972. – Vol. 2, Issue 4 (2012), pp. 3-26 (in English)

Bodjanova, S. – Kalina, M.: Fuzzy Relations between Two Universes: Soft Assessments of R-Neighborhoods. In: Communications in Computer and Information Science. – ISSN 1865-0929. – Vol. 299, Advances in Computational Intelligence. Part III (2012), pp. 296-305 (in English)

Bustince, H. – De Baets, B. – Fernández, J. – Mesiar, R. – Montero, J.: A Generalization of the Migrativity Property of Aggregation Functions. In: Information Sciences. – ISSN 0020-0255. – Vol. 191 (2012), pp. 76-85 (in English)

Bustince, H. – Pagola, M. – Mesiar, R. – Hüllermeier, E. – Herrera, F.: Grouping, Overlap, and Generalized Bientropic Functions for Fuzzy Modeling of Parwise

Comparison. In: IEEE Transactions on Fuzzy Systems. – ISSN 1063-6706. – Vol. 20, No. 3 (2012), pp. 405-415 (in English)

Bystrický, R.: Different Approaches to Weighted Voting Systems Based on Preferential Positions. In: Kybernetika. – ISSN 0023-5954. – Vol. 48, No. 3 (2012), pp. 536-549 (in English)

Čunderlík, R. – Mikula, K.: Computational Methods for High-resolution Gravity Field Modelling and Nonlinear Diffusionfiltering. In: Journal of Geodesy. – ISSN 0949-7714. – Vol. 86, No.10 (2012), p. 912 (in English)

De Baets, B. – De Meyer, H. – Mesiar, R.: Binary Survival Aggregation Functions. In: Fuzzy Sets and Systems. – ISSN 0165-0114. – Vol. 191 (2012), pp. 83-102 (in English)

Eymard, R. – Handlovičová, A. – Mikula, K.: Approximation of Nonlinear Parabolic Equations Using a Family of Conformal and Non-conformal Schemes. In: Communications on Pure and Applied Analysis. – ISSN 1534-0392. – Vol.11, No. 1 (2012), pp. 147-172 (in English)

Fodor, J. – Klement, E. P. – Mesiar, R.: Cross-migrative Triangular Norms. In: International Journal of Intelligent Systems. – ISSN 0884-8173. – Vol. 27, No. 5 (2012), pp. 411-428 (in English)

Frolkovič, P.: Application of Level Set Method for Groundwater Flow with Moving Boundary. In: Advances in Water Resources. – ISSN 0309-1708. – Vol. 47 (2012), pp. 55-66 (in English)

Gagolewski, M. – Mesiar, R.: Aggregating Different Paper Quality Measures with a Generalized h-Index. In: Journal of Informetrics. – ISSN 1751-1577. – Vol. 6, No. 4 (2012), pp. 566-579 (in English)

Grannell, M.J. – Knor, M.: Biembedding Abelian Groups with Mates Having Transversals. In: Journal of Combinatorial Designs. – ISSN 1063-8539. – Vol. 20 (2012), pp. 81-88 (in English)

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Grannell, M.J. – Knor, M.: On the Number of Triangular Embeddings of Complete Graphs and Complete Tripartite Graphs. In: Journal of Graph Theory. – ISSN 0364-9024. – Vol. 69, Issue 1 (2012), pp. 370-382 (in English)

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Halčinová, L. – Hutník, O. – Mesiar, R.: On Distance Distribution Functions-Valued Submeasures Related to Aggregation Function. In: Fuzzy Sets and Systems. – ISSN 0165-0114. – Vol. 194 (2012), pp. 15-30 (in English)

Hliněná, D. – Kalina, M. – Král, P.: Generated Implications Revisited. In: Communications in Computer and Information Science. – ISSN 1865-

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- Jenča, G.: *Maps Supporting Compatibility in Effect Algebras*. In: *Mathematica Slovaca*. – ISSN 0139-9918. – Vol. 62, No. 3 (2012), pp. 363-378 (in Slovak)
- Kalická, J. – Kulla, T.: *Optimal Bandwidth in Nonparametric Regression*. In: *Forum Statisticum Slovacum*. – ISSN 1336-7420. – Vol. 8, No. 1 (2012), pp. 75-81 (in Slovak)
- Kalina, M.: *A Glance at Generated Implication Functions*. In: *Forum Statisticum Slovacum*. – ISSN 1336-7420. – Vol. 8, No. 1 (2012), pp. 82-86 (in English)
- Kalina, M.: *Mathematics and Physics in Slovakia, The Union of Czech Mathematicians and Physicists and the Union of Slovak Mathematicians and Physicists (JČMF and JSMF)*. In: *Advances in Mathematics, Physics and Astronomy*. – ISSN 0032-2423. – Vol. 57, No. 1 (2012), pp. 3-11 (in Slovak)
- Klement, E.P. – Mesiar, R.: *Copula-Based Integration of Vector-Valued Functions*. In: *Communications in Computer and Information Science*. – ISSN 1865-0929. – Vol. 300, *Advances in Computational Intelligence. Part IV* (2012), pp. 559-564 (in English)
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- Klement, E. P. – Mesiar, R.: *Discrete Integrals and Axiomatically Defined Functionals*. In: *Axioms*. – ISSN 2075-1680. – Vol. 1, No. 1 (2012), pp. 9-20 (in English)
- Klement, E. P. – Mesiar, R.: *On the Axiomatization of Some Classes of Discrete Universal Integrals*. In: *Knowledge-Based Systems*. – ISSN 0950-7051. – Vol. 28 (2012), pp. 13-18 (in English)
- Klouda, K. – Mesiar, R. – Štěpnička, M. – Masáková, Z.: *Special Issue: AAMP VIII and ISCAMI 2011*. In: *Kybernetika*. – ISSN 0023-5954. – Vol. 48, No. 3 (2012), pp. 357-360 (in English)
- Knor, M. – Potočník, P.: *Efficient Domination in Cubic Vertex-transitive Graphs*. In: *European Journal of Combinatorics*. – ISSN 0195-6698. – Vol. 33, No. 1 (2012), pp. 1755-1764 (in English)
- Knor, M. – Širáň, J. – Potočník, P. – Škrekovski, R. – Sikirić, M. D.: *Hyperbolic Analogues of Fullerenes on Orientable Surfaces*. In: *Discrete Mathematics*. – ISSN 0012-365X. – Vol. 312 (2012), pp. 729-736 (in English)
- Knor, M. – Škrekovski, R. – Potočník, P.: *On a Conjecture about Wiener Index in Iterated Line Graphs of Trees*. In: *Discrete Mathematics*. – ISSN 0012-365X. – Vol. 312, No. 6 (2012), pp. 1094-1105 (in English)
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- Kolesárová, A. – Stupňanová, A. – Mordelová-Beganová, J.: *Aggregation-Based Extensions of Fuzzy Measures*. In: *Fuzzy Sets and Systems*. – ISSN 0165-0114. – Vol. 194 (2012), pp. 1-14 (in English)
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- Kollár, J.: *Does It Make Sense to Use Autokey?* In: *Crypto-World*. – ISSN 1801-2140. – Vol. 14, Nos. 3-4 (2012), pp. 12-17 (in Slovak)
- Kollár, J.: *WW2 ČS Ciphers Part 10, "Utility"*. In: *Crypto-World*. – ISSN 1801-2140. – Vol. 14, No. 2 (2012), pp. 2-10 (in Slovak)
- Kollár, J.: *WW2 ČS Ciphers Part 11, "Palacký"*. In: *Crypto-World*. – ISSN 1801-2140. – Vol. 14, Nos. 3-4 (2012), pp. 2-12 (in Slovak)
- Komorník, J. – Komorníková, M.: *Reflections of Copulas and Their Applications in Modelling of Financial Data*. In: *Forum Statisticum Slovacum*. – ISSN 1336-7420. – Vol. 8, No. 1 (2012), pp. 12-19 (in English)
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- Komorníková, M.: *Utilization of Aggregation Functions in Constructions of Regime-switching Models*. In: *Forum Statisticum Slovacum*. – ISSN 1336-7420. – Vol. 8, No. 3 (2012), pp. 5 (in Slovak)
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- Li, J. – Mesiar, R. – Wu, H.: *On Weak Null-Additivity of Monotone Measures*. In: *Communications in Computer and Information Science*. – ISSN 1865-0929. – Vol. 300, *Advances in Computational Intelligence. Part IV* (2012), pp. 278-285 (in English)
- Macbeth, H. – Šiagiová, J. – Širáň, J.: *Cayley Graphs of Given Degree and Diameter for Cyclic, Abelian, and Metacyclic Groups*. In: *Discrete Mathematics*. – ISSN 0012-365X. – Vol. 312, No. 1 (2012), pp. 94-99 (in English)
- Mesežnikov, D.: *A Construction of Large Graphs of Diameter Two and Given Degree from Abelian Lifts of Dipoles*. In: *Kybernetika*. – ISSN 0023-5954. – Vol. 48, No. 3 (2012), pp. 518-521 (in English)
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- Sabo, M. – Nánásiová, O.: Clustering by Two Methods Simultaneously. In: *Forum Statisticum Slovacum*. – ISSN 1336-7420. – Vol. 8, No. 1 (2012), pp. 87-93 (in English)
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- Sabo, M. – Hajdúková, T.: Identification of the True Number of Perpetrators Using DNA Analysis. In: *Criminalists*. – ISSN 1210-9150. – Vol.45, No. 2 (2012), pp. 142-147 (in Slovak)
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- Stupňanová, A.: A Note on Decomposition Integrals. In: *Communications in Computer and Information Science*. – ISSN 1865-0929. – Vol. 300, *Advances in Computational Intelligence. Part IV* (2012), pp. 542-548 (in English)
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DEPARTMENT OF PHYSICS

Head of Department

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Physics I

Physics II

Physics III

Physics (English)

Optional Subjects

Engineering Thermodynamics

1.2 Postgraduate courses

Physical Principles of Measurements

Special Aspects of Physics

Modelling Transport Phenomena

Physical Fields, Waves

Heat and Moisture Transport in Building Materials

2. RESEARCH

2.1 Research projects

Determination of the Physical Characteristics of Infiltration and Contaminant Transport with Adsorption in Porous Media (2011 – 2014, KAČŮR, J.) APVV-0743-10

2.2 International cooperation

Cooperating institutions

Faculty of Civil Engineering, Czech Technical University, Prague, Czech Republic

Silesian University of Technology, Gliwice, Poland

Faculty of Civil Engineering, Technical University, Brno, Czech Republic

Institute of Theoretical and Applied Mechanics of the ASCR, Prague, Czech Republic

Cracow University of Technology, Poland

Military University of Technology, Warsaw, Poland

Katholieke Universiteit Leuven, Belgium

University of Liberec, Czech Republic

Membership in international professional organizations

Baník, I.: European Physical Society

Lukovičová, J.: European Physical Society

Lukovičová, J.: European Society for the Study of Science and Theology

Lukovičová, J.: International Council for Research and Innovation in Building and Construction–W 40

3. PUBLICATIONS

Parts of Books

Baník, I.: Disordered Semiconductors as Multi-purpose Materials in Research and in Practice. In: Applications of Physical Research in Engineering: Renewable Energy Sources and Physical Properties of Selected Industrial Materials. Part I. – Nitra: Slovak University of Agriculture in Nitra, 2012. – ISBN 978-80-552-0839-8. – pp. 63-82 (in English)

Veselský, J. – Lukovičová, J. – Pavlendová, G.: Measurement of the Thermal Properties of Building Materials. In: Applications of Physical Research in Engineering: Renewable Energy Sources and Physical Properties of Selected Industrial Materials. Part I. – Nitra: Slovak University of Agriculture in Nitra, 2012. – ISBN 978-80-552-0839-8. – pp. 113-138 (in English)

Journals

Baník, I.: On the Relation of the Meyer -Neldel Rule and the Urbach Rule (From the Point of View of the Barrier-Cluster Model). In: Journal of Optoelectronics and Advanced Materials. – ISSN 1454-4164. – Vol. 14, No. 9-10 (2012), pp. 711-716 (in English)

Baník, I. – Lukovičová, J.: The Generalized Non-Stationary Regime in the Measurement of Thermo-Physical Parameters. In: Journal of Physical Science and Application. – ISSN 2159-5348. – Vol. 2, No. 2 (2012), pp. 34-39 (in English)

Podoba, R. – Trník, A. – Podobník, L.: Upgrading of TGA/DTA Analyzer Derivatograph. In: Építőanyag. – Roč.64, č. 1-2 (2012), pp. 28-29 (in English)

Conferences

Podoba, R. – Trník, A. – Sokolář, R. – Štubňa, I.: DTA and DSC of Waste Calcite – Clay Ceramics Materials. In: Proceedings of 34th International Czech and Slovak Calorimetric Seminary. Harrachov, Krkonoše, Czech Republic, 28. 5.-1. 6. 2012. – Pardubice: University of Pardubice, 2012. – ISBN 978-80-7395-491-8. – pp. 69-72 (in Slovak)

Baník, I. – Lukovičová, J. – Pavlendová, G.: Unsolved Problems in Physics of Chalcogenide Glasses and the Barrier-Cluster Model. In: Proceedings of Thermophysics 2012: 17th International Meeting of Thermophysical Society, 31 Oct. to 2. Nov. 2012, Podkylava, Slovak Republik. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4599-4. – pp. 10-22 (in English)

Podobník, L. – Podoba, R. – Štubňa, I. – Bačík, P. – Lukovičová, J.: The Firing Temperature of Gothic Bricks from Pác. In: Proceedings of Thermophysics 2012: 17th International Meeting of Thermophysical Society, 31 Oct. to 2. Nov. 2012, Podkylava, Slovak Republik. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4599-4. – pp. 192-197 (in English)

Pavlendová, G. – Baník, I. – Sarkar, B. K. – Verma, A.: Electronic and Thermal Properties of Zinc Chalcogenides Based on Density Function Theory. In: Proceedings of Thermophysics 2012: 17th International Meeting of Thermophysical Society, 31 Oct. to 2. Nov. 2012, Podkylava, Slovak Republik. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4599-4. – pp. 198-206 (in English)

Podoba, R. – Trník, A. – Štubňa, I.: DC Conductivity of Waste Calcite – Clay ceramics in the Temperature Range of 20-1050C. In: Proceedings of Thermophysics 2012: 17th International Meeting of Thermophysical Society, 31 Oct. to 2. Nov. 2012, Podkylava, Slovak Republik. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4599-4. – pp. 186-191 (in English)

Podoba, R. – Štubňa, I.: Geometric Factor for Conversion of Electrical Resistance into Resistivity. In: Proceedings of Scientia iuvenis: Book of Scientific Papers. – Nitra: Constantine the Philosopher University in Nitra, 2012. – ISBN 978-80-558-0120-9. – S. 386-391 (in English)

Podoba, R. – Štubňa, I. – Lukovičová, J. – Podobník, L.: The Firing Temperature of Romanesque Brick from Pác. In: Proceedings of IX. International Scientific Conference of the Faculty of Civil Engineering: Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical University in Košice, 2012. – ISBN 978-80-553-0905-7. – [electronic form, unpag.]. (in English)

Baník, I. – Pavlendová, G. – Lukovičová, J. – Podoba, R.: Problems in Teaching Physics at Technical Universities. In: Proceedings of Physics Conference TIM – 12: Abstract Book. Timisoara, Romania, 27.-30.11.2012. – 2012. – pp. 65 (in English)

Baník, I. – Lukovičová, J. – Pavlendová, G. – Podoba, R.: Some Open Problems in the Physics of Disordered Materials. In: Proceedings of Physics Conference TIM – 12: Abstract Book. Timisoara, Romania, 27.-30.11.2012. – 2012. – pp. 40 (in English)

Lukovičová, J. – Pavlendová, G. – Baník, I. – Podoba, R.: The Influence of Moisture on the Poroelastic Parameters of Porous Building Material. In: Proceedings of Physics Conference TIM – 12: Abstract Book. Timisoara, Romania, 27.-30.11.2012. – 2012. – pp. 25 (in English)

Podoba, R. – Štubňa, I.: Geometric Factor for the Conversion of Electrical Resistance into Resistivity. In: Proceedings of Scientia iuvenis: Nitra: Constantine the Philosopher University in Nitra, 2012. – ISBN 978-80-558-0120-9. – pp. 386-391 (in English)

DEPARTMENT OF STRUCTURAL MECHANICS

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Building Analysis

Interaction of Structures and Foundations

Non-Linear Mechanics

Plane and Spatial Structures

Special Problems in Dynamics and Statics

Statics

Statics (English)

Structural Analysis

Structural Dynamics

Structural Mechanics

Structural Mechanics (English)

Structural Mechanics I

Theory of Elasticity

Theory of Elasticity (English)

Theory of Elasticity I

Theory of Elasticity II

Optional subjects

Aeroelastics

Life Span and Reliability of Structures

Modelling Subgrades

Seismic Engineering

Recommended subjects

Automation in Non-Linear Structural Analysis

Automation in Structural Dynamics

Automation in the Statics of Structures

CAD in the Design of Structures

Plasticity Analysis of Structures

Stability of Structures

Statics of Reconstructions

Structural Modelling Using FEM

Use of Computers in Civil Engineering

Viscoelasticity of Structural Systems

2. THESES

2.1 Bachelor theses

There were 12 works.

2.2 Graduate theses

Palaj, L.: 52-Storey High-Rise Building

Supervisor: Sokol, M.

Gogová, Z.: Analysis of Seismic Risk in Slovakia from the Viewpoint of the Vulnerability of Buildings

Supervisor: Sokol, M.

Baláž, L.: Static and Dynamic Analysis of a High-Rise Administrative Building

Supervisor: Jendželovský, N.

Štens, L.: Static Calculation of a Building Considering Its Foundation

Supervisor: Jendželovský, N.

Novosád, M.: Analysis of Wind Effects Acting upon the Kamzík Television Transmission Tower

Supervisor: Marton, P.

Kováčiková, J.: Static and Dynamic Analysis of a High-Rise Building

Supervisor: Ivánková, O.

Olekšáková, I.: Static and Dynamic Analysis of a High-Rise Building

Supervisor: Ivánková, O.

2.3 Doctoral theses

Šimiček, J.: Aerodynamic Effects in the Flux of Irregularly Shaped Solids

Supervisor: Hubová, O.

3. RESEARCH

3.1 Research projects

Optimal Structural Design in Terms of Failure Analysis with an Emphasis on Aspects of the Reliability and Durability of Structures (2012 – 2014, IVÁNKOVÁ, O.), VEGA 1/1186/12

Non – Destructive Methods for Identification of the Quality of Engineering Constructions (2012 – 2014, JENDŽELOVSKÝ, N.), VEGA 1/0629/12

Reliability of Structures under the Effects of Accidental Loads. Increase in the Safety of Nuclear Power Plants (2012 – 2014, KRÁLIK, J.), VEGA 1/1039/12

Monitoring Structural Health Using Dynamic Tests and Smart Systems for Dynamic Structural Response Control (2011 – 2013, SOKOL, M.), VEGA 1/1119/11

3.2 International cooperation

Cooperating institutions

Civil Engineering Institute of the Polish Academy of Science, Warsaw, Poland

Technical University of Opole, Poland

Silesian University of Technology, Gliwice, Poland

Cracow University of Technology, Poland

Fakultät der Bauingenieurwesen Ruhr-Universität, Bochum, Germany

Bundesforschung und Prufzentrum, Arsenal, Vienna, Austria

Czech Academy of Sciences, Prague, Czech Republic

Technical University of Ostrava, Czech Republic

Brno University of Technology, Czech Republic

Czech Technical University in Prague, Czech Republic

Budapest University of Technology and Economics, Budapest, Hungary

Membership in international professional organizations

Koleková, Y.: Member of ÖGE Bridges and Building Structures, TU Vienna

Ravinger, J.: Member of Polish – Slovak Commission for Civil Engineering, Polish Academy of Sciences

Sokol, M.: Member of ÖGE Bridges and Building Structures, TU Vienna

Sokol, M.: Member of European Association for Earthquake Engineering

Sokol, M.: Member of Technical Committee CEN 250/ SC 8

4. PUBLICATIONS

Books

Prekop, L.: Nonlinear Analysis of Underground Walls in Their Interaction with a Subgrade. Slovak University of Technology in Bratislava, Bratislava 2012. 112 pp. ISBN 978-80-227-3825-5 (in Slovak)

Ravinger, J.: Stability & Vibration. Slovak University of Technology in Bratislava, 2012, ISBN 978-80-227-3703-6/2012, 135 pp. (in English)

Parts of books

Králik, J. – Králik, J. Jr.: Deterministic and Probability Analysis of the NPP Steel Bridge Resistance Due To Extreme Loads. In: Calculation and Experimental Methods in Applied Mechanics. Ústí nad Labem, J.E. Purkyně University 2012. ISBN 978-80-7414-377-9. pp. 145-152 (in English)

Králik, J.: Seismic Design of the SPARTEK Technology Verified with Real Earthquake in Chile. In: Calculation and Experimental Methods in Applied

Mechanics. Ústí nad Labem, J.E. Purkyně University 2012. ISBN 978-80-7414-377-9. pp. 153-160 (in English)

Ivánková, O. – Drobný, D.: Effects of Subsoil and Design of Stiffening Walls under Static and Dynamic Loads. In: Calculation and Experimental Methods in Applied Mechanics. Ústí nad Labem, J.E. Purkyně University 2012. ISBN 978-80-7414-377-9. pp. 137-144 (in Slovak)

Journals

Mistriková, Z. – Jendželovský, N.: Static Analysis of the Cylindrical Tank Resting on Various Types of Subsoil. Journal of Civil Engineering and Management, Vol. 18, No. 5 (2012), pp. 744-751. ISSN 1392-3730 print/ISSN 1822-3605 online (in English)

Králik, J. – Rozsár, M.: Probabilistic Safety Assessment of the Buildings Design Due to the Blast Load. AD ALTA, Journal of Interdisciplinary Research, Vol. 2, No. 1, 2012, pp.103-107. ISSN 1804-7890 (in English)

Máleková, V. – Jendželovský, N.: An Analysis of Contact Elements of Foundation Structures. Machines, Technologies, Materials, Vol. 6, Issue 7 (2012), pp. 60–64. ISSN 1313 – 0226 (in English)

Hubová, O.: Wind Effects upon the Light Halls with Cylindrical Roofs. GRANT Journal, Vol. 1, No. 1, May 2012, pp. 123-126. ISSN 1805-062X (in English)

Ivánková, O. – Olekšáková, I.: Impact of the Structural System and Enlargement of an Underground Floor on the Static and Dynamic Analysis of a High-Rise Building. Konstrukce, Vol. 11, No. 6, 2012, pp. 28–31. ISSN 1213-8762 (in Slovak)

Jendželovský, N.: Vibration of a Slab Construction on an Ice Stadium. Civil and Environmental Engineering, Vol. 8. No. 2, 2012, pp. 125-131. ISSN 1336-5835 (in Slovak)

Conference Proceedings

Ároch, R. – Sokol, M. – Forgács, J.: Non-Linear Analysis of a Joint under Cyclic Loading. In: Advances in Architectural, Civil and Environmental Engineering. Proceedings of 22nd PhD Student Conference, SvF STU Bratislava, Nov. 15, 2012, pp. 455-460. ISBN 978-80-227-3853-8 (in Slovak)

Baláž, I. – Koleková, Y.: Influence of Transverse Bending Moment in the Flange of Corrugated I-Girders. Elsevier Procedia Engineering 40 (2012), pp. 26-31. Proceedings of Steel Structures and Bridges 2012, Podbanské, Sept. 26-28, 2012. ISSN 1877-7058 (in English)

Baláž, I. – Koleková, Y.: Modified Generalized Beam Theory. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering. Košice, May 23 – 25, 2012. pp. 1-8. ISBN 978-80-553-0905-7 (in English)

Baláž, I. – Koleková, Y.: Structures with UGLI Imperfections. In: Proceedings of Engineering Mechanics 2012. Svatka, Czech Republic, May 14-17, 2012. pp. 18-19. ISBN 978-80-86246-39-0 (in English)

Baláž, I. – Koleková, Y.: Bending Moments due to Elastic Buckling Mode Applied as Uniform Global and Local Initial Imperfection of Frames. Elsevier Procedia

- Engineering 40 (2012), pp. 32-37. Proceedings of Steel Structures and Bridges 2012, Podbanské, Sept. 26-28, 2012. ISSN 1877-7058 (in English)
- Baláž, L. – Vyskoč, E.: Lessons Learned from the Design and Construction of the Circular Tanks Used in Biogas Management. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 237-240. ISBN 978-80-227-3786-9 (in Slovak)
- Baláž, L.: Analysis of EXOSKELET Structural System. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3-5, 2012, SvF STU Bratislava, pp. 233-236. ISBN 978-80-227-3786-9 (in Slovak)
- Baran, M. – Králik, J.: Analysis of a Blast Wave during an Explosion in the Interaction with a Rigid Structure. In: Proceedings of Juniorstav 2012. Brno, FAST VUT, 26 Jan. 2012. p. 263, ISBN 978-80-214-4393-8 (in Slovak)
- Drobný, D. – Ivánková, O.: Effects of the Shape of FEM Elements upon Modeling in Fracture Mechanics. In: Proceedings of Sustainability of Cultural Heritage in Science and Teaching. Telč, 13 Oct. 2012, 8 pp. ISBN 978-80-01-05135-1 (in Slovak)
- Drobný, D.: Analysis of the Fracture Parameters in Mechanics. In: Proceedings of Juniorstav 2012. Brno, FAST VUT, 26 Jan. 2012. p. 264. ISBN 978-80-214-4393-8 (in Slovak)
- Frydryšek, K. – Jančo, R. – Tvrďá, K.: Structures on Elastic Foundation Solved via SBRA Method – Part 1. In: Proceedings of 13th Conference on the Reliability of Structures, Prague, 25 May 2012, pp. 27-32. ISBN 978-80-261-0116-1 (in English)
- Hoľko, M. – Dický, J.: Plate Design Optimization. In: Advances in Architectural, Civil and Environmental Engineering. Proceedings of 22nd PhD Student Conference, SvF STU Bratislava, Nov. 15, 2012, pp. 118-125. ISBN 978-80-227-3853-8 (in Slovak)
- Hubová, O.: Build-Up Areas and Pedestrian Wind Comfort. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 191-194. ISBN 978-80-227-3786-9 (in English)
- Hubová, O.: Wind Action and Pedestrian Wind Comfort in Built-Up Areas. In: Proceedings of CzechSTAV 2012, Hradec Králové, Oct. 22-26, 2012, pp. 133–138. ISBN 978-80-905243-1 – 6 (in Slovak)
- Hubová, O.: Wind Effects on Light Steel Halls. In: Proceedings of 12th International Scientific Conference VSU 2012, Sofia, Bulgaria, June 7-8, 2012. Vol. I. pp. I-136-141. ISSN 1314-071X (in English)
- Hukel, D. – Marton, P.: Static Analysis of Three-Layer Sandwich Beams with the Matrix K 43V. In: Proceedings of Modeling in Mechanics 2012. Ostrava, May 30-31, 2012. pp. 27-30. ISBN 978-80-248-2694-3 (in English)
- Hukel, D. – Marton, P.: Static and Dynamic Analysis of Three-Layer Sandwich Beams with the Matrix K 63V. In: Proceedings of Modeling in Mechanics 2012. Ostrava, May 30-31, 2012. pp. 31-32. ISBN 978-80-248-2694-3 (in English)
- Hukel, D.: Nonlinear Analysis of Gas Tank under Extreme Temperature Load. In: Proceedings of Juniorstav 2012. Brno, FAST VUT, 26 Jan. 2012. p. 267. ISBN 978-80-214-4393-8 (in English)
- Ivánková, O. – Drobný, D.: Analysis of the Parameters of Fracture Mechanics. In: Proceedings of Dynamics of Rigid and Deformable Bodies 2012, Ústí nad Labem, Czech Republic, Oct. 10-12, 2012, 8 pp. ISBN 978-80-7414-500-0 (in Slovak)
- Ivánková, O. – Kováčiková, J.: Effects of a Building Foundation on the Deformation of a High-Rise Building. In: Proceedings of CzechSTAV 2012, Hradec Králové, Oct. 22-26, 2012, pp. 391–398. ISBN 978-80-905243-1-6 (in Slovak)
- Ivánková, O. – Kováčiková, J.: Effects of Foundation Conditions upon the Deformations of High-Rise Buildings. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 207-210. ISBN 978-80-227-3786-9 (in Slovak)
- Jendželovský, M. – Mistríková, Z.: Modeling and Analysis of Circular Foundation Plates. In: Proceedings of Concrete Days 2012, Bratislava, 25 – 26 Oct. 2012, pp. 305–310. ISBN 978-80-8076-104-2 (in Slovak)
- Jendželovský, N. – Prekop, L.: Nonlinear Analysis of Heterogeneous Beams. In: Proceedings of 12th International Scientific Conference VSU 2012, Sofia, Bulgaria, June 7-8, 2012. Vol. I. pp. I-195-198. ISSN 1314-071X (in English)
- Jendželovský, N. – Štiglic, M. – Tvrďá, K.: Analysis of Aircraft Impact to the Steel Structure WDI. In: Proceedings of 12th International Scientific Conference VSU 2012, Sofia, Bulgaria, June 7-8, 2012. Vol. I. pp. I-191-194. ISSN 1314-071X (in English)
- Jendželovský, N.: Analysis of a Layered Plate. In: Proceedings of 20th SVSFEM ANSYS Users' Group Meeting and Conference 2012, Přešov, Czech Republic, Oct. 17-19, 2012, 8 pp. ISBN 978-80-260-2722-5 (in Slovak)
- Jendželovský, N.: Dynamic Analysis of a Tank Tower. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering. Košice, May 23 – 25, 2012. pp. 1-6. ISBN 978-80-553-0905-7 (in Slovak)
- Jendželovský, N.: Dynamic Analysis of a Tank Tower. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 219-222. ISBN 978-80-227-3786-9 (in Slovak)
- Koleková, Y. – Baláž, L.: LTB Resistance of Beams Influenced by Plastic Reserve or Local Buckling. In: Proceedings of Engineering Mechanics 2012. Svratka, Czech Republic, May 14-17, 2012. pp. 160-161. ISBN 978-80-86246-39-0 (in English)
- Konečná, L. – Sokol, M.: Device for Impulse Load. In: Advances in Architectural, Civil and Environmental Engineering. Proceedings of 22nd PhD Student Conference, SvF STU Bratislava, Nov. 15, 2012, pp. 126-132. ISBN 978-80-227-3853-8 (in English)
- Králik, J. – Baran, M.: Deterministic and Probabilistic Analysis of the Accidental Torsion Effect to HRB Seismic Resistance. In: Proceedings of 12th International

- Scientific Conference VSU 2012, Sofia, Bulgaria, June 7-8, 2012. Vol. I. pp. II-258-264. ISSN 1314-071X (in English)
- Králik, J. – Baran, M.: Numerical Analysis of the Exterior Explosion Effects on the Buildings. In: Proceedings of International Conference on Civil Engineering Design and Construction (Science and Practice), Varna, Bulgaria, Sept. 13-15, 2012. pp. 306–311. ISSN 1314-6955 (in English)
- Králik, J. – Baran, M.: Protection of the Buildings against the Explosion Effects. In: Proceedings of 12th International Scientific Conference VSU 2012, Sofia, Bulgaria, June 7-8, 2012. Vol. I. pp. I-148-153. ISSN 1314-071X (in English)
- Králik, J. – Baran, M.: Simulation of Blast Wave Effects to a High-Rise Building Using Software AUTODYN. In: Proceedings of Modeling in Mechanics 2012. Ostrava, 30 – 31 May, 2012. pp. 35-36. ISBN 978-80-248-2694-3 (in English)
- Králik, J. – Baran, M.: Simulation of the Blast Wave Propagation Using Program AUTODYN. In: Proceedings of 4th International Young Scientist PhD Conference 2012. Košice, May 23 – 25, 2012. pp. 1-6. ISBN 978-80-553-0904-0 (in English)
- Králik, J. – Hukel, D.: Thermodynamic Analysis of a Reinforced Wall and a Steel Liner of the Bubbler Tower during the LOCA Accident. In: Proceedings of 4th International Young Scientist PhD Conference 2012. Košice, May 23 – 25, 2012. pp. 1-6. ISBN 978-80-553-0904-0 (in Slovak)
- Králik, J. – Klabník, M.: Deterministic and Probabilistic Analysis of Seismic and Fire Resistance of Cable Way Structures. In: Proceedings of Structura 2012, Ostrava, Nov. 8-9, 2012, pp. 28-33. ISBN 978-80-248-2879-4 (in English)
- Králik, J. – Klabník, M.: Analysis of a Suspension Support System Considering the Effects of Horizontal Loads. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 243-246. ISBN 978-80-227-3786-9 (in Slovak)
- Králik, J. – Králik, J. Jr. – Baran, M. – Hukel, D.: Heritage of the Accident in Fukushima for the Safety and Reliability Tests of NPP in Slovakia. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering. Košice, May 23 – 25, 2012. pp. 1-6. ISBN 978-80-553-0905-7 (in English)
- Králik, J. – Králik, J. Jr.: Deterministic and Probabilistic Analysis of Accidental Torsional Effects to Reinforced Concrete Tall Buildings. In: Proceedings of Dynamics of Rigid and Deformable Bodies 2012, Ústí nad Labem, Czech Republic, Oct. 10-12, 2012, 8 pp. ISBN 978-80-7414-500-0 (in English)
- Králik, J. – Králik, J. Jr.: Deterministic and Probabilistic Dynamic Analysis of the Soil-Foundation-Machine Interaction. In: Proceedings of 13th Conference on the Reliability of Structures, Prague, 25 May 2012, pp. 65-71. ISBN 978-80-261-0116-1 (in English)
- Králik, J. – Králik, J. Jr.: Deterministic and Sensitivity Analysis of the Soil-Foundation-Machine Dynamic Interaction. In: Proceedings of International Conference on Civil Engineering Design and Construction (Science and Practice), Varna, Bulgaria, Sept. 13-15, 2012. pp. 312–318. ISSN 1314-6955 (in English)
- Králik, J. – Králik, J. Jr.: Experimental and Numerical Nonlinear Analysis of Fire Resistance of Electrical Cable Support Structures in NPP. In: Proceedings of Modeling in Mechanics 2012. TU Ostrava, 30–31 May, 2012. pp. 33-34. ISBN 978-80-248-2694-3 (in English)
- Králik, J. – Králik, J. Jr.: Design of a Machine Foundation Considering Its Interaction with a Subgrade. In: Proceedings of Statics of Structures 2012. Piešťany, 14 – 15 Mar. 2012. pp. 55-68. ISBN 978-80-970037-3-9 (in Slovak)
- Králik, J. – Králik, J. Jr. – Baran, M. – Hukel, D.: Impact of Chernobil and Fukushima Accidents to Stress Tests for NPP in Slovakia. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 127-131. ISBN 978-80-227-3786-9 (in English)
- Králik, J. – Králik, J. Jr.: Comparison of Probabilistic Methods to Analyse Probability of Structural Failure Using ANSYS. In: Proceedings of 20th SVSFEM ANSYS Users' Group Meeting and Conference 2012, Přerov, Czech Republic, Oct. 17-19, 2012, 14 pp. ISBN 978-80-260-2722-5 (in English)
- Králik, J. – Králik, J. Jr.: Optimal Design of Steel Frame Bracing System under Seismic Loading Based on Energy Analysis. In: Proceedings of International Conference on Rehabilitation and Reconstruction of Buildings. Brno, Nov. 2012, p. 233. ISBN 978-82-02-02414-9 (in English)
- Králik, J.: A RSM Method for Nonlinear Analysis of Fire Resistance of Technology Support Structures in Accordance with Eurocode. In: Proceedings of 20th SVSFEM ANSYS Users' Group Meeting and Conference 2012, Přerov, Czech Republic, Oct. 17-19, 2012, 13 pp. ISBN 978-80-260-2722-5 (in English)
- Králik, J.: A RSM Method for Nonlinear Probabilistic Analysis of the NPP Reinforced Concrete Structures. In: Proceedings of Reliable Engineering Computing (REC 2012). Brno, Czech Republic, June 13-15, 2012. pp. 219-239. ISBN 978-80-214-4507-9 (in English)
- Králik, J.: Control Ageing Program and Optimization of NPP Lifetime. In: Proceedings of Structura 2012, Ostrava, Nov. 8-9, 2012, pp. 21-27. ISBN 978-80-248-2879-4 (in English)
- Králik, J.: Deterministic and Probabilistic Nonlinear Analysis of the Fire Resistance of a Cable Way in NPP. In: Proceedings of 13th Conference on the Reliability of Structures, Prague, 25 May 2012, pp. 33-38. ISBN 978-80-261-0116-1 (in English)
- Králik, J.: Deterministic and Probabilistic Nonlinear Analysis of Fire Resistance of Technology Devices in Accordance with Eurocode. In: Proceedings of International Conference on Civil Engineering Design and Construction (Science and Practice), Varna, Bulgaria, Sept. 13-15, 2012. pp. 470–476. ISSN 1314-6955 (in English)
- Králik, J.: Dynamic Analysis of Soil-Fluid-Tank Interaction Due to Earthquake Event. In: Proceedings of Dynamics of Rigid and Deformable Bodies 2012, Ústí nad Labem, Czech Republic, Oct. 10–12, 2012, 8 pp. ISBN 978-80-7414-500-0 (in English)
- Králik, J.: Methodology for the Assessment of the Seismic Resistance of Technological Blocks and Extensions of Buildings. In: Proceedings of Statics of

- Structures 2012. Piešťany, 14 – 15 Mar. 2012. pp. 115-126. ISBN 978-80-970037-3-9 (in Slovak)
- Králik, J.: Optimal Design of NPP Containment Protection against Fuel Container Drop. In: Proceedings of International Conference on the Rehabilitation and Reconstruction of Buildings. Brno, Nov. 2012, p. 234. ISBN 978-82-02-02414-9 (in English)
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- Mistrišková, Z.: Circular Plate on a Modified Winkler's Subsoil. In: Proceedings of 12th International Scientific Conference VSU 2012, Sofia, Bulgaria, June 7-8, 2012. Vol. I. pp. I-66-70. ISSN 1314-071X (in English)
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Tvrďá, K.: Beam – Probability and Safety. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 227-228. ISBN 978-80-227-3786-9 (in English)

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Tvrďá, K.: Reliability in Design of Circular Plate. In: Proceedings of Sustainability of Cultural Heritage in Science and Teaching. Telč, 13 Oct. 2012, 8 pp. ISBN 978-80-01-05135-1 (in English)

Tvrďá, K.: Stiffness Matrix for Beams on Elastic Foundation. In: Proceedings of Modeling in Mechanics 2012. TU Ostrava, 30 – 31 May 2012. pp. 39–40. ISBN 978-80-248-2694-3 (in English)

Véghová, I. – Sumeč, J.: Mechanical and Mathematical Aspects of the Limit Bearing Capacity of Structures. In: Proceedings of New Trends in the Statics and Dynamics of Buildings, Oct. 3 – 5, 2012, SvF STU Bratislava, pp. 223–226. ISBN 978-80-227-3786-9 (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

Binders

1.2 Postgraduate courses

Building Materials

Selected Chapters from Chemistry II

2. THESES

2.1 Graduate theses

Barta, J.: Industrial Floors.

Supervisor: Unčik, S.

Jančo, P.: Comparison of Selected Physical-Mechanical Properties of Various Types of Autoclaved Aerated Concrete.

Supervisor: Struhárová, A.

Kysela, L.: Influence of the Berament HT 5221 Superplasticizer on the Properties of Cement Composites.

Supervisor: Unčik, S.

Matulová, K.: Self-Leveling Cement Screeds.

Supervisor: Unčik, S.

Pápay, K.: Determination of the Thermal-Physical Properties of Autoclaved Aerated Concrete at Sub-zero Temperatures.

Supervisor: Struhárová, A.

Szabová, E.: Influence of Fly Ash on the Properties of Self-Leveling Cement Screeds.

Supervisor: Unčik, S.

Valašík, M.: Influence of Silica Fume on the Properties of Cement Composites.

Supervisor: Unčik, S.

3. RESEARCH

3.1 Research projects

Application of Admixtures Based on Zeolites and Bentonites for Modifying the Pore Structure of Roofing Tiles (2011-2013 ŠVEDA, M.), VEGA 1/0517/11

Correlative Relations between the Properties of Autoclaved Aerated Concrete and It's Use in the Process of Quality Management in Construction (2011-2013 UNČÍK, S.), VEGA 1/0472/11

3.2 International cooperation

Cooperating institutions

Faculty of Civil Engineering, Brno University of Technology, Czech Republic

Klokner Institute, ČVUT Prague, Czech Republic

Faculty of Civil Engineering, VŠB – Technical University of Ostrava, Czech Republic

4. PUBLICATIONS

Books

Bilčík, J. – Čičmanec, P. – Halaša, I. – Hubka, M. – Hudoba, I. – Offerman, J. – Pišťanská, L. – Priechodský, V. – Pullman, J. – Rojko, L. – Roth, T. – Unčik, S. – Vyskoč, A. – Ždanská, Z.: Guidelines for Watertight Concrete Structures – White Tanks. Bratislava: SKSI, 2012. 67 pp. ISBN 978-80-89113-90-3 (in Slovak)

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Unčík, S. – Nosek, K.: Effect of Rubber Granulate on the Basic Properties of Self-Leveling Screed. In: *Beton. Technologie – Konstrukce – Sanace*, ISSN 1213-3116. – Vol.12, No.3 (2012), pp. 67-69 (in Czech)

Conference Proceedings

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Janík, B. – Šveda, M.: Influencing Properties of a Brick Body by Chemical Additives. In: *Construmat 2012: Proceedings of 18th international conference*. Terchová – Štefanová, SR, 30.5.-1.6.2012. – Žilina: University of Žilina, 2012. – ISBN 978-80-554-0528-5. – pp. 12-19 (in Slovak)

Kerestúr, M. – Šveda, M.: The Use of Zeolite Dust in the Brick Industry. In: *Proceedings of CE – PhD 2012*. The first international conference for PhD students in civil engineering and architecture: Cluj-Napoca, Romania, 4.-7.11.2012. – Cluj-Napoca: Technical University of Cluj-Napoca, 2012 (in English)

Kerestúr, M.: Use of Zeolite Waste in the Brick Industry. In: *Juniorstav 2012: Proceedings of 14th international conference of Postgraduate Students*. Brno, CR, 26. 1. 2012. [CD-ROM]. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8 (in Slovak)

Kerestúr, M.: Zeolites. In: *Construmat 2012: Proceedings of 18th international conference*. Terchová – Štefanová, SR, 30.5.-1.6.2012. – Žilina: University of Žilina, 2012. – ISBN 978-80-554-0528-5. – pp. 20-21 (in Slovak)

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Kmecová, V.: New Superplasticizer for High Performance Concrete. In: *Juniorstav 2012: Proceedings of 14th international conference of Postgraduate Students*. Brno, CR, 26. 1. 2012. [CD-ROM]. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8 (in Slovak)

Kmecová, V. – Unčík, S.: Possibilities of Using Basalt Powder in the Production of Concrete. In: *Proceedings of Concrete Days 2012*. Bratislava, SR, 25.-26.10.2012. – Bratislava: STU in Bratislava, 2012. – ISBN 978-80-8076-104-2. – pp. 179-184 (in Slovak)

Ledererová, M.: Cement Composites and Recycled Aggregates. In: *RECYCLING 2012: Possibilities and Future of Waste Recycling from Buildings as a Source of Valuable Raw Materials*. Proceedings of 17th conference, Brno, ČR, 15.-16. 3. 2012. – Brno University of Technology, 2012. ISBN 978-80-214-4432-4. – pp. 114-120 (in English)

Ledererová, M.: Options and Use of Aggregate from Demolition Rubble. In: *Reuse of Materials for Construction Purposes: Proceedings of Conference with international participation*. Nový Smokovec, SR, 23.-25.4.2012. Košice: Dom techniky, 2012. ISBN 978-80-232-0316-5. – pp. 63-68 (in Slovak)

Ledererová, M.: Quality Building Materials and General Effect on Property Values. In: *Proceedings of 5th conference of Forensic Experts 2012*. Bratislava, SR, 15.-16. 6. 2012. - Bratislava: MABAG spol. s.r.o., 2012 [CD-ROM]. – ISBN 978-80-89113-93-4 (in Slovak)

Ledererová, M.: Quality Building Materials – Factors and Requirements of Their Properties and Their Impact on Service Life and Durability. In: *Testing and Quality in Civil Engineering 2012: Proceedings of Conference*, Brno, CR, 2.-3.10. 2012. – Brno, Brno University of Technology, 2012. ISBN 978-80-214-4578-9. – pp. 315-322 (in German)

Ledererová, M.: Recycled Materials from Construction and Demolition Waste. In: *Construmat 2012: Proceedings of 18th international conference*. Terchová – Štefanová, SR, 30.5.-1.6.2012. – Žilina: University of Žilina, 2012. – ISBN 978-80-554-0528-5. – pp. 31-36 (in Slovak)

Nosek, K. – Unčík, S.: The Possibility of the Utilization of Rubber Granulate Waste in the Production of Self-Leveling Screed. In: *RECYCLING 2012: Possibilities and*

- Future of Recycling Waste from Buildings as a Source of Valuable Raw Materials. Proceedings of 17th conference, Brno, ČR, 15.-16. 3. 2012. – Brno University of Technology, 2012. ISBN 978-80-214-4432-4. – pp. 165-170 (in Czech)
- Paulík, M. – Geisse, R. – Šveda, M.: Permitting and Implementation in a Comparison of Geodetic Activities. In: Proceedings of People, Buildings and the Environment 2012: International scientific conference. Lednice, CR, 7.-9. 11. 2012. [CD-ROM]. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4618-2. – pp. 341-349 (in English)
- Pavlík, V.: Pore Structure Characteristics and the Capillary Transport Properties of Some Mortars. In: Construmat 2012: Proceedings of 18th international conference. Terchová – Štefanová, SR, 30.5.-1.6.2012. – Žilina: University of Žilina, 2012. – ISBN 978-80-554-0528-5. – pp. 37-44 (in Slovak)
- Sabová, A. – Unčík, S.: Effect of Silica Fume on the Properties of Cement Mortars. In: Construmat 2012: Proceedings of 18th international conference. Terchová – Štefanová, SR, 30.5.-1.6.2012. – Žilina: University of Žilina, 2012. – ISBN 978-80-554-0528-5. – pp. 45-49 (in Slovak)
- Sabová, A. – Unčík, S.: Effect of Silica Fume on the Strength and Consistency of Cement Mortars. In: Proceedings of Concrete Days 2012. Bratislava, SR, 25.-26.10.2012. – Bratislava: STU in Bratislava, 2012. – ISBN 978-80-8076-104-2. – pp. 191-196 (in Slovak)
- Struhárová, A.: Chemical Grouting Method for Protection of Autoclaved Aerated Concrete Brickwork. In: Testing and Quality in Civil Engineering 2012: Proceedings of Conference, Brno, CR, 2.-3.10.2012. – Brno, Brno University of Technology, 2012. ISBN 978-80-214-4578-9. – pp. 247-252 (in English)
- Šveda, M. – Sokolář, R.: Absorption of Water and Irreversible Expansion of the Brick Body. In: Testing and Quality in Civil Engineering 2012: Proceedings of Conference, Brno, CR, 2.-3.10.2012. – Brno, Brno University of Technology, 2012. ISBN 978-80-214-4578-9. – pp. 259-266 (in English)
- Šveda, M.: VUPPOR 2 Chemical Additives based on Secondary Raw Materials. In: RECYCLING 2012: Possibilities and Future of Recycling Waste from Buildings as a Source of Valuable Raw Materials. Proceedings of 17th conference, Brno, ČR, 15.-16. 3. 2012. – Brno University of Technology, 2012. ISBN 978-80-214-4432-4. – pp. 121-126 (in English)
- Šveda, M. – Sokolář, R.: Frost Resistance of Roofing Tiles. In: 9th. International Scientific Conference of the Faculty of Civil Engineering: Košice, Slovak Republic, May 22-25, 2012. – Košice [CD-ROM]: Košice, The Technical University of Košice, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Šveda, M.: Irreversible Moisture Expansion of a Brick Body during Freeze-Thaw Cycles. In: Construmat 2012: Proceedings of 18th international conference. Terchová – Štefanová, SR, 30.5.-1.6.2012. – Žilina: University of Žilina, 2012. – ISBN 978-80-554-0528-5. – pp. 50-54 (in Slovak)
- Unčík, S. – Halaša, I.: Fly Ash Not Only for Concrete. In: Unbound and Hydraulically Bound Roadway Layers from Design to Construction. In: Proceedings of international conference. Podbanské, SR, 8.-10. 2. 2012. – The Slovak Chamber of Civil Engineers, 2012. – ISBN 978-80-232-0315-8. – pp. 74-77 (in Slovak)
- Unčík, S. – Matulová, K.: Influencing the Expanding Shrinkage of Concrete Admixtures. In: Proceedings of Concrete Days 2012. Bratislava, SR, 25.-26.10.2012. – Bratislava: STU in Bratislava, 2012. – ISBN 978-80-8076-104-2. – pp. 185-190 (in Slovak)
- Užáková, M.: Influence of Carbonation and Water Content on the Pore Structure of Lime Mortars. In: Construmat 2012: Proceedings of 18th international conference. Terchová – Štefanová, SR, 30.5.-1.6.2012. – Žilina: University of Žilina, 2012. – ISBN 978-80-554-0528-5. – pp. 55-60 (in Slovak)

DEPARTMENT OF BUILDING TECHNOLOGY

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1. EDUCATION

1.1 Graduate study

Mandatory subjects

Pre-Construction Design (TS)

Project Management (TS)

Technology of Concrete I. (TS)

Mandatory elective subjects

Construction Site Facility (TS)

Financial Management (TS)

Technology of Maintenance (TS)

Quality Management in Constructions (TS)

Strategy Management and Marketing (TS)

Testing (TS)

Field Trip (TS)

Thesis (TS)

Safety and Protection of Health in the Construction Process (TS)

Gym (TS)

Technology of Building Renovation I (TS)

Modelling of Construction Processes (TS)

Construction Chemistry II (TS)

Mortars I. (TS)

Microeconomy (TS)

Costs and Prices II. (TS)

Technology of Finishing Processes (TS)

Technology of Building Renovation II (TS)

Mortars II. (TS)

Technology of Construction Parts (TS)

Accounting and Control of Costs (TS)

Project Management II (TS)

Technology Project I. (TS)

Protection and Creation of the Environment (TS)

Ceramics (TS)

Flats Policy (TS)

Maintenance of Buildings (TS)

Mathematical Statistics (TS)

Pathology of Buildings (TS)

Engineering Networks (TS)

Selected Chapters from Physics (TS)

Basics of Management (TS)

Information Systems in the Construction Industry (TS)

Use of Computers in Technology Design (TS)

Globalism (TS)

Economic-Mathematical Optimisation Models (TS)

High-Rise and Wide-Span Steel-Concrete Constructions (TS)

Technology of Engineering Structures (TS)

Construction of Architecture (TS)

Economics of Renewal (TS)

Technology of the Reconstruction of Technical Facilities (TS)

Technology of Concrete (TS)

Steel and Wooden Loadbearing Systems (TS)

Forensic Activity (TS)

Construction Law (TS)

Built-up Constructions (TS)

Personnel Management (TS)

Ethics of Undertaking (TS)

Valuation of Estates (TS)

Technology of Historical Buildings (TS)

Land Law (TS)

Non-Destructive Testing (TS)

Space Economics (TS)

Technology of Water-Related Buildings (TS)

Financial Management II (TS)

Technology Project II (TS)

Technology of Construction Processes 1, 2, 3 (TMS)

Professional Practice (TMS)

Seminars for Bachelor Thesis (TMS)

Costs and Prices in the Construction Industry (TMS)

Protection of the Environment (TMS)

Final Work (TMS)

Construction of Buildings (TMS)

Field Trip (TMS)

Design of Architecture (TMS)

A Manager in the Construction Industry (TMS)

Construction Engineering in Praxis (TMS)

Safety and Protection of Health in the Construction Industry (TMS)

Technology and Management of Constructions (IŽP)

Technology of Construction Processes I (PSA)
 Technology of Construction Processes II (PSA)
 Construction of Buildings (PSA)
 Quality Management in the Construction Industry (AKP)
 Technological Processes in Technical Facilities (TZB)
 System Management of Quality (TPB)
 Protection and Renovation of Architectural Monuments II (PSA)
 Historical Construction Technologies (PSA)
 Technology of Construction Processes (IKDS)

In English

Building Technology (CE)
 Quality Management in CE (CE)
 Renovation of Buildings (CE)
 Technology of Traditional Buildings (CE)

1.2 Postgraduate Courses

Technology of Construction

Subjects

Technology of Construction
 Postgraduate Study Project I-VII
 Pedagogic Activity
 Scientific and Publication Activity
 PhD Theses

2. THESES

2.1 Bachelor theses

There were 90 works.

2.2 Graduate theses

Almási, R.: Trenčianska Riviéra Residential House.
 Supervisor: Božík, M.

Balášová, V.: Parking Garage for TOWER 115 in Bratislava.
 Supervisor: Gašparík, J.

Bernátová, A.: Classical Mansion in Bučany – Preparation for Renewal.
 Supervisor: Makýš, O.

Bognárová, V.: Outdoor Parking – Shopping Centre.
 Supervisor: Bizub, J.

Bučka, R.: Ice Stadium – Skating Training Rink.
 Supervisor: Božík, M.

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- Šmotlák, M.: Technological Lags after Wet Processes. In: Proceedings of Juniorstav 2012: 14th Experts Conference of the PhD Study with international participation, Brno (CZ): University of Brno, ISBN 978-80-214-4393-8 (in Slovak).
- Tarábková, L. – Kováčik, O.: Analysis of Inputs in Terms of Creating a Safe Software. In: Proceedings of Juniorstav 2012: 14th Experts Conference of PhD Study with International Participation. Brno (CZ): University of Brno, ISBN 978-80-214-4393-8 (in Slovak).
- Tarábková, L. – Kováčik, O.: Improvement in the Management System of Health Protection And Safety in Construction Companies. In: Proceedings of Young Scientist 2012: 4th PhD. Student Conference of Civil Engineering and Architecture, Košice (SR): Technical University in Košice, ISBN 978-80-553-0904-0 (in Slovak).
- Tarábková, L. – Kováčik, O.: Infiltration of Health and Safety into Education within Workplaces. In: Proceedings of CzechSTAV 2012: Trends in the Construction Industry, Hradec Králové (ČR): Magnanimitas, ISBN 978-80-905243-1-6 (in Slovak).

DEPARTMENT OF SANITARY AND ENVIRONMENTAL ENGINEERING

Head of Department

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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 Engineering and Infrastructure 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 Water Supply and Water Treatment Chapters
Selected Sewerage and Waste Water Treatment Chapters
Spas and Mineral Waters
Special Excursion
Special Seminar
Realization 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

1.2 Postgraduate courses

Hydrochemistry and Hydrobiology
Water Pollution Control
Sanitary Engineering Structures
Water Supply Systems
Water Treatment for Drinking and Industrial Use
Balneology
Horizontal and Vertical Intake Structures
Waste Water Collection
Rehabilitation of Old Waste Disposal Sites
Protection and Utilization of Water Resources
Waste Water Treatment
Solid Waste Treatment

2. THESES

2.1 Bachelor theses

There were 33 works.

2.2 Graduate theses

Béder, M.: Hydraulic Evaluation of Sewer "C" of the Sewage System in the City of Bratislava

Supervisor: Sokáč, M.

Csóka, P.: Disposal of Iron and Manganese from Water

Supervisor: Ilavský, J.

Hrudka, J.: Study of the Design of the Sewage System in the Village of Hrabovka

Supervisor: Rusnák, D.

Klubník, M.: Proposed Waste Water Disposal in the Village of Studienka

Supervisor: Mahříková, I.

Kubačka, J.: Mathematical Modelling of a WWTP Structure,
Supervisor: Stanko, Š.

Kuzma, D.: Water Supply in the Village of Dohňany
Supervisor: Kriš, J.

Mohler, M.: Design of the Water System in the Villages of Mestečko and Záríečie
Supervisor: Barloková, D.

Molnárová, L.: Design of Waste Water Disposal in the Town of Komárno
Supervisor: Rusnák, D.

Sedláčková, L.: Design of Engineering Networks
Supervisor: Božiková, J.

Staník, V.: Proposed Closing and Revitalisation of a Communal Landfill
Supervisor: Škultétyová, I.

Turzová, B.: Present Methods of Waste Water Disposal in Small Urban Areas
Supervisor: Mahříková, I.

2.3 Doctoral theses

Berta, P.: Extension of Pollution in Surface Waters
Supervisor: Sokáč, M.

Bronišová, M.: Assessment of Sewage Networks, Background for Renewal Plans of Sewage Systems
Supervisor: Rusnák, D.

Galbová, K.: Water Regime of a Communal Landfill
Supervisor: Škultétyová, I.

Galík, M.: Analysis of the Assessment of Water Distribution Systems
Supervisor: Kriš, J.

Hanková, M.: Reconstruction of Water Systems
Supervisor: Kriš, J.

Hanusová, A.: Water Filtration in a Multi – Material Basin
Supervisor: Ilavský, J.

Hrudka, J.: Dynamic Modelling of WWTP Structures
Supervisor: Stanko, Š.

Holubec, M.: Mathematical Modeling of Pipe Line Systems
Supervisor: Kriš, J.

Hurban, L.: Using Statistics in the Risk Assessment Analysis of Water Networks
Supervisor: Božiková, J.

Chabál, L.: Optimization of the Design of Pumping Stations
Supervisor: Rusnák, D.

Kunštek, M.: The Changes in the Water Quality of Distribution Systems
Supervisor: Ilavský, J.

Molnár, K.: Impact of Pressure Zonation of Water Networks for the Elimination of Water Losses
Supervisor: Božiková, J.

Molnár, T.: Optimization and Modernization of Technological Processes Used in Water Treatment
Supervisor: Barloková, D.

Molnárová, L.: Optimization of the Operation of a Sewage System
Supervisor: Stanko, Š.

Némeš, P.: Material Impact of a Flow Regime on Losses in Water Networks
Supervisor: Božiková, J.

Pikorová, T.: Decentralized Waste Water Treatment Using Membrane Technology
Supervisor: Rusnák, D.

Staník, V.: Reverse Logistics in Waste Management
Supervisor: Škultétyová, I.

Turzová, B.: Rain Water Disposal in Urban Areas
Supervisor: Stanko, Š.

3. RESEARCH

3.1 Research projects

Integrated Solution for the Renewal of the Sanitary Infrastructure of Urban Residences. Its Reliability and Impact on the Environment (KRIŠ, J.), VEGA 1/1143/11

Disposal of the Waters from Surface Runoff in an Integrated Drainage System in Urban Areas (STANKO, Š.), VEGA 1/1079/12

Quantification of the Simulated Effect of Input Data and Model Parameters on the Accuracy of the Outputs of Dispersion Models for Surface Water (SOKÁČ, M.), APVV-0274-10

Natural Materials for the Removal of Harmful Compounds from the Environment (BARLOKOVÁ, D.), VEGA 1/1243/12

Master Training Network for Water Resources Management Technologies – Netwater (KRIŠ, J.), TEMPUS Project No. 15311-TEMPUS-IT-TEMPUS-JPCR

Towards Sustainable Water Resources Management in Central Asia – Swan (KRIŠ, J.), TEMPUS Project No. 158982-TEMPUS-ES-TEMPUS-JPCR

3.2 International cooperation

Cooperating institutions

Technical University, Prague, Czech Republic

Technical University, Brno, Czech Republic

Technical University, Vienna, Austria

Universität für Bodenkultur, Vienna, Austria
 Danish Hydraulic Institute, Horsholm, Denmark, and Prague, Czech Republic
 National Water Research Institute, Burlington, Canada
 Instytut Inżynierii Sanitarnej i Ochrony Środowiska, Politechnika Czeszochowska, Czeszochowa, Poland
 Hokkaido University, Sapporo, Japan
 University of Pavia, Pavia, Italy
 University of Pavia, Pavia, Italy
 Tambov State Technical University, Russia
 Vladimir State University, Russia
 Yerevan State Engineering University, Armenia
 Engineering Academy of Armenia

Membership in international professional organizations

Barloková, D.: Member of Czechoslovak Association of Water Experts
 Ilavský, J.: Member of Czechoslovak Association of Water Experts
 Kriš, J.: Member of International Water Association, London, official member of National Board Committee
 Mahříková, I.: Member of International Water Association London, official member of National Board Committee
 Mahříková, I.: International Member of Engineering Academy of Armenia

4. PUBLICATIONS

Parts of books

Ghawi, A. H. – Kriš, J.: A Computational Fluid Dynamics Model of Flow and Settling in Sedimentation Tanks. In: Applied Computational Fluid Dynamics. – Rijeka: InTech, 2012. ISBN 978-953-51-0271-7, pp. 19-35 (in English)

Journals

Barloková, D. – Ilavský, J.: Modified Clinoptilolite in the Removal of Iron and Manganese from Water. In: Slovak Journal of Civil Engineering. – ISSN 1210-3896. – Vol. 20, No. 3 (2012), pp. 1-8 (in English)

Barloková, D. – Ilavský, J.: Removal of Humic Substances in Water by Coagulation. In: Food and Environment Safety. – ISSN 2068-6609. – Vol. 11, No. 3 (2012), pp. 31-36 (in English)

Dubová, V. – Ilavský, J. – Barloková, D.: Interaction of Transported Water and Piping Material – Evaluation of Corrosion Tests. In: Vodní hospodářství. – ISSN 1211-0760. – Vol. 62, No. 1 (2012), pp. 19-22 (in Slovak)

Holubec, M. – Stanko, Š. – Škultétyová, I. – Mahříková, I. – Galbová, K.: Analysis of WWTP Facilities Using CFD Methods. "Ovidius" University Annals – Constantza: Series: Civil Engineering – ISSN 1584-5990. – Vol. 14, No. 14. pp. 35-40 (in English)

Ilavský, J. – Barloková, D.: Analysis of Chlorinated Phenols in Water. In: Food and Environment Safety. – ISSN 2068-6609. – Vol. 11, No. 3 (2012), pp. 5-14 (in English)

Ilavský, J. – Barloková, D.: The Use of Granular Iron-based Sorption Materials for Nickel Removal from Water. In: Polish Journal of Environmental Studies. – ISSN 1230-1485. – Vol. 21, No. 5 (2012), pp. 1229-1236 (in English)

Mahříková, I.: AQUA 2012. In: Vodohospodársky spravodajca. – ISSN 0322-886X. – Vol. 55, Nos. 9-10 (2012), pp. 9-10 (in Slovak)

Mahříková, I.: Enough Water for Food Security. In: Vodohospodársky spravodajca. – ISSN 0322-886X. – Vol. 55, Nos. 3-4 (2012), pp. 3-4 (in Slovak)

Stanko, Š. – Mahříková, I. – Škultétyová, I. – Galbová, K. – Holubec, M.: Hygienic Inspection: the Last Step of Waste Water's Sludge Treatment. "Ovidius" University Annals – Constantza: Series: Civil Engineering. – ISSN 1584-5990. – Vol. 14, No. 14 (2012), pp. 193-198 (in English)

Stanko, Š. – Škultétyová, I. – Mahříková, I. – Molnár, K.: Water Supply and Sewerage Security in the Time of Extreme Climatic Conditions. "Ovidius" University Annals – Constantza: Series: Civil Engineering. – ISSN 1584-5990. – Vol. 14, No. 14. (2012). pp. 187-192 (in English)

Škultétyová, I. – Stanko, Š. – Kriš, J.: Water versus Food. In: Vodohospodársky spravodajca. – ISSN 0322-886X. – Vol. 55, Nos. 5-6 (2012), pp. 23-27 (in Slovak)

Velísková, Y. – Sokáč, M. – Halaj, P. – Kováčová, V.: The Importance of Hydraulic and Geometric Parameters of the Flow in the Hydrodynamic Modeling of Transverse Dispersion. In: Acta Hydrologica Slovaca. – ISSN 1335-6291. – Vol. 13, No. 1 (2012), pp. 81-89 (in Slovak)

Conference Proceedings

Barloková, D. – Ilavský, J. – Molnár, T.: Characteristics and Utilization of Filtration Materials in Water Treatment. In: Proceedings of Young Scientist 2012 [CD]: 4th PhD. Student Conference of Civil Engineering and Architecture. Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical Univerzity Košice, 2012. – ISBN 978-80-553-0904-0 (in English)

Barloková, D. – Ilavský, J. – Molnár, T.: Removal of Nickel from Water with Iron-based Sorption Materials. In: Proceedings of Drinking Water 2012. 11th International conference. Tábor, Czech Republic, 21.-24.5.2012. – České Budějovice: W&ET Team, 2012. – ISBN 978-80-905238-0-7. – pp. 169-174 (in Slovak)

Berta, P. – Sokáč, M.: Analysis of the Results of Dispersion Models in Surface Flow. In: Proceedings of Young Scientist 2012 [CD]: 4th PhD. Student Conference of Civil Engineering and Architecture. Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical University Košice, 2012. – ISBN 978-80-553-0904-0 (in Slovak)

Božiková, J. – Kriš, J.: Mineral Waters in Slovakia. In: Urban Engineering Karlovy Vary 2012. Spa and City: Proceedings of 17th International conference. Karlovy Vary, Czech Republic, 8.6.2012. – Prague: ČKAIT, 2012. – ISBN 978-80-87438-25-1. – pp. 128-135 (in German)

- Božíková, J. – Božík, M. – Stanko, Š. – Škultétyová, I.: Revitalisation of New Natural Spas. In: Proceedings of Urban Engineering Karlovy Vary 2012. Spa and City: 17th International Conference. Karlovy Vary, Czech Republic, 8.6.2012. – Prague: ČKAIT, 2012. – ISBN 978-80-87438-25-1. – pp. 120-125 (in German)
- Dubová, V.: Effect of Corrosion on the Service Life of a Water Supply Pipeline. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [CD]: Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical University, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Dubová, V.: Experimental Monitoring of the Corrosion Velocities in the Pernek Water Source. In: Proceedings of 44th Conference of Water Managers in Industry, Liptovský Ján, Nov. 2012. Bratislava: STU Bratislava, 2012. – ISBN 978-80-227-3809-5. pp. 224-230 (in Slovak)
- Galík, M.: Assessment of a Distribution System with Regard to Water Losses. In: Proceedings of AQUA 2012: Reliability and Safety of Water Systems in Extreme Conditions. International Scientific Conference. Trenčín, June, 2012. – Bratislava: Publisher STU, 2012. – ISBN 978-80-227-3718-0. – pp. 79-87 (in Slovak)
- Hanková, M.: Defective Water Systems. In: Proceedings of Juniorstav 2012 [CD]: 14th PhD. Student International Conference. Brno, Czech Republic, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8 (in Slovak)
- Holubec, M.: Modeling Fluids with ANSYS Fluent Simulation Software. In: Proceedings of Juniorstav 2012 [CD]: 14th PhD. Student International Conference. Brno, Czech Republic, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8 (in Slovak)
- Ilavský, J. – Barloková, D. – Munka, K. – Brtko, J. – Varga, S. – Karácsonyová, M.: Effect of a Magnetic Field on Iron-Based Sorbents for the Removal of Antimony from Water. In: Proceedings of Drinking Water 2012. 11th International Conference. Tábor, Czech Republic, 21.-24.5.2012. – České Budějovice: W&ET Team, 2012. – ISBN 978-80-905238-0-7. – pp. 175-180 (in Slovak)
- Ilavský, J. – Barloková, D. – Munka, K. – Brtko, J. – Varga, S. – Karácsonyová, M.: Evaluation of the Adsorption of Antimony in the Height of Filter Media for GEH and CFH18 Sorption Materials. In: Proceedings of 16th International Conference on Water Zlín 2012. Zlín, Czech Republic, 15.-16.3.2012. – ISBN 978-80-260-1468-3. – pp. 59-64 (in Slovak)
- Koleníková, D. – Sokáč, M.: Hydrological Function of Green Roofs in Urban Areas. In: Proceedings of Juniorstav 2012 [CD]: 14th PhD. Student International Conference. Brno, Czech Republic, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8 (in Slovak)
- Kriš, J. – Hanková, M. – Brtko, J.: Groundwater Quality and Protection in the Slovak Republic. In: Proceedings of Water Supply and Water Quality. Tom I.: Poznań, Poland, 9.-12.9.2012. – Poznań: PZITS, 2012. – ISBN 978-83-89696-16-9. – pp. 505-522 (in English)
- Kriš, J. – Škultétyová, I. – Stanko, Š.: The Use of Thermal Waters in Slovakia. In: Proceedings of Urban Engineering Karlovy Vary 2012. Spa and City: 17th International Conference. Karlovy Vary, Czech Republic, 8.6.2012. – Prague: ČKAIT, 2012. – ISBN 978-80-87438-25-1. – pp. 37-46 (in German)
- Mahríková, I.: Innovative Methods by Sewage Sludge Hygienic Inspection. In: Proceedings of Urban Water 2012: International Conference. Velké Bílovice, Czech Republic, 5.10.2012. – Brno: ARDEC s.r.o., 2012. – ISBN 978-80-86020-75-4. – pp. 227-233 (in English)
- Mahríková, I.: New Methods by the Waste Water Sludge Treatment and Reuse. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [CD]: Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical University Košice, 2012. – ISBN 978-80-553-0905-7 (in English)
- Nemeš, P.: Optimisation of a Water Supply Network. In: Proceedings of Juniorstav 2012 [CD]: 14th PhD. Student International Conference. Brno, Czech Republic, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8 (in Slovak)
- Rusnák, D.: Calculation of the Volume of Sewage Tanks. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [CD]: Košice, Slovak Republic, and May 22-25, 2012. – Košice: Technical University Košice 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Sokáč, M. – Dubová, V.: The Results of the Measurements of the Lateral and Longitudinal Dispersion Coefficient of a Lowland Stream. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [CD]: Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical University Košice, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Stanko, Š.: Design of Sewer System by Autonomous System. In: Proceedings of 9th International Scientific Conference of the Faculty of Civil Engineering [CD]: Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical University Košice, 2012. – ISBN 978-80-553-0905-7 (in English)
- Stanko, Š. – Škultétyová, I.: Ensuring a Water Supply and Sewerage in Extreme Conditions. In: Proceedings of Water Forum 2012: 1st International Biennial Conference. Prague, Czech Republic, 29.-30.5.2012. – Brno: Exponex, s.r.o., 2012. – ISBN 978-80-7293-283-2. – pp. 31-35 (in Slovak)
- Škultétyová, I. – Galbová, K.: Separate Collection of Packaging Waste. In: Proceedings of 9th International Scientific Conference of Faculty of Civil Engineering [CD]: Košice, Slovak Republic, May 22-25, 2012. – Košice: Technical University Košice, 2012. – ISBN 978-80-553-0905-7 (in Slovak)
- Štefanec, B. – Sokáč, M.: Cost Analysis of GIS Systems and Possibilities for Their Use in a Water Company. In: Proceedings of Juniorstav 2012 [CD]: 14th PhD. Student International Conference. Brno, Czech Republic, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8 (in Slovak)
- Tóthová, K. – Haluska, J. – Gregorová, J.: Water Loss Prevention in a Large Water Supply System within the CENTROPE Region. In: Proceedings of Water Loss 2012 [CD]: Conference. Manila, the Philippines, 26.-29.2.2012 (in English)

DEPARTMENT OF BUILDING SERVICES

Head of Department

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Building Services I
Building Services II
Building Services III
Internal Water Piping
Internal Drainage
Heating I
Heating II
Design IV
Design V
Design VI
Air Conditioning
Sanitary Techniques
Water Delivery and Drainage
Computer Design Systems
Measurement and Control I
Measurement and Control II
Energy Supply of Buildings
Excursions
Building Control Systems
Special Seminar
Heating Systems
Industrial Installations
Renewable Energy in the Technical Equipment of Buildings
Ventilation and 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
Ph.D. Project I, II, III
Ph.D. Project IV, V, VI
Teaching I – IV
Sanitary Installations
Heating
Ventilation and Air Conditioning

2. THESES

2.1 Graduate theses

Belica, A.: Design and Calculation of Low-Temperature Heating with Heat Pumps for a Hotel
Supervisor: Petráš, D.

Bílik, J.: Divided Sewage Project for an Autocentre
Supervisor: Tonhauzer, I.

Bottová, E.: Realization of a Sewage Project in an Apartment Building and Its Grounds
Supervisor: Peráčková, J.

Greňa, P.: Application of a Control System for Buildings in a Low-Energy Building
Supervisor: Kalús, D.

Hanková, V.: Alternative Heating of Fresh Water in an Apartment Building
Supervisor: Peráčková, J.

- Hlíva, Š.: Recreational Area Heating Supply from Renewable Energy Sources
Supervisor: Petráš, D.
- Holičková, K.: Realization of Project of Selected Parts of Health-Technical Installation in a Multifunctional Dwelling
Supervisor: Peráčková, J.
- Jandura, M.: A Biomass Heat Source Burning Wooden Chips for a Primary School Habovka
Supervisor: Takács, J.
- Jakubík, V.: Realization of Water Supply Project in a High-Rise Building
Supervisor: Jánošková, T.
- Jung, P.: Low-Temperature Heating and High-Temperature Cooling for an Office Building
Supervisor: Petráš, D.
- Kepková K.: Air-Conditioning of Multifunctional Buildings
Supervisor: Székýová, M.
- Kovalík, L.: Realization of Sewage and Rainfall Drainage Project for an Industrial Building
Supervisor: Jánošková, T.
- Krafčík, B.: Design of a Progressive Heat Source for a Social Services Center
Supervisor: Lulkovičová, O.
- Kováčová, D.: Application of Active Thermal Protection for the Heating and Cooling of a Residential Dwelling
Supervisor: Kalús, D.
- Krotek, P.: Design and Comparison of Heating Systems with Different Types of Heat Pumps
Supervisor: Fűri, B.
- Láštic, S.: Heat Source for the Burning of Biomass Wooden Pellets for the Kubínska Hoľa Pension
Supervisor: Takács, J.
- Michaličková, S.: A Biomass Heat Source Utilizing Wooden Chips in Kúty
Supervisor: Takács, J.
- Mráz, M.: Design of a Low-Pressure Gas Boiler Plant for a Multifunctional Building
Supervisor: Koudelková, D.
- Náčiniaková, Z.: Design of an Automatic Fire Sprinkler System in a High-Rise Building
Supervisor: Jánošková, T.
- Nôtová, M.: Ventilation of Part of the Grammar School in Senohrad
Supervisor: Boďo, R.
- Ondrejková, L.: Comparison of the Design of a Heat Source Using Gas and Biomass
Supervisor: Kalús, D.
- Pastierik, L.: Design of a Biomass Heat Source for a Primary School
Supervisor: Lulkovičová, O.
- Podobeková, V.: Calculation and Design of a Biomass Heat Source for a Primary School
Supervisor: Petráš, D.
- Ozimáková, J.: Air-Conditioning of an Office Building
Supervisor: Boďo, R.
- Prochác, M.: Ventilation of the Pool Section of the Hotel Nivy in Bratislava
Supervisor: Boďo, R.
- Psota, I.: Ventilation of a Hotel Kitchen
Supervisor: Boďo, R.
- Sadloňová, N.: Air-Conditioning of an Office Building
Supervisor: Székýová, M.
- Slanina, A.: A Biomass Heat Source Burning Wooden Chips for an Industrial Area in Nová Ves
Supervisor: Takács, J.
- Sedláčková, J.: Energy Audit and Hydraulic Balancing of a Building
Supervisor: Petráš, D.
- Šovcová, N.: Low Temperature Heating and High Temperature Cooling for an Office Building
Supervisor: Petráš, D.
- Valuchová, I.: Design of a Heating System for an Energy-Saving Apartment House
Supervisor: Kalús, D.
- Vígľašová, L.: Warm Air Ventilation and Dehumidifying of a Kitchen
Supervisor: Székýová, M.
- Würschnerová, L.: Design of Domestic Hot Water Distribution in a Medical Facility
Supervisor: Jánošková, T.
- Žák, J.: Calculation and Design of a Heating System with Biomass as the Heat Source for a Primary School
Supervisor: Takács, J.
- Živner, L.: Design of Heating and Cooling System with a Heat Pump
Supervisor: Fűri, B.
- Bódišová, M.: Utilization of Rainwater for the Supply of an Office Building
Supervisor: Peráčková, J.
- Herdová, D.: Realization Project of Selected Parts of Sanitary Technical Installations in a High-Rise Office Building
Supervisor: Peráčková, J.

Borisová, L.: Energy Audit, Certification and Monitoring of a Residential Building Before and After Renovation

Supervisor: Petráš, D.

Čomor, P.: Analysis and Design of the Ventilation Systems of an Underground Garage and Cellars in a Multifunctional Building

Supervisor: Székycová, M.

Földváry, V.: Assessment of the Energy Consumption and Thermal Condition of a Residential Building before and after Renovation

Supervisor: Petráš, D.

Harmata, T.: Conceptual Design for Heating and Domestic Hot Water Preparation in a Residential Building

Supervisor: Koudelková, D.

Hegedűs, M.: Solar Design for a Low-Energy Building

Supervisor: Kalús, D.

Hubatka, Z.: Outlet, Utilization and Disposal of Rainwater in a Family Dwelling

Supervisor: Jánošková, T.

Kaňová, Z.: Energy Audit of an Elementary School in Lučeneč

Supervisor: Takács, J.

Ovčiariková, E.: Design of a Barrier-Free Environment in an Apartment House

Supervisor: Peráčková, J.

Lendácky, J.: Air-Conditioning of a Surgical Wing

Supervisor: Székycová, M.

Kupkovičová, K.: Alternative Solutions to the Problem of the Infiltration of Rainwater in a Multifunctional Structure

Supervisor: Peráčková, J.

Kurpaš, M.: Comparison of the Effectiveness of Heat Recovery Systems in the Ventilation System of a Tennis Facility

Supervisor: Boďo, R.

Kustra, M.: Design of Energy Systems for a Low-Energy Building

Supervisor: Kalús, D.

Orihelová, K.: Ventilation of a Family Dwelling

Supervisor: Šabíková, J.

Szöcsková, E.: Alternative Design of an Optimal Heat Source for an Apartment Building

Supervisor: Lulkovičová, O.

Šimko, M.: Design Concept of an Energy System for a Family Dwelling

Supervisor: Koudelková, D.

Takáčová, K.: Energy Audit and Certification of an Apartment House

Supervisor: Petráš, D.

2.2 Doctoral theses

Krajčík, M.: Thermal Comfort and Ventilation Effectiveness in Low-Energy Buildings with Mechanical Ventilation and Radiant Heating/Cooling System

Supervisor: Petráš, D.

Đurišová, E.: Evaluation of an Indoor Environment with Low Temperature Heating/High Temperature Cooling

Supervisor: Petráš, D.

Jeleníková, I.: Analysis of the Degradation of the Metal Water Piping in Buildings

Supervisor: Peráčková, J.

Cvíčela, M.: Analysis of Wall Energy Systems

Supervisor: Kalús, D.

Štefanička, F.: Energy, Economic and Ecological Aspects of Using Geothermal Energy in Pool Management

Supervisor: Takács, J.

3. RESEARCH

3.1 Research projects

Education without Frontiers (2011-2012, LULKOVIČOVÁ, O.), CEEPUS CIII-AT-0050-07-1112

Education without Frontiers (2012-2013, LULKOVIČOVÁ, O.), CEEPUS CIII-AT-0050-08-1213

Energy-Efficient Environmental Technology Systems Utilizing Renewable Energy Sources and Employing Automated Technology for Intelligent Buildings (2011-2013, PETRÁŠ, D.), VEGA 1/1052/11

Progressive Solutions for Sanitary Installations and Ventilation Systems in the Creation of an Indoor Environment in Buildings with the Aim of Decreasing the Energy Demands (2011-2013, PERÁČKOVÁ, J.) VEGA 1/0511/11

Competence Centre of Intelligent Technologies for the Electronization and Informatization of Systems and Services (2011-2014, PETRÁŠ, D.), ITMS 26240220072

3.2 International cooperation

Cooperating institutions

ENSI – Energy Saving International AS, Oslo, Norway

Hansa, AG, Burglengenfeld, Germany

Geberit, AG, Rottenbrunn, Germany

GAS, Ltd, Prague, Czech Republic

CVUT – Civil Engineering Faculty, Prague, Czech Republic

VUT, Brno, Czech Republic

VUT, Ostrava, Czech Republic
 Deutsche Institute für Bautechnik, Berlin, Germany
 Czech Association of Civil Engineers, Prague, Czech Republic
 ASHRAE, Atlanta (Georgia), USA
 REHVA, Brussels, Belgium
 Fachhochschule, Pinkafeld, Austria
 The Danish Technical University – International Center for the Indoor Environment and Energy, Denmark
 UNI, Seoul, Korea
 INNER project, Marua, Portugal
 ERSF, Grenoble, France
 Metropolit UNI, Warsaw, Poland

Membership in international professional organizations

Petráš, D.: Member ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers)
 Petráš, D.: Member REHVA (Federation of European Heating and Air-Conditioning Associations)
 Petráš, D.: Representative of the Slovak Republic for CEN TC 228 Eurocodes

4. PUBLICATIONS

Textbooks

Peráčková, J. – Malinová, K.: Booster. Teaching Aid, No. 2: Učebná pomôcka č. 2. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 18 pp. (in Slovak)

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Peráčková, J. – Malinová, K.: Gas Off Take Facility. Teaching Aid No. 7: Učebná pomôcka č. 7. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 11 pp. (in Slovak)

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Peráčková, J. – Podobeková, V.: Sanitary Installations. Teaching Aid No. 2: Učebná pomôcka č. 2. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 10 pp. (in Slovak)

Peráčková, J. – Malinová, K.: Seepage Devices. Teaching Aid No. 6: Učebná pomôcka č. 6. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 7 pp. (in Slovak)

Peráčková, J. – Jánošková, T. – Podobeková, V.: Sewerage in Buildings. Teaching Aid No. 4: Učebná pomôcka č. 4. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 18 pp. (in Slovak)

Peráčková, J. – Podobeková, V.: Symbols for Sanitary Installations. Teaching Aid, No. 1: Učebná pomôcka č. 1. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 7 pp. (in Slovak)

Peráčková, J. – Malinová, K. – Podobeková, V.: Gas Collection Appliances. Teaching Aid No. 5: Učebná pomôcka č. 5. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 14 pp. (in Slovak)

Peráčková, J. – Jánošková, T. – Podobeková, V.: Water Supply in Buildings. Teaching Aid No. 3: Učebná pomôcka č. 3. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 12 pp. (in Slovak)

Peráčková, J. – Malinová, K.: Wheelchair Access to Sanitary Facilities. Teaching Aid No. 1: Učebná pomôcka č. 1. – Bratislava: STU v Bratislave SvF KTZB, 2012. – 6 pp. (in Slovak)

Petráš, D. – Kalús, D. – Koudelková, D.: Heating Systems. Exercise and Studio Formations: Cvičenia a ateliérová tvorba. – 3. vyd. – Bratislava: Nakladateľstvo STU, 2012. – 298 pp. – ISBN 978-80-227-3795-1 (in Slovak)

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Krajčík, M. – Simone, A. – Olesen, B. W.: Air Distribution and Ventilation Effectiveness in an Occupied Room Heated by Warm Air. In: Energy and Buildings. – ISSN 0378-7788. – Vol. 55, No. 5 (2012), pp. 94-101

Bugáň, J. – Petráš, D.: Construction Solutions and Installation of Warm Floor Heating. In: Plynár – vodár – kúrenár + klimatizácia. – ISSN 1335-9614. – Vol. 10, No. 3 (2012), pp. 6-9 (in Slovak)

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Bugáň, J. – Petráš, D.: Regulatory Strategies for Low-Temperature Heating. In: *Proceedings of the 12th Low Temperature Heating 2012 Conference, Dunajská Streda, SR, 22.-23.5.2012.* – Bratislava: SSTP, 2012. – ISBN 978-80-89216-46-8. – pp. 25-28 (in Slovak)

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Takács, J. – Rácz, L.: The Effect of a Circulating Pump on the Operating Costs of an Apartment House. In: Proceedings of the 20th Heating 2012 Conference: Ľubovnianske kúpele, SR, 27.2. – 2. 3. 2012. – Bratislava: SSTP, 2012. – ISBN 978-80-89216-45-1. – pp. 543-548 (in Slovak)

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DEPARTMENT OF ARCHITECTURE

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

History of Architecture and Civil Engineering

History of Architecture and Art 1

Typology 1

Drawing and Composition

Design Studio 1

History of Architecture and Art 2

Design Studio 2

Composition and Colour in Architecture

Typology 2

Typology 3

Bachelor's Work

Urbanism

Renovation of Buildings and Preservation of Monuments 1

Typology 5

Design Studio 4

Urbanism 2

Design Studio 5

History of Architecture and Art 3

Restoration and Preservation of Monuments 2

Design Studio 6

Urbanism 3

Interior Design 1

Design Studio 7

Design Studio 8

Design Studio 9

Special Seminar

Thesis

Design Studio 10

Internship

Excursion

Obligatory elective subjects

Drawing and Modelling

Typology 4

Philosophical, Aesthetic and Compositional Principles in Architectural Design

History of Urban and Rural Settlements

History of Drawing and Sketching

Optional subjects

Interior Design 2

Landscape Design

Excursion

1.2 Postgraduate courses

Doctoral Degree Study: Theory and Construction of Building Structures

Typology

Restoration and Preservation of Monuments

2. THESES

2.1 Bachelor theses

There were 13 works.

2.2 Graduate theses

Telgarský, M.: Reconstruction and Revitalization of the PKO (old cultural centre on the Danube River)

Supervisor: Mudrončík, M.

Matúšová, E.: Apartment House in Petržalka

Supervisor: Mudrončík, M.

Mikuláš, E.: Reconstruction and Revitalization of the PKO (old cultural centre on the Danube River)

Supervisor: Mudrončík, M.

Turanská, L.: Centre of Water Sports and Wellness in Trnava

Supervisor: Mudrončík, M.

Füriová, T.: Gallery of Modern Art

Supervisor: Liščák, J.

Tokovicsová, A.: Church with a Parsonage

Supervisor: Liščák, J.

Šichtová, K.: Multifunctional Sport Centre

Supervisor: Liščák, J.

Szabóová, B.: Hotel Sládkovičovo

Supervisor: Dohňanská, E.

Oršin, A.: Piešťany Gallery

Supervisor: Dohňanská, E.

Szántová, G.: Kozárovce Fishing and Wellness Resort

Supervisor: Dohňanská, E.

Zuzulová, K.: LIDO Piešťany

Supervisor: Nádaská, Z.

Chuděj, T.: Reconstruction of the Residence of the SLUK Folk Ensemble in Rusovce

Supervisor: Nádaská, Z.

Genšiniak, V.: Reconstruction of the Residence of the SLUK Folk Ensemble in Rusovce

Supervisor: Nádaská, Z.

Lúčna, K.: Multifunctional Centre with Apartments

Supervisor: Nádaská, Z.

Dubiny, M.: Museum in Nitra

Supervisor: Húsenicová, J.

Schmidtová, A.: Hotel **** Čunovo

Supervisor: Kuráň, J.

Záklasníková, L.: Hotel **** Čunovo

Supervisor: Kuráň, J.

Krempaský, L.: Poprad Ice-Hockey Stadium

Supervisor: Kuráň, J.

Filo, A.: Multifunctional Centre with Apartments in Petržalka

Supervisor: Kuráň, J.

Duffeková, I.: Čunovo Multifunctional Centre

Supervisor: Kuráň, J.

Filipová, Z.: Hotel in Mountains: Veľká Rača – Lalíky

Supervisor: Kubišová, M.

Grega-Jakub, M.: Slovak Pavilion at EXPO 2015 Milan

Supervisor: Paňák, P.

Bakya, R.: Revitalisation of the Old Bridge in Bratislava

Supervisor: Paňák, P.

Vida, N.: Transformation of the Former River Port in Komárno

Supervisor: Paňák, P.

Tóth, A.: Trnávka Leisure Centre

Supervisor: Bauer, P.

Boroš, I.: Hotel in Nová Baňa

Supervisor: Bauer, P.

Gútay, K.: Dunajská Streda Car Center

Supervisor: Bauer, P.

Bogyai, B.: Leisure Centre and Swimming Pool in Dunajská Streda

Supervisor: Bauer, P.

Antol, L.: Sport and Leisure Center in Bardejov

Supervisor: Bauer, P.

Miko, P.: Winery

Supervisor: Šimkovičová, V.

Sedláček, T.: Hotel in Mountains

Supervisor: Šimkovičová, V.

Vrabec, J.: Reconstruction and Annex Building of the Empire Theatre in Hlohovec

Supervisor: Grandtnerová, A.

2.3 Doctoral theses

Kráľová, Z.: Contribution of Vernacular Architecture to the Development of Tourism in the Countryside

Supervisor: Dohňanská, E.

3. RESEARCH

3.1 Research projects

Revitalization of the Spiritual, Cultural and Economic Potential of the Countryside (DOHŇANSKÁ, E.), VEGA 1/07/37/09

3.2 International cooperation

Cooperating institutions

VŠB-TU Ostrava, Faculty of Civil Engineering, Czech Republic

ČVUT-Czech Technical University in Prague, Faculty of Civil Engineering, Czech Republic

4. PUBLICATIONS

Journals

Guldan, M. – Oravcová, K.: Materials for Masonry. In: Stavebníctvo a bývanie. – ISSN 1336-0191. – Vol.14, Nov. 2012 (2012), pp. 86-87 (in Slovak)

Guldan, M. – Oravcová, K.: Skylights versus Dormer Windows. In: *Stavebníctvo a bývanie*. – ISSN 1336-0191. – Vol.14, Aug./Sept. (2012), pp. 111-113 (in Slovak)

Guldan, M. – Oravcová, K.: Choice of Building Materials. In: *Dom a bývanie*. – ISSN 1337-4028. – Vol. 6, No.1 (2012), pp. 16-18 (in Slovak)

Vanek, S.: When We Say ECOhome. In: *ekoBývanie*. – ISSN 1338-1555. – No. 2 (2012), pp. 62-64 (in Slovak)

Vanek, S.: Travelling to a Rammed Earth Building of a School in Ladakh. In: *Spektrum*. – ISSN 1336-2593. – Vol.18, No.10 (2012), p. 6 (in Slovak)

Conference Proceedings

Belišová, G.: Renaissance Window Restoration and Its Applicability in Practice. In: *Cultural Heritage Renewal: Proceedings of international scientific conference on the Revitalization of the Spiritual, Cultural and Economic Potential of the Countryside*. Bratislava, SR, 21.6.2012,. – Bratislava: STU v Bratislave, 2012. – ISBN 978-80-227-3811-8. – pp. 104-109 (in Slovak)

Bízík, L.: Conversion of Industrial Architecture in Slovakia and Abroad. Proceedings of Juniorstav 2012 [electronic source]: 14th International Conference of PhD. Students. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – (in Slovak)

Chmelík, V. – Rychtáriková, M. – Fels, J. – Glorieux, Ch.: Front-back Localization in Rooms with Uniform Distribution of Sound Absorption. Proceedings of INTER-NOISE 2012 [electronic source]: New York, USA, Aug. 19-22, 2012. – New York: INSTITUTE OF NOISE CONTROL ENGINEERING, 2012. – (in English)

Chmelík, V. – Tomašovič, P. – Rychtáriková, M.: Limits of Reverberation Time as a Parameter for the Assessment of Simple Halls from the Point of View of Room Acoustics. In: *Juniorstav 2012* [electronic source]: 14th International Conference of PhD. Students. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – (in Slovak)

Chmelík, V. – Rychtáriková, M.: Prediction of Room Acoustic Parameters by Two Different Simulation Algorithms. Proceedings of *Nové trendy akustického spektra*: Zvolen, SR, 12.-14.9.2012. – Zvolen: Technical University in Zvolen, 2012. – ISBN 978-80-228-2371-5. – pp. 109-112 (in English)

Chmelík, V. – Rychtáriková, M. – Nijls, L. – Glorieux, Ch. – Nuyts, G.: Reduction of Noise Levels in Sport Halls by Geometrical Optimization. Proceedings of *Euronoise 2012* [electronic source]: Ninth European conference on Noise Control. Prague, Czech Republic, 10.-13.6.2012. – b.m.: European Acoustics Association, 2012. – ISBN 978-80-01-05013-2. – pp. 38-41 (in English)

Guldan, M. – Oravcová, K.: Contribution to the Typology of Viticultural Buildings. Proceedings of conference on History of Buildings 2011. Plzeň, ČR, 2012. – , 2012. – ISBN 978-80-87170-19-9. – pp. 39-42 (in Slovak)

Guldan, M.: Specific Features of the Tokaj Region. In: *Cultural Heritage Renewal: Proceedings of international scientific conference on Revitalization of the Spiritual, Cultural and Economic Potential of the Countryside*. Bratislava,

SR, 21.6.2012. – Bratislava: STU v Bratislave, 2012. – ISBN 978-80-227-3811-8. – pp. 112-113 (in Slovak)

Húsenicová, J. – Vida, N.: Former Strategic River Harbour of Komárno – Transition to a Public Space. Proceedings of international scientific conference on Revitalization of the Spiritual, Cultural and Economic Potential of the Countryside. Bratislava, SR, 21.6.2012. – Bratislava: STU v Bratislave, 2012. – ISBN 978-80-227-3811-8. – pp. 164-170 (in Slovak)

Kapalová, G.: Comparison of the Renovation of Renaissance Windows. In: *Juniorstav 2012* [electronic source]: 14th International Conference of PhD. Students. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – (in Slovak)

Mudrončík, M.: The Reconstruction and Modernization of the State Theatre Complex in Košice. Proceedings of international scientific conference on Revitalization of the Spiritual, Cultural and Economic Potential of the Countryside. Bratislava, SR, 21.6.2012,. – Bratislava: STU v Bratislave, 2012. – ISBN 978-80-227-3811-8. – pp. 42-45 (in Slovak)

Ondrejka, M.: The Impact of Tourism on the Formation of Architecture in the Countryside. In: *Juniorstav 2012* [electronic source]: 14th International Conference of PhD. Students. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – p. 26 (in Slovak)

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Prešínský, M.: Application of Anidolic Ceiling Systems in Office Spaces (abstract). In: *Juniorstav 2012: 14th International Conference of PhD. Students*. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – p. 99 (in English)

Pribylínek, P.: Hysteresis Behaviour in Porous Materials from the Point of View of Humidity. In: *Juniorstav 2012* [electronic source]: 14th International Conference of PhD. Students. Brno, 26.1.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4393-8. – (in Slovak)

Rychtáriková, M. – Chmelík, V. – Glorieux, Ch. – Geentjens, G. – Bruyninckx, W. – Wursten, E. – Frederickx, R. – Roozen, B.: Determination of The Sound Reflection Index of Noise Barriers: Guidelines to Improve Measurement Accuracy. Proceedings of INTER-NOISE 2012 [electronic source]: New York, USA, August 19-22, 2012. – New York: INSTITUTE OF NOISE CONTROL ENGINEERING, 2012. – (in English)

Rychtáriková, M. – Chmelík, V. – Glorieux, Ch. – Mülner, H. – Stani, M.: Does the Living Noise Spectrum Adaptation of Sound Insulation Match the Subjective Perception? Proceedings of *Euronoise 2012* [electronic source]:

Ninth European Conference on Noise Control. Prague, Czech Republic, 10-13 June, 2012. – b.m.: European Acoustics Association, 2012. – ISBN 978-80-01-05013-2. – pp. 180-184 (in English)

Rychtáriková, M. – Chmelík, V. – Mülner, H. – Stani, M. – Glorieux, Ch. – Roozen, B.: Perceived Loudness of Sound Transmitted Through Light Weight and Heavy Weight Walls. Proceedings of Buildings Environment 2012 [electronic source]: International Conference. Brno, ČR, 25.-26.10.2012. – Brno: Brno University of Technology, 2012. – ISBN 978-80-214-4600-7. – pp. 160-167 (in English)

Sivoň, P. – Naboutová, K. A.: Options for the Reconstruction of Historically Protected Buildings in the Center of Bratislava. Proceedings of international scientific conference on Revitalization of the Spiritual, Cultural and Economic Potential of the Countryside. Bratislava, SR, 21.6.2012. – Bratislava: STU v Bratislave, 2012. – ISBN 978-80-227-3811-8. – pp. 126-129 (in Slovak)

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Vargová, K.: Innovative Scope for an Aristocratic Residence. Proceedings of international scientific conference on Urban, Architectural and Technical Aspects of Rural Renewal. Bratislava, SR, 21.6.2012.,. – Bratislava: STU v Bratislave, 2012. – ISBN 978-80-227-3811-8. – pp. 114-116 (in Slovak)

5. ACTIVITY IN THE FIELD OF ART

Řehák, I.: Collector's 100 € Gold Coin, Prince Pribina from Nitra, 2012, Kremnica Mint

Řehák, I.: Collector's Gold Coin: 400th Anniversary of the Death of Austrian Emperor Rudolf II., Prague Mint

Řehák, I.: World Money Fair, Berlin, 2012

Řehák, I.: FIDEM International Medal Exhibition, Glasgow, 2012

Řehák, I.: Slovak Medal Exhibition 2005-2010, Uherské Hradiště, 2012

INSTITUTE FOR FORENSIC ENGINEERING

Head of Department

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1. EDUCATION

1.1 Graduate study

Optional subjects

Bases of Legal Expertise

Real Estate Valuation

1.2 Postgraduate courses

Specialized courses for experts in the Building Industry field

Specialized courses concerning the performance method of expert activities

Specialized courses on "Improvement of Experts"

Road safety audit

3. RESEARCH

3.1 Research projects

Resistance Analysis of Concrete, Masonry and Composite Steel – Concrete Structures (2011-2013, FILLO, L.), VEGA 1/0857/11

Factors Affecting the Effectiveness of the Utilization of High Strength Concrete in Load-Bearing Elements and Structures (2011-2013, HUĐOBA, I.), VEGA 1/0458/11

3.2 International cooperation

Cooperating institutions

VUT Brno, Czech Republic,

VŠB Ostrava, Czech Republic

4. PUBLICATIONS

Journals

Gregušová, S.: The Impact of Excessive Moisture on the Thermal Conductivity of a Brick Body. In: Almanach znalca, ISSN 1336-3174. – Vol.11, No. 1 (2012), pp. 20-23 (in Slovak)

Horňanský, I. – Sojková, V.: Focus on the Terms of a Land Register. In: Almanach znalca, ISSN 1336-3174. – Vol.11, No. 2 (2012), pp. 12-17 (in Slovak)

Horňanský, I. – Sojková, V.: Definition of Selected Terms from Real Estate. In: Almanach znalca, ISSN 1336-3174. – Vol.11, No. 3 (2012), pp. 9-20 (in Slovak)

Conference Proceedings

Bób, J. – Nič, M.: Tax Interventions in a Housing Market. In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

Cicanič, M.: The Strength of Concrete in Expert Practice. In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

Gregušová, S.: Bulk Effect of the Density of a Burnt-Clay Brick Body on Its Thermal Conductivity. In: Proceedings of Juniorstav 2012: 14th International Conference of Postgraduate Students. Brno, 26.1.2012. University of Technology, Czech Republic, 2012. – ISBN 978-80-214-4393-8 (in Slovak)

Gregušová, S.: Methods for Determining the Thermal Conductivity of Building Materials in Expert Practice. In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

Horňanský, I. – Hudecová, L. – Sojková, V.: Legislative Aspects of Forensic Expertise in the Field of Geodesy and Cartography. In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

Karel, J.: Determination of Interest Rates / Main Refinancing Operations (Fixed Rate). In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

Karel, J.: Life Cycle of Residential Buildings. In: Proceedings of Juniorstav 2012: 14th International Conference of Postgraduate Students. Brno, 26.1.2012. University of Technology, Czech Republic, 2012. – ISBN 978-80-214-4393-8 (in Slovak)

Nič, M.: Forensic Activities and Proposals for Its Enhancement. In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

Skákala, P.: Depreciation and the Technical Value of a Building. In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

Sojková, V.: Assessment of the Effectiveness of Selected Methods for the Documentation of the Actual Realisation of a Construction. In: Proceedings of Juniorstav 2012: 14th International Conference of Postgraduate Students. Brno, 26.1.2012. University of Technology, Czech Republic, 2012. – ISBN 978-80-214-4393-8 (in Slovak)

Sojková, V.: Documentation of the Actual Realization of a Building for the Purpose of Expert Activities. In: Proceedings of 5th Conference of Forensic Experts 2012, Bratislava, SR, 15.-16.6.2012, ISBN 978-80-89113-93-4, electronic resource (in Slovak)

DEPARTMENT OF LANGUAGES

Head of Department

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1. EDUCATION

1.1 Graduate study

English

German

1.2 Postgraduate courses

Ph.D. courses in advanced English

3. RESEARCH

3.2 International cooperation

Cooperating institutions

British Council, Bratislava, Slovakia

Institute of Technology, Tralee, Ireland

Membership in international professional organizations

Filipoiu, T.: The Chairperson for Auditing Commission for Slovak Section of CASAJC

4. PUBLICATIONS

Books

Pálová, A.: Bauwesen – Lehr – und Übungsbuch der deutschen Terminologie. Teil 3. – 1.vyd. Bratislava: Nakladateľstvo STU, 2012. – 122 pp. – ISBN 978-80-227-3805-7. (in German, Slovak)

Pálová, A.: Civil Engineering – Textbook of German Terminology. Volume II. – 1.vyd. – Bratislava: STU v Bratislave, 2012. – 104 pp. – ISBN 978-80-227-3682-4. (in German)

Textbooks

Gambrill, D.: Workbook for Supplemental Readings in Civil Engineering, Bratislava: Publisher STU, 2012. – 71 pp. – ISBN 978-80-227-3767-8 (in English)

Journals

Filipoiu, T.: Alex Clare. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 3 (2012), p. 16 (in English)

Filipoiu, T.: The British Library. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 1-2 (2012), p. 2 (in English)

Filipoiu, T.: The Washington National Cathedral. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 8 (2012), p. 17 (in English)

Filipoiu, T.: Urban Legends. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 9-10 (2012), p. 20 (in English)

Gambrill, D.: Biography of a „Failure.“ In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 7 (2012), p. 1 (in English)

Gambrill, D.: Bringing up Baby. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 8 (2012), p. 1 (in English)

Gambrill, D.: Charles Dickens. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 6 (2012), pp. 4-5 (in English)

Gambrill, D.: Have an Adventure this Summer! In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 9-10 (2012), p. 1 (in English)

Gambrill, D.: Lessons to be Learned from the Film „Groundhog Day.“ In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 6 (2012), p. 1 (in English)

Gambrill, D.: 2012 US Presidential Election. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 3 (2012), p. 11 (in English)

Něničková, J.: Happy 55th Birthday, Europe! In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 7 (2012), p. 9 (in English)

Něničková, J.: London 2012 Olympic Games. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 9-10 (2012), pp. 26-27 (in English)

Něničková, J.: Madam Curie: Celebrating the International Year of Chemistry. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 9-10 (2012), pp. 22-23 (in English)

Něničková, J.: Mayflower. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 3 (2012), p. 1 (in English)

Něničková, J.: Plymouth Rock. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 3 (2012), p. 17 (in English)

Něničková, J.: The Korean War Veterans Memorial. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 8 (2012), p. 18 (in English)

Něničková, J.: The Origin of the Nicknames of the States of the United States. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 1-2 (2012), pp. 22-23 (in English)

Něničková, J.: The Statue of Liberty. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 6 (2012), p. 18 (in English)

Něničková, J.: Titanic and Its Story. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 8 (2012), p. 11 (in English)

Něničková, J.: Trafalgar Square's History. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 1-2 (2012), p. 34 (in English)

Něničková, J.: Vietnam War Veterans Memorial. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 7 (2012), p. 18 (in English)

Špildová, D.: English Eating and Drinking Habits. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 6 (2012), p. 9 (in English)

Špildová, D.: Etiquette and Good Manners: Table Manners. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 3 (2012), pp. 8-9 (in English)

Špildová, D.: Etiquette and Good Manners. In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 9-10 (2012), p. 11 (in English)

Špildová, D.: Etiquette and Good Manners – Dress Code. In: Friendship. – ISSN 1335-2709. – Vol. 46, No. 1-2 (2012), p. 9 (in English)

Špildová, D.: The English – What Are Their Key Values? In: Friendship. – ISSN 1335-2709. – Vol. 45, No. 8 (2012), p. 9 (in English)

Conference Editing

Proceedings

Gambrill, D.: Annual Report 2011

Gambrill, D.: Journal of Civil Engineering

Volume XX

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2012/3

2012/4

Conferences

Hoboth, K.: Specialist Language of Civil Engineering in a Bilingual Environment. International conference. Szeged, Hungary, 30.8. – 1.9. 2012 SZTE Bölcsészettudományi Kar, Szeged (in Hungarian)

Hoboth, K.: Specialist Language Usage and Knowledge of the Terminology of Bilingual Students. International conference for PhD students: Félúton 8, Budapest, Hungary 11–12. 10. 2012, ELTE Bölcsészettudományi Kar, Budapest, Hungary (in Hungarian)

Hoboth, K.: A Contrasting Method in Teaching the Mother Tongue and Orthography. International conference: 16th APÁCZAI-NAPOK nemzetközi tudományos konferencia 26. 10. 2012, Nyugat-magyarországi Egyetem, Apáczai Csere János Kar, Győr, Hungary (in Hungarian)

Conference proceedings

Hoboth, K.: Terminological Problems of Bilingual (Hungarian-Slovak, or Slovak-Hungarian) Civil Engineering Vocabulary and the Vocabularies in School Textbooks. In Félúton 7: ELTE BTK Nyelvtudományi Doktori Iskolájának konferenciája. 6.-7.10.2011. Budapest: ELTE BTK Nyelvtudományi Doktori Iskola, 2012 (in Hungarian)

DEPARTMENT OF PHYSICAL EDUCATION

Head of Department

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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

3. RESEARCH

Cooperation

The Faculty of Physical Education and Sports, Comenius University, Bratislava,
Slovakia

DEPARTMENT OF HUMANITIES

Head of Department

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1. EDUCATION

1.1 Graduate study

Obligatory subjects

Basic Law

Civil Law

Construction and Commercial Law

Construction and Commercial Law

Construction and Land Law

Entrepreneurship Law

Environmentalism

Geoecology

History of Civil Engineering

History of Civil Engineering & Surveying

Land Law

Macroeconomics

Philosophy

Political Science

Public Administration

Sociology

Optional subjects

Commercial Law

Construction Law

Engineering Ethics

Environmental Law

Globalization

Sociology

2. RESEARCH

2.1. Research Projects

Tempus-Tacis Joint European Project 25186-2004: FRELP – Master's Degree in Environmental Law and Policies in the Russian Federation (HUSZÁR, Š.)

3. INTERNATIONAL COOPERATION

Cooperating institutions

Czech Technical University, Prague, Czech Republic

TSTU – Tambov State Technical University, Tambov, Russian Federation

4. PUBLICATIONS

Textbooks

Gajniak, J.F.: Copyright and Design Legislation. STU Bratislava, 2012, ISBN 978-80-227-3494-3, 230 pp.

Journals

Heretiková, K.: The Millennium Project. World Federation of United Nations Associations. State of the Future 2012. Participation. ISBN 978-0-9818941-9-5

Zajacová, J.: Legislative Conditions of Proprietary Housing in Residential Buildings in the Slovak Republic. In: Proceedings of People, Buildings and the Environment 2012, Vol. 2: ISSN 1805-6784, pp. 484-494.

Zajacová, J.: Selected Problems of Developers and Other Subjects in Applying Possessive Rights in the Real Estate Market. In: Nehnutelnosti a bývanie: internetový časopis Roč. 7, No. 1. ISSN 1336-944X, pp. 47-54.

Conference Proceedings

Gajniak, J. F.: Basic Requirements for Construction and General Technical Requirements for Construction and Building Products. In: Proceedings of Economy and Society and Their Transformation in the Process of Globalization. International Colloquium, Bratislava, 25.10. 2012. – Bratislava (in Slovak)

Gajniak, J. F.: Legislation to Teach Rights of Intellectual Property, Faculty of Civil Engineering STU in Bratislava. In: Proceedings of Social Science Education at Technical Universities and the Process of Globalization. International Colloquium. Bratislava, Slovakia, 20/06/2012. – (in Slovak)

Heretiková, K.: Emergence of a Knowledge – Based Economy and Its Influence on Creating Economic Theory. In: Proceedings of Social Sciences Education at Technical Universities and the Process of Globalization. International Colloquium. Bratislava, Slovakia, 20/06/2012. – (in Slovak)

Heretiková, K.: The Main Sources of Economic and Social Development – Information and Knowledge. In: Solidarita a spravdnost v sociálnom rozvoji. PhD. Conference ČVUT. Telč, ČR, 24.5.2012 (in Slovak)

Zajacová, J.: Legislative Conditions of Proprietary Housing in Residential Buildings of the Slovak Republic. In: Proceedings of HANÁK, T. -ADLOFOVÁ, P. – KOZUMPLÍKOVÁ, L. – PEŠTUKOVÁ, M.: People, Buildings and Environment 2012: International scientific conference. Lednice, CR, 7.-9.11.2012. Brno: Brno University of Technology, 2012, pp. 484-494. ISBN 978-80-214-4618-2 (in English)

Heretiková, K.: Sustainable Economics and Globalization. In: Proceedings of Economy and Society and Their Transformation in the Process of Globalization. International Colloquium. Bratislava, 2012 (in Slovak)

Huszár, Š.: Globalized Development and the Social Sciences. In: Proceedings of Social Sciences Education at Technical Universities and the Process of Globalization. International Colloquium, Bratislava, Slovakia, 06/20/2012 (in Slovak)

Huszár, Š.: The Problem of the Scientific Analysis of Globalization. In: Proceedings of Economy and Society and Their Transformation in the Process of Globalization. [electronic]. International Colloquium. Bratislava, 2012 (in Slovak)

2012: International Scientific Conference. Lednice, CR, 7.-9.11.2012. Brno: Brno University of Technology, 2012, pp. 484-494. ISBN 978-80-214-4618-2 (in English)

Heretiková, K.: Sustainable Economic and Globalization. In: Economy and Society and Their Transformation in the Process of Globalization [electronic]. International Colloquium. Bratislava, 2012, STU Bratislava. ISBN 978-80-227-3827-9, pp. 37-40 (in Slovak)

Huszár, Š. – Popov, N.S. – Luzgachev, V.A.: Optimizing the Level of Risk of Fires and the Explosion of Industrial Buildings, Taking into Account Economic Potential In: Safety in the Technosphere, Izhevsk 2012, ISBN 978-5-4312-0137-0 pp.154-157 (in Russian)

Huszár, Š.: Globalized Development and the Social Sciences. In.: Proceedings of Social Sciences Education at Technical Universities and the Process of Globalization. International Colloquium. Bratislava, Slovakia, 06/20/2012. – Bratislava: Slovak University of Technology Publishing House, 2012 [electronic]. ISBN 978-80-227-3726-5, pp.66-69 (in Slovak)

Huszár, Š.: The Problem of the Scientific Analysis of Globalization. In: Economy and Society and Their Transformation in the Process of Globalization [electronic]. International Colloquium. Bratislava, 2012, STU Bratislava. ISBN 978-80-227-3827-9, pp.41-42 (in Slovak)

Parts of Books

Gajniak, J. F.: Basic Requirements for Construction and General Technical Requirements for Construction and Building Products. In: Economy and Society and Their Transformation in the Process of Globalization. International Colloquium [electronic]. STU. Bratislava, 25.10. 2012. – Bratislava: Nakladateľstvo STU, 2012. – ISBN 978-80-227-3827-9. – pp. 17-36 (in Slovak)

Gajniak, J. F.: Legislation to Teach Intellectual Property Rights, Faculty of Civil Engineering STU in Bratislava. In: Proceedings of Social Sciences Education at Technical Universities and the Process of Globalization. International Colloquium. Bratislava, Slovakia, 20/06/2012. – Bratislava: Slovak University of Technology Publishing House, 2012 [electronic] – ISBN 978-80-227-3726-5. – pp. 31-36 (in Slovak)

Heretiková, K.: Emergence of a Knowledge – Based Economy and Its Influence on Creating Economic Theory. In: Proceedings of Social Sciences Education at Technical Universities and the Process of Globalization. International Colloquium. Bratislava, Slovakia, 06/20/2012. – Bratislava: Slovak University of Technology Publishing House, 2012 [electronic] – ISBN 978-80-227-3726-5. – pp. 53-56 (in Slovak)

Heretiková, K.: The Main Sources of Economic and Social Development – Information and Knowledge. In: Solidarita a spravdnost v sociálnom rozvoji: Proceedings of PhD. Conference ČVUT. Telč, ČR, 24.5.2012. – Prague: ČVUT v Praze, 2012. – ISBN 978-80-01-05079-8. – pp. 21-24 (in Slovak)

Zajacová, J.: Legislative Conditions of Proprietary Housing in Residential Buildings of the Slovak Republic. In: HANÁK, T. – ADLOFOVÁ, P. – KOZUMPLÍKOVÁ, L. – PEŠTUKOVÁ, M.: People, Buildings and the Environment

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