
DEPARTMENT OF LAND AND WATER RESOURCES MANAGEMENT

Head of Department

Prof. Ing. Viliam Macura, PhD.

Tel.: +421 2 592 74 279

Fax: +421 2 529 23 575

E-mail: viliam.macura@stuba.sk

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 7 works.

2.2 Graduate theses

Birčák, O.: Modeling of Runoff Changes in the Laborec River Basin.

Supervisor: Kohnová, S.

Zlatinský, R.: Analysis of Changes in Water Balance Parameters in the Myjava River Basin.

Supervisor: Kohnová, S.

Baničová, M.: The Impact of a Cultivation Method on the Course of a Soil Water Regime.

Supervisor: Skalová, J.

Čelár, L.: Application of Data Mining in Water Resources Management.

Supervisor: Čistý, M.

Becová, A.: Analysis of Crop Water Requirements in Southern Slovakia.

Supervisor: Čistý, M.

Vastag, T.: Application of 3D CAD in Water Resources and Landscape Engineering.

Supervisor: Čistý, M.

Klohnová, L.: Proposed Stabilization Measures and Soil Erosion Control for a Selected River Basin.

Supervisor: Hlavčová, K.

Mičicová, H.: Modelling Changes in Runoff in the Conditions of Climate Change in the Poprad Catchment.

Supervisor: Hlavčová, K.

Kolář, B.: Assessment of the Impact of Changes in a Hydrological Regime Under the Impact of Climate Change.

Supervisor: Hlavčová, K.

Bartóková, L.: Development of the Parameters of Snow Cover Over Past Decades.

Supervisor: Szolgay, J.

Ondrej, V.: Revitalization of the Porec River near the Village of Zavod.

Supervisor: Macura, V.

Magyarová, M.: Analysis and Proposal for Flood Protection in the Village of Moravské Lieskové.

Supervisor: Škrinár, A.

Vráblik, J.: Analysis of the Flood Protection of the Village of Malá Hradná.

Supervisor: Škrinár, A.

Bors, R.: Regulation of the Domanížanka River in the Village of Prečín.

Supervisor: Škrinár, A.

Kovačević, K.: Regulation of the Drava River from Donji Miholjac to Belišće.

2nd Supervisor: Škrinár, A.

2.3 Doctoral theses

Látečková, Jana: Scaling of Short-Term Rainfalls over Months and the Whole Warm Season in Slovakia.

Supervisor: Kohnová, S.

Pásztorová, M.: Consequences of Climate Change on the Water Regime of Wetlands.

Supervisor: Skalová, J.

Stankoci, I.: Evaluation of the Quality of Aquatic Habitats in Urban Areas.

Supervisor: Macura, V.

Šimor, V.: Estimation of the Flood Potential of a Landscape and Flood Forecasting with Artificial Intelligence Techniques.

Supervisor: Hlavčová, K.

Štefunková, Z.: The Assessment of the Impact of Climate Change on Runoff Processes in Slovakia.

Supervisor: Hlavčová, K.

Výleta, R.: Modelling Rainfall for a Frequency Analysis of Discharges in River Basins.

Supervisor: Szolgay, J.

Spál, P.: Flood Waves for Designing Retention Storage on Small Catchments.

Supervisor: Szolgay, J.

3. RESEARCH

3.1 Research projects

Hybrid Methods for the Modelling and Evaluation of Hydrological Extremes for a Risk Analysis (2011-2014, HLAVČOVÁ, K.), Research Grant of the Slovak Grant Agency VEGA 1/0908/11

Effect of the Biotic and Abiotic Characteristics of Stream Ecosystems on the Water Regime of Soils (2011-2014, MACURA, V.), Research Grant of the Slovak Grant Agency VEGA 1/0243/11

Evolutionary Algorithms and Data-Driven Methods in the Water Management of a Landscape (2011-2014, ČISTÝ, M.), Research Grant of the Slovak Grant Agency VEGA 1/1044/11

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

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

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

Development of Methods for Determining Climatic and Hydrological Design Characteristics (2012-2015, KOHNOVÁ, S.) (Research project of the European Fund for Regional Development)

Integrated System for the Simulation of Runoff Processes (2010-2013, HLAVČOVÁ, K.), Research project of the European Fund for Regional Development

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

Wageningen University, Wageningen, 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 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

4. PUBLICATIONS

Books

Kohnová, S. – Hlavčová, K. – Mindáš, J. – Fencik, R.: *Integrated River Basin Management – Selected Problems*, Slovak University of Technology in Bratislava, 2013, ISBN 978-80-227-4072-2, 215 pp. (in Slovak)

Látečková, J.: *Scaling of Short-Term Rainfall Intensities in Individual Months and Seasons*, Ed. of Scientific Works No. 133, Slovak University of Technology in Bratislava, 2013, ISBN 978-80-227-4117-0. 81 pp. (in Slovak)

Macura, V. – Halaj, P.: *River Management and Revitalization*, Slovak University of Technology in Bratislava, 2013, ISBN 978-80-227-3925-2, 228 pp. (in Slovak)

Pásztorová, M.: *Impact of Climate Change on a Soil Water Regime*, Ed. of Scientific Works No. 129, Slovak University of Technology in Bratislava, 2013, ISBN 978-80-227-4094-4. 155 pp. (in Slovak)

Suchár, M.: *Application of Neural Networks in Water Resources Computations*, Ed. of Scientific Works No. 128, Slovak University of Technology in Bratislava, 2013, ISBN 978-80-227-4093-7, 65 pp. (in Slovak)

Štefunková, Z.: *The Assessment of the Impact of Climate Change on Runoff Processes in Slovakia*, Ed. of Scientific Works No. 131, Slovak University of Technology in Bratislava, 2013, ISBN 978-80-227-4096-8, 103 pp. (in Slovak)

Výleta, R.: *Modelling a Basin's Precipitation Totals for a Frequency Analysis of Discharges*, Ed. of Scientific Works No. 132, Slovak University of Technology in Bratislava, 2013, ISBN 978-80-227-4097-5, 82 pp. (in Slovak)

Parts of books

Gaál, L. – Kohnová, S. – Szolgay, J. – Hlavčová, K.: *Assessing T-Year Flood Quantiles by Means of Bayesian MCMC Simulations: A Case Study of the Myjava River, Slovakia*. In: *Comprehensive Flood Risk Management – Research for Policy and Practice*. London, CRC Press/Balkema, ISBN 978-0-415-62144-1, 2013, pp. 169-176 (in English)

Gaál, L. – Kohnová, S. – Szolgay, J.: *Regional Flood Frequency Analysis in Slovakia: Which Pooling Approach Suits Better?* In: *Comprehensive Flood Risk Management – Research for Policy and Practice*. London, CRC Press/Balkema, ISBN 978-0-415-62144-1, 2013, pp. 27-33 (in English)

Parajka, J. – Szolgay, J. – Viglione, A. – McMahon, T. A. – Laaha, G. – Peel, M. C. – Sivapalan, Murugesu – Thompson, Sally E. – Woods, Ross A. – Yang, Dawen – Savenije, Hubert G.: *Prediction of Annual Runoff in Ungauged Basins*. In: *Runoff Prediction in Ungauged Basins: Synthesis Across Processes, Places and Scales*. Cambridge, Cambridge University Press, ISBN 978-1-107-02818-0, 2013, pp. 70-101 (in English)

Parajka, J. – Blöschl, G. – Hlavčová, K. – Merz, R. – Salinas, J. L. – Wagener, T. – Andréassian, V. – Stacey, A. – Bárdossy, A. – Chiew, F. – Duan, Q. – Gelfan, A. – McIntyre, N. – Oudin, L. – Perrin, Ch. – Savenije, H. G. – Skoien, J. O. – Zehe, E. – Zhang, Y. – Rogger, M.: *Prediction of Runoff Hydrographs in Ungauged Basins*. In: *Runoff Prediction in Ungauged Basins: Synthesis Across Processes, Places and Scales*. Cambridge, Cambridge University Press, ISBN 978-1-107-02818-0, pp. 227-269 (in English)

Journals

Bajtek, Z. – Čistý, M. – Mészáros, T.: *Hydraulic Evaluation of an Irrigation Network by Demand – Driven and Pressure – Driven Methods*. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 2 (2013), pp. 451-459 (in Slovak)

Bezák, J. – Čistý, M. – Čelár, L.: *Impact of Pre-Processing Training Data on the Prediction of River Flows by Data-Driven Models*. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 1 (2013), pp. 233-242 (in Slovak)

Čistý, M. – Bezák, J.: *Application of the Ensemble Modeling Methodology in Hydrological Forecasting*. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 2 (2013), pp. 348-358 (in Slovak)

- Čistý, M. – Bezák, J.: Data Mining Ensemble Approach to River Flow Predictions. In: *International Journal of Energy and Environment*, ISSN 2308-1007. – Vol. 7, No. 5 (2013), pp. 213-220 (in English)
- Čistý, M. – Skalová, J. – Pásztorová, M. – Bezák, J.: Hybrid Modeling of the Soil Water Regime with a Physically Based and Data Driven Approach. In: *International Journal of Energy and Environment*, ISSN 2308-1007. – Vol. 7, No. 3 (2013), pp. 134-141 (in English)
- Gaál, L. – Kyselý, J. – Picek, J. – Schindler, M.: Return Periods for the August 2010 Heavy Precipitation in Northern Bohemia (Czech Republic) in Present Climate and Under Climate Change. In: *Journal of Water and Climate Change*, ISSN 2040-2244. – Vol. 4, No. 3 (2013), pp. 265-285 (in English)
- Juričková, K. – Hlavčová, K. – Szolgay, J. – Bartóková, L. – Szász, V.: Evaluating Changes in Simulated Snow Water Equivalents in the Upper Hron River Basin. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol.14, No. 1 (2013), pp. 261-271 (in Slovak)
- Juričková, K.: Estimation of Water Erosion Using the USLE2D Model. In: *Water Management Journal*, ISSN 0322-886X. – Vol. 56, Nos.11-12 (2013), pp. 31-32 (in Slovak)
- Kohnová, S.: The Gradex Testing Method for the Estimation of N-Year Maximum Discharges in Selected Stations of the Upper Hron Basin. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 1 (2013), pp. 218-224 (in Slovak)
- Kolláriková, P. – Szolgay, J. – Pecho, J.: Analysis of the Long-Term Changes in the Occurrence of Heatwaves in Slovakia. In: *Meteorological Journal*, ISSN 1335-339X. – Vol.16, No. 2 (2013), pp. 63-69 (in Slovak)
- Macura, V. – Stankoci, I. – Kráľová, J.: Evaluation of the Aquatic Habitat of Flows in Urban Areas. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 1 (2013), pp. 281-288 (in Slovak)
- Pásztorová, M. – Skalová, J. – Jarabíková, Miroslava: Analysis of the Consequences of Climate Changes on the Course of Precipitation, Air Temperatures and Evapotranspiration. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 1 (2013), pp. 10-20 (in Slovak)
- Pásztorová, M.: Developments in Climate and Soil Water Storage in the Locality of Poiplie. In: *Slovak Journal of Civil Engineering*, ISSN 1210-3896. – Vol. 21, No. 1 (2013), pp. 1-8 (in English)
- Pásztorová, M. – Skalová, J.: Evaluation of the Soil Water Regime in the Poiplie Locality. In: *Növénytermelés*, ISSN 0546-8191(Print), ISSN 2060-8543 (Online). – Vol. 62 (2013), pp. 25-28 (in English)
- Pásztorová, M. – Vitková, J. – Jarabíková, M. – Nagy, V.: The Impact of the Gabčíkovo Waterworks on a Soil Water Regime. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol.14, No. 2 (2013), pp. 429-436 (in Slovak)
- Salinas, J. L. – Castellarin, A. – Kohnová, S. – Kjeldsen, T. R.: On the Quest for a Pan-European Flood Frequency Distribution: Effect of Scale and Climate. In: *Hydrology and Earth System Sciences*, ISSN 1027-5606. – Vol. 17, No. 10 (2013), pp. 6321-6358 (in English)
- Spál, P. – Szolgay, J.: Parameterisation of Estimating the Direct Runoff in Small River Basins by the SCS-CN Method. In: *Meteorological Journal*, ISSN 1335-339X. – Vol. 16, No. 2 (2013), pp. 71-77 (in Slovak)
- Škrinár, A. – Baláž, M. – Garaj, M.: Designing the Restoration of a Stream Channel Using the CAD/BIM System. In: *Engineering Constructions*, ISSN 1335-0846. – Vol. 61, No. 2 (2013), pp. 62-63 (in Slovak)
- Štefunková, Z. – Hlavčová, K. – Lapin, M.: Runoff Change Scenarios Based on Regional Climate Change Projections in Mountainous Basins in Slovakia. In: *Contributions to Geophysics and Geodesy*. – ISSN 1335-2806. – Vol. 43, No. 4 (2013), pp. 327-350 (in English)
- Tegelhoffová, M. – Danáčová, M. – Szolgay, J.: A Spatial Assessment of the Indicators of Changes in a Hydrological Regime. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol.14, No. 1 (2013), pp. 243-251 (in Slovak)
- Valent, P. – Szolgay, J.: The Impact of Improvements of the Calibration of the R-R Model on the Simulation of Series of Annual Maximum Flows. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 1 (2013), pp. 225-232 (in Slovak)
- Vitková, J. – Štekauerová, V. – Skalová, J.: Changes in the Soil Water Storage Due to Climate Changes. In: *Növénytermelés*, ISSN 0546-8191 (Print), ISSN 2060-8543 (Online). – Vol. 62 (2013), pp. 343-346 (in English)
- Vitková, J. – Štekauerová, V. – Skalová, J.: Changes in a Soil Water Storage Due to Expected Climate Change. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 1 (2013), pp. 5-9 (in Slovak)
- Výleta, R.- Szolgay, J.: Disaggregation Model for the Simulation of Daily Precipitation Totals in the Vah River Basin for Analyses of Discharge Frequencies. In: *Meteorological Journal*, ISSN 1335-339X. – Vol.16, No. 2 (2013), pp. 55-62 (in Slovak)
- Výleta, R. – Szolgay, J.: Model of Alternating Dry and Wet Periods for Stochastic Modelling of the Occurrence of Daily Precipitation. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol. 14, No. 2 (2013), pp. 359-371 (in Slovak)
- Zecheľová, K. – Kohnová, S. – Hlavčová, K. – Szolgay, J.: The Regional Scaling of Short-Term Precipitation in Selected Rain-Gauge Stations in Slovakia. In: *Acta Hydrologica Slovaca*, ISSN 1335-6291. – Vol.14, No. 1 (2013), pp. 252-260 (in Slovak)
- Zsideková, B.- Bálint, G. – Gauzer, B.: An Analysis of Regional Snow Assessments at Selected Hydrological Stations on the Danube and Tisza Rivers. In: *Slovak Journal of Civil Engineering*, ISSN 1210-3896. – Vol. 21, No. 3 (2013), pp. 43-56 (in English)
- Zsideková, B. – Kohnová, S. – Hlavčová, K.: Modelling the Time Changes in the Characteristics of the Hydrological Balance in the Myjava River Basin. In: *Meteorological Journal*, ISSN 1335-339X. – Vol. 16, No. 2 (2013), pp. 79-87 (in Slovak)

Conference Proceedings

- Bajtek, Z.: Hydraulic Evaluation of an Irrigation Network by Demand – Driven and Pressure – Driven Methods. In: 8th International Conference of Doctoral Students and Young Scientists. Jevičko, ČR, 24.-26.10.2013. – Nitra: Slovak Agricultural University in Nitra, 2013. – ISBN 978-80-552-1081-0. – pp. 101-112 (in Slovak)
- Becová, A. – Bajtek, Z.: Analysis of Needs for Irrigation Water and Application of the CROPWAT Model in Our Conditions. In: 8th International Conference of Doctoral Students and Young Scientists. Jevičko, ČR, 24.-26.10.2013. – Nitra: Slovak Agricultural University in Nitra, 2013. – ISBN 978-80-552-1081-0. – pp. 88-100 (in Slovak)
- Bezák, J. – Čistý, M. – Čelár, Ľ.: Effect of Data Pre-Processing for the Prediction of a Model's Efficiency. In: 8th International Conference of Doctoral Students and Young Scientists. Jevičko, ČR, 24.-26.10.2013. – Nitra: Slovak Agricultural University in Nitra, 2013. – ISBN 978-80-552-1081-0. – pp. 132-145 (in Slovak)
- Bezák, J. – Rodný, P.: Interpolation of the Missing Values in an Observed Soil Moisture Time Series. In: 8th International Conference of Doctoral Students and Young Scientists. Jevičko, ČR, 24.-26.10.2013. – Nitra: Slovak Agricultural University in Nitra, 2013. – ISBN 978-80-552-1081-0. – pp. 146-155 (in Slovak)
- Čederlová, L.: Validation of the Climate Characteristics of the Catpartclim Database. In: Advances in Architectural, Civil and Environmental Engineering. 23rd Annual Conference of Doctoral Students. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 854-860 (in Slovak)
- Čistý, M. – Bezák, J. – Čelár, Ľ.: Ensemble Predictions of Stream Flows by a Data – Driven Model. In: Conference of Adolf Patera 2013: Extreme Hydrological Processes in River Basins. Prague, ČR, 13.11.2013. – Prague: ČVUT, 2013. – ISBN 978-80-02-02501-6. – pp. 55-62 (in Slovak)
- Čistý, M. – Bezák, J. – Bajtek, Z.: Evaluation of the Impact of the Pre-Processing of the Data on the Effectiveness and Accuracy of SVM. In: Water Resources. Forest, Marine and Ocean Ecosystems. 13th International Multidisciplinary Scientific Geoconference SGEM 2013. Albena, Bulgaria, 16.-22.6.2013. – Sofia: SGEM, 2013. – ISBN 978-619-7105-02-5. – pp. 141-149 (in English)
- Čistý, M. – Čelár, Ľ. – Becová, A.: Hydrological and Water Resources Data Analysis with R Programming. In: HydroCarpath 2013. International Conference on Catchment Processes in Regional Hydrology: Experiments, Modelling and Predictions in Carpathian Drainage Basins. International Conference. Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 8 pp. (in English)
- Čistý, M. – Becová, A. – Čelár, Ľ.: Modelling and Spatial Data Analysis in Hydrology with R Programming. In: HydroCarpath 2013. International Conference on Catchment Processes in Regional Hydrology: Experiments, Modelling and Predictions in Carpathian Drainage Basins. International Conference. Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. 8 pp. (in English)
- Čistý, M. – Skalová, J. – Pásztorová, M. – Bezák, J. – Mészáros, T.: Modeling the Soil Water Regime in the Framework of Climate Change Studies. In: Civil, Structures and Environmental Engineering Computing. Proceedings of the Fourteenth International Conference. Cagliari, Sardinia, Italy, 3.-6.9.2013. – Stirlingshire: Civil-Comp Press, 2013 (file:///E:/cc2013/html/copy.htm). – 10 pp. (in English)
- Čistý, M. – Bezák, J.: The Application of Data Mining Methods for the Short-Time Flows Prediction in the Flood Warning Systems. In: Recent Advances in Continuum Mechanics, Hydrology and Ecology. Proceedings of the 8th International Conference on Water Resources, Hydraulics & Hydrology (WHH'13). Rhodes, Greece, 16.-19.7.2013. – : WSEAS Press, 2013. – ISBN 978-960-474-313-1 (<http://www.wseas.org>). – pp. 92-97 (in English)
- Čistý, M. – Bezák, J.: The Impact of Sampling on the Flow Prediction Using Support Vector Machines. In: Soft Computing Technology in Civil, Structural and Environmental Engineering. The Third International Conference. Cagliari, Sardinia, Italy, 3.-6.9.2013. – Stirlingshire: Civil-Comp Press, 2013 (file:///E:/csc2013/html/copy.htm). – 10 pp. (in English)
- Čistý, M. – Skalová, J. – Pásztorová, M. – Bezák, J.: The Support Vector Machines Application in Soil Moisture Prediction Studies. In: Recent Advances in Continuum Mechanics, Hydrology and Ecology. Proceedings of the 8th International Conference on Water Resources, Hydraulics & Hydrology (WHH'13). Rhodes, Greece, 16.-19.7.2013. – : WSEAS Press, 2013. – ISBN 978-960-474-313-1 (<http://www.wseas.org>). – pp. 86-91 (in English)
- Danáčová, M. – Szolgay, J.: Characteristics of Flood Waves, Considering the Seasonality of Wave Transformations in Selected River Reaches. In: Seminar of Adolf Patera 2013: Extreme Hydrological Processes in River Basins. Prague, CR, 13.11.2013. – Prague: ČVUT, 2013. – ISBN 978-80-02-02501-6. – pp. 63-70 (in Slovak)
- Gaál, L. – Szolgay, J. – Molnár, P.: Identification of Intense Rainfall Events Based on High Resolution Meteorological Data in Switzerland. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modelling and Predictions in Carpathian Drainage Basins. International Conference, Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 10 pp. (in English)
- Hlavčová, K. – Remiašová, R.: Mapping of Design Precipitation in Slovakia for Flood Protection Proposals. In: River Basins and Flood Risk Management 2013: Bratislava, SR, 11.-13.12.2013. – Bratislava: Water Research Institute, 2013. – ISBN 978-80-89062-95-9. – 6 pp. (in Slovak)
- Hlavčová, K. – Kohnová, S. – Rončák, P. – Bulantová, M.: The Role of Distributed Modelling in the Assessment of the Impact of Changes in Land Use on Runoff. In: Water Management and Hydraulic Engineering: Proceedings of the 13th International Symposium. Bratislava, SR, 9.-12.9.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4003-6. – pp. 577-586 (in English)
- Ivan, P.: Comparison of Methodologies for Landscape Evaluations. In: 8th International Conference of Doctoral Students and Young Scientists. Jevičko, ČR, 24.-26.10.2013. – Nitra: Slovak Agricultural University in Nitra, 2013. – ISBN 978-80-552-1081-0. – pp. 218-225 (in Slovak)

- Ivan, P. – Vojtková, J.: Effect of Designed Communication Facilities and Measures on the Length of Surface Runoff. In: GIS Ostrava 2013: Geoinformatics for Society. Symposium. Ostrava, ČR, 21.-23.1.2013. – Ostrava: VŠB – Technical University in Ostrava, 2013. – ISBN 978-80-248-2951-7. – 8 pp. (in Slovak)
- Ivan, P.: Methodologies of Calculating the Ecological Stability in Slovakia. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modelling and Predictions in Carpathian Drainage Basins. International Conference, Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 6 pp. (in English)
- Ivan, P. – Reháčková, T. – Vojtková, J. – Macura, V.: Methodology of Calculating Ecological Stability. In: Ecology, Economics, Education and Legislation. Vol. I: 13th International Multidisciplinary Scientific Geoconference SGEM 2013. Albena, Bulgaria, 16.-22.6.2013. – Sofia: SGEM, 2013. – ISBN 978-619-7105-04-9. – pp. 685-692 (in English)
- Ivan, P.: Possibilities for the Ecological Evaluation of a Landscape. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual Conference of Doctoral Students. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 200-209 (in Slovak)
- Jarabíková, M. – Pásztorová, M. – Skalová, J.: Historical Development of the Abrod Wetland and the Impacts of Management Changes on the Soil Water Regimes of Wetlands. In: Landscape-Ecological Research on Historical Features of an Agricultural Landscape. Bratislava, SR, 14.11.2013. – Bratislava: Comenius University in Bratislava, 2013. – ISBN 978-80-223-3489-1. – pp. 86-94 (in Slovak)
- Jarabíková, M.: Impact of Management Changes on a Soil Water Regime. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual Conference of Doctoral Students. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 210-216 (in Slovak)
- Jarabíková, M. – Pásztorová, M.: Natural Conditions of the National Nature Reserve of Belianske Lúky. In: 8th International Conference of Doctoral Students and Young Scientists. Jevíčko, ČR, 24.-26.10.2013. – Nitra: Slovak Agricultural University in Nitra, 2013. – ISBN 978-80-552-1081-0. – pp. 226-238 (in Slovak)
- Jeneiová, K. – Sabo, M.: Trend Analysis of Maximum Annual Discharges in the Bodrog River Catchment. In: 25th Conference of Young Hydrologists, 12th Conference of Young Water Managers. Bratislava, SR, 7.11.2013. – Bratislava: Slovak Hydrometeorological Institute, – ISBN 978-80-88907-85-5. – 9 pp. (in Slovak)
- Jeneiová, K.: Trend Detection in Maximum Annual Time Series in the Nitra and Morava River Catchments. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual PhD Student Conference. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 801-808 (in Slovak)
- Jeneiová, K. – Sabo, M. – Kohnová, S.: Trends in Detection of Annual Maximum Discharges in the Vah River Basin. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in the Carpathian Drainage Basins: International Conference, Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 9 pp. (in English)
- Juričeková, K. – Hlavčová, K. – Szász, V. – Čederlová, L.: Estimation of Changes in Snow Storage in Mountainous Basins in Slovakia. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in the Carpathian Drainage Basins: International Conference, Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 9 pp. (in English)
- Juričeková, K.: Validation of Satellite Images of Snow Cover in the Hron River Basin. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual PhD Student Conference. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 224-230 (in Slovak)
- Karabová, B. – Banasik, K. – Kohnová, S. – Rutkowska, A.: Investigation of the Curve Number Methods Properties. In: HydroCarpath International Conference on the Catchment Process in Regional Hydrology: Experiments, Modeling and Predictions in Carpathian Drainage Basins. Sopron, Hungary, 28.10.2013. – Sopron: University of West Hungary, 2013. – 10 pp. (in English)
- Karabová, B. – Marková, R.: Testing the Possibilities of Regionalization of the Selected Parameters of the SCS-CN Method for the Upper Hron Region. In: Conference of Adolf Patera 2013: Extreme Hydrological Processes in River Basins. Prague, CR, 13.11.2013. – Prague: ČVUT, 2013. – ISBN 978-80-02-02501-6. – pp. 129-140 (in Slovak)
- Karabová, B.: The SCS-CN Method in the Conditions of Slovakia. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual Conference of Doctoral Students. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 809-815 (in Slovak)
- Kohnová, S. – Jeneiová, K. – Hlavčová, K.: Extreme Runoff Scenarios in the Upper Hron River Basin. In: Water Management and Hydraulic Engineering: Proceedings of the 13th International Symposium. Bratislava, SR, 9.-12.9.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4003-6. – pp. 577-588 (in English)
- Kohnová, S. – Látečková, J.: Estimating Design Short-Term Precipitation in Slovakia by the Simple Scaling Method. In: River Basins and Flood Risk Management 2013. Bratislava, SR, 11.-13.12.2013. – Bratislava: Water Research Institute, 2013. – ISBN 978-80-89062-95-9. – 6 pp. (in Slovak)
- Kohnová, S.: Regional Design Floods Estimating in Slovakia. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in Carpathian Drainage Basins. International Conference, Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 6 pp. (in English)
- Kolláriková, P. – Szolgay, J. – Pecho, J.: Heat Waves in Slovakia. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in Carpathian Drainage Basins. Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 7 pp. (in English)
- Kolláriková, P. – Szolgay, J. – Pecho, J.: Heat Waves in Slovakia. In: Conference of Young Researchers. Kočovce, SR, 13.-15.11.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4077-7. – pp. 93-100 (in Slovak)

- Kráľová, J.: Modeling of the Quality of a Habitat in the Mountain and Submountain Streams of Slovakia When Changing a Flow Regime. In: Juniorstav 2013: 15th Conference of Doctoral Students. VUT, Brno, 7.2.2013. – Brno: VUT in Brno, 2013. – ISBN 978-80-214-4670-0. – 6 pp. (in Slovak)
- Kráľová, J.: The Impact of a Flow on the Shape of the Suitability Curves Used for the Modeling of the Quality of a Stream Habitat. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual Conference of Doctoral Students. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 217-223 (in Slovak)
- Kráľová, J. – Štefunková, Z.: Impact of Land Use Change on Discharges in Rivers and on the Quality of a Habitat. In: Present Stage of Flood Protection in the SR – Technical and Biotechnical Measures in River Basins. Zvolen, SR, 15.5.2013. – Zvolen: Technical University in Zvolen, 2013. – ISBN 978-80-228-2515-3. – pp. 162-171 (in Slovak)
- Macura, V.: Contribution to River Training Closed to Natural Conditions. In: Present Stage of Flood Protection in the SR – Technical and Biotechnical Measures in River Basins. Zvolen, SR, 15.5.2013. – Zvolen: Technical University in Zvolen, 2013. – ISBN 978-80-228-2515-3. – pp. 34-41 (in Slovak)
- Macura, V. – Kráľová, J. – Ivan, P. – Vojtková, J. – Štefunková, Z.: The Impact of Flow on the Quality of Aquatic Habitat. In: Water Resources. Forest, Marine and Ocean Ecosystems. 13th International Multidisciplinary Scientific Geoconference SGEM 2013. Albena, Bulgaria, 16.-22.6.2013. – Sofia: SGEM, 2013. – ISBN 978-619-7105-02-5. – pp. 393-400 (in English)
- Marková, R. – Karabová, B.: The SCS-CN Method in the Conditions of Slovakia – the Havranik and Bystrianka Streams. In: 25th Conference of Young Hydrologists, 12th Conference of Young Water Managers. Bratislava, SR, 7.11.2013. – Bratislava: SHMI, 2013. – ISBN 978-80-88907-85-5. – 8 pp. (in Slovak)
- Mészáros, T.: Analysis of the Variable Operation of Irrigation Systems. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual Conference of Doctoral Students. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 836-842 (in Slovak)
- Minarič, P. – Vojtková, J. – Kollár, J.: Characteristics of Softwood Floodplain Forests Formed After Construction of the Gabčíkovo Waterworks. In: HydroCarpath International Conference on Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in Carpathian Drainage Basins. Sopron, Hungary, 28.10.2013. – Sopron: University of West Hungary, 2013. – 7 pp. (in English)
- Molnar, P. – Gaál, L. – Szolgay, J. – Fatichi, S. – Burlando, P.: The Statistical Properties of Intense Rain Storms in Switzerland and Their Dependencies. In: 11th International Precipitation Conference 2013: Ede-Wageningen, The Netherlands, 30.6.-3.7.2013. – Wageningen: Wageningen University, 2013. – ISBN 978-94-6173-710-6. – p. 96 (in English)
- Pásztorová, M. – Minarič, P. – Jarabíková, M.: Application of Support Vector Machines for the Soil Water Storage Modelling. In: Conference of Young Researchers. Kočovce, SR, 13.-15.11.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4077-7. – pp. 107-121 (in English)
- Pásztorová, M. – Skalová, J. – Jarabíková, M. – Minarič, P.: Climate Change and Changes in Soil Water Storage in the Locality of Poipлие. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in the Carpathian Drainage Basins. Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 8 pp. (in English)
- Pásztorová, M. – Skalová, J.: Diagnosis of the Impact of the Gabčíkovo Waterworks on the Soil Water Regime in Its Surroundings. In: 8th International Conference of Doctoral Students and Young Scientists. Jevičko, ČR, 24.-26.10.2013. – Nitra: Slovak Agricultural University in Nitra, 2013. – ISBN 978-80-552-1081-0. – p. 275 (in Slovak)
- Pásztorová, M. – Skalová, J. – Jarabíková, M.: Impact of Anthropogenic Interferences on Ecosystem of the Zelenka Wetland. In: Water Management and Hydraulic Engineering: Proceedings of the 13th International Symposium. Bratislava, SR, 9.-12.9.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4003-6. – pp. 607-614 (in English)
- Pásztorová, M.: Support Vector Machines in the Modelling of a Soil Water Regime. In: Stages of Knowledge in the Hydrological Sciences. Smolenice, SR, 23.-25.9.2013. – Bratislava: SAS, 2013. – ISBN 978-80-89139-30-9. – pp. 215-227 (in Slovak)
- Rončák, P. – Bezák, J.: Application of Different Approaches to Simulate the Runoff of the Aragvi River Basin in Georgia. – In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in the Carpathian Drainage Basins: Proceedings. International Conference, Sopron, Hungary, 27. – 28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 15 pp. (in English)
- Rončák, P.: Effect of Land Use in Different Periods on Hydrological Processes in the Hron River Basin. – In: Advances in Architectural, Civil and Environmental Engineering. 23rd Annual Conference of Doctoral Students. Bratislava, SR, 30.10.2013. – Bratislava, SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 231-237 (in Slovak)
- Sleziak, P.: Comparison of the Accuracy of Interpolation Methods to Create Spatial Models of Soil Reactions. In: 25th Conference of Young Hydrologists and 12th Conference of Young Water Managers. Proceedings of Competition Works of Young Professionals. Bratislava, SR, 7.11.2013. – Bratislava: Slovak Hydrometeorological Institute, 2013. – ISBN 978-80-88907-85-5. – 10 pp. (in Slovak)
- Sleziak, P.: Errors of Interpolation Methods for Creating Maps of Phosphorus in Soil. In: Conference of Young Researchers: Book of Proceedings. Kočovce, SR, 13.-15.11.2013. – Bratislava: SUT in Bratislava, 2013. – ISBN 978-80-227-4077-7. – pp. 169-178 (in Slovak)
- Studvová, Z. – Klohnová, L.: Modelling of Water Erosion Using the Usle2D Model. 25th Conference of Young Hydrologists and 12th Conference of Young Water Managers. Bratislava, SR, 7.11.2013. – Bratislava: Slovak Hydrometeorological Institute, 2013. – ISBN 978-80-88907-85-5. – 2 pp. (in Slovak)
- Studvová, Z.: Quantification of Soil Erosion and Design of Erosion Control Protections in a River Basin. In: Conference of Young Researchers: Book of

- Proceedings. Kočovce, SR, 13.-15.11.2013. – Bratislava: SUT in Bratislava, 2013. – ISBN 978-80-227-4077-7. – pp. 187-198 (in Slovak)
- Szolgay, J. – Gaál, L. – Kohnová, S. – Hlavčová, K.: Application of the Bayesian MCMC Method for the Estimation of Design Maximum Floods in Water Management. In: Knowledge for the Future: Joint Assembly, Gothenburg, Sweden, 22.-26.7.2013. – 2013 (<http://iahs-iaso-iaspei2013.com>). – 1 p. (in English)
- Szolgay, J. – Spál, P.: The Possibility of the Regionalization of Flood Estimations in Small Watersheds Using the SCS-CN Method: the Gidra Case Study. In: River Basin and Flood Risk Management 2013: Scientific Conference with international participation. Bratislava, SR, 11.-13.12.2013. – Bratislava: Water Research Institute, 2013. – ISBN 978-80-89062-95-9. – 7 pp. (in Slovak)
- Szolgay, J. – Danáčová, M. – Šúrek, P.: Parametrization of a Multilinear Flood Routing Model for Rivers with Variable Travel-Time of Flood Peaks. In: Water Management and Hydraulic Engineering: Proceedings of the 13th International Symposium. Bratislava, SR, 9.-12.9.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4003-6. – pp. 525-532 (in English)
- Šoltész, A. – Kohnová, S.: Hydrologic-Hydraulic Solution of Flood Protection in Urban Areas under the Little Carpathians. In: Innovative Information and Communication Technologies in Water Management: Proceedings from the Conference. Bratislava, SR, 3.5.2013. – Liptovský Ján: PROHU s.r.o., 2013. – ISBN 978-80-89535-14-9. – pp. 157-164 (in Slovak)
- Šoltész, A. – Szolgay, J. – Stanko, Š.: Solving the Problems of the Flood Protection of the Residential Areas of the Little Carpathians. In: Municipal Engineering Karlovy Vary. Flood and the City: 18th international conference. Book of Proceedings. Karlovy Vary, Czech Republic, 7.6.2013. – Prague: ČKAIT, 2013. – ISBN 978-80-87438-37-4. – pp. 47-54 (in Slovak)
- Šoltész, A. – Szolgay, J. – Stanko, Š.: Flood Protection Solution for the Residential Region of the Little Carpathians. In: Municipal Engineering Karlovy Vary. Flood and the City: 18th international conference. Book of Proceedings. Karlovy Vary, Czech Republic, 7.6.2013. – Prague: ČKAIT, 2013. – ISBN 978-80-87438-37-4. – pp. 49-56 (in German)
- Štefunková, Z. – Kráľová, J. – Macura, V.: Climate Change and Flood Protection Planning. In: Water Management and Hydraulic Engineering : Proceedings of the 13th International Symposium. Bratislava, SR, 9.-12.9.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4003-6. – pp. 599-606 (in English)
- Štefunková, Z. – Kráľová, J. – Ivan, P. – Macura, V.: Climate Change and Its Impact on Quality of Aquatic Habitat. In: Water Resources. Forest, Marine and Ocean Ecosystems: 13th International Multidisciplinary Scientific Geoconference SGEM 2013. Albena, Bulgaria, 16.-22.6.2013. – Sofia: SGEM, 2013. – ISBN 978-619-7105-02-5. – pp. 55-62 (in English)
- Štefunková, Z. – Hlavčová, K. – Lapin, M.: Runoff Change Scenarios Based on Regional Climate Change Projections in Mountainous Basins in Slovakia. In: Contributions to Geophysics and Geodesy. – ISSN 1335-2806. – Vol. 43, No. 4 (2013), pp. 327-350 (in English)
- Štefunková, Z. – Hlavčová, K. – Szolgay, J.: Simulation of the Hydrological Response to the Future Climate in Slovakia. In: Water Management and Hydraulic Engineering: Proceedings of the 13th International Symposium. Bratislava, SR, 9.-12.9.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4003-6. – pp. 589-598 (in English)
- Tegelhoffová, M. – Danáčová, M. – Szolgay, J.: A Spatial Assessment of the Indicators of Changes in a Hydrological Regime. In: The State of the Knowledge of Research in the Hydrological Sciences: Proceedings from International Conference. Smolenice, SR, 23.-25.9.2013. – Bratislava: SAV, 2013. – ISBN 978-80-89139-30-9. – 1 p. (in Slovak)
- Valent, P.: Calibration of a Rainfall-Runoff Model on a Series of Annual Maximum Flows. In: HydroCarpath International Conference on Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in Carpathian Drainage Basins: Abstracts of the conference. Sopron, Hungary, 28.10.2013. – Sopron: University of West Hungary, 2013. – 7 pp. (in English)
- Valent, P.: Flood Frequency Analysis Using the SCHADEX Method. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual PhD Student Conference. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 895-902 (in Slovak)
- Vitková, J. – Štekauerová, V. – Skalová, J.: Potential Impact of Climate Change on Soil Water Storage When Growing Elderberries and Spring Barley. In: Water, Soil and Plants: International Conference. Křtiny, CR, 29.-30.5.2013. – : [B.m.], 2013. – ISBN 978-80-87577-17-2. – 7 pp. (in Slovak)
- Vojtková, J. – Kráľová, J. – Stankoci, I. – Ivan, P.: EcoRiver: An Integrated Dynamic Simulation Model – The Schwechat Case Study. In: HydroCarpath 2013. Catchment Processes in Regional Hydrology: Experiments, Modeling and Predictions in the Carpathian Drainage Basins: Proceedings. International Conference Sopron, Hungary, 27.-28.10.2013. – Sopron: University of West Hungary, 2013. – ISBN 978-963-334-142-1. – 7 pp. (in English)
- Vojtková, J. – Macura, V. – Škrovinová, M. – Kráľová, J.: Effect of the Manipulation of Waterworks Kráľová on the Ichthyofauna and the Restoration Proposal. In: Növénytermelés. – ISSN 0546-8191 (PRINT). – ISSN 2060-8543 (ONLINE). – Vol. 62 (2013), pp. 311-314 (in English)
- Vojtková, J.: Phytocoenological Characteristics of Riparian Vegetation on the Schwechat River, Austria. In: Advances in Architectural, Civil and Environmental Engineering: 23rd Annual PhD Student Conference. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 238-243 (in Slovak)
- Výleta, R.: Simulation of Daily Precipitation Totals in the Váh River Catchments Using the Simple First Order Markov Model. In: Juniorstav 2013: 15th Conference of Doctoral Study with international participation. University of Technology, Brno, 7.2.2013. – ISBN 978-80-214-4670-0. – 9 pp. (in Slovak)
- Zecheľová, K.: Comparison of IDF Curves Derived from 1-Day Precipitation in the Northern Region of Slovakia. In: Conference of Young Researchers: Book of Proceedings. Kočovce, SR, 13.-15.11.2013. – Bratislava: SUT in Bratislava, 2013. – ISBN 978-80-227-4077-7. – pp. 199-206 (in Slovak)

Zechelová, K.: Comparison of the Impact of Observation Periods for Estimating Scaling Exponents. In: *Advances in Architectural, Civil and Environmental Engineering: 23rd Annual PhD Student Conference*. Bratislava, SR, 30.10.2013. – Bratislava: SUT, 2013. – ISBN 978-80-227-4102-6. – pp. 903-909 (in Slovak)

Ivan, P. – Vojtková, J. – Kráľová, J. – Klinčoková, K.: Analysis of the Methodologies of Ecological Stability Calculations. In: *Current Problems of Landscape Architecture and Landscape Planning: Book of Proceedings*. – Bratislava: VEDA, 2013. – ISBN 978-80-224-1296-4. – pp. 66-74 (in Slovak)

Jarabíková, M. – Pásztorová, M.: Analysis of Natural Conditions and Management of the Belianske Lúky Wetland. In: *Current Problems of Landscape Architecture and Landscape Planning: Book of Proceedings*. – Bratislava: VEDA, 2013. – ISBN 978-80-224-1296-4. – pp. 85-93 (in Slovak)

Kráľová, J. – Stankoci, I. – Ivan, P.: Modelling of the Quality of a Flow Habitat Using Bioindications. In: *Current Problems of Landscape Architecture and Landscape Planning: Book of Proceedings*. – Bratislava: VEDA, 2013. – ISBN 978-80-224-1296-4. – pp. 108-116 (in Slovak)

Macura, V.: Present and Future States of Water Management in Slovakia. In: *Current Problems of Landscape Architecture and Landscape Planning: Book of Proceedings*. – Bratislava: VEDA, 2013. – ISBN 978-80-224-1296-4. – pp. 117-121 (in Slovak)

Stankoci, I. – Kráľová, J. – Vojtková, J.: Revitalization of Dead Branches of the Váh River in Šaľa. In: *Current Problems of Landscape Architecture and Landscape Planning: Book of Proceedings*. – Bratislava: VEDA, 2013. – ISBN 978-80-224-1296-4. – pp. 202-210 (in Slovak)

Škrinár, A. – Baláž, M.: Design of Revitalization Measures for the Porec River in the Abrod Wetland Ecosystem. In: *Current Problems of Landscape Architecture and Landscape Planning: Book of Proceedings*. – Bratislava: VEDA, 2013. – ISBN 978-80-224-1296-4. – pp. 222-227 (in Slovak)

Vojtková, J. – Stankoci, I. – Ivan, P.: Succession and Fluvial Processes of Floodplain Ecosystems. In: *Current Problems of Landscape Architecture and Landscape Planning: Book of Proceedings*. – Bratislava: VEDA, 2013. – ISBN 978-80-224-1296-4. – pp. 235-242 (in Slovak)

DEPARTMENT OF HYDRAULIC ENGINEERING

Head of Department

Prof. Ing. Peter Dušička, PhD.

Tel.: +421 2 59274 565

Fax: +421 2 59274 619

E-mail: peter.dusicka@stuba.sk

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

Hydropower Engineering

Construction of Metallic Hydraulic Structures

Hydraulic Research

Engineering Networks and Water Structures

Automation of Engineering Problems

Special Articles of Hydraulic Structures

Numerical Modelling of Hydraulic Processes

Water and Road Constructions

1.2 Postgraduate courses

Hydropower Systems

Hydraulic Modelling of Hydrodynamic Phenomena

Fluid Mechanics

Advanced Issues of Hydraulic Structures

2. THESES

2.1 Bachelor theses

There were 11 works.

2.2 Graduate theses

Bogdanyová, E.: Design of a Small Hydropower Plant on the Hron River at Hliník nad Hronom

Supervisor: Šulek, P.

Lukačovič, T.: Assessment of Parameters of the Central Váh Water Structures with Respect to the Navigational Requirements

Supervisor: Možiešik, L.

Paulech, A.: Proposed Hydropower Utilization of the Weir at Bánovce nad Bebravou

Supervisor: Šulek, P.

Sádovský, I.: A Software for Simulation of Filling and Emptying of a Navigational Lock

Supervisor: Možiešik, L.

Michalka, J.: Design of a Navigational Lock of the Madunice Water Structure

Supervisor: Cabadaj, R.

Molnár, M.: Design of the Černová Small Hydropower Plant

Supervisor: Rumann, J.

Turček, P.: Design of a Navigational Lock of the Horná Streda Water Structure

Supervisor: Cabadaj, R.

Ujváry, P.: Design of a Weir Structure at the Hubová SHPP

Supervisor: Rumann, J.

Kamenský, M.: Predicting the Effects of a Small Hydropower Plant Construction on a Groundwater Level Regime

Supervisor: Baroková, D.

Kukučka, L.: Design of a Fishpass for a Planned Water Structure

Supervisor: Čubanová, L.

Dušička, M.: Hydropower Utilization of an Old Mill Structure at the Village of Meliata

Supervisor: Rumann, J.