
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 12 works.

2.2 Graduate theses

Nosko, R.: Evaluation of Developing an Erosion Rill for Proposed of Erosion Control.

Supervisor: Danáčová, M.

Belan, M.: Evaluation of Changes in Snow Cover in Slovakia by Semi-Distributed Modelling.

Supervisor: Výleta, R.

Franko, T.: Proposed Flood Protection for the Village of Píla.

Supervisor: Macura, V.

Kocka, L.: Restoration of the Branoský Stream in the Village of Čechy.

Supervisor: Macura, V.

Maliarik, P.: Stabilization of the Handlovka River Channel in Handlová.

Supervisor: Škrinár, A.

Ďurecová, Z.: Analysis of Rainfall Intensities and Their Changes in Slovakia.

Supervisor: Kohnová, S.

Marková, R.: Analysis of SCS-CN Parameters on the Myjava River Basin
Supervisor: Kohnová, S.

Morvayová, V: Proposed Landscale Engineering Measures and Soil Erosion Control for a Selected River Basin.
Supervisor: Hlavčová, K.

Csicsóová, A.: The Effect of Different Crops on the Course of a Soil Water Regime.
Supervisor: Skalová, J.

Ďurechová, L...: Determining the Course of the Water Retention Curves for the Soils of Slovakia.
Supervisor: Skalová, J.

2.3 Doctoral theses

Jeneiová, K.: Detection of Changes in Annual Flood Time Series
Supervisor: Kohnová, S.

3. RESEARCH

3.1 Research projects

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)

Preventing and Remediating Degradation of Soils in Europe Through Land Care (RECARE). (2013-1018, Szolgay, J.). Research Project of 7FP No. 603498.

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

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

University of Natural Resources and Life Sciences, Institute of Hydrobiology and Aquatic Ecosystem Management, Vienna, Austria

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

Books

Bezák, J.: Analysis of the Use of Hybrid Data-Driven Models for Predictions of Hydrological Variables. 1st ed. Bratislava: Slovak University of Technology in Bratislava, 2015. 98 pp. ISBN 978-80-227-4460-7 (in Slovak)

Rehák, Š. – Bárek, V. – Jurík, L. – Čistý, M. – Igaz, D. – Adam, Š. – Lapin, M. – Skalová, J. – Alena, J. – Fekete, V. – Šútor, J. – Jobbágy, J.: Irrigation of Field Crops, Vegetables and Orchards. 1st ed. Bratislava : Veda, 2015. 640 pp. ISBN 978-80-224-1429-6 (in Slovak)

Skalová, J. – Kotorová, D. – Igaz, D. – Gomboš, M. – Nováková, K.: Regionalization of Pedotransfer Functions of Water Retention Curves for Soils in Slovakia. 1st ed. Bratislava: Slovak University of Technology in Bratislava, 2014, 143 pp. Edition of monographs. ISBN 978-80-227-4455-3 (in Slovak)

Textbooks

Čistý, M. – Becová, A.: River Basin Management : Irrigation. 1st ed. Bratislava: Slovak University of Technology in Bratislava, 2015. 77 pp. ISBN 978-80-227-4493-5 (in English)

Journals

- Bajtek, Z. – Čistý, M. – Čelár, L.: Irrigation Distribution Network Analysis. In: IOSR Journal of Mechanical and Civil Engineering. Vol. 12, No. 6 (2015), [8] pp. ISSN 2320-334X (in English)
- Čistý, M. – Čelár, L. – Minarič, P.: Conversion Between Soil Texture Classification Systems Using the Random Forest Algorithm. In: Air, Soil and Water Research. Vol. 8, (2015), online, pp. 67-75. ISSN 1178-6221 (in English)
- Čistý, M. – Čelár, L.: Using R in Water Resources Education. In International Journal for Innovation Education and Research. Vol. 3, No. 10 (2015), pp. 97-117. ISSN 2411-3123 (in English)
- Danáčová, M. – Szolgay, J. – Výleta, R.: Estimation of the Relationship Between the Travel Time of Flood Peaks and Peak Discharge on the Poprad River by Multilinear Flood Routing. In: International Journal of New Technology and Research. Vol. 1, No. 6 (2015), online, pp. 35-39. ISSN 2454-4116 (in English)
- Danáčová, M. – Nosko, R. – Výleta, R. – Randusová, B. – Szolgay, J.: Possibilities of Estimating the Changes in Gully Erosion on the Myjava Basin. In: Acta Hydrologica Slovaca. Vol. 16, 1 (2015), pp. 167-175. ISSN 1335-6291 (in Slovak)
- Gaál, L. – Szolgay, J. – Kohnová, S. – Hlavčová, K. – Parajka, J. – Viglione, A. – Merz, R. – Blöschl, G.: Dependence Between Flood Peaks and Volumes: a Case Study on Climate and Hydrological Controls. In: Hydrological Sciences Journal – Journal des Sciences Hydrologiques. Vol. 60, No. 6 (2015), pp. 968-984. ISSN 0262-6667 (in English)
- Hlavčová, K. – Lapin, M. – Valent, P. – Szolgay, J. – Kohnová, S. – Rončák, P.: Estimation of the Impact of Climate Change-Induced Extreme Precipitation Events on Floods. In: Contributions to Geophysics and Geodesy. Vol. 45, No. 3 (2015), pp. 173-192. ISSN 1335-2806 (in English)
- Ivan, P. – Macura, V.: Modification of a Measured Habitat Suitability Curve for a Wide Range of Flows. In: Acta Hydrologica Slovaca. Vol. 16, No. 1 (2015), pp. 60-68. ISSN 1335-6291 (in Slovak)
- Ivan, P.: Evaluation of Quality of Aquatic Habitat on the Nitrica River. In: Acta Scientiarum Polonorum Formatio Circumiectus. Vol. 14, No. 2 (2015), pp. 93-101. ISSN 1644-0765 (in English)
- Jarabíková, M. – Pásztorová, M. – Minarič, P. – Skalová, J.: Impact of the Climate Change on Evapotranspiration in the Poiplie Area. In: Acta Scientiarum Polonorum Formatio Circumiectus. Vol. 14, No. 1 (2015), pp. 85-97. ISSN 1644-0765 (in English)
- Jarabíková, M. – Minarič, P. – Pásztorová, M.: The Course of the Soil Water Regime in the Poiplie Area as a Consequence of Climate Change. In: Acta Hydrologica Slovaca. Vol. 16, No. 2 (2015), pp. 178-186. ISSN 1335-6291 (in Slovak)
- Jeneiová, K. – Kohnová, S. – Parajka, J. – Szolgay, J.: Detection of Changes in the Annual Maximum Discharge Series in South Slovakia. In: Acta Hydrologica Slovaca. Vol. 16, 1 (2015), pp. 53-58. ISSN 1335-6291 (in Slovak)
- Korbeřová, L.: Garden Where Miracles Happen. In: A+D. Vol. 10, No. 18 (2015), pp. 36-37. ISSN 1338-2861 (in Slovak)
- Korbeřová, L.: Place Inspired by Nature. In: A+D. Vol. 10, No. 18 (2015), pp. 38-39. ISSN 1338-2861 (in Slovak)
- Macura, V. – Škrinár, A.: Possibilities of River Restoration in Slovakia. In: Vodohospodársky spravodajca. Vol. 58, (2015), pp. 26-30. ISSN 0322-886X (in Slovak)
- Mediero, L. – Kjeldsen, T. R. – Macdonald, N. – Kohnová, S. – Merz, B. – Vorogushyn, S. – Wilson, D. – Alburquerque, T. – Blöschl, G. – Bogdanowicz, E. – Castellarin, A. – Hall, J. – Kobold, M. – Kriaučiunienė, J. – Lang, M. – Madsen, H. – Onușel G., G. – Perdigao, R. A P – Roald, L. A. – Salinas, J. L. – Toumazis, Antonis D. – Veijalainen, N. – Pórarinnsson, Ó.: Identification of Coherent Flood Regions across Europe by Using the Longest Streamflow Records. In: Journal of Hydrology. Vol. 528, (2015), pp. 341-360. ISSN 0022-1694 (in English)
- Molnár, P. – Faticchi, S. – Gaál, L. – Szolgay, J. – Burlando, P.: Storm Type Effects on Super Clausius-Clapeyron Scaling of Intense Rainstorm Properties with Air Temperature. In: Hydrology and Earth System Sciences. Vol. 19, No. 4 (2015), pp. 1753-1766. ISSN 1027-5606 (in English)
- Randusová, B. [Karabová, B.] – Marková, R. – Hlavčová, K. – Kohnová, S.: Parametrisation of the SCS-CN Method on the Myjava Catchment. In: Acta Hydrologica Slovaca. Vol. 16, 1 (2015), pp. 161-166. ISSN 1335-6291 (in Slovak)
- Randusová, B. [Karabová, B.] – Marková, R. – Kohnová, S. – Hlavčová, K.: Comparison of CN Estimation Approaches. In: International Journal of Engineering Research & Science. Vol. 1, No. 7 (2015), online, pp. 34-40. ISSN 2395-6992 (in English)
- Rutkowska, A. – Kohnová, S. – Banasik, K. – Szolgay, J. – Karabová, B. [Karabová, B.]: Probabilistic Properties of a Curve Number: A Case Study for Small Polish and Slovak Carpathian Basins. In: Journal of Mountain Science. Vol. 12, No. 3 (2015), pp. 533-548. ISSN 1672-6316 (in English)
- Sleziak, P. – Hlavčová, K. – Szolgay, J.: Advantages of a Time Series Analysis Using Wavelet Transform as Compared with a Fourier Analysis. In: Slovak Journal of Civil Engineering. Vol. 23, No. 2 (2015), pp. 30-36. ISSN 1210-3896 (in English)
- Sleziak, P. – Szolgay, J.: Analysis of the Similarities Between Time Series of Discharges of Selected Slovak Rivers Using Wavelet Coherence. In: Meteorological Journal. Vol. 18, No. 1 (2015), pp. 25-32. ISSN 1335-339X (in English)
- Studvová, Z. – Hlavčová, K. – Kotříková, K. – Morvayová, V.: Evaluating the Effectiveness of Erosion Control on a Selected Area in the Myjava Basin. In: Acta Hydrologica Slovaca. Vol. 16, 1 (2015), pp. 176-183. ISSN 1335-6291 (in Slovak)

Valent, P. – Maliariková, M. – Rončák, P. – Hlavčová, K. – Randusová, B. [Karabová, B.]: Analysis of Land Use Changes in the Myjava River Basin Utilizing Historical Maps. In: *Acta Hydrologica Slovaca*. Vol. 16, 1 (2015), pp. 152-160. ISSN 1335-6291 (in Slovak)

Valent, P. – Výleta, R.: Calculating Areal Rainfall Using a More Efficient IDW Interpolation Algorithm. In: *International Journal of Engineering Research & Science*. Vol. 1, No. 7 (2015), online, pp. 9-17. ISSN 2395-6992 (in English)

Vitková, J. – Brezianská, K. – Skalová, J.: Analysis of Actual Evapotranspiration at the Zahorie Lowland in the Time Horizons 2010, 2030 and 2075. In: *Acta Hydrologica Slovaca*. Vol. 16, No. 2 (2015), pp. 171-177. ISSN 1335-6291 (in Slovak)

Výleta, R. – Szolgay, J.: Stochastic Modelling of Mean Monthly Flows Using the Thomas-Friering Model for the Needs of Engineering Hydrology. In: *Acta Hydrologica Slovaca*. Vol. 16, No. 1 (2015), pp. 51-59. ISSN 1335-6291 (in Slovak)

Výleta, R. – Kotríková, K. – Valent, P. – Szolgay, J. – Szász, V.: The Modelling of a Snow Water Equivalent Using a Spatially Semi-Distributed Model of a Catchment. In: *Acta Hydrologica Slovaca*. Vol. 16, 1 (2015), pp. 235-244. ISSN 1335-6291 (in Slovak)

Zechelová, K. – Ďurecová, Z. – Kohnová, S.: Testing Changes in the Trends and Scaling Exponents of Short-Term Rainfall at the Hurbanovo Station. In: *Acta Hydrologica Slovaca*. Vol. 16, 1 (2015), pp. 184-189. ISSN 1335-6291 (in Slovak)

Conference Proceedings

Becová, A.: Analysis of Drought Events Using Selected Drought Indices. In: *Advances in Architectural, Civil and Environmental Engineering : 25th 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, SR, 28.10.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 252-258. ISBN 978-80-227-4514-7 (in Slovak)

Čelár, L.: Analysis and Visualisation of an Irrigation Distribution Network. In: *Advances in Architectural, Civil and Environmental Engineering : 25rd 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, SR, 28.10.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 783-789. ISBN 978-80-227-4514-7 (in Slovak)

Čistý, M. – Bajtek, Z. – Čelár, L.: Analysis and Visualization of Irrigation Distribution Systems. In: *Water Management and Hydraulic Engineering 2015 : 14th International Symposium*. Brno, CR, 8.-10.9.2015. 1st ed. Brno : Institute of Water Structures, FCE, BUT, 2015, pp. 131-140. ISSN 2410-5910. ISBN 978-80-214-5230-5 (in English)

Čistý, M. – Čelár, L. – Becová, A.: Application of Copulas in Analysis of Drought and Irrigation. In: *ADVCOMP 2015 : the Ninth International Conference on Advanced Engineering Computing and Applications in Sciences*. Nice, France, 19.-24.7.2015 : International Academy, Research and Industry Association (IARIA), 2015, pp. 104-108. ISBN 978-1-61208-419-0 (in English)

Danáčová, M. – Szolgay, J.: Comparison of the Simulation of Hydrological Flow Routing Models on the River Suir. In: *Workshop of Adolf Patera 2015 : Extreme Hydrological Events in Catchments*. Prague, CR, 16.12.2015. 1st ed. Prague : CVUT in Prague, 2015, pp. 25-32. ISBN 978-80-01-05856-5 (in Slovak)

Hall, J. – Arheimer, B. – Aronica, G. T. – Bilibashi, A. – Boháč, M. – Gaál, L. – Kohnová, S. – Szolgay, J.: A European Flood Database: Facilitating Comprehensive Flood Research Beyond Administrative Boundaries. In: *Proceedings of the International Association of Hydrological Sciences*. Vol. 370, (2015), online, pp. 89-95. ISSN 2199-8981 (in English)

Hépal, M. – Tokár, O.: Natural Systems and Elements in the City and Their Classification. In: *Advanced Building Construction and Materials 2015 (ABCM 2015) : Proceedings of the Scientific Conference with international participation*. Strážnice, CR, 25.-27.6.2015. 1st ed. Ostrava : VŠB – Technical University of Ostrava, Faculty of Safety Engineering, 2015, CD-ROM, pp. 111-114. ISBN 978-80-248-3860-1 (in Slovak)

Hlavčová, K. – Kotríková, K. – Szolgay, J. – Kohnová, S.: Changes in Snow Pack in Mountainous Basins in Slovakia Due to Climate Change. In: *Earth and Environmental Sciences for Future Generations : 26th General Assembly of the International Union of Geodesy and Geophysics*. Prague, CR, 22.6.-2.7.2015. Potsdam : International Union of Geodesy and Geophysics, 2015 (in English)

Hlavčová, K. – Kotríková, K. – Kohnová, S. – Valent, P.: Changes in the Snow Water Equivalent in Mountainous Basins in Slovakia Over Recent Decades. In: *Proceedings of the International Association of Hydrological Sciences*. Vol. 370, (2015), online, pp. 109-116. ISSN 2199-8981 (in English)

Ivan, P. – Jarabíková, M. – Muchová, Z.: Assessment of Changes in Landuse by the Coefficient of Ecological Stability. In: *SGEM 2015. 15th International Multidisciplinary Scientific Geoconference. Ecology, Economics, Education and Legislation : Conference Proceedings*, 18.-24.6.2015, Albena, Bulgaria. 1st ed. Sofia : STEF 92 Technology, 2015, pp. 73-80. ISSN 1314-2704. ISBN 978-619-7105-39-1 (in English)

Ivan, P. – Majorošová, M. – Macura, V.: Modification and Application of Habitat Suitability Curves for a Depth. In: *SGEM 2015. 15th International Multidisciplinary Scientific GeoConference. Water Resources. Forest, Marine and Ocean Ecosystems : conference proceedings*. Albena, Bulgaria, 18.-24.6.2015. 1st ed. Sofia : STEF 92 Technology, 2015, pp. 453-460. ISSN 1314-2704. ISBN 978-619-7105-36-0 (in English)

Ivan, P. – Chebeňová, T.: The Land Use Changes Described by Coefficients of Ecological Stability. In: *Landscape Architecture and Landscape Planning. Conference Proceedings*, 1.-2.10.2015, Bratislava, 1st ed. Bratislava : SUT, 2015, pp. 159-166. ISBN 978-80-227-4443-0 (in Slovak)

- Ivan, P.: Modification of Habitat Suitability Curve of Depths for a Wider Flow Range in the Nitra River. In: *Advances in Architectural, Civil and Environmental Engineering : 25th 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, SR, 28.10.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 259-265. ISBN 978-80-227-4514-7 (in Slovak)
- Jarabíková, M. – Minarič, P. – Pásztorová, M.: Forecasting the Soil Water Regime for the Poiplie Area. In: *Impact of Anthropogenic Activities on the Water Regime of Lowlands. Conference Proceedings, Zemplínska Šírava, SR, 2.-4.6.2015*. 1st ed. Bratislava : Institute of Hydrology of SAS, 2015, CD-ROM, pp. 112-125. ISBN 978-80-89139-35-4 (in Slovak)
- Jarabíková, M. – Minarič, P. – Skalová, J. – Vitková, J.: Diagnosis of a Water Regime for Different Ecosystems. In: *Landscape Architecture and Landscape Planning in Perspective. Conference Proceedings, 1.-2.10.2015, Bratislava, Slovakia*. 1st ed. Bratislava : SUT, 2015, pp. 179-186. ISBN 978-80-227-4443-0 (in Slovak)
- Jarabíková, M. – Minarič, P. – Skalová, J.: Formation of Water Retention Curves for the Myjava Region. In: *Transport of Water, Chemicals and Energy in the Soil-Plant-Atmosphere System., Conference Proceedings from 22nd International Poster Day of IH SAS. Bratislava, SR, 12.11.2015, 1st ed. Bratislava : Institute of Hydrology of SAS, 2015, CD-ROM, pp. 87-94. ISBN 978-80-89139-36-1 (in Slovak)*
- Jarabíková, M.: Analysis of the Soil Water Regime under Selected Crops. In *Advances in Architectural, Civil and Environmental Engineering : 25th 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, SR, 28.10.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 266-270. ISBN 978-80-227-4514-7 (in Slovak)
- Jeneiová, K.: Changes in the Seasonality of Maximum Annual Discharges in the Váh River Basin. In *Juniorstav 2015 : 17th Conference of Doctoral Studies*. Brno, CR, 29.1.2015. 1st ed. Brno : VUT in Brno, 2015, CD-ROM, 6 pp. ISBN 978-80-214-5091-2 (in Slovak)
- Jeneiová, K. – Kohnová, S. – Parajka, J.: Decadal Changes in the Occurrence of Annual Maximum Discharges in Slovakia, 1971-2010. In: *HydroCarpath 2015. Catchment Processes in Regional Hydrology: Linking Experiments and Modelling in Carpathian Drainage Basins : proceedings of international conference. Sopron/ Bratislava/Vienna, 29.10.2015*. 1st ed. Sopron : University of West Hungary Press, 2015, CD-ROM, 6 pp. ISBN 978-963-334-268-8 (in English)
- Kohnová, S. – Karabová, B. – Szolgay, J. – Hlavčová, K.: To the Possibilities of Watershed Parameterization for Design Flow Estimation on Ungauged Basins. In: *Earth and Environmental Sciences for Future Generations : 26th General Assembly of the International Union of Geodesy and Geophysics*. Prague, CR, 22.6.-2.7.2015. Potsdam : International Union of Geodesy and Geophysics, 2015, 1 p. (in English)
- Kohnová, S. – Karabová, B. [Karabová, B.] – Hlavčová, K.: On the Possibilities of Watershed Parameterization for Extreme Flow Estimation in Ungauged Basins. In: *Proceedings of the International Association of Hydrological Sciences*. Vol. 370, (2015), online, pp. 171-175. ISSN 2199-8981 (in English)
- Korbeľová, L. – Kohnová, S. – Hlavčová, K.: Policy and Executive Administrative Departments for the Use of Ecosystem Services. In: *Landscape Architecture and Landscape Planning in Perspective. Conference Proceedings*. 1.-2.10.2015, Bratislava. 1st ed. Bratislava : SUT, 2015, 10 pp. ISBN 978-80-227-4443-0 (in Slovak)
- Korbeľová, L.: Ecological and Economic Roots of the Concept of „Ecosystem Services“. In: *Advances in Architectural, Civil and Environmental Engineering : 25th 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, SR, 28.10.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 271-278. ISBN 978-80-227-4514-7 (in Slovak)
- Kotříková, K.: Behavior of the Snow Water Equivalent in the Upper Hron River Basin (Slovakia) Over the Period 1961-2010. In: *Juniorstav 2015 : 17th Conference of Doctoral Studies*. Brno, CR, 29.1.2015. 1st ed. Brno : VUT in Brno, 2015, CD-ROM, 8 pp. ISBN 978-80-214-5091-2 (in Slovak)
- Látková, T.: An Assessment of the Impact of Land Use Changes on Runoff Using the WetSpa Rainfall-Runoff Model. In: *Advances in Architectural, Civil and Environmental Engineering : 25th 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, SR, 28.10.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 824-829. ISBN 978-80-227-4514-7 (in Slovak)
- Majorošová, M. – Vojtková, J.: The Effect of Flood Events on the Humus Horizons of the Fluvisols in a Riparian Zone of the River Schwechat. In: *HydroCarpath 2015. Catchment Processes in Regional Hydrology: Linking Experiments and Modelling in Carpathian Drainage Basins : Proceedings of international conference. Sopron/ Bratislava/Vienna, 29.10.2015*. 1st ed. Sopron : University of West Hungary Press, 2015, CD-ROM, 7 pp. ISBN 978-963-334-268-8 (in English)
- Majorošová, M.: Innovative Approaches in the Mapping of Invasive Vegetation. In: *Advances in Architectural, Civil and Environmental Engineering : 25th 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, SR, 28.10.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 279-283. ISBN 978-80-227-4514-7 (in Slovak)
- Majorošová, M. – Ivan, P.: Management of Drinking Water in Singapore. In: *Conference of Young Researchers*. Duchonka, SR, 16.-18.9.2015. 1st ed. Bratislava : Slovak University of Technology in Bratislava, 2015, CD-ROM, pp. 39-46. ISBN 978-80-227-4458-4 (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

Hydromechanics

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 15 works.

2.2 Graduate theses

Česelská, M.: Flow Simulation by Means of a 2D Hydrodynamic Model in the Area of a Selected Water Structure on the Váh River

Supervisor: Orfánus, M.

Chlebák, O.: Design of the Sajkov Small Hydropower Plant on the Hornád River

Supervisor: Dušička, P.

Hanzlík, M.: Design of the Hydropower Utilization of the Weir at Vyškovce nad Ipľom

Supervisor: Šulek, P.

Ivaneková, P.: Flow Simulation by Means of a 2D Hydrodynamic Model in the Area of a Selected Water Structure on the Danube River

Supervisor: Orfánus, M.

Janík, A.: Solution of the Flood Protection of Urban Areas in the Small Carpathians

Supervisor: Šoltész, A.

Klenovič, M.: Design of a Small Hydropower Plant on the Hornád River

Supervisor: Rumann, J.

Kopáčková, A.: Design of Water Management Measures and Hydropower Utilization in the Area of Tŕstie

Supervisor: Dušička, P.

Križan, M.: Design of a Control Weir on the Váh River

Supervisor: Gramblička, M.

Kyseláková, M.: Assessment of the Possibilities of Hydropower Utilization of the Váh River in the Kraľovany – Ružomberok Stage

Supervisor: Rumann, J.

Motyka, T.: Design of a Small Hydropower Plant

Supervisor: Šulek, P.

Nahálková, M.: Modelling the Effects of a Planned Water Structure on the Danube on a Groundwater Flow and Regime

Supervisor: Baroková, D.