
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 12 works.

2.2 Graduate theses

BEHAN, Š.: Analysis of Changes in Land Use and Their Impact on Runoff in a River Basin

Supervisor: VÝLETA, R.

BEREC, A.: Proposals for Landscape Engineering Measures in a Selected River Basin

Supervisor: HLAVČOVÁ, K.

CELLER, M.: Proposals for Erosion Control and Evaluation of Their Effectiveness in the Sobotište Cadastral Area

Supervisor: VÝLETA, R.

HABURAJÓVÁ, M.: Application of a Rainfall Simulator for the Solution of Tasks in Water Management

Supervisor: DANÁČOVÁ, M.

HORDÓSI, G.: Design of the Garden of a Family House, Including Irrigation

Supervisor: BAJTEK, Z.

HUDCOVIČ, L.: Design of Erosion Control in the Turá Lúka Region

Supervisor: HLAVČOVÁ, K.

HUDEC, A.: Design of Drip Irrigation for Vineyards
Supervisor: BAJTEK, Z.

LISOVSZKI, E.: The Potential of Flood Risk Reduction through Changing the Land Use in Mid-Sized Catchments in the Myjava Region of Slovakia
Supervisor: SZOLGAY, J.

REŠUTÍKOVÁ, I.: Analysis of Soil Erosion in the Svacenický Jarok Catchment
Supervisor: KOHNOVÁ, S.

ŠAJERMANOVÁ, B.: Restoration of the River Channel and Adjacent Landscape Near a Former Water Mill
Supervisor: ŠKRINÁR, A.

VASILAKI, M.: Analysis of Projected Changes of Short-Term Rainfall Characteristics for Selected Stations in Slovakia
Supervisor: KOHNOVÁ, S.

2.3 Doctoral theses

IVAN, P.: Evaluating Quality of Aquatic Habitat of Mountainous Rivers
Supervisor: MACURA, V.

JARABICOVÁ, M.: Soil Water Regime Predictions
Supervisor: SKALOVÁ, J.

RONČÁK, P.: Parameterization of Rainfall-Runoff Models for Modelling Runoff under Climate Change
Supervisor: HLAVČOVÁ, K.

SZŐEKEOVÁ, D.: Application of Multi-Regime Models for Analysis of Discharge Series
Supervisor: KOHNOVÁ, S.

VOJTKOVÁ, J.: Vegetation Effect on Erosion-Sedimentation Processes in the Floodplain Soils of the Schwechat River, Austria
Supervisor: MACURA, V.

3. RESEARCH

3.1 Research projects

Sensitivity of Flood Generation to Intensive Precipitation and Land Use in Headwater Catchments (2016-2019, SZOLGAY, J.), Research Project of APVV-15-0497

Impact of Natural Hazards on Forest Ecosystems in Slovakia under the Conditions of a Future Climate (2016-2019, SZOLGAY, J.), Research Project of APVV-15-0425

Analysis of Drought by Multicriterial Statistical Methods and Methods of Data Mining for the Design of Adaptation Measures in a Landscape (2016-2019, ČISTÝ, M.), Research Project of APVV-15-0489

Preventing and Remediating Degradation of Soils in Europe through Land Care (RECARE). (2013-2018, SZOLGAY, J.), Research Project of 7FP No. 603498

Predicted Impact of Climate and Morphological Changes on the Ecosystem of Mountainous Catchments Using Soft-Computing Technologies (2015-2018, MACURA, V.), VEGA 1/0625/15

Analysis of Climate and Hydrological Extremes by Data Mining and Hydroinformatic Methods for Adaptation Measures in a Landscape (2015-2018, ČISTÝ, M.), VEGA 1/0665/15

Parametrization of Rainfall-Runoff Processes for Modelling Extreme Runoff in Small Catchments (2015-2018, KOHNOVÁ, S.), VEGA 1/0710/15

Study of Local and Spatial Properties of Hydrometeorological Extremes in the Conditions of Nonstationarity by Copulas (2013-2016, SZOLGAY, J.), VEGA 1/0776/13

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 Thessaly, Volos, Greece

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

4. PUBLICATIONS

Books

NÁNÁSIOVÁ, O. – KOHNOVÁ, S.: Statistics and Probability. 1. ed. Bratislava: STU, 2016, 199 pp. University Textbook Edition. ISBN 978-80-227-4527-7 (in Slovak)

Parts of Books

MACURA, V. – IVAN, P.: Effect of Land Use Changes on the Length of Surface Runoff. In: AQUA 2016 : Proceedings. 1. ed. Bratislava : STU Bratislava, 2016, CD-ROM, pp. 217-225. ISBN 978-80-227-4612-0 (in Slovak)

SZOLGAY, J. – CAMERRA, C. – SKARBOVIK, E. – HLAVČOVÁ, K.: Flooding and Landslides. In: Soil Threats in Europe: Status, Methods, Drivers and Effects on Ecosystem Services. 1. ed. Luxembourg: European Union, 2016, pp. 128-144. ISSN 1018-5593, ISBN 978-92-79-54018-9 (in English)

Journals

AL-BEYROUTIOVÁ, M. – SABO, M. – SLEZIAK, P. – DUŠINSKÝ, R. – BIRČÁK, E. – HAUPTVOGEL, P. – KILIAN, A. – ŠVEC, M.: Evolutionary Relationships in the Genus *Secale* Revealed by DArTseq DNA Polymorphism. In: Plant Systematics and Evolution. Vol. 302, No. 8 (2016), pp. 1083-1091. ISSN 0378-2697 (in English)

BLÖSCHL, G. – SZOLGAY, J. – PARAJKA, J. – KOHNOVÁ, S. – MIKLÁNEK, P.: Thematic Issue on Floods In the Danube Basin - Processes, Patterns, Predictions. In: Journal of hydrology and hydromechanics. Vol. 64, No. 4 (2016), pp. 301-303. ISSN 0042-790X. (in English)

ČISTÝ, M. – BECOVÁ, A. – ČELÁR, L.: Analysis of Irrigation Needs Using an Approach Based on a Bivariate Copula Methodology. In: Water Resources Management. Vol. 30, No. 1 (2016), pp. 167-182. ISSN 0920-4741 (in English)

ČISTÝ, M. – ČELÁR, L.: Conversion of the Time Series of Measured Soil Moisture Data to a Daily Time Step - A Case Study Utilizing the Random Forests Algorithm. In: Journal of Sustainable Development of Energy, Water

and Environment Systems. Vol. 4, No. 2 (2016), online, pp. 183-192. ISSN 1848-9257 (in English)

DANÁČOVÁ, M. – ĐURIGOVÁ, M. – MALIARIKOVÁ, M. – HLAVČOVÁ, K.: Experimental Measurements of a Surface Runoff Formation Using a Rainfall Simulator in Laboratory Conditions. In: Acta Hydrologica Slovaca. Vol. 17, No. 2 (2016), pp. 252-259. ISSN 1335-6291 (in Slovak)

GAÁL, L. – SZOLGAY, J. – BACIGÁL, T. – KOHNOVÁ, S. – HLAVČOVÁ, K. – VÝLETA, R. – PARAJKA, J. – BLÖSCHL, G.: Similarity of Empirical Copulas of Flood Peak-volume Relationships: a Regional Case Study of North-West Austria. In: Contributions to Geophysics and Geodesy. Vol. 46, No. 3 (2016), pp. 155-178. ISSN 1335-2806 (in English)

HLAVČOVÁ, K. – KOHNOVÁ, S. – BORGA, M. – HORVÁT, O. – ŠŤASTNÝ, P. – PEKÁROVÁ, P. – MAJERČÁKOVÁ, O. – DANÁČOVÁ, Z.: Post-Event Analysis and Flash Flood Hydrology in Slovakia. In: Journal of Hydrology and Hydromechanics. Vol. 64, No. 4 (2016), pp. 304-315. ISSN 0042-790X (in English)

IVAN, P. – CHEBEŇOVÁ, T.: Assessment of the Ecological Stability of the Village of Bielovce as a Result of Changes in Land Use. In: Slovak Journal of Civil Engineering. Vol. 24, No. 2 (2016), pp. 1-6. ISSN 1210-3896 (in English)

JARABICOVÁ, M. – MINARIČ, P.: Soil-Water Storage Predictions for Cultivated Crops on the Záhorská Lowlands. In: Slovak Journal of Civil Engineering. Vol. 24, No. 2 (2016), pp. 31-40. ISSN 1210-3896 (in English)

JENEIOVÁ, K. – KOHNOVÁ, S. – HALL, J. – PARAJKA, J.: Variability of Seasonal Floods in the Upper Danube River Basin. In: Journal of Hydrology and Hydromechanics. Vol. 64, No. 4 (2016), pp. 357-366. ISSN 0042-790X (in English)

KOHNOVÁ, S. – BOHDALOVÁ, M. – BOHDAL, R. – OCHABOVÁ, K. [Zechelová, K.]: Applicability of Basic Radial Functions for the Interpolation of Short-Term Rainfall Scaling Exponents in Slovakia. In: Acta Hydrologica Slovaca. Vol. 17, No. 2 (2016), pp. 243-251. ISSN 1335-6291 (in Slovak)

KOHNOVÁ, S. – GAÁL, L. – BACIGÁL, T. – SZOLGAY, J. – HLAVČOVÁ, K. – VALENT, P. – PARAJKA, J. – BLÖSCHL, G.: Process-Based Selection of Copula Types for Flood Peak-volume Relationships in Northwest Austria: a Case Study. In: Contributions to Geophysics and Geodesy. Vol. 46, No. 4 (2016), pp. 245-268. ISSN 1335-2806 (in English)

MACURA, V. – ŠTEFUNKOVÁ, Z. – ŠKRINÁR, A.: Determination of the Effect of Water Depth and Flow Velocity on the Quality of an In-Stream Habitat in Terms of Climate Change. In: Advances in Meteorology. Vol. 2016, (2016), [17] pp. ISSN 1687-9309 (in English)

MAJOROŠOVÁ, M.: DPSIR Framework - A Decision-Making Tool for Municipalities. In: Slovak Journal of Civil Engineering. Vol. 24, No. 4 (2016), pp. 45-50. ISSN 1210-3896 (in English)

MALIARIKOVÁ, M. – NOSKO, R. – LÁTKOVÁ, T. – SKALOVÁ, J. – MINARIČ, P.: The Determination of Options Provided for Water Retention Curves of the Myjava River Basin. In: Acta Hydrologica Slovaca. Vol. 17, No. 2 (2016), pp. 313-321. ISSN 1335-6291 (in Slovak)

MARKOVÁ, R. – XHAJA, A. – KOHNOVÁ, S.: Trend and Seasonality Analysis of the Maximum Annual Discharges in Selected Gauging Stations at the Hron River Basin. In *Acta Hydrologica Slovaca*. Vol. 17, No. 2 (2016), pp. 224-234. ISSN 1335-6291 (in Slovak)

PAPAIOANNOU, G. J. – KOHNOVÁ, S. – BACIGÁL, T. – SZOLGAY, J. – HLAVČOVÁ, K. – LOUKAS, A.: Joint Modelling of Flood Peaks and Volumes: A Copula Application for the Danube River. In: *Journal of Hydrology and Hydromechanics*. Vol. 64, No. 4 (2016), pp. 382-392. ISSN 0042-790X (in English)

RONČÁK, P. – HLAVČOVÁ, K. – LÁTKOVÁ, T.: Estimation of the Effect of Changes in Forest Associations on Runoff Processes in Basins: Case Study in the Hron and Topľa River Basins. In: *Slovak Journal of Civil Engineering*. Vol. 24, no. 3 (2016), pp. 1-7. ISSN 1210-3896 (in English)

SLEZIAK, P. – SZOLGAY, J. – HLAVČOVÁ, K. – PARAJKA, J.: The Impact of the Variability of Precipitation and Temperatures on the Efficiency of a Conceptual Rainfall-Runoff Model. In *Slovak Journal of Civil Engineering*. Vol. 24, No. 4 (2016), pp. 1-7. ISSN 1210-3896 (in English)

SOČUVKA, V. – IVAN, P. – HLAVČOVÁ, K. – KOHNOVÁ, S. – VELÍSKOVÁ, Y.: Clogging Analysis of the Svacenicý Jarok Polder. In *Acta Hydrologica Slovaca*. Vol. 17, No. 1 (2016), pp. 117-124. ISSN 1335-6291 (in Slovak)

SZOLGAY, J. – GAÁL, L. – BACIGÁL, T. – KOHNOVÁ, S. – HLAVČOVÁ, K. – VÝLETA, R. – PARAJKA, J. – BLÖSCHL, G.: A Regional Comparative Analysis of Empirical and Theoretical Flood Peak-Volume Relationships. In: *Journal of Hydrology and Hydromechanics*. Vol. 64, No. 4 (2016), pp. 367-381. ISSN 0042-790X (in English)

VALACH, J. – VIDO, J. – ŠKVARENINA, J.: Occurrences of Drought in the Horné Požitavie Region over the Period 1966-2013. In: *Acta Hydrologica Slovaca*. Vol. 17, No. 1 (2016), pp. 30-36. ISSN 1335-6291 (in Slovak)

VALENT, P. – RONČÁK, P. – MALIARIKOVÁ, M. – BEHAN, Š.: Utilization of Historical Maps in the Land Use Change Impact Studies: a Case Study from Myjava River Basin. In: *Slovak Journal of Civil Engineering*. Vol. 24, No. 4 (2016), pp. 15-26. ISSN 1210-3896 (in English)

VÝLETA, R. – CELLER, M. – DANÁČOVÁ, M.: Effect of Erosion Control Protections on Water Erosion and Sediment Transport in the Village of Sobotište. In: *Czech Journal of Civil Engineering*. Vol. 2, No. 2 (2016), online, pp. 162-168. ISSN 2336-7148 (in Slovak)

Conference Proceedings

ČELÁR, L. – ČISTÝ, M.: RIRR – New Open-Source Model for the Design, Analysis and Modelling of Irrigation Systems. In: *SGEM 2016. 16th International Multidisciplinary Scientific GeoConference. Book 3. Water Resources. Forest, Marine and Ocean Ecosystems: Conference Proceedings. Extended Scientific Sessions. Vienna, Austria, 2 - 5 Nov. 2016. 1. ed. Sofia : STEF 92 Technology, 2016, pp. 251-258. ISSN 1314-2704. ISBN 978-619-7105-81-0 (in English)*

ČELÁR, L.: Two-Phase Optimization for the Design of an Irrigation System. In: *Advances in Architectural, Civil and Environmental Engineering: 26th Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Surveying, Geodesy, and Applied Mathematics. 26. Oct. 2016, Bratislava. Bratislava: STU Bratislava, 2016, CD-ROM, pp. 613-618. ISBN 978-80-227-4645-8 (in Slovak)*

ČISTÝ, M. – JARABICOVÁ, M. – MINARIČ, P.: Spatial Assessment of Soil Water Storage as an Identifier of Areas Threatened by Drought. In: *Procedia Engineering: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016. Prague, CR, 13. – 17. 6. 2016. Vol. 161, (2016), online, pp. 1738-1744. ISSN 1877-7058 (in English)*

DANÁČOVÁ, M. – FENCÍK, R. – NOSKO, R.: Historical Development of the Permanent Gully Erosion - Case Study Tura Luka. In: *SGEM 2016. 16th International Multidisciplinary Scientific GeoConference. Book 3. Water Resources. Forest, Marine and Ocean Ecosystems: Conference Proceedings. Albena, Bulgaria, 30 June - 6 July 2016. Sofia: STEF 92 Technology, 2016, pp. 391-398. ISSN 1314-2704. ISBN 978-619-7105-61-2 (in English)*

DANÁČOVÁ, M. – SZOLGAY, J. – NOSKO, R.: Hydrological Flow Routing for Flow Conditions Before and After the Completion of the Gabčíkovo Hydropower Scheme. In: *HydroCarpath 2016. Catchment Processes in Regional Hydrology: From Plot to Regional Scales - Monitoring Catchment Processes and Hydrological Modelling: Abstracts of the Conference. Vienna/ Bratislava/Sopron, 27. 10. 2016. Sopron: University of West Hungary Press, 2016, p. 6. ISBN 978-963-334-296-1 (in English)*

ĐURIGOVÁ, M.: Examination of the Potential Formation of Surface Runoff on a Slope with a Rainfall Simulator. In: *28. Conference of Young Hydrologists. Conference Proceedings. Bratislava, SR, 9. 11. 2016. Bratislava: SHMI, 2016, CD-ROM, [12] pp. ISBN 978-80-88907-94-7 (in Slovak)*

HLAVČOVÁ, K. – RONČÁK, P. – MALIARIKOVÁ, M. – LÁTKOVÁ, T. – KORBELOVÁ, L.: Changes in Hydrological Regime under Changed Climate and Forest Conditions in Mountainous Basins in Slovakia. In: *Geophysical Research Abstracts. Volume 18/2016: the Open-Access Abstracts of the EGU General Assemblies. Göttingen: Copernicus Publications, 2016, online, [1] pp. ISSN 1607-7962 (in English)*

HLAVČOVÁ, K. – ŠTEFUNKOVÁ, Z. – VALENT, P. – KOHNOVÁ, S. – VÝLETA, R. – SZOLGAY, J.: Modelling the Climate Change Impact on Monthly Runoff in Central Slovakia. In: *Procedia Engineering: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016. Prague, CR, 13. – 17. 6. 2016. Vol. 161, (2016), online, pp. 2127-2132. ISSN 1877-7058 (in English)*

HLAVČOVÁ, K. – GAÁL, L. – SZOLGAY, J. – KOHNOVÁ, S. – VÝLETA, R. – DANÁČOVÁ, M. – PARAJKA, J.: Analysis of the Factors Controlling the Relationship between Flood Peaks and Volumes of Annual Maximum Flood Discharges: a Regional Case Study in Austria. In: *HydroCarpath 2016. Catchment Processes in Regional Hydrology: From Plot to Regional Scales - Monitoring Catchment Processes and Hydrological Modelling: Abstracts of the Conference. Vienna/Bratislava/Sopron, 27. 10. 2016. Sopron: University of West Hungary Press, 2016, p. 11. ISBN 978-963-334-296-1 (in English)*

- IVAN, P.: Modification of the Suitability Curve of the Depth of a Habitat for the Stone Loach. In: Juniorstav 2016: 18. Conference of Doctoral Study. Brno, CR, 28. 1. 2016. Brno: VUT in Brno, 2016, CD-ROM, 7 pp. ISBN 978-80-214-5311-1 (in Slovak)
- IVAN, P. – MACURA, V. – ŠTEFUNKOVÁ, Z. – ŠKRINÁR, A. – MAJOROŠOVÁ, M. – VOJTKOVÁ, J.: Use of Bioindication for Design Parameters of River Training in Urbanized Areas. In: Procedia Engineering: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016. Prague, CR, 13. – 17. 6. 2016. Vol. 161, (2016), online, pp. 36-41. ISSN 1877-7058 (in English)
- IVAN, P. – MACURA, V.: Application of Extended Habitat Suitability Curves for Depth in Nitrica River. In: ENVIRO 2015: Conference Proceeding. Račkova dolina, SR, 18. 11. – 20. 11. 2015. Nitra: Slovak Agricultural University in Nitra, 2016, CD-ROM, pp. 54-61. ISSN 2453-7357. ISBN 978-80-552-1553-2 (in English)
- JARABICOVÁ, M.: Using Monitoring in the Simulation of a Soil Water Regime. In: Juniorstav 2016: 18. Conference of Doctoral Study. Brno, CR, 28. 1. 2016. Brno: VUT in Brno, 2016, CD-ROM, 6 pp. ISBN 978-80-214-5311-1 (in Slovak)
- KORBELOVÁ, L.: Ecosystem Services of Soil in the RECARE Project. In: Advances in Architectural, Civil and Environmental Engineering: 26th Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Surveying, Geodesy, and Applied Mathematics. 26. Oct. 2016, Bratislava. Bratislava: STU Bratislava, 2016, CD-ROM, pp. 213-221. ISBN 978-80-227-4645-8 (in Slovak)
- LÁTKOVÁ, T. – SKALOVÁ, J.: Climate Change in Poiplie. In: Transport of Water, Chemicals and Energy in the Soil-Plant-Atmosphere System. 23rd International Poster Day and Institute of Hydrology Open Day. Proceedings of Peer-Reviewed Contributions. Bratislava, SR, 10. Nov. 2016. Bratislava: Institute of Hydrology of SAS, 2016, CD-ROM, pp. 77-87. ISBN 978-80-89139-38-5 (in Slovak)
- LÁTKOVÁ, T.: Analysis of Runoff Generation on a Hillslope by a Rainfall Simulator. In: Advances in Architectural, Civil and Environmental Engineering: 26th Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Surveying, Geodesy, and Applied Mathematics. 26. Oct. 2016, Bratislava. Bratislava: STU Bratislava, 2016, CD-ROM, pp. 657-664. ISBN 978-80-227-4645-8 (in Slovak)
- MACURA, V. – ŠTEFUNKOVÁ, Z. – ŠKRINÁR, A. – HALAJ, P.: Design of Restoration of Regulated Rivers Based on Bioindication. In: Procedia Engineering: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016. Prague, CR, 13. – 17. 6. 2016. Vol. 161, (2016), online, pp. 1025-1029. ISSN 1877-7058 (in English)
- MACURA, V. – ŠKRINÁR, A.: Restorative Measures of the Porec Brook in the Abrod Reserve. In: ENVIRO 2015: Conference Proceedings. Račkova dolina, SR, 18. 11. – 20. 11. 2015. Nitra: Slovak Agricultural University in Nitra, 2016, CD-ROM, pp. 201-207. ISSN 2453-7357. ISBN 978-80-552-1553-2 (in English)
- MAJOROŠOVÁ, M.: DPSIR Framework for Fallopia Japonica. In: Science of Young 2016: Proceedings. 7. – 9. Sept. 2016, Brno, CR. Nitra: Slovak Agricultural University in Nitra, 2016, online, pp. 90-95. ISBN 978-80-552-1535-8 (in Slovak)
- MAJOROŠOVÁ, M.: DPSIR Framework - A Decision Making Tool for Municipalities. In: HydroCarpath 2016. Catchment Processes in Regional Hydrology: From Plot to Regional Scales - Monitoring Catchment Processes and Hydrological Modelling: abstracts of the conference. Vienna/Bratislava/Sopron, 27. 10. 2016. Sopron: University of West Hungary Press, 2016, p. 16. ISBN 978-963-334-296-1 (in English)
- MAJOROŠOVÁ, M.: Decision Support Management Tool for Fallopia Japonica (Houtt.) Ronse Decr. In: Advances in Architectural, Civil and Environmental Engineering: 26th Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Surveying, Geodesy, and Applied Mathematics. 26. October 2016, Bratislava. Bratislava: Slovenská technická univerzita v Bratislave, 2016, CD-ROM, pp. 222-225. ISBN 978-80-227-4645-8 (in Slovak)
- MALIARIKOVÁ, M. – NOSKO, R. – MINARIČ, P. – LÁTKOVÁ, T.: The Determination of Options Provided for Water Retention Curves for the River Basin of the Myjava River. In: Transport of Water, Chemicals and Energy in the Soil-Plant-Atmosphere System. 23rd International Poster Day and Institute of Hydrology Open Day. Bratislava, SR, 10. Nov. 2016. Bratislava: Institute of Hydrology SAS, 2016, p. 14. ISBN 978-80-89139-38-5 (in Slovak)
- MALIARIKOVÁ, M. – NOSKO, R. – LÁTKOVÁ, T.: Experimental Field Measurements of Surface Runoff Using a Rainfall Simulator. In: Workshop of Adolf Patera 2016: Extreme Hydrological Events in Catchments. Proceedings. Prague, CR, 16. 11. 2016. Prague: CVUT in Prague, 2016, CD-ROM, pp. 133-142. ISBN 978-80-01-06048-3 (in Slovak)
- MALIARIKOVÁ, M.: Analysis of Land Use Changes in the Myjava River Basin and Their Impact on the Runoff Processes from the Catchment. In: Advances in Architectural, Civil and Environmental Engineering: 26th Annual PhD Student Conference on Architecture and Construction Engineering, Building Materials, Structural Engineering, Water and Environmental Engineering, Transportation Engineering, Surveying, Geodesy, and Applied Mathematics. 26. Oct. 2016, Bratislava. Bratislava: STU Bratislava, 2016, CD-ROM, pp. 226-233. ISBN 978-80-227-4645-8 (in Slovak)
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DEPARTMENT OF HYDRAULIC ENGINEERING

Head of Department

Prof. Ing. Peter Dušička, PhD.

Tel.: +421 2 592 74 565

Fax: +421 2 592 74 619

E-mail: peter.dusicka@stuba.sk

1. EDUCATION

1.1 Graduate study

Obligatory subjects

Basics of River Hydraulics

Biocorridors and EIA

Energy Utilization of Water Sources

Flood Protection and Energy Utilization of Reservoirs

Flow of Liquids

Groundwater Hydraulics

Hydraulic Structures

Hydraulic Structures in Land

Hydraulics

Hydrodynamics of a Porous Environment

Hydroinformatics

Hdromechanics

Project 1

Project 2

Project 3

Structures for the Protection and Utilization of Land

Studio Work – Hydraulic Engineering

Utilization of Water Power

Waterways

Weir Structures

Weirs and Waterways

Obligatory elective subjects

Biocorridors and Fish-Passes

CAD Systems in Land Planning

Computer Design Support in Hydraulic Engineering

Flood Hydraulics and GIS Mapping

Hydroinformatics

Management of Water Management

Mathematical Modelling in Water Management

Operational Management of Hydraulic Structures

Operation of Hydropower Plants

Planning and Constructing Water Structures

Practical Problems in Flood Protection

Project 1

Small Hydropower Plants

Software Applications in Hydraulics

Water Management Structures

Water Structures

Obligatory elective subjects

CAD in Hydraulic Structures

Computer Design Support in Hydraulic Engineering

Small Hydropower Plants

1.2 Postgraduate courses

Advanced Issues of Hydraulic Structures

Fluid Mechanics

Hydropower Systems

Physical Modelling of Hydrodynamic Phenomena

2. THESES

2.1 Bachelor theses

There were 14 works.

2.2 Graduate theses

BAĐURA, J.: The Use of a Combined 1D and 2D Hydrodynamic Model for Simulation of a Flood in the City of Bratislava
Supervisor: ORFÁNUS, M.

BAGI, M.: Assessment of the Existing Design of Flood Protection of the City District of Rača
Supervisor: ŠOLTÉSZ, A.

KOPÁČOVÁ, A.: Design of Water Management Measures and Utilization of Hydropower in the Area of Trstie
Supervisor: DUŠIČKA, P