

<b>DEPARTMENT OF LAND AND WATER RESOURCES MANAGEMENT</b>
--

Head of the Department:  
Prof. Ján Szolgay, PhD

Tel: + 421 7 59 27 44 98  
Fax: + 421 7 52 92 35 75  
E-mail : jan.szolgay@stuba.sk

## I. STAFF

### Professors

Szolgay Ján, PhD + 421 2 59274 498  
Macura Viliam, PhD + 421 2 59274 279

jan.szolgay@stuba.sk  
viliam.macura@stuba.sk

### Associate Professors

Čistý Milan, PhD + 421 2 59274 628  
Hlavčová Kamila, PhD + 421 2 59274 620  
Klementová Eva, PhD + 421 2 59274 618  
Kohnová Silvia, PhD + 421 2 59274 623  
Skalová Jana, PhD + 421 2 59274 626

milan.cisty@stuba.sk  
kamila.hlavcova@stuba.sk  
eva.klementova@stuba.sk  
silvia.kohnova@stuba.sk  
jana.skalova@stuba.sk

### Visiting Associate Professors

Hríbik Ján, PhD + 421 2 45248246  
Štekauerová Vlasta, PhD + 421 2 49268302  
Dusan Chlapík, PhD + 421 33 7725741

hribik@vuzh.sk  
stekauer@uh.savba.sk  
dusan.chlapik@svp.sk

### Senior Lecturers

Blaha Jozef, PhD + 421 2 59274 621

jozef.blaha@stuba.sk

### Research Fellows

Škrinár Andrej + 421 2 59274 622

andrej.skrinar@stuba.sk

### Doctoral Students

Danihlik Robert + 421 2 59274 616  
Horvát Oliver + 421 2 59274 616  
Juráková Martina + 421 2 59274 498  
Kalaš Milan + 421 2 59274 617  
Kubeš Richard + 421 2 59274 498  
Kriegerová Ida + 421 2 59274 616  
Papánková Zora + 421 2 59274 622  
Zvolenský Marcel + 421 2 59274 622

robert.danihlik@stuba.sk  
oliver.horvat@stuba.sk  
hornacko@svf.stuba.sk  
milan.kalas@stuba.sk  
richard.kubes@stuba.sk  
ida.kriegerova@stuba.sk  
zora.papankova@stuba.sk  
marcel.zvolensky@stuba.sk

### Technical Staff

Cagalincová Božena (secretary) + 421 2 59274 498

bozena.cagalincova@stuba.sk

## II. EQUIPMENT

### II.1 Teaching and Research Laboratories

Soil physics and hydrological laboratory  
CAD and GIS laboratory  
Computer room

### III. TEACHING

#### III.1 Graduate Study

Subject	Semester	Hours per Week		Lecturer
		Lectures	Seminars	
Landscape Ecology and Spatial Planning	3	2	2	E. Klementová
Landscape Ecology	3	2	2	E. Klementová
Meteorology, Climatology and Hydrology	4	2	2	J. Szolgay, S. Kohnová
Landscape Engineering	5	2	2	K. Hlavčová V. Macura
	5	2	1	J. Skalová
Pedology and Soil Management				
Hydraulic Structures	5	1	1	J. Blaha, M. Čistý
Computer-Aided Engineering Design	6	0	3	M. Čistý
River Training	6	2	3	V. Macura
Hydrology	6	3	2	J. Szolgay
Irrigation and Drainage	7	3	2	E. Klementová J. Skalová
Reclamation and Conservation of Landscapes	7	2	2	E. Klementová K. Hlavčová
Water Resources Management	7	2	3	J. Szolgay
Engineering Networks	8	2	2	J. Blaha
Hydrological Field Measurements	8	4	days	V. Mosný
Erosion Control and Land Protection	7	3	2	K. Hlavčová
Engineering Practice	8	4	weeks	M. Čistý
Selected Topics in Irrigation Design	9	2	2	E. Klementová J. Hříbik,
Soil Water Regime	9	2	3	J. Skalová V. Štekauerová
Design of Small Water Reservoirs	9	2	2	M. Čistý,
CAD in Irrigation and Drainage	9	0	3	M. Čistý
Regulation of Soil Water Regimes	10	0	2	E. Klementová
Mathematical Modelling in Hydrology	10	2	0	J. Szolgay S. Kohnová
Application of GIS in Water Resources	9	2	2	J. Szolgay K. Hlavčová
Sustainable Water Management	10	2	2	S. Kohnová
River Restoration	10	2	1	V. Macura
Water Bodies in Urban Environments	10	0	2	J. Blaha
Integrated River Basin Management Project	9	0	5	M. Čistý K. Hlavčová

#### IV. RESEARCH TARGETS

- study of ecologically sound river training methods for the protection of river biotopes
- guidelines for restoring rivers
- water balance changes as a result of human activities in catchments
- reconstruction and exploitation of irrigation systems during an economic transition
- hydrological flood routing and flood forecasting
- regional flood frequency analysis
- application of GIS techniques for land protection and sediment yield computation
- assessment of climatic change impacts on hydrological processes
- hydrological modelling of rainfall-runoff processes
- integrated river basin management

#### V. RESEARCH PROJECTS

1. Optimiztion of Soil Water Regime Management for Revitalization of a Landscape. Slovak Grant Agency Research Grant (2002-2004, E. Klementová)
2. Assessing Hydro-Ecological Quality in an Aquatic Area by Bio-Indications in Representative Sections of the Váh River Basin. Project financed by the Vah River Basin Authority, Piešťany. (V. Macura, et al.)
3. Efficiency of Increasing and Decreasing Energy Demands and Costs under Conditions of Water Management Using an Irrigation and Drainage System. Research Project of APVT (2002 – 2004, M. Čistý)
4. Impact of Technical Works on the Aquatic Zone of a Water Course and Principles of the Determination of Hydro-Ecological Limits. Research Grant of the Slovak Grant Agency (2002 – 2004, V. Macura, et al.)
5. Optimiztion of Soil Water Regime Management for the Revitalization of a Landscape. Research Grant of the Slovak Grant Agency (2002-2004, E. Klementová, et al.)
6. Parameterization of Extreme Runoff Processes in Slovak Basins under Conditions of the Non-Stationarity of the Hydrological System. Research Grant of the Slovak Grant Agency (2002 – 2004, K. Hlavčová)
7. Sediment Load Regime in Small Carpathian Rivers during Extreme Situations. Research Grant of the Slovak Grant Agency (2002-2004, V. Mosný)
8. Floods – Regional Variability of Floods and Estimation of Design Discharges. Research Grant of the Slovak Grant Agency (2003-2005, S. Kohnová)
9. Scenarios of Changes in Selected Components of the Hydrosphere and Biosphere in Slovakia. Research Project of APVT (2002 – 2005, J. Szolgay)
10. The Tisza River Project: Real - Life Scale Integrated Catchment Models for Supporting Water and Environmental Management Decisions. Research Project of the Commission of the European Communities, Contract No. EVK1-2001-00099 (2002 – 2004, J. Szolgay)
11. Relationships Between the Ecological and Chemical Status of Surface Waters (REBECCA). Research Project of the Commission of the European Communities, Contract SSPI-CT-2003-502158 (2004 – 2006, J. Szolgay)
12. Progressive Methods of Integrated River Basin Management. Research Project of the Ministry of the Environment of the SR (2003 – 2004, J. Szolgay)

## VI. COOPERATION

### VI.1 Cooperation in Slovakia

1. Ministry of Land Use and Water Resources, Bratislava
2. Ministry of the Environment, Bratislava
3. Bodrog and Hornad Rivers Basin Authority, Košice
4. Danube River Basin Authority, Bratislava
5. Vah River Basin Authority, Piešťany
6. Hron River Basin Authority, Banská Bystrica
7. Slovak River Basin Authority, Banská Štiavnica
8. Department of Geography, Faculty of Natural Sciences, Comenius University, Bratislava
9. Department of Meteorology and Climatology, Faculty of Mathematics and Physics, Comenius University, Bratislava
10. Department of Land Reclamation, University of Agriculture, Nitra
11. Institute of Hydrology of the Slovak Academy of Sciences, Bratislava
12. Institute of Land Ecology of the Slovak Academy of Sciences, Bratislava
13. Institute of Zoology of the Slovak Academy of Sciences, Bratislava
14. Irrigation Research Institute, Bratislava
15. Slovak Hydrometeorological Institute, Bratislava
16. Water Resources Research Institute, Bratislava
17. Daphne – Institute of Applied Ecology, Bratislava
18. Esprit, Banská Štiavnica

### VI.2 International Cooperation

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

#### VI.2.1 Visitors to the Department

1. Peter Molnár Geographisches Institut ETH, Zurich, Switzerland
2. Gabor Balint VITUKI Budapest, Hungary
3. Zbigniew Kundzewicz Research Centre of Agricultural and Forest Environments, Polish Academy of Sciences, Poznan, Poland

- |     |                             |  |
|-----|-----------------------------|--|
| 4.  | Karel Vrána                 | Faculty of Civil Engineering, Czech Technical University, Prague, Czech Republic |
| 4.  | Jiří Váška                  | Faculty of Civil Engineering, Czech Technical University, Prague, Czech Republic |
| 5.  | Miloš Starý                 | Faculty of Civil Engineering, Technical University, Brno, Czech Republic         |
| 6.  | Miroslav Dumbrovský         | Faculty of Civil Engineering, Technical University, Brno, Czech Republic         |
| 7.  | Jan Šálek                   | Faculty of Civil Engineering, Technical University, Brno, Czech Republic         |
| 8.  | Frank Molkethin             | TU Berlin, Institute of Hydroinformatics, Germany                                |
| 9.  | Peter Holz                  | TU Cottbus, Institute of Structureinformatics, Germany                           |
| 10. | Ezio Todini                 | University of Bologna, Italy   |
| 11. | Mario Martina               | University of Bologna, Italy   |
| 12. | Helena Králová              | VUT Brno, Czech Republic   |
| 13. | Pavla Schwarzová            | ČVUT Prague, Czech Republic  |
| 14. | Jan Prudky                  | VSZ Brno, Czech Republic   |
| 15. | Juraj Parajka               | Vienna University of Technology, Vienna, Austria                                 |
| 16. | Milan Kalaš                 | European Joint Research Center, Ispra, Italy                                     |
| 17. | Milorad Miloradov           | Ministry of Science and Environmental Protection, Novi Sad, Serbia               |
| 18. | Mirjana Vojinovic-Miloradov | University of Novi Sad, Novi Sad, Serbia   |
| 19. | Teun op ten Noort           | Royal Haskoning, Nijmegen, The Netherlands                                       |

## VI.2.2 Visits of Staff Members and Postgraduate Students to Foreign Institutions

- Hlavčová, K. : Water Resources Research Centre VITUKI, Budapest, Hungary, July 2004  
 Kohnová, S.: Water Resources Research Centre VITUKI, Budapest, Hungary, July 2004  
 Kohnová, S.: University of Bologna, Italy, June 2004  
 Szolgay, J.: Water Resources Research Centre VITUKI, Budapest, Hungary, July 2004

## VII. THESES

### VII.1 Graduate Theses

No.	Student's name	Title	Supervisor
1.	V. Filípek	Irrigation of the Right Bank of the Malý Dunaj River	J. Blaha
2.	P. Piták	Irrigation of Areas in Ivančice – Zemianske Lieskové	J. Blaha
3.	B. Chudý	Design of the Reconstruction of the Blatne Irrigation System	M. Čistý
4.	D. Chalamová	Sensitivity Analysis of Parameters in a Distributed Hydrological Model	K. Hlavčová
5.	M. Majerová	Analysis of Extreme Floods in the Torysa River Using a Rainfall-Runoff Model	K. Hlavčová
6.	T. Kuník	Landscape-Ecological and Water Management Problems in the Locality of Šúr	E. Klementová

7.	R. Tarana	Irrigation of Grassland and Green Roofs by Microirrigation and Its Specific Requirements	E. Klementová
8.	P. Jakubec	Landscape-Ecological and Water Management Assessment of Small Water Reservoirs in Lozorno	E. Klementová
9.	D. Tisaj	The Paris-Marsh National Reservation – the Registered Locality of Ramsar	E. Klementová
10.	M. Rychtářech	Flow Forecasting of the Hričov Reservoir Based on the API Method	S. Kohnová
11.	V. Jazudek	Regional Analysis of Parameters of a Lumped Rainfall-Runoff Model in the Hron Region	S. Kohnová
12.	P. Čaba	Regulation of the Slana River	V. Macura
13.	J. Tonhauser	Regulation of the Nitra River	V. Macura
14.	P. Kordoš	Use of Soil Characteristics for Assessment of Water Retention Curves and Hydrolimits	J. Skalová
15.	E. Kumančík	Comparison of Interpolation Methods of Precipitation in Rainfall-Runoff Modelling	J. Szolgay

## VIII. OTHER ACTIVITIES

### VIII.1 Special Lectures

1. Regional Estimation of Design Floods. S. Kohnová, Guest Lecturer, International Hydrology Course, Budapest, Hungary.
2. Modelling Erosion and Transport Processes in Basins. K. Hlavčová, Guest Lecturer, International Hydrology Course, Budapest, Hungary.
3. Modelling Hydrological Processes. J. Szolgay, Guest Lecturer, International Hydrology Course, Budapest, Hungary.

### VIII.2 Consulting Activities

1. Čistý, M., et al.: Technological Modernisation of Irrigation and Drainage Systems
2. Čistý, M., et al.: Application of GIS in Regulating a Soil Water Regime
3. Hlavčová, K., et al.: Analysis of the Runoff Regime of the Olšaviva River Basin
4. Hlavčová, K., et al.: Impact of Climate Change on a Runoff Regime in Western Slovakia
5. Klementová, E., et al.: Assessment of a Water Problem Solution from Ecologic and Economic Points of View – the Danube River Basin
6. Klementová, E., et al.: Assessment of a Solution to a Water Problem from Ecologic and Economic Points of View – the Ipeľ River Basin
7. Kohnová, S.: Analysis of Design Floods in the Hron Catchment
8. Macura, V., et al.: Ecological Aspects of Water Management Measures and Proposals for Improving Landscape Ecology
9. Szolgay, J.: POVAPSYS. Slovak Flood Protection and Warning System
10. Szolgay, J.: Integrated River Basin Management

## IX. PUBLICATIONS

### IX.1 Journals

- [1] DANIHLÍK, R. – HLAVČOVÁ, K. – KOHNOVÁ, S. – PARAJKA, J. – SZOLGAY, J.: Scenarios of the Change in the Mean Annual and Monthly Runoff in the Hron Basin. *J. Hydrol. Hydromech.*, 52, 2004, 4, pp. 291-302 (in English)
- [2] DANIHLÍK, R. – HLAVČOVÁ, K.: Generation of a River Network Using GIS for Hydrological Modelling. *Acta Hydrologica Slovaca*, 5, 2004, 2, pp. 243-250 (in Slovak)
- [3] HLAVČOVÁ K. - KOHNOVÁ, S. - SZOLGAY, J. - ZVOLENSKÝ, M.: Estimation of the Flood Risk for Flood Warnings in the Torysa River Basin for Rainfall Floods. *J. Hydrol. Hydromech.*, 52, 2004, 3, pp. 141-155 (in English)
- [4] HLAVČOVÁ, K. – KALAŠ, M. – KOHNOVÁ, S. – SZOLGAY, J.: Modelling of Monthly Potential Evapotranspiration in the Hron River Basin. *J. Hydrol. Hydromech.*, 52, 2004, 4, pp. 255-266 (in English)
- [5] JURÁKOVÁ, M. - KLEMENTOVÁ, E. - LÁTEČKA, M.: Changes in Wetland Ecosystems Caused by the Effect of Human Activities. *Scientific Papers of the Agricultural University of Cracow*, Vol. 24, 2003, No. 404, pp. 47-54 (in English, printed in 2004)
- [6] JURÁKOVÁ, M. - KLEMENTOVÁ, E.: The Role of Hydrology in the Wetland Ecosystems of Záhorská Nižina. *Measurement Techniques and Data Assessment in Wetlands Hydrology*, No<sup>o</sup> 1, 2003. Warsaw Agricultural University Press, pp. 89-103 (in English, printed in 2004)
- [7] JURÁKOVÁ, M. - KLEMENTOVÁ, E.: Status and Trends of Wetlands in Western Slovakia. *Slovak Journal of Civil Engineering*, XI, 2003, 3, pp. 1-8 (in English, printed in 2004)
- [8] KLEMENTOVÁ, E. - LITSCHMANN, T. - LÁTEČKA, M.: Irrigation for Grasslands. *Scientific Papers of the Agricultural University of Cracow*, Vol. 24, 2003, No. 404, pp. 273-280 (in English, printed in 2004)
- [9] KLEMENTOVÁ, E. - LITSCHMANN, T.: Assessment of Drought in a Landscape. *Acta Ssientiarum Polonorum Formatio Circumiectus* 3 (1) 2004, pp. 133-140, ISSN 1644-0765 (in English)
- [10] KLEMENTOVÁ, E. - JURÁKOVÁ, M. - LÁTEČKA, M.: Typology of Slovak Water Reservoirs in Accordance with the EU Water Framework Directive. *Acta Scientiarum Polonorum Formatio Circumiectus* 3 (1) 2004, pp. 55-62, ISSN 1644-0765 (in English)
- [11] KLEMENTOVÁ, E. - LITSCHMANN, T.: The Agro-Climatic Drought in Slovakia in 2003. *Meteorological Journal*, 7, 2004, 1, pp. 11-16 (in English)
- [12] KLEMENTOVÁ, E.: Irrigation Systems for Gardens. *STAVBA*, Vol. VII, 2004, No. 4, pp. 56-59, ISSN 1335-5406 (in Slovak)
- [13] KLEMENTOVÁ, E.: Irrigation for Sports Areas. *STAVBA*, Vol. VII, 2004, No. 6, pp. 51-55, ISSN 1335-5406 (in Slovak)

- [14] KOHNOVÁ S. - SZOLGAY J. - GAÁL L.: Estimation of Design 5-Day Maximum Precipitation Totals in the Upper Hron Region. *Meteorological Journal*, 7, 2004, 2, pp. 79-83 (in English)
- [15] KOHNOVÁ, S. – ZVOLENSKÝ, M. – JAZUDEK, V.: Regional Regression Formulae for Estimation of Rainfall-Runoff Model Parameters in Ungauged Catchments. *Acta Hydrologica Slovaca*, 5, 2, 2004, pp. 251-257 (in Slovak)
- [16] KUBEŠ, R. – ZVOLENSKÝ, M. – HLAVČOVÁ, K. – KOHNOVÁ, S. – SZOLGAY, J.: Estimation of the Future Flood Risk for Pre-Flood Warnings on the Hron River Basin. *Slovak Journal of Civil Engineering*, 2, 2004, XII, pp. 30-39 (in English)
- [17] LITSCHMANN, T. - KLEMENTOVÁ, E.: Using the Palmer Drought Severity Index to Assess Drought in the Territory of Slovakia. *Meteorological Journal*, 7, 2004, 2, pp. 67-72 (in English)
- [18] LITSCHMANN, T. - KLEMENTOVÁ, E.: Irrigation Requirements for Vines in Slovakia. *Vineyard*, Vol. 42, 2004, No. 2, pp. 8-10 (in Slovak)
- [19] MACURA, V. - ŠKRINÁR, A.: Effect of Minimal Discharges on the Biological Environment in the Aquatic Area of Streams. *Acta Horticulturae et regiotecturae*, Vol. IV., 2004, No. 2, pp. 271 – 275 (in Slovak)
- [20] MITKOVÁ, V. - KOHNOVÁ, S. - PEKÁROVÁ. P.: Comparison of Seasonal Maximum Flood Estimation in the Danube in Bratislava. *Acta Hydrologica Slovaca*, 5, 2004, 1, pp. 52-63 (in Slovak)
- [21] PARAJKA, J. - KALAŠ, M. - HLAVČOVÁ, K. - DANIHLÍK, R. - SZOLGAY, J.: Hydrological Scenarios of Possible Changes in Mean Monthly Discharges in Future Decades. *Acta Hydrologica Slovaca*, 5, 2004, 1, pp. 87-94 (in Slovak)
- [22] PARAJKA, J. - KOHNOVÁ, S. - SZOLGAY, J.: Mapping of Maximum Daily Precipitation Depths in the Hron Region. *Acta Hydrologica Slovaca*, 5, 2004, 1, pp. 78-87 (in Slovak)
- [23] PARAJKA, J. - SZOLGAY, J. - HLAVČOVÁ, K. - ZVOLENSKÝ, M.: Spatially Distributed Scenarios of Changes in the Long-Term Mean Annual Runoff in Slovakia. *Acta Hydrologica Slovaca*, 5, 2004, 1, pp. 95-103 (in Slovak)
- [24] PARAJKA, J. - KOHNOVÁ, S. - SZOLGAY, J.: Interpolation of Density Parameters of Maximum Daily Precipitation Depths in the Upper Hron Region. *Acta Hydrologica Slovaca*, 5, 2, 2004, pp. 258-265 (in Slovak)
- [25] PEKÁROVÁ, P. - SZOLGAY, J. – MITKOVÁ, V. – KUBEŠ, R.: Calibration of Two Hydrological River Models for Transformation of Flood Waves in the Danube Section of Kienstock-Bratislava. *Acta Hydrologica Slovaca*, 5, 2004, 1, 24-33 (in Slovak)
- [26] SKALOVÁ, J. – ŠTEKAUEROVÁ, V. – ŠÚTOR, J.: Use of Basic Soil Properties for Assessment of Water Retention Curves. In: Halasi-Kun, G., ed.: *Pollution and Water Resources. Proceedings of the Columbia University Seminar. Columbia 2004*, pp. 230-238, ISBN 80-967808-7-5 (in English)
- [27] SZOLGAY, J. – HLAVČOVÁ, K. – DUŠIČKA, P.: Climate Change and Hydroenergetical Potential in Slovakia. *Environment*, XXXVIII, 2004, 5, pp. 257-261 (in Slovak)
- [28] SZOLGAY, J. Multilinear Flood Routing Using Variable Travel-Time Discharge Relationships on the Hron River. *J. Hydro. Hydromech.*, 52, 2004, pp. 303-307 (in English)



## IX.2 Books and Textbooks

- [1] KLEMENTOVÁ E., HRÍBIK, J.: Special Problems of a Water Regime in a Landscape. Textbook for Students. FCE STU, Bratislava 2004, WWW, 154 pp., ISBN 80-227-2168-9 (in Slovak)
- [2] SZOLGAY, J. – DZUBÁK, M. - HLAVČOVÁ, K. - KOHNOVÁ, S.: Hydrology – Runoff Processes and Surface Water Hydrology. Textbook for Students. FCE STU, Bratislava 2004, WWW, 308 pp. (in Slovak)
- [3] SZOLGAY, J.: Multilinear Discrete Cascade Model for River Flow Routing and Real Time Forecasting in River Reaches with Variable Wave Speeds. In: Brath, A., et al., eds.: Hydrological Risk: Recent Advances in Peak River Flow Modelling, Prediction and Real-Time Forecasting - Assessment of the Impacts of Land-Use and Climate Changes. BIOS, Castrolibero 2004, ISBN 88-7740-378-0, pp. 271 – 284 (in English)

## IX.3 Conference Papers

- [1] ANTAL, J. – PETROVIČ, P. – PODKONICKÝ, L. – SZOLGAY, J.: Water Management and Its Role in Landscapes and Society. In.: Novotný, J., ed.: Agricultural Activities and Their Effect on the Development of a Country and Environment. Proceedings of SAVP No. 37, SAPV, Nitra 2004, ISBN 80-89162-04-5, pp. 53-64 (in Slovak)
- [2] HLAVČOVÁ, K. – POÓROVÁ, J. – KALAŠ, M. - DANIHLÍK, R.: Modelling the Hydrological Balance in the Hornad River Basin. In: Tropeano, et al.: Progress in Surface and Subsurface Studies at the Plot and Small Basin Scale. ERB, IRPI, Turin 2004, pp. 150-153 (in English)
- [3] HLAVČOVÁ, K. – SZOLGAY, J. - DANIHLÍK, R. - KOHNOVÁ, S.: Assessing the Impact of Climate Change in the Monthly River Runoff in Slovakia. In: Geophysical Research Abstract. Abstracts of the Contributions of the European Geophysical Union - EGU Nice 2004, Vol. 6, ISSN: 1029-7006, CD (in English)
- [4] HLAVČOVÁ, K. – SZOLGAY, J. – KOHNOVÁ, S. - DANIHLÍK, R. – ZVOLENSKÝ, M.: Prediction of Mean Monthly Discharges in Ungauged Basins. In: Hladný, J. et al, eds.: 22nd Conference of the Danubian Countries on the Hydrological Forecasting and Hydrological Bases of Water Management. ČHMI, Prague 2004, 8 pp., ISBN 80-86690-19-9 (in English)
- [5] HLAVČOVÁ, K. – SZOLGAY, J. - KOHNOVÁ, S. – DANIHLÍK, R.: Methods for Regional Calibration of a Monthly Hydrological Balance Model. In: Geophysical Research Abstract, Vol. 6, 2004. Abstracts of the Contributions of the European Geophysical Union - EGU. Nice 2004, Vol. 6, ISSN: 1029-7006, CD (in English)
- [6] HLAVČOVÁ, K. – POÓROVÁ, J. – KALAŠ, M. - DANIHLÍK, R.: Modelling the Hydrological Balance in the Hornad Basin. In: Hydrological Modelling in the Integrated Management of Basins. Proceedings of Selected Results of the Tisza Project. SHMI, WRI, SUT, Bratislava 2004, pp. 17-27, ISBN 80-88907-43-8 (in Slovak)
- [7] HORVÁT, O. – DANIHLÍK, R. – VELČICKÁ, L. - SZOLGAY, J.: Using the Wetspa Hydrological Distributed Model in the Hornad Basin. In: Hydrological Modelling in the Integrated Management of Basins. Proceedings of Selected Results of the Tisza Project. SHMI, WRI, SUT, Bratislava 2004, pp. 43-56, ISBN 80-88907-43-8, 2004 (in Slovak).

- [8] JURÁKOVÁ, M. - KLEMENTOVÁ, E.: Ecological Issues Related to the Assessment of Wetland Ecosystems. In: Vukelic, Z., ed.: The 4th International Workshop on Research on Irrigation and Drainage. ICID, Skopje 2004, pp. 425-430, ISBN 9989-2119-1-4 (in English)
- [9] KLEMENTOVÁ, E. - LITSCHMANN, T.: An Assessment of the Importance of Agronomical Drought in Relation to Intensive Turf Moor. The 4th International Workshop on Research on Irrigation and drainage. ICID, Skopje 2004, pp. 89-96, ISBN 9989-2119-1-4 (in English)
- [10] KLEMENTOVÁ, E. - LITSCHMANN, T.: Requirements of Irrigation Water for Peaches. In: Rožnovský, J., Litschmann, T., eds.: Extreme Weather and Climate, Brno 2004, 6 pp. ISBN 80-86690-12-1.
- [11] KLEMENTOVÁ, E.: Hydromelioration Education in the Department of Land and Water Resources Management of the FCE SUT in Bratislava. In: Melioration Yesterday, Today and Tomorrow. VUMOP, Prague 2004, CD (in Slovak)
- [12] KLEMENTOVÁ, E.- LITSCHMANN, T.: Evaluating the Appearance of Drought. In: Melioration Yesterday, Today and Tomorrow. VUMOP, Prague 2004, pp. 33-42, ISBN 80-239-3640-9 (in Slovak)
- [13] KLEMENTOVÁ, E. - LITSCHMANN, T: Is Supplementary Irrigation Necessary for the Chief Vinegrowing Regions in Slovakia ? In: Climate Change – Extremes of Weather - Organisms and Ecosystems. International Scientific Conference. SBS SAS, CBS SAS, SAU, Nitra 2004, ISBN 80-5069-244-0, 6 pp., CD (in Slovak)
- [14] KLEMENTOVÁ, E.: Small Water Reservoirs in Slovakia. In: Visions of Field, Forest and Water Management in the Slovak Republic. Union of Landscape Engineers, SAU, Nitra 2003, ISBN 80-968863-1-2, pp. 68-73 (in Slovak, printed in 2004)
- [15] KOHNOVÁ, S. - KRIEGEROVÁ, J. - SZOLGAY, J. - HLAVČOVÁ, K.: Seasonality of Summer Floods in Slovakia. In: Hladný, J. et al., eds.: 22nd Conference of the Danubian Countries on the Hydrological Forecasting and Hydrological Bases of Water Management. CHMI, Prague 2004, ISBN 80-86690-19-9, 12 pp. (in English)
- [16] KOHNOVÁ, S. – PARAJKA, J. – SZOLGAY, J. - HLAVČOVÁ, K.: Mapping of the Design Maximum Daily Precipitation Depths in the Hron River Basin. In: Geophysical Research Abstract, Vol. 6, 01939, 2004. Abstracts of the Contributions of the European Geophysical Union -EGU. Nice 2004, Vol. 6, ISSN: 1029-7006, CD (in English)
- [17] KOHNOVÁ, S. - SZOLGAY, J. - HLAVČOVÁ, K.: Comparison of Methods for the Estimation of Seasonal Design Maximum Floods in the Hron River Basin. In: Cásková, K. et al., eds.: 4th Water Management Conference. ÚVS FAST VUT, Brno 2004, ISBN 80-7204-360-9, pp. 232-238 (in Slovak)
- [18] KOHNOVÁ, S. - HLAVČOVÁ, K. - SZOLGAY, J., - PARAJKA, J.: On the Choice of Spatial Interpolation Methods for the Estimation of 1-to-5-Day Basin Average Design Precipitation. In: Zeman E. et al., eds.: NATO ARW Workshop on Flood Risk Management – Hazards, Vulnerability, Mitigation Measures, No: EST. ARW. 980507. Ostrov, Czech Republic 2004 (in English)
- [19] KUBEŠ, R. - HLAVČOVÁ, K. - SZOLGAY, J. - KOHNOVÁ, S.: Simulation of Extreme Floods in the Upper Hron River Basin. In: Hladný, J. et al., eds.: 22nd Conference of the Danubian Countries on the Hydrological Forecasting and Hydrological Bases of Water Management. CHMI, Prague 2004, ISBN 80-86690-19-9, 12 pp. (in English)

- [20] LITSCHMANN, T. - KLEMENTOVÁ, E.: Moistening Irrigation in the Viticultural Regions of Slovakia. In: The 4th International Workshop on Research on Irrigation and Drainage. ICID, Skopje 2004, pp. 123-132, ISBN 9989-2119-1-4 (in English)
- [21] LITSCHMANN, T. - KLEMENTOVÁ, E.: Evaluation of Drought Periods by Requirements for Supplementary Irrigation of Selected Crops. In: Melioration Yesterday, Today and Tomorrow. VUMOP, Prague 2004, ISBN 80-239-3640-9 (in Czech)
- [22] MACURA, V. - ŠKRINÁR, A. – ZAČKA, T: Modelling Biological Conditions in Streams According to the EU Water Framework Directive. In: Integrated River Basin Management and Implementation of the EU Water Framework Directive. ME of SR, Bratislava 2004, pp. 98-103, ISBN 80-969136-0-3 (in Slovak)
- [23] MACURA, V. – RAKSSÁNYI, B.: Assessment of the Hydroecological Stability of the Váh River. In: 50 Years of Operation of the Second Váh Cascade. SWA, Banská Štiavnica 2004, pp. 147-154.
- [24] MACURA, V. - ŠKRINÁR, A. – ZAČKA, T: Modelling Unaffected Stream Sections According to the EU Framework Directive. In: Integration of Slovakia into the EU: Impacts on Agricultural Land Use. SAU, Nitra 2004, 8 pp., CD (in Slovak)
- [25] MACURA, V. - ŠKRINÁR, A. - ZAČKA, T.: Generalization of Fish Criteria Curves in the Slovak Flysch Streams and Their Application in Modelling Unaffected Stream Sections According to the EU Framework Directive. In: Water Streams. WDB, Prague 2004, ISBN 80-86386-55-4 (in Slovak)
- [26] PARAJKA, J. - HLAVČOVÁ, K.- SZOLGAY, - J. KOHNOVÁ, S.: Long-Term Mean Annual Runoff Change Scenarios in Slovakia. In: Geophysical Research Abstract, Vol. 6, 01939, 2004. Abstracts of the Contributions of the European Geophysical Union - EGU Nice 2004, Vol 6, ISSN: 1029-7006, CD (in English)
- [27] SKALOVÁ, J.: Grain-Sized Distribution of Soil and Soil Hydrophysical Characteristics. In: Effect of Anthropogenic Activities on the Water Regime of a Lowland Territory. IH SAS, Bratislava 2004, 7 pp., ISBN 80-89139-04-3, CD (in Slovak)
- [28] SZOLGAY, J. - HLAVČOVÁ, K. - KOHNOVÁ, S. - DANIHLÍK, R.: Assessing the Impact of Climate Change on River Runoff in Slovakia. In: Hladný, J., et al, eds.: 22nd Conference of the Danubian Countries on the Hydrological Forecasting and Hydrological Bases of Water Management. CHMI, Prague 2004, 10 pp., ISBN 80-86690-19-9 (in English)
- [29] SZOLGAY, J. – HLAVČOVÁ, K: Integrated Adaptive Measures for the Impact of Climate Change in Water Management. In: Abaffy, ed.: Integrated Basin Management and Implementation of the EU Water Framework Directive. ME of SR, Bratislava 2004, pp. 104-109, ISBN 80-969136-0-3 (in Slovak)