

<b>DEPARTMENT OF LAND AND WATER RESOURCES MANAGEMENT</b>
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## 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	8	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 Regime	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. 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.)
2. 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)
3. Assessing Characteristics of Quality in an Aquatic Area of Sub-Mountainous Flows by Bio-Indications. Project financed by the Slovak Hydrometeorological Institute, Bratislava (V. Macura, et al.)
4. Characteristics of Ichthio-Fauna as a Qualitative Bio-Indicator of Representative Mountainous Flysch Flows in Slovakia. Project financed by the Slovak Hydrometeorological Institute, Bratislava (V. Macura, et al.)
5. Impact of Technical Works on the Aquatic Zone of a Water Course and Principles of the Determination of Hydroecological Limits. Research Grant of the Slovak Grant Agency (2002 – 2004, V. Macura, et al.)
6. Optimatization of Soil Water Regime Management for the Revitalization of a Landscape. Research Grant of the Slovak Grant Agency (2002-2004, E. Klementová, et al.)
7. Flow Strategy and Water Restoration in the Slovak River Network. Research Project of VTPC – 114/2000 (2001 – 2003, V. Macura, et al.)
8. Climate Change Impacts on Water Resources. Project financed by the Ministry of Land Use and Water Resources (1998 - 2003, J. Szolgay, K. Hlavčová)
9. Parametrisation 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)
10. Sediment Load Regime in Small Carpathian Rivers During Extreme Situations. Research Grant of the Slovak Grant Agency (2002-2004, V. Mosný)
11. National Climate Programme of the Slovak Republic (2003, J. Szolgay, K. Hlavčová)
12. Comparative Analysis of Regional Methods for Estimating Design Floods. Research Grant of the Slovak Grant Agency (2001 – 2003, J. Szolgay)
13. Floods – Regional Variability of Floods and Estimation of Design Discharges. Research Grant of the Slovak Grant Agency (2003-2005, S. Kohnová)
14. Scenarios of Changes in Selected Components of the Hydrosphere and Biosphere in Slovakia. Research Project of APVT (2002 – 2005, J. Szolgay)

15. 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 Community, Contract No. EVK1-2001-00099 (2002 – 2004, J. Szolgay)
16. European Flood Forecasting System: EFFS. Research Project of the Commission of the European Community, Contract No. EVG1-CT-1999-00011 (2002 – 2003, 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

### **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. 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

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

1. Hlavčová, K. - Water Resources Research Centre VITUKI, Budapest, Hungary, July 2003
2. Kalaš, M. - European Joint Research Centre, ISPRA, Italy, February – December 2003
3. Kohnová, S. - Water Resources Research Centre VITUKI, Budapest, Hungary, July 2003
4. Szolgay, J. - Water Resources Research Centre VITUKI, Budapest, Hungary, July 2003
5. Začka, T. - The First International Advanced Course on Water Resources Data Analysis, Istanbul, Turkey, 21 – 31 July 2003

## VII. THESES

### VII.1 Graduate Theses

No.	Student's name	Title	Supervisor
1.	M. Méry	Systematic Drainage of Agricultural Fields in the Liesek Region	J. Blaha
2.	M. Látečka	Design of Small Reservoir	M. Čistý
3.	D. Lehořáková	Design of the Reconstruction of the Blatne Irrigation Project	M. Čistý
4.	Z. Vráblecová	Rainfall – Runoff Modelling in Daily Time Steps	K. Hlavčová
5.	R. Pechmannová	Microirrigation Technology	E. Klementová
6.	P. Čerňan	Assessment of Landscape-Ecological Situation at the Vištucký potok River Basin	E. Klementová
7.	F. Kadík	Assessment of Landscape Ecology of Cadastre Area of Town of Svätý Jur	E. Klementová
8.	Z. Danáčová	Estimation of Design of 100-Year Runoff Coefficient in Small Catchments in Slovakia	S. Kohnová
9.	V. Poláková	Optimal Use of Water Reservoirs in the Vyvrat Basin	V. Mosný
10.	J. Borbély	Regulation of the Oravica River in Trstená	V. Macura
11.	M. Hollá	Rainfall-Runoff Modelling Using the HBV-Light Model	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 Water Problem Solution from Ecologic and Economic Points of View – the Danube River Basin
6. Klementová, E., et al.: Assessment of Solution to 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] ČISTÝ, M.: Rehabilitation of Pressurised Pipe Systems for Irrigation Using Optimisation Techniques. Journal of Land and Water Development, No.6, 2002, pp. 117-128 (in English)
- [2] ČISTÝ, M.: Calibration of Irrigation Distribution Network Models. Slovak Journal of Civil Engineering, Vol. XI, 2003, No. 1, pp. 1-5 (in English)
- [3] HALMOVÁ, D. - PEKÁROVÁ, P. - KOHNOVÁ S.: Simulation of Extreme Rainfall-Runoff Situations and Design Flood Estimation. Acta Hydrologica Slovaca, Vol. 4, 2003, No. 1, pp. 147-153 (in Slovak)
- [4] HLAVČOVÁ, K. - KOHNOVÁ, S. - KUBEŠ, R. - SZOLGAY, J. - ZVOLENSKÝ, M.: Analysis of the Effect of Antecedent Basin Saturation on Extreme Floods in the Upper Hron River Basin. Acta Hydrologica Slovaca, Vol. 4, 2003, No. 2, pp. 226-232 (in Slovak)
- [5] HLAVČOVÁ, K. - SZOLGAY, J. - KOHNOVÁ, S. - KALAŠ, M.: Regional Parameterisation of a Monthly Hydrological Model for Estimating Discharges in Ungauged Catchments. In: Geophysical Research Abstract, Vol. 5, 2003. Abstracts of the

- Contributions of the Joint Assembly of the European Geophysical Society EGS –AGU-EUG. Nice 2003, ISSN: 1029-7006, CD (in English)
- [6] KLEMENTOVÁ, E. - HORNÁČKOVÁ, M.: Wetlands of the Záhorie Region. *Acta Horticulturae et Regiotecturae*, Vol. 6, 2003, Special Issue, pp. 25-28 (in Slovak)
- [7] KLEMENTOVÁ, E. - LÁTEČKA, M. - SIMONÍK, J.: Quality of Irrigation Using Reel Hose Irrigators. *Acta Horticulturae et Regiotecturae*, Vol. 6, 2003, Special Issue, pp. 29-31 (in Slovak)
- [8] KLEMENTOVÁ, E. - LITSCHMANN, T.: Detection of the Occurrence of Drought in Hurbanovo. *Acta Horticulturae et Regiotecturae*, Vol. 6, 2003, Special Issue, pp. 31-33 (in Slovak)
- [9] JURÁKOVÁ, M. - KLEMENTOVÁ, E.: Hydrologic Characteristics of the Zelienska Peatbog. *Acta Hydrologica Slovaca*, Vol. 4, 2003, No. 2, pp. 331-338 (in Slovak)
- [10] KLEMENTOVÁ, E. - LITSCHMANN, T.: Trends in the Occurrence of Drought in Slovakia. *Acta Hydrologica Slovaca*, Vol. 4, 2003, No. 2, pp. 339–345 (in Slovak)
- [11] KLEMENTOVÁ, E. - JURÁKOVÁ, M.: Wetlands in a Flood Control System. *Environment*, Vol. XXXVII, 2003, No. 4, pp. 194-203 (in Slovak)
- [12] KLEMENTOVÁ, E. - LITSCHMANN, T.: Current Irrigation Structures - Irrigation of Turfs. *Project and Construction*, Vol. 5, 2003, No. 4, pp. 17-19 (in Slovak)
- [13] KLEMENTOVÁ, E. - JURÁKOVÁ, M.: The Zelienska Peatbog – The Origin of Life of Various Aquatic Animals and Plants on the Záhorie Lowlands. *QUARK*, Vol. IX, 2003, No. 5, pp. 10-11 (in Slovak)
- [14] KLEMENTOVÁ, E. - JURÁKOVÁ, M.: Small Water Reservoirs in a Flood Control System. *Eurostav*, Vol. IX, 2003, pp. 48-50 (in Slovak)
- [15] KLEMENTOVÁ, E. - JURÁKOVÁ, M.: Application of Concrete in the Technical Design of Small Water Reservoirs. *Construction*, Vol. VI, 2003, No. 10, pp. 35-37 (in Slovak)
- [16] KLEMENTOVÁ, E. - JURÁKOVÁ, M.: Small Water Reservoirs as a Very Important Water Component. *ENVIROMAGAZIN*, Vol. VIII, 2003, No. 3, pp. 28-29 (in Slovak)
- [17] KOHNOVÁ, S. - KRIEGEROVÁ, I. - SZOLGAY, J.: The Use of Climate-Soil-Vegetation Controls for the Estimation of Design Floods on a Regional Scale. In: *Geophysical Research Abstract*, Vol. 5, 2003. Abstracts of the Contributions of the Joint Assembly of the European Geophysical Society EGS –AGU-EUG. Nice 2003, ISSN: 1029-7006, CD (in English)
- [18] KOHNOVÁ, S. - SOLÍN, Ľ. - SZOLGAY, J.: Regional Flood Frequency Analysis. *Environment*, Vol. 27, 2003, No. 6 (in Slovak)
- [19] KOHNOVÁ, S. - SZOLGAY, J.: Regional Estimation of an Index Flood and the Standard Deviation of Summer Floods in the Tatra Mountains. *J. Hydrol. Hydromech.*, Vol. 51, 2003, No. 4, pp. 241-255 (in English)
- [20] KUBEŠ, R. - HLAVČOVÁ, K. - SZOLGAY, J. - KOHNOVÁ, S.: Synthesis of Meteorological and Hydrological Conditions Leading to Extreme Flooding on the Upper Hron River Basin. In: *Geophysical Research Abstract*, Vol. 5, 2003. Abstracts of the Contributions of the Joint Assembly of the European Geophysical Society EGS –AGU-EUG. Nice 2003, ISSN: 1029-7006, CD (in English)

- [21] LAPIN, M. - HLAVČOVÁ, K. - PETROVIČ, P. : Impact of Climate Change on Hydrological Processes – Extreme Floods. *Acta Hydrologica Slovaca*, Vol. 4, 2003, No. 2, pp. 211-220 (in Slovak)
- [22] MÉSZÁROŠ, I. - PARAJKA, J. - KOSTKA, Z. – MIKLÁNEK, P. - SZOLGAY, J.: Distributed Modelling of Evapotranspiration in a Mountainous Basin. *Acta Hydrologica Slovaca*, Vol. 4, 2003, No. 1, pp. 123-130 (in Slovak)
- [23] MACURA, V. - IVANČO, R.: Contribution on the Determination of Minimum Discharges in Streams by Means of the IFIM Method. *Slovak Journal of Civil Engineering*, Vol. X, 2002, No. 3, pp. 11-19 (in English)
- [24] MACURA, V. - ŠKRINÁR, A.: Analysis of the Impact of River Regulation on an Aquatic Ecosystem. *Acta Horticulturae et Regiotecturae*, Vol. 6, 2003, Special Issue, pp. 43-48 (in Slovak)
- [25] PARAJKA, J. - MÉSZÁROŠ, I. - SZOLGAY, J.: Spatial Interpolation of Daily Precipitation Depths for Rainfall – Runoff Modelling Using Interpolation Methods. *Acta Hydrologica Slovaca*, Vol. 4, 2003, No. 1, pp. 165-175 (in Slovak)
- [26] PEKÁROVÁ, P. - HALMOVÁ, D. - KUBEŠ, R. - HLAVČOVÁ, K.: Analysis of the Joint Effect of Meteorological and Hydrological Conditions Leading to Extreme Floods in the Upper Hron River Basin. *Acta Hydrologica Slovaca*, Vol. 4, 2003, No. 1, pp. 131-138 (in Slovak)
- [27] SKALOVÁ, J. - ŠÚTOR, J. - ŠTEKAUEROVÁ, V.: Pedotransfer Functions of Soils in the Záhorská Lowlands. *Acta Horticulturae et Regiotecturae*, Vol. 6, 2003, pp. 66-69 (in Slovak)
- [28] SKALOVÁ, J.: Using Pedotransfer Functions in the Diagnosis of a Soil Water Regime. *Acta Hydrologica Slovaca*, Vol. 4, 2003, No. 2, pp. 300-306 (in Slovak)
- [29] SZOLGAY, J. - KOHNOVÁ, S. - HLAVČOVÁ, K.: Uncertainties of Estimating Design Floods. *Environment*, Vol. XXXVII, 2003, No. 4, pp. 194-199 (in Slovak)
- [30] SZOLGAY, J. - HLAVČOVÁ, K. - LAPIN, M. - DANIHLÍK, R.: Impact of Climate Change on Mean Monthly Runoff in Slovakia. *Meteorological Journal*, Vol. 6, 2003, No. 3, pp. 9-21 (in English)
- [31] SZOLGAY, J. - HLAVČOVÁ, K. - KOHNOVÁ, S. - DANIHLÍK, R.: Estimating Regional Parameters of a Monthly Balance Model. *Hydrol. Hydromech.*, Vol. 51, 2003, No. 4, pp. 256-273 (in English)

## IX.2 Books and Textbooks

- [1] ČISTÝ, M.: Computer-Aided Engineering Design. FCE SUT, Bratislava 2003, 96 pp., ISBN 80-227-1852-1 (in Slovak)
- [2] ČISTÝ, M.: Small Water Reservoirs I. FCE SUT, Bratislava 2003, 54 pp., ISBN 80-227-1998-6 (in Slovak)
- [3] ČISTÝ, M.: Hydraulic Simulation in the Regulation of a Water Regime. Textbook for Postgraduate Students. FCE SUT, Bratislava 2003, CD, 61 pp.
- [4] HLAVČOVÁ, K. - SZOLGAY, J. - KOHNOVÁ, S.: New Theories of Runoff Formation in a Flood Protection System. Textbook for Postgraduate Students. FCE SUT, Bratislava 2003, CD, 67 pp.



- [5] KLEMENTOVÁ E.: Changes in a Landscape Water Regime. Detection of Drought. Landscape-Ecological Planning. Textbook for Postgraduate Students. FCE SUT, Bratislava 2003, CD, 63 pp. (in Slovak)
- [6] KOHNOVÁ, S. - SZOLGAY, J. - HLAVČOVÁ, K.: Estimation of Design Floods for the Projection of Water Management Constructions. FCE SUT, Bratislava 2003, CD (in Slovak)
- [7] SKALOVÁ, J.: Evaluation of a Soil Water Regime. Textbook for Postgraduate Students. FCE SUT, Bratislava 2003, CD, 62 pp. (in Slovak)
- [8] SZOLGAY, J. - HLAVČOVÁ, K. - KOHNOVÁ, S. - BAČÍK, M.: Special Problems in the Design of Small Retention Reservoirs in a Flood Protection System. Textbook for Postgraduate Students. FCE SUT, Bratislava 2003, CD, 52 pp. (in Slovak)
- [9] SZOLGAY, J. - HLAVČOVÁ, K. – KOHNOVÁ, S.: Water Resources Management in Slovakia. Submodule No. 4. Institutional Framework for Water Management in the Member States of the EU and Associated Countries. In: Ijjas, I. Ed.: Support materials for training foundation and the PHARE multi-country programme for distance education. Euwaterman project, 1999-2002. CD, 15 pp. (in English)
- [10] ŠOLTÉSZ, A. - SZOLGAY J.: Slovak - English and English - Slovak Water Management Dictionary. Textbook for Postgraduate Students. FCE SUT, Bratislava 2003, CD, 62 pp.

### IX.3 Conferences

- [1] ČISTÝ, M.: Managing Irrigation Projects Using an Extended GIS Model. In: Šoltész, A. et al., eds.: 8th International symposium on Water Management and Hydraulic Engineering. SUT Bratislava, Gdansk University, University of Zagreb, Podbanské 2003, ISBN 80-227-1954-4, pp. 61-66 (in English)
- [2] ČISTÝ, M.: Optimisation Techniques for the Design of Reconstructed Irrigation Structures. In: Šútor, J., Novák, V., Kosorin, K., eds.: 11th International Poster Day, Transport of Water, Chemicals and Energy in the Soil-Crop Canopy-Atmosphere System. ÚH SAV, GFÚ SAV, Bratislava 2003, 7 pp., CD (in Slovak)
- [3] DANIHLÍK, R. – KALAŠ, M.: Estimation of Impact of Climate Change on Runoff and Basic Adaptation Measures in Water Management. In: Majerčáková, O., Šťastný, P., eds.: Proceedings of the 15th Conference of Young Hydrologists. SHMÚ, SMS SAV, SVH, ZZVH, Bratislava 2003, 14 pp., ISBN 80-88907-41-1, CD (in Slovak)
- [4] HAVAJ, J. - BLAHA, J. - KÄST, H.: Hygienic, Functional and Esthetic Factors of Small-Scale Production in Slovakia. In: Urban, Architectonic and Technical Aspects of Rural Restoration III. FCE SUT, Bratislava 2003, pp. 96-100 (in Slovak)
- [5] HLAVČOVÁ, K. - KOHNOVÁ, S. - KUBEŠ, R. – SZOLGAY, J. - ZVOLENSKÝ, M.: The Effect of Antecedent Basin Saturation on the Extremity of Floods. In: Šoltész, A., et al., eds.: 8th International Symposium on Water Management and Hydraulic Engineering. SUT Bratislava, Gdansk University, University of Zagreb, Podbanské 2003, pp. 101-111, ISBN 80-227-1954-4 (in English)
- [6] HLAVČOVÁ, K. – SZOLGAY, J.: Possible Impact of Climate Change on a Hydrological Cycle. In: Open Seminar on Impact of Climate Change on a Hydrological Cycle and Analysis of Extreme Hydrological and Meteorological Events. MŽP SR, SPU Nitra, SHMÚ, Bratislava 2003, pp. 9-10 (in Slovak)

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