Ing. Václav David, Ph.D., assistant professor

born 17.8.1976 in Prague, residency: Naskové 1002/50, Prague 5, Czech Republic

Education and degrees

2000 M.Sc. (Ing)., Faculty of Civil Engineering, Czech Technical University in Prague, Czech Republic.

2008 Ph.D., Faculty of Civil Engineering, Czech Technical University in Prague, Czech Republic, Thesis: "Structured Approach to Flood Risk Classification in Small Catchments"

Employment and scientific visits

2015 – present Department of Water Resources, Faculty of Agrobiology, Food and Natural Resources, Czech University of Life Sciences in Prague, Czech Republic, assistant professor (senior lecturer).

2004 - present Department of Irrigation, Drainage and Landscape Engineering., Faculty of Civil Engineering, Czech Technical University in Prague, Czech Republic, assistant professor (senior lecturer).

2004 Department of Irrigation, Drainage and Landscape Engineering., Faculty of Civil Engineering, Czech Technical University in Prague, Czech Republic, research and teaching assistant.

2010 Research stay at NTNU Trondheim, Norway

2009 Research stay at University of Athens, Greece

2004 Research stay at Freiberg University of Mining and Technology, Germany

2002 – 2003 Study stay at Uppsala University, Sweden

Research activities and granted projects

Catchment hydrology with the focus on the flood processes is small catchments. Mathematical modelling of rainfall-runoff process with both event based and continuous approaches. Stochastic hydrology focused on flood frequency estimations. Drought assessment and mitigation. Application of GIS for purposes of flood frequency analysis. Flood mitigation measures assessment. Instrumentation of rainfall-runoff measurements. Use of field rainfall simulator for small scale rainfall-runoff experiments. Management of ponds. Historical development of fishponds. Pond restoration.

Principal investigator of NAKI II project DG16P02036 "Conservation, reparations and monitoring of historical pond dams as our cultural heritage" (2016-2020). Principal investigator of project NAZV KUS QJ1620395 "Restoration and building of ponds in forest areas as a part of sustainable water resources management in CZ" (2016-2018). Principal investigator of COST project LD11031 „Flood characteristics of small catchments" (2011-2013). Principal investigator of COST project OC189 „Flood risk and its prevention in small to medium catchments" (2007-2009). National representative in management committee of COST Action FA1304 „Swimming of Fish and Implications for Migration and Aquaculture" (2015-2018). National representative in management committee of COST Action ES0901 „European procedures for flood frequency estimations" (2010-2014). National representative in management committee of COST Action C22 „Urban flood management" (2006-2009). Institutional principal investigator of project NAZV KUS QJ1220233 „Assessment of former pond systems with aim to achieve sustainable management of water and soil resources in the Czech Republic" (2012-2015).

Investigator in following research projects:
Erozní smyv – zvýšené riziko ohrožení obyvatel a jakosti vody v souvislosti s očekávanou změnou klimatu (Soil erosion – increased risk for citizens and water quality related to expected climate change), project BV VG 20122015092 (2012 – 2015); Určení podílu erozního fosforu na eutrofizaci ohrožených útvarů stojatých povrchových vod (Assessment of soil erosion and phosphorus loads causing eutrophication of stagnant water bodies), project NAZV QI102265 (2010-2013); Lokální studie odtokových poměrů ve vybraných povodích Středočeského kraje (Local study of runoff conditions in selected catchments in Central Bohemia Region), VHČ 50050 (2005 – 2007); Metody a způsoby predikce povrchového odtoku, erozních a transportních procesů v krajině (Prediction methods of surface runoff, erosion and transport processes in landscape), project COST 1P04OC634.001 (2004 – 2006); EMTAL – Einzugsgebiet Management von Talsperen in Mittelgebiergen, BMBF 02WT0337 (2004 – 2006); Vodohospodářské revitalizace a ochrana před povodněmi (Water revitalisations and flood prevention), VaV 1D/2/20/II/04 (2004 – 2006) and others.

Member of European Geosciences Union (EGU), member of International Asociation of hydrologic Sciences (IAHS), member of European Water Resources Association, committee member of Czech Society of Landscape Engineers, member of editorial board of Vodní hospodářství (Water management).

Languages

English – fluent, Russian – passive, German – passive

Publications

PAVELKOVÁ, R., et al. Historical ponds of the Czech Republic: an example of the interpretation of historic maps [online]. *Journal of Maps*. 2016, pp. 1-9. ISSN 1744-5647.

ROZKOŠNÝ, M., et al. *Zaniklé rybníky v České republice – případové studie potenciálního využití území.* 1. ed. Praha: Výzkumný ústav vodohospodářský T. G. Masaryka. 2015, ISBN 978-80-87402-47-4.

DAVID, V. and DAVIDOVÁ, T. Precipitation Assessment from the Point of View of the Data Availability for Purposes of Flood Modelling [online]. In: Proceedings of the 14th International Conference on Environmental Science and Technology. 14th INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY. Rhodos, 03.09.2015 - 05.09.2015. Aegean: University of the Aegean. 2015, ISSN 1106-5516. ISBN 978-960-7475-52-7. Available from: http://cest.gnest.org/cest15proceedings/public_html/papers/cest2015_00160_poster_paper.pdf

ZAPPA, M., et al. A Tri-National program for estimating the link between snow resources and hydrological droughts. In: Proceedings of the International Association of Hydrological Sciences (IAHS). 26th IUGG General Assembly 2015. Praha, 22.06.2015 - 02.07.2015. Göttingen: Copernicus GmbH (Copernicus Publications. 2015, pp. 25-30. Proceedings of the International Association of Hydrological Sciences (IAHS). ISSN 2199-899X.

DAVID, V. and DAVIDOVÁ, T. Identification and frequency analysis of drought events in the Blanice river catchment (Czech Republic). In: ANDREU, J., et al., eds. Drought: Research and Science-Policy Interfacing. International Conference on DROUGHT: Research and Science-Policy Interfacing. Valencia, 10.03.2015 - 13.03.2015. Leiden: CRC Press/Balkema. 2015, pp. 177-182. ISBN 978-1-138-02779-4.

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DAVID, V., DAVIDOVÁ, T., and KYSELA, O. Zaniklý rybník u Popovic v povodí Chotýšanky. In: DAVIDOVÁ, T. and DAVID, V., eds. Rybníky - naše dědictví i bohatství pro budoucnost. Rybníky - naše dědictví i bohatství pro budoucnost. Praha, 18.06.2015 - 19.06.2015. Praha: Česká společnost krajinných inženýrů - ČSKI. 2015, pp. 44-52. ISBN 978-80-01-05765-0.

DAVID, V. and DAVIDOVÁ, T. Analysis of available retention volume in extinct ponds – case study for Blanice river catchment [online]. In: TSIROGIANNIS, Y.L., MALAMOS, N., and BAROUCHAS, P.E., eds. Efficient irrigation management and its effects in urban and rural landscapes. 1st International Symposium regarding the Effects of Irrigation and Drainage on Rural and Urban Landscapes. Patras, 26.11.2014 - 28.11.2014. Amsterdam: Elsevier. 2015, pp. 79-87. Agriculture and Agricultural Science Procedia. ISSN 2210-7843. Available from: http://www.sciencedirect.com/science/article/pii/S221078431500073X

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DAVID, V., VRÁNA, K., and DAVIDOVÁ, T. Možnosti využití ploch bývalých vodních nádrží. In: KAVKA, P., et al., eds. Voda a krajina 2012. Voda a krajina 2012. Praha, 19.09.2012. Praha: České vysoké učení technické v Praze. 2012, pp. 37-42. ISBN 978-80-01-05107-8.

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