

Curriculum Vitae

Csilla Farkas

NIBIO

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Current position

2009 - date *senior research scientist*, Division of Environment and Natural Resources, Norwegian Institute for Bioeconomy Research (NIBIO), Ås, Norway

Previous positions

2002 - 2009 *senior research scientist*, Department of Soil Physics, Research Institute for Soil Sciences and Agrochemistry, Hungarian Academy of Sciences

1993 - 2001 *research scientist*, Department of Soil Physics, Research Institute for Soil Sciences and Agrochemistry, Hungarian Academy of Sciences (HAS)

Education

2002 PhD in Earth Sciences (research area: soil hydrology)
Faculty of Science, Eötvös Loránd University, Budapest, Hungary

1991 MSc in Hydrology, Faculty of Hydrology
Russian State Hydrometeorological University, St. Petersburg, Russia

Relevant work experience

8/2011 Visiting scientist, Institute of Soil Science and Agrochemistry of the Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia

2004 - 2007 János Bolyai Individual Post-Doctoral Research Grant, Hungarian Academy of Sciences

5-6/2006 Mobility Grant, Agrophysical Research Institute, Russian Academy of Agricultural Sciences, St. Petersburg, Russia

8/2004; 6/2005 Research stay, MTT Agrifood Research Finland, Jokioinen, Finland

10/2000, 11/2001 Research stay, Institute of Physicochemical and Biological Problems of Soil of the Russian Academy of Sciences, Puschino, Russia

9/1999 Research stay, Research Institute for Soil Science and Agricultural Chemistry of the Ukrainian Academy of Sciences, Kharkiv, Ukraine

9-12/1998 TEMPUS doctoral fellowship on "Dynamic modelling of soil water regime under various land use and tillage systems", Wageningen University, the Netherlands

5/1994; 9/1997 Research stay, Institute of Hydrology, Slovak Academy of Sciences, Bratislava, Slovakia

9/1996 Research stay, Estonian University of Life Sciences, Tartu, Estonia

Key qualifications

- Experienced in profile/plot scale soil hydrogeochemical mathematical models (SWAP, Soil, Soil-N, DrainMod, Hydrus-1D, Hydrus-2D/3D, Global)
- Experienced in catchment level environmental simulation models (PERSiST, HBV Light, INCA-N, INCA-SED, INCA-P, SWAT, MikeShe)
- Experienced in model sensitivity analyses and autocalibration tools INCA-N Sens and COUP (for the SWAT model)
- Trained in “Measuring techniques in soil physics” (PhD Course, Wageningen University, the Netherlands; 1998)
- Trained in “Applying geostatistical methods in soil science” (PhD Course, Slovak University of Agriculture, Nitra, Slovakia, 1995)
- Skills in applying (geo)statistical software’s (Statistica, GeoStat, MiniTab, Surfer)
- Experienced in developing and implementing research projects

Fields of interest

- Multi-scale environmental modelling
- Characterisation of water/material transport and retention in the landscape
- Characterisation of spatio-temporal variability of soil properties
- Climate change adaptation strategies for improving soil and water quality
- Land use and climate change effects on (soil) hydrological processes
- Soil erosion and water pollution from diffuse sources under changing climate

Commissions of trust

2017-	Editorial board member of the Journal of Hydrology and Hydromechanics, Slovakia
2016-	Member of the International Scientific Advisory Board, National Water Science Program, Hungarian Academy of Sciences, Hungary
2007-2009	Editorial board member of the Journal of Hydrology and Hydromechanics, Slovakia
2000	member of the Organising Committee and Editorial Board; Second ISTRO Workshop on Subsoil Compaction, Szent István Univ., Hungary
2000 -	invited reviewer to 15 international scientific journals, cca. 80 completed reviews to date
1998	member of the Organising Committee and Editorial Board; International ISTRO Conference on Soil Condition and Crop Production, Szent István Univ., Hungary

Awards of merit

2008	Bolyai Award for outstanding scientific qualification of post-doctoral report, Hungarian Academy of Sciences
2007	ITSZN Niveau Author Award; by: Inter-Institutional Professional Committee of College Textbook Publishers; Achievement: Contribution to Birkás M. (ed.): "Soil use and management". Mezőgazda Publisher, Budapest, pp. 30-54
2003	Award for strengthening international scientific cooperation, Slovak Academy of Sciences, Slovak Republic
2003	Award for Youth Scientists, Hungarian Academy of Sciences, Hungary

Supervision of graduate students and research fellows

2015 – 2019	external advisor to Ilona Kása; PhD at Eötvös Loránd University, Budapest, Hungary (<i>ELTE Hungary</i>)
2018	committee member to Ellen Kayendeke (PhD at Norwegian University of Life Sciences, Ås, Norway)
2018	external advisor to Dorina Jamniczky; BSc at Szent István University, Gödöllő, Hungary
2011	external advisor to Andrea Raveloson and Ákos Farkas; (MSc at ELTE Hungary)
2012	committee member to Hajnalka Breuer (PhD at ELTE Hungary)
2008-2012	external advisor to Eszter Tóth (PhD at Corvinus University, Budapest, Hungary)
2011	committee member to Renáta Sándor (PhD at Szeged University, Szeged, Hungary)
2005-2009	external advisor to Andrea Hagyó (PhD at Szent István University, Gödöllő, Hungary)
2006	committee member to Dóra Beke (PhD at Pannon University, Keszthely, Hungary)
2006	committee member to Titanilla Hárs (PhD at Szent István University, Gödöllő, Hungary)

Funding and project leadership history

Since 1993, participation in 21 Hungarian national, 10 Norwegian national and 16 international (mostly EU-funded), 7 EEA-Norway Grants founded and research projects and 16 international bilateral S&T projects. Out of these, professional coordination of 8 Hungarian national projects, 1 EEA-Norway Grants and 12 international bilateral S&T projects with Slovakia, Finland, Poland and Ukraine. WP leader in 2 Norwegian national, 2 EU-funded and 4 EEA-Norway Grant funded projects. Selected projects:

2022-	NORBALT-ECOSAFE: Nitrogen and phosphorus load reduction approach within safe ecological boundaries for the Nordic-Baltic Region. (EU Horizon 2020), participant
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- 2021- SABICAS - Safeguard Biodiversity and improve Climate Adaptation in catchment areas under pressure: tools and Solutions. (Research Council of Norway). Task leader on developing linked biophysical – statistical models.
- 2020- OPTAIN - OPTimal strategies to retAIN and re-use water and nutrients in small agricultural catchments across different soil-climatic regions in Europe. (EU Horizon 2020); task leader of two modelling tasks including coordination of the field-scale modelling on consortium level
- Since 2019 RID – Riverine Inputs and Direct Discharges EU OSPAR project, NIBIO Coordinator & EU level database manager
- 2019- OPTIKORN - Adaptation strategies for increased cereal production under a wetter future climate. (Research Council of Norway). WP leader
- 2018- Nordic Centre of Excellence: An Integrating Nexus of Land and Water Management for a Sustainable Nordic Bioeconomy (BIOWATER); NIBIO modelling team coordinator
- 2016-2017 Development of an innovative vermicomposting technology for communal sewage sludge recycling (Vermicomposting). EEA-Norway Grant HU09-0040, NIBIO coordinator
- Since 2014 EU-level Database Manager of the EU OSPAR Commission RID Database on Riverine Inputs and Direct Discharges
- 2012-2017 Data model fusion for studying the combined effects of different land use and climate change scenarios on water regime and soil erosion; Hungarian Scientific Research Foundation, OTKA-101065, project coordinator
- 2014-2016 Development of data-modelling system and the decision support tool for the integrated marine and inland water management; EEA Financial Mechanism, Estonia, WP leader
- 2011-2013 Climate Change in the Carpathian Region (CARPATHCC); EU FP7, institute coordinator
- 2010-2013 Adaptive Strategies to Mitigate the Impacts of Climate Change on European Freshwater Ecosystems, REFRESH, EU FP7, participant
- 2006-2009 Water Retention Based Land Use Changes in the Bodrogköz Area – ecological processes and economical measures; EU Slovak-Hungarian Interreg Project, WP leader
- 2004-2009 Agroecology (Hungarian National Project), project manager