PERSONAL INFORMATION

Zsófia BAKACSI

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female | Hungarian

PROFESSIONAL CAREER

2016 - present

Senior Scientist, Head of Department

Department of Soil Physics and Water Management, Institute for Soil Sciences, Centre for Agricultural Research, Eötvös Loránd Research Network; Budapest, Hungary

2002 - 2016

Senior Scientist

Department of Environmental Informatics, Institute for Soil Science and Agricultural Chemistry, Centre for Agricultural Research, Hungarian Academy of Sciences; Budapest, Hungary

1999 - 2002

Research Fellow

GIS Lab, Research Institute for Soil Science and Agricultural Chemistry, Hungarian Academy of Sciences; Budapest, Hungary

1993 - 1998

PhD-student

Research Institute for Soil Science and Agricultural Chemistry, Hungarian Academy of Sciences; Budapest, Hungary

EDUCATION

2002
Organization providing education

PhD in Hydrogeology

Eötvös Loránd University, Doctoral School of Geology, Budapest, Hungary – Title "*Agrogeological and pedological analysis on Apajpuszta salt-affected area, the expected consequences of the groundwater-level changes*"

1998-2000
Organization providing education

Post-graduate degree on Soil Science

Szent Istvan University, Gödöllő, Hungary

1988-1993
Organization providing education

M.Sc. Geology, specification: Environmental Geology

Eötvös Loránd University, Budapest, Hungary -"*Sedimentology of a travertine deposit in Süttő, Hungary*"

ADDITIONAL INFORMATION

Teaching

Soil Science, lectures "Introduction to Soil Sciences" undergraduate course, in English; "Soil Mineralogy" as a part of the PhD-course "Salt-Affected Soils".

Public activities

Hungarian Soil Science Society, since 2000
General Secretary of the Hungarian Soil Science Society 2014-2022

Grant

"János Bólyai" Research Grant of the Hungarian Academy of Sciences, 2011-2014.

Selected International Projects

- EJP SOIL, H2020 (862695), Task leader, ATK Institutional project coordinator, 2020-2025
- TUdi, H2020 (101000224), WP leader, ATK Institutional project coordinator, 2020-2025
- Innovative Real-time Monitoring and Pest control for Insects (LIFE13 ENV/HU/001092), 2014-2018, participant
- Implementation of in-depth assessments of vulnerability of environmental resources and ecosystem based adaptation measures (CarpathCC) EU FP7 2011-2013, participant
- Assessment and strategic development of INSPIRE compliant Geodata-Services for European Soil Data (GS Soil) eContentplus. (ECP 318004) 2009-2012, participant

Selected publications (last 10 years)

- Szatmári, G ; Pásztor, L ; Laborczi, A ; Illés, G ; **Bakacsi**, Zs ; Zacháry, D ; Filep, T ; Szalai, Z ; Jakab, G, 2023. Countrywide mapping and assessment of organic carbon saturation in the topsoil using machine learning-based pedotransfer function with uncertainty propagation. CATENA 227 Paper: 107086 , 11 p.
- Szatmári, G ; Kocsis, M ; Makó, A ; Pásztor, L ; **Bakacsi**, Zs, 2022. Joint Spatial Modeling of Nutrients and Their Ratio in the Sediments of Lake Balaton (Hungary): A Multivariate Geostatistical Approach: A Multivariate Geostatistical Approach. WATER 14 : 3 Paper: 361
- Horel Á,; T., Zsigmond ; S., Molnár; I., Zagyva ; Zs., **Bakacsi**, 2022. Long-term soil water content dynamics under different land uses in a small agricultural catchment. JOURNAL OF HYDROLOGY AND HYDROMECHANICS 70 : 3 pp. 284-294. Paper: 0015 , 11 p
- **Bakacsi**, Zs ; Laborczi, A; Szatmári, G ; Horel, Á ; Dencső, M ; Molnár, S ; Ujj, E ; Tóth, E, 2020. Compiling C/N and total-N dataset to support countrywide soil nutrient emission models for Hungary. Studies In Agricultural Economics 122 pp. 86-95., 10 p.
- Szatmári, Gábor ; **Bakacsi**, Zsófia ; Laborczi, Annamária ; Petrik, Ottó ; Pataki, Róbert ; Tóth, Tibor ; Pásztor, László, 2020. Elaborating Hungarian Segment of the Global Map of Salt-Affected Soils (GSSmap): National Contribution to an International Initiative. REMOTE SENSING 12: 24 Paper: 4073 , 19 p.
- Molnár S, Zs **Bakacsi**, K Balog, B Bolla, T Tóth 2019. Evolution of a salt-affected lake under changing environmental conditions in Danube-Tisza Interfluve, Carpathian Journal of Earth and Environmental Sciences, 2019, Vol. 14, No. 1, p. 77 - 82; DOI:10.26471/cjees/2019/014/060
- Gábor Szatmári , Péter László , Katalin Takács , József Szabó , Zsófia **Bakacsi** , Sándor Koós , László Pásztor, 2018 Optimization of second-phase sampling for multivariate soil mapping purposes: Case study from a wine region, Hungary GEODERMA 2018 030.
- Kása I , Gelybó G , Horel A , **Bakacsi** Zs , Tóth E , Koós S , Dencső M , Deelstra J , Molnár S , Farkas C., 2017, Evaluation of three semi-distributed hydrological models in simulating discharge from a small forest and arable dominated catchment. Biologia (Bratislava) 72:(9) pp. 1002-1009.
- Horel Á, Tóth E, Gelybó Gy, Kása I, **Bakacsi** Zs, Farkas Cs., 2015, Effects of land use and management on soil hydraulic properties. Open Geosciences/Central European Journal of Geosciences, 7/1: 742–754.
- Farkas C., Gelybó G., **Bakacsi** Z., Horel Á., Hagyó A., Dobor L., Kása I. & Tóth E., 2014, Impact of expected climate change on soil water regime under different vegetation conditions, Biologia Vol. 69, No. 11, DOI: 10.2478/s11756-014-0463-8