

CURRICULUM VITAE

Samar Seyedsadr

Master of Sciences

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Profile and Research activity

I am a soil hydrogeologist with ten years of experience in the field of natural resource management, ecological engineering, and environmental modeling. During my PhD at Czech University of Life Sciences, Czech Academy of Sciences and VUMOP in Prague, Czech Republic, I have developed strong laboratory analytical and technical skills, supplemented by a concise working knowledge of RStudio, Hydrus-1D, GIS and SigmaPlot. In particular I have applied this to the study of hydrodynamics of soil moisture in drought-prone coarse textures soils after the amendment with biochars, composts and manures. This portfolio has resulted in the publication of six research papers in well-established journals, asserting my skills in the field. I am looking forward to developing the next stage of my career with postdoctoral work.

Academic education

6/2018 – 3/2023

Czech University of Life Science, Prague, CZ

PhD Program: Landscape Engineering

Field of study: Environmental Modelling

Dissertation Topic: *Application of biochar in order to enhance overall quality of low-organic soils*; Supervisor: doc. Mgr. Lukáš Trakal, Ph.D.

10/2014 – 6/2017

University of Natural Resources and Life Science (BOKU), Vienna, Austria

Master Program: Natural Resource Management and Ecological Engineering Specialization: Ecological Engineering and Risk Management

Thesis written at the Institute of Chemical and Energy Engineering (IVET): *The Effect of Different Combination of Agricultural Residues on the Quality of HTC Hydro-char Energy Yield*; Supervised by: Prof. Christoph Pfeifer, Dr. Rafat Al Afif

9/2005 – 1/2008

Shiraz university, Shiraz, IRIB

Master Program: English Language Training

1999 – 2004

Bu-Ali University, Hamedan, IRIB

Bachelor Program: Plant Protection, Agricultural Engineering

Professional and academic experience

Hydropedology Specialist

5/2022– 12/2022

Employee at Research Institute for Soil and Water Conservation, The Czech Academy of Sciences working with Sandbox, SandKoalinBox, Pressure Apparatus, groundwater modelling with Hydrus-1D

University Teaching Assistant

2/2019 – 12/2022

Teaching Environmental HydroGeosciences

Teaching the basics of hydrogeology, water balance, groundwater contamination, soil water flow, Hydrus-1D. Being field work assistant, and chemistry laboratory tutor

Environmental Modelling Intern

1/2019 – 12/2020

Employee at Institute of Hydrodynamics, The Czech Academy of Sciences, Lab experiences: working with Laboratory Permeameter, Sandbox, SandKoalinBox, Pressure Apparatus Modelling using Hydrus-1D, Writing reports and papers

Chemistry Laboratory Intern

7/2017 – 11/2017

Intern at Austrian Institute of Technology, involved in Garden Soil project, Lab experiences: working with hydrothermal carbonization reactor, Bomb Calorimeter, Atomic Absorption spectrometer (AAS), spectrophotometer

Languages

- Persian (Native)
- English (Advanced)
- German (Intermediate)

Scientific Publications

Seyedsadr S, Sipek V, Jacka L, Snehota M, Beesley L, Pohorely M, Kovar M, Trakal L (2022) Biochar considerably increases the easily available water and nutrient content in low-organic soils amended with compost and manure. *Chemosphere* 293:133586. <https://doi.org/10.1016/j.chemosphere.2022.133586>

Lebrunab, M; Bouček, J; Berchová, K, B; Krause, K; Haisel, D; Kulhánek, M; Omara-Ojunga, C; Seyedsadr, S; Beesley, L; Soudek, P; Petrová, Š; Pohořelý, M; Trakal, L. Biochar in manure can suppress water stress of sugar beet (*Beta vulgaris*) and increase sucrose content in tubers. 2022

Vaňková, Z., Vítková, M., Trakal, L., Seyedsadr, S., Miller, O., Addo, K., Komárek, M., 2021. Soil moisture influences performance of selected stabilizing amendments in soil remediation, *Geoderma*, 402, 115307, <https://doi.org/10.1016/j.geoderma.2021.115307>.

Teodoro, M., Trakal, L., Gallagher, B.N., Šimek, P., Soudek, P., Pohořelý, M., Beesley, L., Jačka, L., Kovář, M., Seyedsadr, S., Mohan, D., 2020. Application of co-composted biochar significantly improved plant-growth relevant physical/chemical properties of a metal contaminated soil. *Chemosphere* 242, 125255. <https://doi.org/10.1016/j.chemosphere.2019.125255>.

Sipek, V., Jacka, L., Seyedsadr, S., Trakal, L., 2019. Manifestation of spatial and temporal variability of soil hydraulic properties in the uncultivated Fluvisol and performance of hydrological model. *Catena* 182, 104119. <https://doi.org/10.1016/j.catena.2019.104119>

Seyedsadr, S., Al Afif, R., & Pfeifer, C. (2018). Hydrothermal carbonization of agricultural residues: A case study of the farm residues -based biogas plants. *Carbon Resources Conversion*, 1(1), 81–85. doi:10.1016/j.crcon.2018.06.001

References

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- Dr. Luke Beesley; The James Hutton Institute, Aberdeen AB15 8QH
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