Job posting

Type of position
☒ scientific
☐ administrative

Target group
☐ graduates
☐ post docs
☒ other

Title
Research Scientist (w/m/d) with PhD option (80%)

Institution
The mission of the Leibniz Centre for Agricultural Landscape Research (ZALF) as a nationally and internationally active research institute is to deliver economically, environmentally and socially sustainable agriculture – together with society. ZALF is a member of the Leibniz Association and is located in Müncheberg (approx. 35 minutes by regional train from Berlin-Lichtenberg). It also maintains a research station with further locations in Dedelow and Paulinenaue.

Position
We are offering a research position within the BMBF funded junior research group “Towards healthy soils by using autonomous field robots in diversified agricultural landscapes” (SoilRob). SoilRob aims at examining whether the utilization of autonomous field robots and the integration of high-resolution data in diversified cropping systems can enhance soil health, boost soil-based ecosystem services, and stabilize or increase yields compared to conventionally managed fields. A comprehensive assessment of physical, chemical, and biological soil parameters related to soil-based ecosystem functions and sustainable development goals is conducted with beyond state-of the art methods and technologies.

The activities of SoilRob are clustered in regard to five different soil-based ecosystem services: crop production, nutrient cycling with focus on nitrogen, water storage & filter, climate regulation, and biodiversity & habitat provision. Within this researcher position, we aim at collecting and exploring indicators to quantify soil-based ecosystem services of Carbon Sequestration & Climate Resilience and Biodiversity & Habitats. The extensive data collection is carried out in patchCROP, an experimental platform and landscape laboratory managed partly with robots. Additional experimental sites for sample collection and field measurements will be established across five other locations in Germany. The objective of this comprehensive assessment is to quantify the changes in local and global carbon (C) regulation and the influence on soil as a habitat and reservoir of biodiversity as affected by the use of agricultural robots. Additionally, the measurements aim to assess the impact of diversification practices on carbon dynamics and soil biology.

This position is located in the ZALF research area “Land Use and Governance” in the working group “Resource-Efficient Cropping Systems” and includes a research scientist position for 4 years (TVL13, 80%) starting from January 2024 and with the option to conduct a PhD.

We offer:

- an interdisciplinary and open-minded working environment that encourages independence and self-reliance
- broad network activities within the Junior Research group SoilRob
- membership in ZALF’s graduate program (incl. benefit from skill training courses)
- strong institutional commitment to a good work-life balance
- classification according to the collective agreement of the federal states (TV-L) up to EG13 with a 80% weekly working time (including special annual payment)
- company train ticket

**Responsibilities**

- conduct field measurements, samplings and observations on carbon pools & composition, meso- and macrofauna
- apply and adjust different laboratory methods to determine soil structure, aggregate stability and microbial biomass
- support the real-time data collection with a field scanner for soil roughness
- collaborate with project partners (e.g. BMBL Experimentierfelder)
- data analysis and public results presentation, e.g. at international conferences
- data exchange with other SoilRob activities and participation at Transfer events
- publish results in peer-reviewed internationally scientific journals

**Requirements**

- master of science in agriculture, soil science, geosciences, or related disciplines, with a focus on soils
- experience in field and/or laboratory work related to agriculture/soil science
- experience with geographical information systems and mapping is desirable
- excellent communication skills in English
- knowledge of statistical data analysis, preferably with R or Python, is expected
- drivers licence strongly recommended
- willingness to travel within Germany for several days, for sampling campaigns and cooperation with project partners must be present

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**Application procedure (deadline etc.)**

Women are particularly encouraged to apply. Applications from severely disabled persons with equal qualifications are favored. Please send your application preferably online (see button online application below). Please include a cover letter, a CV, copy of your MSc degree, transcripts (proof of qualification and certificates), and the names and contact information for three references, stating the reference number 104-2023 until November 6th, 2023 to: (see button e-mail application below).

[https://jobs.zalf.de/jobposting/ab104d8dee48bb3d11b7252d068644c3742927040](https://jobs.zalf.de/jobposting/ab104d8dee48bb3d11b7252d068644c3742927040)

For cost reasons, application documents or extensive publications can only be returned if an adequately stamped envelope is attached. If you apply, we collect and process your personal data in accordance with Articles 5 and 6 of the EU GDPR only for the processing of your application and for purposes that result from possible future employment with the ZALF. Your data will be deleted after six months.

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**Contact**

If you have any questions, please do not hesitate to contact: Dr. Kathrin Grahmann, Tel. +49 (0) 33432/82-142, Kathrin.Grahmann@zalf.de.