ATB
Leibniz-Institut für
Agrartechnik und Bioökonomie

Job posting

The Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB) is a pioneer and a driver of bioeconomy research. We create the scientific foundation to transform agricultural, food, industrial and energy systems into a sustainable bio-based circular economy. We develop and integrate techniques, processes and management strategies, effectively converging technologies to intelligently crosslink highly diverse bioeconomic production systems and to control them in a knowledge-based, adaptive and largely automated manner. We conduct research in dialogue with society, policymakers, industry and other stakeholders - knowledge-driven and application-inspired.

As part of the HORIZON project **'Towards scalable monitoring, reporting, verification and mitigation of non-CO_2 greenhouse gas and ammonia emissions from land-based agricultural systems (MARVELA)'**, we are looking, subject to funding approval, for a

Scientist (PostDoc) (m/f/d) (100 %)

for the task area

Development and validation of IoT-based sensor systems for environmental monitoring

Within the MARVELA project, innovative, cost-effective and user-friendly measurement systems for the continuous monitoring of greenhouse gases, ammonia and relevant environmental parameters at farm level will be developed, optimized and validated. At ATB, the work focuses on the further development of modular IoT-based sensor systems, the integration of sensors, embedded electronics and communication interfaces, and their application in livestock buildings and manure-management systems. The developed systems will be tested under laboratory and practical farm conditions and validated against state-of-the-art reference measurement methods.

Your tasks

Your main responsibility will be the development, implementation and scientific validation of electronic measurement systems for agricultural emission monitoring. This includes in particular:

- Further development and optimization of modular IoT-based sensor systems for environmental and emission monitoring
- Integration of sensors, embedded electronics, data loggers, power supplies and communication interfaces into robust measurement systems
- Programming and configuration of microcontrollers, device interfaces and automated data-acquisition systems
- Planning and conducting laboratory tests, calibrations and measurement campaigns in livestock and manure-management systems
- Validation of low-cost and mid-cost sensors against state-of-the-art reference measurement instruments
- Development and implementation of quality-assurance procedures, measurement protocols and technical documentation
- Processing, quality control, statistical analysis and interpretation of measurement data
- Coordination of technical activities with project partners and preparation of scientific publications, reports and presentations

Leibniz-Institut für Agrartechnik und Bioökonomie e.V. (ATB)
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Zertifikat seit 2010 audit berufundfamilie
Leibniz-Gemeinschaft

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Your qualifications

- Successfully completed doctorate in electrical engineering, mechatronics, technical informatics, embedded systems, measurement and sensor technology, physical engineering or a comparable discipline
- Proven experience in scientific project management
- Proven experience in the development, integration and operation of measurement and sensor systems
- Experience with embedded systems, microcontrollers and hardware-related programming
- Knowledge of common device interfaces and communication protocols, such as I²C, SPI, UART, RS-485, Modbus, Ethernet or LoRaWAN
- Experience in sensor calibration, measurement-system validation, quality assurance and systematic troubleshooting
- Strong programming and data-analysis skills, preferably in Python, R, MATLAB, C or C++
- Very good English skills, an independent and solution-oriented working style, teamwork, willingness to conduct field measurements
- Desirable: Good command of German, EU driving licence class B

We offer

- An attractive, interdisciplinary and international working environment with a highly motivated team
- An exciting position in a cutting-edge field of environmental monitoring and sensor technology
- Excellent infrastructure with state-of-the-art laboratory and measurement technology
- Access to national and international networks for your scientific development
- Training and further education opportunities
- Family-friendly working conditions to promote work-life balance
- Financial contribution to VBB company ticket or Deutschlandticket
- A workplace at the edge of a picturesque landscape, easily accessible by bike or public transport

The full-time position (40 hours/week) is initially limited to 3 years. Part-time employment is also possible if desired. Salary will be based on your qualifications and experience according to TV-L up to pay grade 13. The preferred starting date is in **Q1 2027**.

For more information, please contact **Dr.-Ing. David Janke** (Tel.: +49 331-5699 513) and on the Internet at www.atb-potsdam.de.

Have we sparked your interest? Then apply **by 25 September 2026** with your cover letter, CV (without photo), and employment references and/or contact details of referees via our online application portal for this job posting (reference number **2026-SM-3**) at https://www.atb-potsdam.de/en/career/vacancies. Applications received after the application deadline cannot be considered. We look forward to your application!

Interviews are scheduled to take place in weeks 41 and 42.

We are committed to equal opportunities. Applications from severely disabled candidates will be given preference if equally qualified.

By submitting your application, you agree that your documents may be stored for up to six months even in the case of an unsuccessful application. Further information on data protection can be found here: ATB: Data Protection Declaration for the application process.

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