The Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB) as nationally and internationally acting institute is researching at the interface of biological and technical systems. Our research is aimed at sustainable intensification. We analyze, model and evaluate bio-economic production systems. We develop and integrate new technologies and management strategies for a knowledge-based, site-specific production of biomass, and its use for food, as raw materials and fuels - from basic research to application.

Thus we are contributing to food security, animal welfare, the holistic use of biomass, and to protect the climate and environment.

The overarching research topic for department 4, Engineering for Crop Production, is knowledge based, requirement driven crop production systems: Precision Agriculture. Main goals are the development of sensor systems, automation of data acquisition and working processes.

For the EIP-funded project SunBot—Emission-free berry production in Brandenburg—we are looking for a

**Scientist (PhD candidate) (m/f/d)**

in the area of

**autonomous tractors and automation in agriculture**

Berry production in Brandenburg faces a variety of challenges. In order to improve the ecological balance, cost efficiency and labour productivity—in ecological and integrated berry cultivation—this project aims to develop and test a highly autonomous zero-emission concept for autonomous undergrowth care by using an electrically driven, autonomous tractor—with self-generated regenerative energy.

**Your responsibilities**

- **Project management**: project planning, reporting, preparation and implementation of project meetings
- **System development**:
  - Requirement analysis for function, reliability, and accuracy of overall systems
  - Development of control algorithms, definition of interfaces,
  - System analysis, risk analysis, hazard assessment
  - Determination of requirements fulfillment, planning and execution of module, integration, system and functional tests
- **Module integration**: navigation & tractor & attachment & control software = overall system control
- **Support for field trials**: technical support, data collection, test execution and evaluation
- **Transfer**: scientific publications, scientific conferences, open house events

**Your professional qualifications**

- Very good university degree in agricultural engineering or mechatronics/control engineering with a focus on control systems of mobile working machines or related fields (Master of Science)
- Practical experience in horticultural cultivation methods, horticultural test set up and evaluation
- Experience on machine control development, functional safety and risk assessment are desirable
- Experience in project management is advantageous
- Very good English and German, written and spoken

**Your personal qualification**

- Great interest in science with an independent, responsible, reliable, and result-oriented way of working
- Ability to work in a team and commitment to interdisciplinary cooperation
- Ability to analyze and understand complex issues
- High interest in outdoor work, weather resistance
- Willingness to travel on business in-land and abroad and to receive further training in new working techniques
- Driving licence class B
We offer you

- Excellent facilities, processing units, analytical labs and an interdisciplinary team
- Access to national and international networks to support your scientific exchange
- Support of your career development by qualifying programs (ATB and partner universities)
- Family-friendly working conditions that foster the compatibility of work and family life

The beginning of employment is scheduled for **November 2019**. The salary depends on your qualification and professional experience according to TV-L (part-time). The position is limited to three years. Further information can be obtained from Prof. Dr.-Ing. Cornelia Weltzien (Tel.: +49 331-5699 410, E-Mail: cweltzien@atb-potsdam.de) as well as from internet source at [www.atb-potsdam.de](http://www.atb-potsdam.de).

If you would like to contribute your professional competence to our interdisciplinary research, please apply by **25 September 2019** quoting the reference number **2019-4-5** by email to [karriere@atb-potsdam.de](mailto:karriere@atb-potsdam.de) (preferably one single pdf-document).

Equality of opportunity is part of our personnel policy. Disabled applicants with adequate qualification will be preferentially considered.

With your application for employment you declare your agreement to store your application documents for at least three months even in case of an unsuccessful candidacy.

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