The Leibniz-Institute of Vegetable and Ornamental Crops (IGZ) aims for excellence in horticultural research and related plant, environmental, nutritional and social sciences. IGZ is based in Großbeeren close to Berlin and is a member of the Leibniz Association (WGL). IGZ conducts strategic and international research for the sustainable production and use of vegetables, contributing to food security, human well-being and the conservation of natural resources. At IGZ, researchers from different disciplines work together on core-funded and grant-funded projects, in collaboration with national and international research partners.

Starting at the earliest from April 2022 we are looking for an enthusiastic and ambitious

Scientist in the area "Plant physiological aspects and systems modelling" (f,m,d)
Reference Number: 05/2022/4

The employment will be initially until 31.05.2024. The salary will be based on qualification and research experience according to the wage agreement TV-L, salary domain east, up to EG 13, full time.

The scientist will be part of the research group HORTSYS-Controlled environment horticultural systems. One of the main areas in this research group is systems modelling related to environmental control and resource conservation in greenhouses and controlled environments. In the FOSC ERA-net project BLUE-CYCLING focusing on aquaponics (https://www.foscera.net/en/foscera/projects/blue-cycling.htm), HORTSYS participates as the core plant physiological partner within an international consortium of eight partners located on three continents. In that project, we will use our scientific hydroponics and aquaponics systems focusing on the plant physiological aspects in aquaponics in a close cooperation with Wageningen University. A model-based planning tool (simulator) will be further developed and used to analyse system performances and improvements. For that, plant physiological responses will be analysed in greenhouses and climate chambers. Explanatory models will be developed and implemented to the simulator as sub-components.

Tasks include

• Planning and maintaining experiments in greenhouses, climate chambers and aquaponics
• Design and execution of plant growth and lab experiments incl. data collection and analyses
• Mathematical modelling of crop physiological processes
• Simulation studies and environmental systems analysis
• Active cooperation in the international BLUE-CYCLING consortium, incl. travels and deliverables
• Project management incl. organization of meetings and workshops
• Writing scientific publications
• Presentation of results to the international project consortium and scientific audience

We are looking for highly motivated candidates with the following qualifications and profile

• A PhD within the field of aquaponics, greenhouse horticulture and/or plant physiology
• Experience with scientific and/or applied greenhouse horticulture
• Experience with greenhouse climate models and/or crop modelling
• Experience in sensor-model combinations for plant monitoring
• Knowledge of mathematical analytics and systems thinking
• Experience in modelling software, preferably in Matlab
• Proven track record of publication in peer-reviewed journals
• English language communication on international level

We offer

• An inspiring and dynamic research environment, including state-of-the art research facilities
• Participating in an international research project
• Participation in a successful, dedicated and team-oriented research group
• Flexible and family-friendly working time models
• A place of employment located close to Berlin and Potsdam

Please send a strong motivation letter stating why this is an interesting topic for you and why you have the right attitude and expertise to contribute to the BLUE-CYCLING project and make progress in this field. Also send your CV, copies of high-school and academic certificates. Please also indicate your earliest possible starting date.

More information on about the IGZ you can find under www.igzev.de. For questions please contact: Dr. Oliver Körner (+49(0)33701 78 355; koerner@igzev.de)

We encourage a healthy work-life balance. The IGZ attaches great importance to equal opportunities. Applicants with disabilities will be given preference in case of equal qualifications. The IGZ embraces diversity in its workforce, and welcomes applications from all qualified candidates, irrespective of age, gender, sexual orientation, religion, belief or ethnic origin. In an effort to increase the proportion of female employees in this area, we specifically urge women scientists to apply for the position.

Please send your application citing the reference number by 13.02.2022 to: Personalbüro, Institute for Vegetable and Ornamental Crops, Theodor-Echtermeyer-Weg 1, D-14979 Großbeeren or online in pdf-format to personal@igzev.de.