3496 6101 Agricultural Scientist, Biologist - Plant Physiology (m/f/d) The Leibniz Institute of Vegetable and Ornamental Crops (IGZ) aims for excellence in horticultural research and related plant, environmental and social sciences. IGZ is based in Großbeeren close to Potsdam and 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.  
  
  
To contribute to the target of resource optimization in protected environment crop production through smart systems, the research group “Next-Generation Horticultural Systems - Controlled Environments”, we look for an enthusiastic and ambitious  
  
  
Scientist in the Area of “Monitoring Crop - (Micro)Climate Interactions in Protected Plant Cultivation Systems” (f/m/div)  
  
Reference Number: 07/2023/4  
  
  
Employment will be initially for three years with a three-year extension upon a satisfactory evaluation at 2.5 years using the IGZ criteria for postdoctoral careers. The salary will be based on qualification and research experience according to the wage agreement TV-L, up to EG 13, 100% of the regular working time. The position is suitable for part-time work with at least 32 hours / week.  
  
  
The scientist will be part of the research group HORTSYS-Controlled environment horticultural systems. We create model-sensor based decision support tools for resource optimised crop production in protected cultivation. As such, the main research in this group is model-based monitoring using systems modelling and sensor technology, aiming at resource-use optimised production in greenhouses and indoor-farms. We use our research for real-time monitoring and environmental control fostering resource conservation in greenhouses and controlled environments. One major key for resource use optimised protected crop cultivation in greenhouses and indoor-farming is controlling crop evapotranspiration.  
  
  
The knowledge of leaf morphology and especially stomata conductance play a central role. Understanding and systematic analyses of the signals controlling stomata behaviour and incorporation their dynamics in models is still lacking central parts.  
  
  
The successful candidate is expected to strengthen and build an own line of research in resource use optimization in greenhouse and indoor-plant production based on leaf morphological responses to the environment and vice versa with an active scientific portfolio work and project acquisition.  
   
 Building an own research portfolio in line with the research groups scientific strategy  
 Theoretical and practical assessment of plant - climate interaction and stomata dynamics in protected cultivation  
 Process-based mathematical systems modelling and implementation in a relevant platform, preferably in MATLAB  
 Creation of modules as part of decision support systems for sensor-model based crop monitoring  
 Scientific publications in highly ranked scientific journals  
 Supervision of bachelor, master and PhD students  
 Presenting science to international audience and active participation in conferences and workshops  
 Active participation within the local research environment at the IGZ, in the region, and in the Leibniz Association  
 Active in applications on grants for national and international calls as e.g. Horizon 2020, Horizon Europe  
   
 A PhD within greenhouse horticulture or indoor-farming, plant physiology and modelling or a related field  
 Ability to independently apply for research grants and build international project consortia  
 Not more than five years since obtaining the PhD  
 Excellent organization and English language communication skills  
 Open, flexible and positive attitude, able to take the initiative  
 Readiness to integrate into an international working environment  
  
  
The following profe... Agricultural scientist / agricultural economist None 2023-03-07 15:57:43.288000