

Postdoc Position in Crop physiology for Vertical Farming

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The new Chair for Digital Agriculture at the Technical University of Munich, Prof. Senthold Asseng is looking for an outstanding applicant for a Postdoc position in Vertical Farming under his supervision.

About us

Located in the prosperous capital of Bavaria and home to over 39,000 students, the Technical University of Munich (TUM) is one of the world's top universities (top 4 European technical universities in The World University Ranking, top 50 in Shanghai Ranking, top 10 in Global University Employability Ranking). It is committed to excellence in research and teaching, interdisciplinary education, and the active promotion of promising young scientists. TUM benefits from the healthy mix of companies and startups of all sizes headquartered in the region and is tightly connected to regional research hospitals. The university also forges strong links with companies and scientific institutions across the world.

Digital Agriculture at TUM is a Chair located at Weihenstephan. It focuses on interdisciplinary research linking crop production with artificial intelligence (AI) tools. A key initiative of Digital Agriculture is the development of a pilot vertical farm. Vertical farming is an alternative for growing crops in the field. Growing crops in vertically stacked layers was enabled with the invention of light-emitting diodes (LEDs). The breakthrough was perceived in the last 10 years with LEDs becoming affordable and so efficient that they are redefining the economics of indoor and vertical farming. In vertical farms, all growth factors including light, temperature, humidity, CO₂ level, ventilation, water and nutrients can be controlled and optimized, with simultaneously excluding weeds, pests and diseases. The research goal of the pilot vertical farm will be to explore optimal crop growing conditions using energy and cost-efficient AI technologies for food, medical and industrial crops.

Description

We are looking for an outstanding Postdoc in **Crop physiology** to carry out crop experiments in a pilot vertical farm located in Weihenstephan. This Postdoc position will give you a unique opportunity to research on crop production under fully controlled growing conditions combined with artificial intelligence tools. Please consider applying if you have a strong background in crop physiology. We especially seek individuals who have experience and knowledge in crop physiology, combined with:

- Excellent communication skills verbally and in writing,
- Independence, self-reliant working style,
- Willingness and interest in learning about new and challenging topics,
- Team player,
- Basic knowledge of German.

Desirable experience and knowledge areas include:

- Glasshouse or indoor crop production,
- AI tools, including robot control, optimization and machine learning,
- Crop modelling.

What we offer

- Stimulating, high-paced environment for cutting-edge research in crops in vertical farming.
- Pleasant working conditions with interesting and challenging tasks in collaboration with a talented and interdisciplinary scientific and management team.
- An exceptional opportunity to experience research in a highly inspiring international environment and to learn from some of the world's leading researchers.
- The opportunity to develop your professional research and leadership skills in a high-impact field with excellent career opportunities.

How to apply?

The following documents are needed for applications:

- A motivation letter describing your research interests, your qualifications, and why you would be a suitable candidate
- A detailed CV
- Academic transcripts from your Bachelor's and Master's degrees
- Name, address and Email of at least two references

Interested applicants should send the necessary documents via email to:

Frau Claudia Luksch
c.luksch@wzw.tum.de

quoting "Postdoc Position in Crop physiology for Vertical Farming" in the e-mail subject line. The position will be filled as soon as possible and only shortlisted candidates will be notified. Preference will be given to applications received before 25 February, 2021.

TUM has been pursuing the strategic goal of substantially increasing the diversity of its staff. As an equal opportunity and affirmative action employer, TUM explicitly encourages nominations of and applications from women as well as from all others who would bring additional diversity dimensions to the university's research and teaching strategies. Preference will be given to disabled candidates with equal qualifications. International candidates are highly encouraged to apply.

Hinweis zum Datenschutz:

Im Rahmen Ihrer Bewerbung um eine Stelle an der Technischen Universität München (TUM) übermitteln Sie personenbezogene Daten. Beachten Sie bitte hierzu unsere [Datenschutzhinweise gemäß Art. 13 Datenschutz-Grundverordnung \(DSGVO\) zur Erhebung und Verarbeitung von personenbezogenen Daten im Rahmen Ihrer Bewerbung](#). Durch die Übermittlung Ihrer Bewerbung bestätigen Sie, dass Sie die Datenschutzhinweise der TUM zur Kenntnis genommen haben.