FULL-TIME/ SCIENTIFIC POST
FACULTY OF GEMBLOUX AGRO-BIO TECH
FIELD: PRODUCTIVE WATER IN AGRICULTURE
START DATE: 01/01/2024

JOB DESCRIPTION

A post of first assistant, in the field of productive water in agriculture within the Department of Gembloux Agro-Bio Tech. This position includes teaching and research activities as well as services to the community.

Water is, more than ever, crucial for agriculture. Around the world, water is generally the most important factor dictating agricultural production. Improving the resilience of farming systems to deal with edaphic drought or excessive water involves different strategies including the choice of crop or companion planting, soil management practices, managing plots according to the landscape and the use of efficient irrigation.

Under the general theme of “productive water in agriculture”, research will focus on the effect of farming practices on the hydrodynamic operation of soils in different production systems, both in temperate and tropical climates, taking a systemic approach to soil health. It will take into account practices such as non-tilling, fertilisation practices, managing weeds and residues, synergies and mixed crop competition as well as the hydrological management of agricultural landscapes, with a view to ensuring optimal crop production.

TEACHING ACTIVITIES

Teaching activities will consist in contributing to the “Genesis and operation of soils” course (8ECTS, Bioengineering Master’s in Environmental Sciences and Technologies) and will also aim to develop contributions to programmes other than this Master’s requiring the theme of productive water in agriculture, in consultation with the teaching teams.

In addition, the successful applicant will coordinate the technical internship for the Bioengineering Master’s in Environmental Sciences and Technologies.

RESEARCH ACTIVITIES

The specific research activities of the post focus on the effect of agricultural practices on the hydrodynamic operation of soils in different production systems, both in temperate and tropical contexts, from a systemic approach to soil health. It will take into account practices such as non-tilling, fertilisation practices, managing weeds and residues, synergies and mixed crop competition as well as the hydrological management of agricultural landscapes, with a view to ensuring optimal crop production.

In addition, in partnership with the “Water Soil Plant Exchange” at Gembloux Agro-Bio Tech, the research will contribute to the following themes:

- Reasonable irrigation systems, including a range of technologies from keyline design type projects through to irrigation networks, including strategies to optimise under irrigation;
- interactions between biogeochemical cycles of the elements, such as carbon and nitrogen, and the hydraulic cycle on different spatial and temporal scales;
- the processes and factors determining the ecosystemic services produced by the soil in relation to the drainage basin, such as water conservation, protection against erosion and flooding, and climate regulation through carbon storage;
interaction between the terrestrial and aquatic spheres (flows to surface and ground water, evaporation flows) in a variety of climatic conditions, particularly spatial data such as drone/satellite imaging (e.g. sentinel) and maps (e.g. soil / land use digital maps)

The interaction between water users, stakeholders and resources (e.g. farmers, politicians, civil servants, etc.).

SERVICES TO THE COMMUNITY

The successful applicant will be actively involved in the Faculty’s communication activities, particularly to raise awareness of their field of research, but also to promote courses and studies.

They will be the contact point for their field in the various research mechanisms established with the CAREs (teaching and research support units).

They will make themselves available for communication work, including with the press.

Other services to the community will be identified in consultation with management.

QUALIFICATIONS REQUIRED / PROFILE

Hold an undergraduate degree in agronomical engineering (or bioengineering), or civil engineering, or an equivalent Master’s degree, and also hold a research doctorate with experience in the relevant field.

Demonstrate recognised scientific experience in the field and through international publications in the relevant field.

Be open to international developments (having carried out a scientific stay abroad for at least six months is an advantage).

Have good teaching skills (teaching experience is an advantage).

Be able to work independently and as part of a team, with shared human and material resources within the GxABT facilities. Have excellent organisational skills and technical staff management skills.

Be available for different roles relating to services to the community and raising public awareness.

Fluent French and English (including writing skills).

Be available to carry out missions abroad.

Subscribe to the general quality objectives developed by the University and the Faculty.

Upon recruitment, sign an agreement regarding the ownership of research results.

SELECTION PROCEDURE

An ad hoc Faculty committee will select applicants to be interviewed, on the basis of the vacancies and the qualifications and skills of the applicants. It will carry out the interviews. The committee will send its recommendations for the appointment to the Faculty Council on the basis of the evaluation of the applications and interviews.

On the basis of the information communicated by the committee and the comparison of the respective qualifications and skills of the applicants, the Faculty Council will agree a proposal to appoint or close the post, which it will send to the decision-making bodies of the University of Liège.

Our institutional policy is based on diversity and equal opportunity. We select candidates based on their qualities and regardless of their age, sexual orientation, origin, beliefs, disability or nationality.

APPLICATIONS

Applicants are requested to submit their applications electronically, to the following address: Postesscientifiques@uliege.be with a copy to the secretariat of the Dean of Gembloux Agro-Bio Tech: decanat.gembloux@uliege.be no later than 31/10/2023 (before midnight Belgian time). Late applications may be refused.
DOCUMENTS REQUIRED

- Cover letter;
- Curriculum vitae;
- One copy of the most representative publications (max. 5);
- A report on prior and current research and teaching activities (max. 5 pages);
- A research project, including is planned integration into the University of Liège (max. 5 pages);
- A teaching plan (max. 5 pages);
- A plan on developing services to the community (max. 2 pages).

CONDITIONS OF EMPLOYMENT

The position is awarded either for a fixed term of four years, or immediately on a permanent basis.

INFORMATION

Additional information may be obtained from: Frédéric FRANCIS, Dean of the Faculty, exclusively by email to decanat.gembloux@uliege.be

REMUNERATION

The salary grids and their rules of application are available from the Human Resources department of the University: Ms Ludivine DEPAS – tel.: +32 4 366 52 04 – Ludivine.Depas@uliege.be

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