Academic vacancy in the field:
Monitoring and data management of agri-environmental systems

Starting date: 01/09/2020
Offer reference: GxABT2020-2

Course load description:
A full-time, indivisible position in the field of monitoring and data management of agri-environmental systems, attached to Gembloux Agro-Bio Tech. This post includes teaching, research and service activities for the Community.

Teaching activities:
The teaching load will include, in the first year, a set of courses corresponding to about ten ECTS credits in the fields of environmental metrology, decision support, multivariate analysis and data visualisation, smart farming, geomatics and remote sensing.
This load mainly concerns bioscience engineering master’s courses (environmental sciences and technologies, management of forests and natural areas, agronomic sciences), most of the time given in collegiality with other faculty members.

The course load will gradually increase over the following years to reach a total of about 15 ECTS credits.
The teaching load will also include supervisory activities within the master studies (group projects, supervision of master theses, internships) and original initiatives by the candidate.

Research activities:
The sustainable management of agro-ecosystems and natural environments is a priority today. Various disciplines have become essential, such as agro-ecology and continuous cover silviculture, in order to favour ecological processes that guarantee the expected resilience. In these agro-ecosystems, variability and heterogeneity are no longer perceived as a constraint but as an opportunity and a guarantee of adaptability. They also aim to sustain the provision of diversified goods and services in a context of global change. The paradigm shift required for the implementation of these new strategies for the use of territories by Man must be accompanied by the development of new knowledge.

To meet these objectives, the person recruited will propose a research strategy that will address the monitoring of different systems that can cover a gradient of land use intensity, from agricultural plots to natural forests, using a technological approach based on a diversity of sensors and digital information. In the specific field of environmental monitoring, the scientific community has seized upon spatialisation tools to develop innovative applications in agriculture, animal husbandry, forestry and ecological monitoring of areas with little human activity. The candidate will develop his/her research activities around the diversity within agroecosystems and natural environments by targeting more specifically agricultural (plant and animal production), forestry and ecological monitoring of natural environments. Within GxABT, the candidate will have to integrate experimental infrastructures, in particular CARES ForestIsLife, EnvironmentIsLife and AgricultureIsLife, and technical expertise in very high resolution remote sensing and prooxide-sensing for the study of ecosystems.
This person will eventually have to be able to implement and manage measurement and data collection systems and integrate them into diagnostic procedures that take into account uncertainties related to space-time variability, sensor accuracy and post-processing precision. It will continue to prospect for new applications in these fields and will propose methodological solutions aimed at operationalising their integration in agriculture, forestry or environmental monitoring. More specifically, the candidate will propose a personal research project allowing the deployment of his/her expertise both within intensive systems (agricultural and forestry production systems) and within environments with little anthropisation (semi-natural to natural environments).

**Community service activities:**
The candidate will be involved in the community service activities of the Faculté Gembloux Agro-Bio Tech and the University of Liège, and beyond that in services to society, in consultation with its hierarchical authorities.

**Qualifications required:**
- Hold an initial degree in agricultural engineering (or bioscience engineering) or a university master’s degree and a doctoral degree (PhD) with a thesis with experience in the field of appeal;
- Demonstrate recognised scientific experience, both in the field and through publications at international level in the field of the call (a minimum of six months' scientific stay abroad is an advantage);
- Report on an educational experience;
- Demonstrate an ability to work on interdisciplinary themes;
- Be able to work in a team and with shared human and material resources within the GxABT structures, and to manage technical staff;
- Be available for a variety of community service and extension functions;
- Fluency in English and French (or at least commit to mastering French in the three years after the commitment);
- Being available for missions abroad;
- Subscribe to the general quality objectives developed by the institution and the faculty;
- On the commitment, sign an agreement on the ownership of the research results.

**Selection process:**
Each candidate’s file will be examined by a faculty committee in charge of selecting the candidates to be interviewed, giving reasons for its decisions with regard to this appeal and the qualifications and merits of the candidates. The faculty commission shall interview the candidates, in particular concerning the candidate's curriculum vitae, his/her teaching, research and integration projects in the Institution and his/her command of English. The audition includes a "public lesson", the organisation of which is determined by the faculty commission.

**Applications:**
Candidates are requested to send their applications electronically to: Postesacademiques@uliege.be with a copy to the GxABT Dean’s Office decanat.gembloux@uliege.be by 30/03/2020 at the latest.

**Required documents:**
- A complete curriculum vitae;
- A cover letter developing the candidate's personal aspirations in relation to the proposed position;
- A report on past and current research activities, as well as a research project, including the envisaged integration within the University of Liège;
- A teaching file including a report on any previous teaching activities and a teaching project;
A complete list of the candidate's publications and a copy of the five publications he/she considers most significant in relation to the area of appeal.

**Terms and conditions of employment:**
Offices shall be assigned either from the outset on a permanent basis or for a fixed term of four years, which may lead to the permanent appointment of the person concerned.
In the case of a four-year appointment, an evaluation of the person concerned will be carried out at the end of the third year.
- If the evaluation is negative, the person concerned completes the four-year term without being able to extend it;
- If the assessment is positive, the person concerned shall be appointed on a permanent basis.

**Information:**
Further information can be obtained from Professor Frédéric FRANCIS, Dean of the Faculty (doyen.gembloux@uliege.be).

**Remuneration:**
The scales and their terms of application are available from the University's human resources administration: Ms Ludivine DEPAS - tel: +32 4 366 52 04 - Ludivine.Depas@uliege.be