CALL for CANDIDATES

Senior Researcher Position – RMCA/VUB FED-tWIN mandate

Remote sensing of geohazards in African cities

CONTEXT

This senior researcher position is opened in the framework of the FED-tWIN programme of sustainable research cooperation between the federal scientific institutes (FSI) and the universities, supported by the Belgian Science Policy (BELSPO). The position will be jointly hosted at the Royal Museum for Central Africa, a Federal Scientific Institution, and the Vrije Universiteit Brussel.

Royal Museum for Central Africa

The Royal Museum for Central Africa (RMCA) is a multidisciplinary federal scientific institution under the aegis of the State Secretary for Science Policy. Administratively speaking, RMCA is an independently managed public institution in the green outskirt of Brussels.

RMCA has played a role for more than 100 years as a world centre in research and knowledge dissemination on past and present societies and natural environments of Africa, and in particular Central Africa, to foster – to the public at large and the scientific community – a better understanding and interest in this area and, through partnerships, to substantially contribute to its sustainable development. The core endeavours of this Africa-oriented institution consist of conducting scientific research, implementing the results of this research, acquiring and managing collections, disseminating knowledge, and mounting selected exhibitions of its collections.

With solid capacity (more than 80 scientists) in both human and natural sciences, the research is organized through three departments: Earth Sciences, Human Sciences and Biology. RMCA has field research activities in more than 20 African countries.

Vrije Universiteit Brussel

The Vrije Universiteit Brussel has been a leading player in the Flemish Higher Education landscape for 40 years. The University numbers 12.000 students and together with its hospital - UZ Brussel – employs more than 6000 people. The Vrije Universiteit Brussel is the largest Dutch speaking employer in the capital.

Teaching and research at the Vrije Universiteit Brussel are founded on the principle of unfettered inquiry to benefit the progress of mankind. This means rejecting dogmatic positions and guaranteeing the freedom to form opinions without interference; in this way the University aims to ensure the dispersal of the principle of unfettered inquiry throughout society.

The University is autonomous and democratically run. This means guaranteeing the exercise of the fundamental freedoms within the University, as well as the right of the University Community to participate in the decision-making process and scrutiny of University policy.

The following form part of the University's mission:

- the development, the communication and the application of a high level of academic education and scientific research, free from all preconceived ideas;
- the translation of these ideals and knowledge into society in the spirit of social engagement;
- the creation of a society in which everyone is capable of engaging in critical thinking.

FUNCTION

Subject area: GUIDANCE - GeohazarDs in AfricaN CitiEs: patterns, rates and sustainability in urban–sprawling contexts

Research: The FED-tWIN researcher will develop ground-breaking research related to the characterization of the baseline patterns/rates of geohazards in the context of African cities, using state-of-the-art remote sensing techniques combined with field validation campaigns. More specifically, s/he will exploit the potential of SAR, optical remote sensing, drone technology and/or photogrammetry to study the dynamics of geohazards and their environmental or anthropogenic drivers and contribute to develop practical tools to tackle the challenges related to Disaster Risk Reduction.

The FED-tWIN senior researcher will develop its own research group through designing new research projects, acquiring competitive research funds, coordinating projects and supervising junior (PhD) researchers. S/he will develop collaborations with national and international partners, including academic institutions in Central Africa. S/he will actively contribute to the dissemination of research results within the international academic community (publications, conferences) as well as among stakeholders and academic institutions in Central Africa. It is expected that the archives and collections of the RMCA will be exploited as an important input of the FED-tWIN research, therefore contributing to make them more visible and more accessible to the public.

The FED-tWIN researcher will develop his/her research at the interface, and in collaboration with colleagues, of the RMCA Natural Hazards Service, and VUB Department of Geography. S/he will contribute to strengthen the existing collaborations between these two institutions.

Teaching: In the first 5 years of the FED-tWIN mandate, the teaching activities will be limited in accordance with the objective of the FED-tWIN mandate. The FED-tWIN researcher will contribute to teaching in the VUB geography master programme with courses on advanced remote sensing techniques and/or GIS programming for a total of 6 credits. Guest lectures and short trainings on research-related topics will be requested at the host institutions and at collaborating African academic institutions. The FED-tWIN researcher is also expected to supervise master students and/or research internships. The candidate needs to be able to work in a multicultural and multilingual environment, with students, researchers, professors and technical/administrative co-workers. Also collaborations with other academic institutes for education and research are embedded in the education programs.

Other: The candidate will be a member of the Department of Earth Sciences at the Royal Museum for Central Africa and of the Department of Geography at the Vrije Universiteit Brussels. S/he will be expected to participate in the operational and administrative aspects of these departments. This includes to embed her/his research activities within the broader research and outreach strategies of the institutions and through the valorization of the RMCA collections. This may also be as a member of (various) faculty/department boards. With a 50% appointment in each institution, the FED-tWIN would however have limited administrative responsibilities at the department or faculty level.

PROFILE

The candidate holds a PhD degree in Earth or Environmental Sciences or related disciplines (e.g. geology, geography, bio-engineering) obtained at the earliest 12 years prior to the submission date of the job application. The 12-year period is extended by one year for each maternity, parental & adoption leave of the candidate & for each long-term sick leave of the candidate or his/her immediate family. The research of the candidate is focused on the use of remote sensing in the field of (sub)surface earth processes.

- The candidate has a strong background in remote sensing, with specific expertise in SAR/InSAR and/or multi/hyperspectral image analysis and/or stereo-photogrammetric data acquisition and processing. He/she has expertise in dealing with data from various space borne sensors as well as airborne/UAV data.
- The candidate has a strong background in Earth Sciences and research experience related to specific environmental changes and geohazards.
- Programming skills in commonly used languages (R, Python, …) is highly desirable.
- Experience with field work and research collaborations in developing countries, preferably in Africa, is a strong asset.
- The candidate has at least two years of experience as post-doc researcher.
- The candidate has a strong scientific track record (ISI publications) in the field of research.
- He/she has a track record in gaining research grant funding and in project management.
- He/she has developed a network facilitating international collaborations.
- The candidate has experience in supervising students in research projects at MSc or PhD level.
- Experience in teaching at graduate or undergraduate level is an asset.
- The candidate is fluent in English. Knowledge of Dutch and/or French is an asset.
- The candidate is expected to endorse the educational vision of the Vrije Universiteit Brussel (full text available on the university website).
- Every first appointment is dependent upon the successful delivery of a teaching session.
- Members of academic faculty with teaching duties are required to prove their command of the teaching language. E.g.: for teaching in English the candidate provides evidence of proficiency in English at C1 level by submitting a language certificate (or a waiver).

WE OFFER

We offer a full time senior researcher position that will take place as two 50% contracts at the RMCA and VUB. Depending on the experience of the candidate, the net monthly salary will be approximate 2600-3000 euro. At the RMCA, the appointment will take place at the SW2 level (senior researcher part time contract for indefinite period). At the VUB, the candidate will be appointed at the level of assistant professor (docent - for an initial period of 5 years, with a renewal for a second term of 5 years upon the condition of positive evaluation of the mandate). Perspectives exist for continuation of the 50% position at VUB beyond the 10 years of the FED-tWIN mandate.

In addition to his/her salary, the FED-tWIN researcher will be offered during the first 5 year period a substantial financial support for the setting-up of his/her research activities as well as the opportunity to recruit a PhD student from the second year of the mandate.

Female candidates are particularly encouraged to apply.

For further information regarding this call, you can contact:

- François Kervyn (francois.kervyn@africamuseum.be, +32.(0)2.769.54.33)

- Matthieu Kervyn (makervyn@vub.be; +32.(0)2.629.36.61).

APPLY

Applications to be submitted no later than 17/01/2020.

Applications can only be made ONLINE:
https://jobs.vub.be/job/Elsene-Senior-Researcher-Position-RMCAVUB-FED-tWIN-mandate/569275901/

Your application must include the following as a minimum:
- A concise CV;
- The academic dossier with all relevant elements;
- Vision of education and research and a list of your five most important publications;
- A brief statement of reasons for the candidature, including an explanation of the expansion of future research (max 2 A4);
- Degrees and diplomas.