

FULL-TIME RESEARCH AND TEACHING ASSISTANT POSITION

IN GEOMECHANICS

BRUSSELS SCHOOL OF ENGINEERING

Reference: 2021/S101

Application deadline: 30/04/2021

Starting date: 01/10/2021

Job Description

Located in the heart of Europe, in a dynamic area, the Brussels School of Engineering offers a multicultural, friendly and green working environment. In partnership with the Bioengineering Schools, it offers no less than three bachelor, 11 master, advanced master and two doctoral programmes. Each year, more than 200 civil engineers and bioengineers are graduating and able of playing an active, responsible and critical role as citizens in a changing world. Involved at the local, regional and international levels, the School actively contributes to the progress and well-being of society through applied and fundamental research at the highest level.

DEPARTMENT DESCRIPTION

The position is open within the BATir department, a unique multidisciplinary and comprehensive engineering department in Belgium of Built Environment, from soils and rocks to materials and structures, from responsible architecture to sustainable urbanism, from engineering to architectural sciences; with modelling, experimental and/or design perspectives.

BATir is composed of 5 research units: Civil Engineering Laboratory (LGC), Laboratory of GeoMechanics (LGM), Structural and Material Computational mechanics research unit (SMC), Architectural Engineering research unit (AIA), Institute for Urban Design and Regional Planning (IUAT).

The PhD project will be conducted in the Laboratory of GeoMechanics (LGM) within one of the research themes of the group, taking place in the general context of environmental geomechanics. The soil behaviour when submitted to complex environmental (mechanical, hydraulic, thermal, chemical ...) loadings is studied from a three-part approach (experimental, constitutive and numerical). Those fundamental developments are applied-oriented in geotechnics and geomechanics. The PhD project will be supervised by P. Gerard (piergera@ulb.ac.be).

DESCRIPTION OF THE RESEARCH & TEACHING ASSISTANT POSITION

The candidate will be expected to conduct high-quality research, leading to a PhD degree, in the field of geomaterials and take part in the activities of the LGM research group. The topic of the research must be defined in agreement with the research activities of the Laboratory of Geomechanics (see a brief description in the previous section and on the following website (<https://batir.ulb.ac.be/index.php/research/research-units/lgm-geomechanics>)). Based on a first proposal of the candidate, the final topic will be finalised jointly with the candidate and the supervisor.

The candidate will also take part in educational activities (tutorials, projects, master's thesis and pedagogical coordination) in the Bachelor and Master's programmes in civil or architectural engineering of the Brussels School of Engineering.

The teaching and research tasks will be balanced and regularly revised.

A research and teaching assistant position is granted for a first term of two years, renewable for up to 2 further periods of 2 years (full time) subjected to review and approval.

Profile

The position is open to graduates (master's 120 ECTS) in civil engineering (or equivalent), complying with the conditions to enrol in the PhD programme in Engineering Sciences and Technology. Students who are about to graduate during the 2021 summer are encouraged to apply.

Required skills

Beyond the expected skills and competencies expected from a civil engineer, the candidate will show research interest, in particular in geomaterials and geotechnics.

Additionally, the candidate will demonstrate:

- Autonomy, reliability, high motivation
- Ability to work in multidisciplinary teams
- C1 level in French and C1 level in English are required
- Innovative and creative thinking is a must

Teaching workload

The teaching workload will be regularly revised and will contain tutorials, projects or thesis related to the following modules:

- CNST-H302 Soil Mechanics (in English)
- PROJ-H305 Projet de conception des structures (in French)
- BING-F4005 Pédologie et Mécanique des sols (in French)
- CNST-H406 Geotechnical engineering (in English)
- CNST-H517 Energy Geomaterials (in English)
- CNST-H515 Geology and Engineering Geology (in English)
- Master's thesis in civil or architectural engineering (in English)

Interested?

For more information, please contact Prof. Pierre Gerard (E-mail: piergera@ulb.ac.be).

Applications must be sent by e-mail to the rectorate of the Université Libre de Bruxelles (rectrice@ulb.be) and to the School deanship (le-doyen-polytech@ulb.be).

They must include the following:

- a motivation letter
- a curriculum vitae including a list of publications:
if you want you can complete a standard form via our website at <https://www.ulb.be/fr/documents-officiels/completer-votre-cv-en-ligne>. Once completed, it must be downloaded and attached to the application file.
- a note on the applicant's PhD research project (4 pages)
- two letters of reference

Equal opportunities policy

ULB personnel management policy is geared towards diversity and equal opportunities.

We recruit candidates based on their skills, irrespective of age, gender, sexual orientation, origin, nationality, beliefs, disability, etc.

Would you like to be provided with reasonable accommodation in the selection procedure because of a disability, disorder, or illness? Do not hesitate to contact Marie Botty, the Gender and Diversity resource person of the Human resources Department - SPES (marie.botty@ulb.be). Be assured of the confidentiality of this information.

More details on the ULB gender and diversity policy are available at <https://www.ulb.be/en/about-ulb/gender-equality-at-ulb>.

You will find all the regulations relating to research careers on our site at <http://www.ulb.ac.be/emploi/academique.html>.