



## **CIVIL ENGINEERING PROFESSOR (FROZEN GROUND ENGINEERING, TRANSPORTATION GEOTECHNICS, UNSATURATED SOIL MECHANICS, ENERGY FOUNDATIONS)**

**Job Reference Number:** 20-PR-4

**Posting/Closing Date:** from February 3, 2020 to April 2, 2020

**Workplace:** Principal Pavilion

**Department or Service:** Department of Civil, Geological and Mining Engineering

### **Position summary**

Polytechnique Montréal promotes excellence, creativity, integrity, collaboration, respect, openness and diversity. Recognized as one of Montreal's best employers, it offers excellent working conditions, in particular by fostering employees' work-life balance and well-being.

Polytechnique Montréal is strongly committed to equity, diversity and inclusion, which fosters its development and constitutes an undeniable catalyst for excellence in teaching, research and outreach activities. Accordingly, Polytechnique particularly encourages women, members of visible and ethnic minorities, Aboriginal people and persons with disabilities to apply. Accommodations can be provided based on the needs of the candidates.

Applying to Polytechnique means taking a leap toward a rewarding career and opening up to a world of opportunities.

Located on Mount Royal, an exceptional setting in the heart of Montreal, Polytechnique is a world-renowned engineering university that operates in a STARS certified environment. It excels in multidisciplinary and multisectoral research and in high-quality training at all academic levels. Founded in 1873, Polytechnique Montréal hosts more than 8,500 students and relies on the expertise of more than a thousand persons with a wide variety of qualifications. As an active advocate for sustainable development, Polytechnique stands out by its leading-edge innovations and its active role in technological, economic and social development. Polytechnique is involved locally, nationally and internationally by spurring synergy among research ecosystems.

Polytechnique Montréal's Department of Civil, Geological and Mining Engineering hosts around 1,200 students, of whom a third are women and 400 are graduate students. With 41 professors and two full-time lecturers, including ten women, the Department is a Canadian research leader in several sectors, such as transportation planning, structural and earthquake engineering, mining waste management, hydraulics, and drinking water and wastewater treatment. The Department also hosts several chairs and research groups, notably the MADITUC group (transportation), the Geothermal and Hydrogeology Group, CREDEAU (water management), the NSERC Industrial Chair on Drinking Water, the Canada Research Chair in Modelling Complex Hydro-Environmental Systems, the Canada Research Chair in Numerical Modelling and Experimental Simulation in Earthquake Engineering, the Canada Research Chair on Personal Mobility, and the MOBILITÉ Research Chair on the Evaluation and Implementation of Sustainability in Transportation. The Department is a partner of the Research Institute on Mines and the Environment - RIME UQAT - Polytechnique.

## Responsibilities

The successful candidate will be expected to carry out the duties of this position with a dynamic and creative approach. In particular, he or she will:

- demonstrate a commitment to excellence in teaching at both the undergraduate and graduate levels;
- supervise undergraduate and graduate students;
- carry out innovative research projects;
- obtain grants and contracts aimed at training highly qualified personnel through research work;
- publish the scientific results of his or her research;
- participate in the teaching and research activities of the geotechnical group;
- collaborate with other research teams within Polytechnique Montréal or with other institutions;
- collaborate with government agencies (Ministries, MRCs and municipalities), parastatal institutions and industrial partners;
- contribute to the influence of Polytechnique Montréal in Québec and internationally.

## Area of expertise

The Department of Civil, Geological and Mining Engineering invites applications for a tenure-track position in Geotechnical Engineering. Research areas of interest include, but are not limited to:

- frozen ground engineering
- transportation geotechnics
- unsaturated soil mechanics
- energy foundations

The successful candidate specializes in one or several of the aforementioned areas of expertise, and his or her research program uses both an experimental and numerical approach. The use of probabilistic and statistical methods in the resolution of geotechnical problems, and the knowledge of probabilistic risk assessments are also sought after skills.

## Starting Date

As soon as possible.

## Qualifications

The successful candidate must hold a Bachelor's degree and a Ph.D. in Civil engineering or a relevant discipline, with a specialization in geotechnical engineering. He or she is registered as a Professional Engineer with the Ordre des ingénieurs du Québec (OIQ), or will take the necessary measures to register prior to applying for tenure. Candidates must demonstrate excellent research and teaching skills. Relevant industry or practical experience is an asset. Given that the teaching language is French, the successful candidate will be fluent in French, both spoken and written, before applying for tenure. Polytechnique Montréal will provide the necessary assistance and support for the successful candidate to become a registered member of the OIQ and to learn French.

Polytechnique Montréal recognizes that career breaks such as maternity leaves, parental leaves, extended sick leaves, clinical trainings, as well as disabilities, can impact productivity and research achievements. The impact of these leaves will be taken into account in the recruitment process.

### Working conditions

This faculty position is tenure-track. Salary and benefits will be set in accordance with the collective agreement in effect (Association des professeurs de l'École Polytechnique - [APEP](#)). The latter includes arrangements for work-life balance and offers maternity, paternity and adoption leaves in addition to the Québec Parental Insurance Plan (<https://www.rqap.gouv.qc.ca/en>).

### Applications

Candidates are invited to submit an application that includes:

- their résumé;
- a description of their area of expertise;
- a statement of their teaching and training objectives;
- a description of their proposed research objectives and program;
- official records of their diplomas;
- full contact information of three persons able to provide references;
- a few examples of work relevant to the position;
- three recent scientific contributions;
- teaching evaluations if applicable.

Applications must be received no later than April 2, 2020 at 5:00 pm, and submitted to:

Professor Louise Millette, ing., Ph.D.  
Director  
Department of Civil, Geological and Mining Engineering  
Polytechnique Montréal  
PO Box 6079, Succ. Centre-Ville  
Montreal (Quebec) H3C 3A7  
CANADA

E-mail: [candidaturescgm@polymtl.ca](mailto:candidaturescgm@polymtl.ca)

Examination of the applications will begin as soon as possible and will continue until the position is filled.

We encourage all qualified candidates to apply, particularly women, members of visible and ethnic minorities, Aboriginal people and persons with disabilities. However, in accordance with immigration requirements, Canadians and permanent residents will be given priority.