Postdoctoral Fellowship Opportunity: Predicting Foundation Frost Penetration Depths
York University

Job Title	Postdoctoral Fellowship Opportunity: Predicting Foundation Frost Penetration Depths
Department	Civil Engineering https://lassonde.yorku.ca/civil/
Institution	York University Toronto, Ontario
Date Posted	May 28, 2024
Application Deadline	Dec. 31, 2024
Position Start Date	Jun. 15, 2024
Job Categories	Post-Doc
Academic Field(s)	Civil Engineering
Apply By Email	rbashir@yorku.ca

Job Description

Position & Project Summary:

The Department of Civil Engineering (https://lassonde.yorku.ca/civil) at York University invites applications for an exciting interdisciplinary postdoctoral visitor (PDV) position. The successful applicant is to participate in a research project focused on predicting foundation frost penetration depths in Ontario. This project is Funded by Ministry of Transportation, ON and aims to update provincial standards (OPSD 3090.100 and OPSD 3090.101) by leveraging advanced modeling techniques and comprehensive data analysis. The term is 12 months with possible extension.

Project Objectives:

- Develop accurate and reliable models for predicting frost penetration depths across Ontario, considering regional variations in climate and soil conditions.

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- Utilize cutting-edge approaches, including:
  - Machine learning and regression analysis for empirical modeling.
  - Land Climate Interaction (LCI) modeling with finite element thermal analysis.
- Create a user-friendly web-based interface for frost penetration depth predictions, accessible to engineers and stakeholders.

Your Qualifications:

- Ph.D. in Civil Engineering, Geotechnical Engineering, or a closely related field.
- Expertise in soil mechanics, heat transfer, and numerical modeling.
- Experience with machine learning and/or statistical analysis techniques.
- Strong programming skills (e.g., Python, R, Fortran).
- Excellent communication and interpersonal skills.

Benefits:

- Competitive salary and benefits package. A competitive salary (commensurate with experience) and comprehensive benefits package will be offered. PDVs at York University are members of the York University Faculty Association, and their latest collective agreement is available at https://www.yufa.ca/collective_agreement.
- Opportunity to work on a novel and impactful research project.
- Collaboration with leading researchers in geotechnical engineering.
- Access to state-of-the-art research facilities at York University.

To Apply:

Interested candidates should email their applications or any questions to the Principal Investigator, Prof. Rashid Bashir (rbashir@yorku.ca) The application should include:

1. A cover letter detailing the candidate’s research experience and specific interest in the position;
2. A current curriculum vitae;
3. A list of three professional references and their contact information (email address, phone number, departmental address).
4. On their CV, the candidate should specify their current mailing address and indicate whether they are a Canadian citizen or permanent resident. All applicants are advised to apply ASAP.

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EEO/AA Policy

Diversity & Inclusion:

York University values diversity throughout its community and does not discriminate based on race, ethnicity, religion, gender identity, sexual orientation, disability or family status. Qualified female, Black and Indigenous candidates are especially encouraged to apply.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Rashid Bashir
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