



Civil & Mineral Engineering
UNIVERSITY OF TORONTO

Posting Date: December 2021

Department of Civil and Mineral Engineering
Faculty of Applied Science and Engineering
University of Toronto

JOB POSTING – POSTDOCTORAL FELLOW, SUSTAINABILITY ASSESSMENT AND LIFE CYCLE THINKING

Areas of Research: Sustainability, life cycle assessment, low carbon vehicle technologies, carbon capture and utilization, fuel and chemical production, bio-based products, climate science and sustainability interactions.

Overview of the position:

Applications are invited for a postdoctoral fellow (PDF) position in the field of sustainable systems assessment and life cycle thinking. Various relevant application areas are outlined in “Areas of Research”.

The successful applicant will work across a range of projects in the research groups of Profs. Heather MacLean and Daniel Posen. Key goals of the position will be to help coordinate and contribute to ongoing research projects, as well as to propose and conduct novel research. The candidate will be a lead contributor to peer reviewed journal publications, technical reports, and conference proceedings; assist in the supervision of students; and participate in meetings with academic, industrial, and government partners. Ongoing projects involve collaborators from across Canada and international.

Description of duties:

The candidate will be responsible for:

- Coordinating research projects, including assisting with preparation of reports, budgets and progress tracking
- Proposing and conduct novel research related to system-scale sustainability in application areas described above
- Developing new frameworks and tools; disseminate results via publications and conference presentations

- Supporting student supervision, including definition of research directions, review of abstracts and manuscripts, and assistance with analytical methods
- Managing relationships with industry, government and academic partners, including communication of results, setting research priorities, and organizing meetings.

Salary: \$50,000-75,000 / year, depending on qualifications and experience

Please note that should the minimum rates stipulated in the collective agreement be higher than rates stated in this posting, the minimum rates stated in the collective agreement shall prevail.

Required qualifications:

- PhD degree in chemical engineering, civil engineering, mechanical engineering, environmental science, economics or related field awarded within the past 5 years
- Experience with quantitative sustainability assessment, including relevant publications
- Some programming experience (e.g., Python, MATLAB, R) is required
- Experience with life cycle assessment, techno-economic analysis, optimization, data analysis and/or integrated assessment modeling are strong assets
- Interest and experience with team management
- Excellent verbal and written communication skills in English, including ability to communicate with multidisciplinary audiences
- Ability to build relationships and collaborate with others, both internally and externally.

Application instructions

Applicants should submit the following to Heather MacLean (heatherl.maclean@utoronto.ca) and Daniel Posen (daniel.posen@utoronto.ca) by the closing date. Please use “PDF Application Sustainability Assessment” as the subject of your email.

1. A single electronic file consisting of a cover letter; detailed CV; a one-page statement summarizing past research experience and future research interests; and the names and contact information for three references. In your cover letter, please include a brief explanation of your interest in the position and a short statement on prior project management or leadership experience.
2. Copies of up to 3 relevant publications

Closing date: Applications submitted by January 31, 2022 will receive priority; the search will continue until the position is filled.

Co-Supervisors: Heather MacLean and Daniel Posen

Expected start date: The position is available immediately, but start date is flexible.

Term: 1 year with potential for renewal

FTE: 1

Employment as a Postdoctoral Fellow at the University of Toronto is covered by the terms of the CUPE 3902 Unit 5 Collective Agreement.

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The normal hours of work are 40 hours per week for a full-time postdoctoral fellow (pro-rated for those holding a partial appointment) recognizing that the needs of the employee's research and training and the needs of the supervisor's research program may require flexibility in the performance of the employee's duties and hours of work.

The University of Toronto is strongly committed to diversity and intentional inclusion within its community and encourages applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, and LGBTQ2S+ persons.