

PhD Position

STOCHASTIC EVALUATION OF INFRASTRUCTURE RESILIENCE

POSITION OVERVIEW:

We are looking for a highly motivated **PhD student** to work on an interdisciplinary research project involving artificial intelligence, stochastic analysis, geomechanics, infrastructure asset management, and climate change.

In this research project, we aim to develop a stochastic framework to assess the resiliency of infrastructure subject to climate disasters and extreme events. The findings can be of great importance for stakeholders and insurance companies.

The project will be conducted jointly at the **University of Waterloo** (Prof. Dipanjan Basu) and **Polytechnique Montréal** (Prof. Pooneh Maghoul).

QUALIFICATIONS:

- Proven experience in statistics, stochastic analysis, data analysis, machine learning, resilience analysis, or related fields.
- Strong scientific programming skills with Python and/or R;
- Proven research-based publications in above-mentioned fields.
- Excellent technical writing for scientific publications.
- Strong communication skills.
- Excellent problem-solving skills.
- Ability to work well with a team and use initiative to achieve goals.
- A minimum G.P.A. of 3.6/4.0 or equivalent in your last 60 credit hours of study is required.
- A minimum IELTS score of 7.0 is required.

HOW TO APPLY:

Interested applicants should send their applications to Prof. Pooneh Maghoul (pooneh.maghoul@polymtl.ca) and Prof. Dipanjan Basu (dipanjan.basu@uwaterloo.ca) and using the subject line "**PhD Application – Stochastic Evaluation of Infrastructure Resilience**".

A complete application should include:

- A cover letter including a brief description of research interests relative to the above topics and a motivation of why the applicant's expertise and background is appropriate for the position.
- Curriculum Vitae (CV) including a complete list of scientific publications.
- Copies of transcripts (BSc & MSc).
- Contact information for two references.

EQUAL ACCESS EMPLOYMENT PROGRAM

Our institutes are strongly committed to fostering diversity and inclusion. Through its Equal Access Employment Program, our institutes invite women, Aboriginal people, visible and ethnical minorities, as well as persons with disabilities to send their application. We will confidentially adapt our recruitment mechanisms to the specific needs of people with disabilities who request it. We also welcome applications from candidates of all orientations and sexual identities.