



# MOL

## *Mining Optimization Laboratory*



UNIVERSITY  
OF ALBERTA

## Graduate Student Opportunity – 8 PhD positions – Sep. 2024

**Funding is available** for excellent and highly motivated candidates to pursue a PhD degree starting September 2024 at the University of Alberta in Edmonton or Laurentian University in Sudbury. Eight positions are open. Applicants should have:

- Undergraduate and Master's degrees from reputable Universities,
- Strong background with high GPA in:
  - Mining Engineering,
  - Mechanical Engineering,
  - Industrial Engineering,
  - Computing Science, or
  - Operations Research.
- Fluent in English, High TOEFL or IELTS scores,
- Reasonable publication track record for PhD applicants,
- Proficiency in computer programming and databases.
- Experience in mathematical programming is an advantage,
- Experience with discrete-event simulation is an advantage.

Mining Optimization Laboratory (MOL) research focuses on two major areas:

- Simulation - Optimization of Mining Systems.
- Mine Planning Optimization and Design.

MOL research focuses on using operations research and advanced analytical methods such as mathematical modeling, optimization, discrete event/continuous simulation, and intelligent agents to arrive optimal or near-optimal solutions to complex, large-scale mine planning/operations decision-making problems.

Please submit a complete package including the following documents to the potential supervisor – requests with missing documents will not be evaluated:

- An official transcript issued to you by the post-secondary institution.
- A literal English translation of transcripts in languages other than English must be provided by the issuing institution or by a certified translator.
- A Degree Certificate must include the date of conferral, the registrar's signature, and a post-secondary institution stamp or seal.
- Three (3) academic references are required from academic staff members capable of assessing the applicant's academic and research ability. At least two academic references are mandatory and a maximum of one (1) professional (work) reference is allowed.
- References are requested via the web application by the applicant and are uploaded directly to the application by the referee. No hardcopies are required.
- Official English Language Proficiency scores (if applicable) such as TOEFL (Academic), IELTS (Academic), MELAB, PTE or CAEL.



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Five PhD positions available at the School of Mining and Petroleum Engineering  
Department of Civil and Environmental Engineering  
University of Alberta, Edmonton, Canada  
Supervisors: Drs. Yashar Pourrahimian and Hooman Askari  
contact: [yashar.pourrahimian@ualberta.ca](mailto:yashar.pourrahimian@ualberta.ca)

Two PhD positions available at the Department of Mechanical Engineering  
University of Alberta, Edmonton, Canada  
Supervisors: Drs. Milad Nazarahari and John Doucette  
contact: [nazaraha@ualberta.ca](mailto:nazaraha@ualberta.ca)

One PhD position available at Bharti School of Engineering and Computation Science  
Laurentian University, Sudbury, Canada  
Supervisor: Dr. Eugene Ben-Awuah  
contact: [ebenawuah@laurentian.ca](mailto:ebenawuah@laurentian.ca)

It is strongly recommended that you submit your applications as soon as possible. We thank all applicants for their interest; however, only those individuals selected for an interview will be contacted.

General guidelines for submission of an application could be found at:

<https://www.ualberta.ca/engineering/civil-environmental-engineering/graduate-programs/how-to-apply/index.html>