

November 1st 2021
McMaster University

Job Posting: Post-Doctoral Fellow – MITACS Fellowship

The de Lannoy lab (Chem. Eng.) in collaboration with the Li (Civil Eng.) and Khan (Chem.Eng.) labs at McMaster University in Hamilton, ON, Canada, are seeking a post-doctoral fellow to pursue an exciting opportunity for industrially-sponsored research in the field of water/wastewater treatment and big data processing. The position will focus on combining big data analytics techniques to identify membrane performance trends for treating wastewater and use these findings to develop optimal applications of electrochemical membrane technologies. The work will generate academic papers, IP, and strong connections with industry.

McMaster University is an equal opportunity, equal access, affirmative action employer committed to achieving a diverse community (AA,EOE,M/F/D/V). Female, BIPOC, or other under-represented minorities in chemical engineering are strongly encouraged to apply.

The research position is anticipated to last for 2 years, renewable annually. Salary is commensurate with McMaster's Post-doctoral fellow average salary and includes benefits and CCP (pension) contribution. **This position can start immediately and must be started no later than the end of March 2022.**

By the time of starting the position, the applicant must have completed their PhD, in the fields of data analytics, chemical engineering, environmental engineering, and/or materials engineering or materials science, or in a related field from an accredited University department. Ideally applicants will have experience in the following areas:

- Data science and statistics (e.g. PLSR, PCA, pattern analysis, predictive modeling)
- Numerical method implementation (Python, MATLAB)
- Water and wastewater treatment

Additional experience or interest in one or several of the following areas would be an added benefit:

- Membrane science and technology
- Electrochemistry
- Machine learning and neural networks

Applicants should demonstrate a track record of publishing in top peer reviewed journals.

A top applicant will demonstrate the following skills:

- Creative thinking and an eagerness to learn
 - An ability to learn across multiple disciplines of chemical and environmental engineering, data science and statistics, and electrochemistry

- Strength in tackling complicated problems
- Strong communication skills
 - an ability to present research in a clear and concise manner
 - an ability to communicate effectively with multiple people with varying backgrounds in academia and industry
 - an interest in presenting results to industry partners
- Leadership skills
 - a desire to help lead a sub-team of PhD and undergraduate researchers

In responding to this position, email Prof. Charles de Lannoy at delannoy@mcmaster.ca with the email title: “**PDF wastewater data – MITACS**” and include

1. an up-to-date CV
2. a maximum 1-page cover letter
3. the names and contact information for 3 references