



**Laurentian University**  
**Université Laurentienne**

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**HARQUAIL** SCHOOL OF EARTH SCIENCES  
ÉCOLE DES SCIENCES DE LA TERRE

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## **MSc or PhD in electromagnetic data acquisition and processing**

Start Date: Sept 2019

This project will involve building a three-component transmitter and using a three-component receiver to acquire electromagnetic data. The components of the electromagnetic system will be pre-existing components that will have to be assembled and then deployed in a novel way. The data processing will first involve signal processing techniques to separate the different transmitter signals and then extraction of the secondary signal. The intent of the project is to use the new system to look for highly conductive nickel deposits in Sudbury.

Applicants must have >75% (B+ or equivalent) overall grade-point averages with very strong backgrounds and demonstrated experience in electromagnetic theory, signal processing, geophysical data acquisition and computer programming. Funding is only available for Canadian citizens or permanent residents. An MSc degree is preferred, but exceptional BSc Honours graduates may be admitted as MSc students and then convert to a PhD. To apply send cover letter, CV, academic transcripts, and e-mail addresses of 3 academic references – to Professor Richard Smith <RSSmith@laurentian.ca>.