POLYTECHNIQUE MONTRÉAL

Department of Electrical Engineering
Group for Research
in Decision Analysis (GERAD)
Mila – Québec AI Institute

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Master & PhD student call :

We are currently recruiting graduate students at the Master and PhD level to pursue research on optimization and/or machine learning methods for renewable energy systems. We invite applications for Master & PhD positions at Polytechnique Montréal, located in Montréal, Canada.

Keywords : optimization, operations research, machine learning, energy systems, renewable energy sources.

Project descriptions : Several research projects are currently available, including but not limited to, machine learning for power-electronics converters, trustworthy machine learning for power systems, (hybrid) electric merchant and fishing ship modelling, renewable power system analysis and simulations, demand response of commercial and institutional buildings, and battery energy management.

Projects will be tailored to the candidate's background and interests.

Research group : The Laboratory for Optimization of Renewable Electric gRids (LORER) is a research group consisting of students and researchers at all levels (bachelor/engineering degree, master, PhD, and postdoctoral fellows) who are working on the design of mathematical methods using a blend of optimization and machine learning for decision-making in renewable energy systems. The research group is affiliated with international research centres focused on operational research and artificial intelligence, GERAD and Mila, respectively.

Program : research master (MScA, 2-year program) or 4-year PhD (4-year program).

Academic units : Department of Electrical Engineering, Polytechnique Montréal.

Supervisors : Prof. Antoine Lesage-Landry.

Required background : The candidate should have an undergraduate degree (and a Master's degree for PhD applicants) in Electrical Engineering, Applied Mathematics or any other relevant field. The candidate should possess a mathematical maturity and a strong interest in optimization, mathematical modelling, and machine learning in addition to a background in power systems, and programming (e.g., Python, C++, Julia).

Funding : $21,500/year (master) or $25,000/year (PhD) stipend.

Starting date : As soon as possible (fall 2024, winter 2025, summer 2024).

Application : If interested in this position, please send your CV, cover letter, and recent transcripts to Prof. A. Lesage-Landry : antoine.lesage-landry@polymtl.ca. Please indicate {*MScA, PhD*} *Application to LORER* in the subject line of your e-mail.