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*Postdoctorate call*  
**Multiagent Coordination of Grid-Interactive Efficient Buildings**

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**In partnership with BrainBoxAI, Professor Blondin is recruiting a postdoctorate to pursue research in the optimization of HVAC control systems.**

We invite applications for a postdoctoral position at Université de Sherbrooke, located in Sherbrooke, Canada.

The selected candidate will be supervised by Professor Blondin and will work closely with employees of BrainBoxAI. The postdoc is expected to enroll in the *DESS de 3e cycle de perfectionnement en recherche* at Université de Sherbrooke. Tuition fees and stipend will be covered for the two years of the postdoctoral position.

- Starting date: Winter/Spring 2022;
- Funding: 70,000\$/year for two years.

**Summary of the project :**

Traditional control systems for large commercial buildings have been reactive and isolated for several decades. They use rule-based control sequences to operate systems, including the Heating Ventilation and Air-conditioning (HVAC) which amounts for the majority of building's energy consumption. These traditional rule-based algorithms can hardly optimize simultaneous multiple objectives, such as comfort and load shaping, and are ignorant of the other agents interacting in their ecosystem.

The candidate is expected to develop control algorithms for clusters of [grid-interactive efficient buildings](#) (GEBs) to perform load-following while optimizing various objectives, such as occupants' comfort and energy costs. The methods to be developed will be based on distributed multiobjective optimization and control algorithms.

**Required profile :**

- Ph.D. in electrical engineering, applied mathematics, mechanical engineering, or in any other relevant field with math background;
- Strong expertise in distributed optimization and control algorithms, multiobjective optimization, computational intelligence, multiagent systems, machine learning;
- Solid experience in programming – Matlab, Python;
- English required; French is a plus.

**Application process:**

If interested in this position, please send your CV, motivation letter, and transcripts to Professor Blondin at [Maude.Blondin2@usherbrooke.ca](mailto:Maude.Blondin2@usherbrooke.ca) and put the following email subject line: *Interested postdoc – BrainBoxAI project*. Moreover, samples of your most relevant publications will be appreciated.

*I am committed to promoting equity, diversity, and inclusion. I encourage and welcome all people with the required profile to apply, including, but not limited to, women, visible minorities, and people with disabilities.*