

Post-Doctoral Fellowship at University of Waterloo

We are seeking a highly motivated and exceptional researcher for a post-doctoral fellowship position at the University of Waterloo. The focus of this position is on conducting a mixed method (qualitative and quantitative) and policy-relevant study as part of a two-year interdisciplinary project funded by the New Frontiers Research Funds (NFRF) Exploration in Canada.

One of the goals of the project is to enhance our understanding of low-carbon ammonia's role as a "currency" to connect the food, energy, and trade sectors. This will accelerate the transition to a hydrogen economy that can help achieve the net-zero emissions target in Canada, while creating new jobs and promoting economic growth. The research work to be conducted by the post-doctoral fellow (PDF) will be structured around the following objectives:

1. Understand what economic and policy levers are effective to incentivize the adoption of low-carbon ammonia in different sectors.
2. Quantify the economic benefits, risks and constraints associated with using low-carbon ammonia in the current context where there is competition between multiple sectors, and in the presence of such economic and policy levers.
3. Analyze and develop a model to capture the negotiations arising from the exchange of ammonia between these different competing sectors.
4. Inform the policy design for a successful transition towards a zero-net economy using ammonia.

To be eligible for this position, excellent communication and writing skills, and an interest in working within an interdisciplinary research group (the PDF will be joining an interdisciplinary team with expertise in economics, electrochemical catalysis, heat and mass transfer) are an essential precondition. Applicants must have a Ph.D. in energy/environmental economics, environmental engineering, or a related field completed by the date of their appointment. Evidence of outstanding expertise in conducting research integrating economics and engineering approaches to analyze environmental issues, and strong analytical thinking skills is required. A solid experience in one or more of the following fields is preferred: mixed methods research, economic modelling, game theory, cost-benefit analysis, and economic policy analysis ideally applied to environmental and natural resources management.

The start date is September 1st, 2023, and the appointment is on an annual basis with the potential for annual renewal - based on satisfactory performance – for a maximum of two years. The start salary for this position is 50,000 Canadian Dollars per year (plus benefits). Qualified applicants should send the following materials in a single pdf file by email to Xiao Yu Wu at xiaoyu.wu@uwaterloo.ca and Alain-Désiré Nimubona at animubona@uwaterloo.ca with “postdoctoral fellowship application” in the subject line: (1) cover letter including motivation to apply, (2) curriculum vitae, (3) one recent research paper and (4) names and contact information for three references. The position will be open until it is filled.



The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is centralized within our Indigenous Initiatives Office (<https://uwaterloo.ca/human-rights-equity-inclusion/indigenousinitiatives>).

The University values the diverse and intersectional identities of its students, faculty, and staff. The University regards equity and diversity as an integral part of academic excellence and is committed to accessibility for all employees. The University of Waterloo seeks applicants who embrace our values of equity, anti-racism and inclusion. As such, we encourage applications from candidates who have been historically disadvantaged and marginalized, including applicants who identify as Indigenous peoples (e.g., First Nations, Métis, Inuit/Inuk), Black, racialized, people with disabilities, women and/or 2SLGBTQ+.

The University of Waterloo is committed to accessibility for persons with disabilities. If you have any application, interview or workplace accommodation requests, please contact Xiao Yu Wu at xiaoyu.wu@uwaterloo.ca and Alain-Désiré Nimubona at animubona@uwaterloo.ca.