Funded MASc and PhD Opportunities
(Start Date: Summer/Fall 2027)
(Applicants based in Canada will be prioritized)

Project Description: The Circular Process Engineering Laboratory (CPEL) at Dalhousie University is seeking highly motivated MASc and PhD students for funded research opportunities related to **biochar and bio-oil production and applications**. The work will combine experimental research with analytical characterization to understand how feedstock properties and process conditions influence product yield, composition, and performance. The broader objective is to develop practical pathways for converting underutilized biomass and waste streams into useful materials and products while supporting resource recovery and circular use of carbon.

If you are motivated to contribute to innovative clean-technology solutions and thrive in collaborative, interdisciplinary research environments, we encourage you to apply. This opportunity is open to Canadian citizens, permanent residents, and international applicants who hold relevant backgrounds in engineering or related fields. We are committed to promoting Equity, Diversity, Inclusion, and Accessibility (EDIA) as a cornerstone of our research and community. We strive to create and sustain an equitable, diverse, and inclusive environment that fosters innovation through a wide range of ideas and experiences. We encourage individuals from underrepresented groups, including women, Indigenous peoples, visible minorities, and people with disabilities, to apply.

What We Offer: Successful candidates will join a supportive and dynamic research environment that fosters both academic and professional growth. Our team offers tailored technical and professional development opportunities aligned with each student's career aspirations. In addition to attending academic conferences and networking events, students will engage with industry partners to gain practical experience and explore real-world applications of their research. Students will also gain hands-on experience in experimental design, reactor operation, product characterization, data analysis, and scientific communication, providing a strong foundation for future careers in academia and industry. Graduate students also have access to health and dental plans, subsidized local transit, and other services. For more information about graduate programs, benefits, and services, please visit the Faculty of Graduate Studies, Faculty of Engineering, and Dalhousie University International Centre webpages.

Required Qualifications:

- A relevant BSc/BEng degree for MASc applicants or MASc/MSc degree for PhD applicants in Chemical Engineering, Environmental Engineering, Materials Engineering, Chemistry, or a closely related field
- Strong academic performance and demonstrated research ability
- Interest in pyrolysis, thermochemical conversion, biochar, bio-oil, waste valorization, or related areas
- Proof of English language proficiency (if applicable, please see here)

Preferred Qualifications (considered assets):

- Experience with pyrolysis or other thermochemical conversion processes
- Biochar or bio-oil production, characterization, or application
- Reactor operation and analytical instrumentation
- Materials characterization and analytical techniques
- Process modelling, techno-economic analysis, or life-cycle assessment

How to Apply:

Interested applicants should complete the online application form using the link below:

Application Form

Please note that only shortlisted candidates will be contacted.