Multiple Funded Ph.D. Positions in Civil and Environmental Engineering

The <u>Sustainable Energy and Environments (SEE) Laboratory</u> in the Department of <u>Civil and Environmental Engineering (CEE)</u> at the <u>University of Vermont (UVM)</u> invites applications for <u>fully-funded Ph.D.</u> positions in <u>Civil and Environmental Engineering</u> under the supervision of <u>Dr. Kathryn Hinkelman</u>. The opportunities include a Graduate Research Assistantship and <u>Gund Barrett Engineering Doctoral Fellowship</u> (both open to international and domestic students), as well as a <u>GAANN Ph.D. Fellowship</u> (US citizens and permanent residents only). The appointment is expected to start in <u>Fall 2025</u>. <u>Formal applications</u> must be submitted by <u>January 15</u>, 2025 for full consideration.

The SEE Lab develops sustainable, resilient, and equitable energy technologies at the nexus of built and natural environments, with expertise in thermal energy systems (district heating and cooling), modeling and simulation (Modelica), and system-level design (biomimetics, LCA, control co-design). Our research offers **extensive collaboration** with other universities and DOE national labs (e.g., NREL, LBNL, PNNL). Our group is part of the **Next-gen Energy Systems Team of Vermont (NEST-VT)**, which includes 20 graduate researchers, post-docs, and faculty in both CEE and Electrical Engineering who work on power/energy systems at UVM.

Qualifications

The following are some characteristics and qualifications that align well with the position:

- A bachelor's or master's degree (preferred) in Environmental, Civil, Mechanical, Electrical, or Architectural Engineering, or a closely related field, prior to starting the position.
- Expertise in some of the following areas: fluid mechanics, heat transfer, thermodynamics, building and district energy systems, building controls, computational modeling and simulation (e.g., CFD, FEA, EnergyPlus, TRNSYS), biomimicry, or life cycle assessment (e.g., SimaPro, GaBi, openLCA).
- Programming experience in Modelica, Python, Julia, C/C++, or MATLAB.
- Strong English language skills, including technical writing and verbal communication.
- The ability to work successfully independently and in collaborative team environments.
- Research experience with tangible outcomes (e.g., peer reviewed publications) is preferred.

Candidates are encouraged to apply even if they do not think they possess every single point above, particularly for candidates from underrepresented or marginalized groups who may not have had access to certain development opportunities.

About the University of Vermont

Burlington, home of UVM, is known for its <u>high quality of life</u>, features year-round outdoor recreation and cultural events, and is recognized for its world-leading accomplishments in urban sustainability. Greater Burlington has a population of ~150,000 and enjoys a panoramic setting on Lake Champlain, bordered by the Adirondack and Green Mountains. The City of Burlington is one of the most environmentally progressive cities in the nation, with 100% of its electricity coming from renewable sources, while Vermont has the "<u>the largest share of in-state electricity net generation from renewable resources of any state</u>".

To Apply

Please contact Dr. Kathryn Hinkelman (kathryn.hinkelman@uvm.edu) with the subject heading containing #Fall2025 and provide (1) a CV (including a publication list, if available), (2) unofficial transcripts (both undergraduate and graduate if applicable), and (3) a one-page research statement introducing your specific research experience and interests, particularly with respect to the criteria mentioned above. Additional information may be requested upon review. Review of applications will continue until the position is filled. To formally apply, please follow the application instructions here and check out the CEE graduate program FAQ.