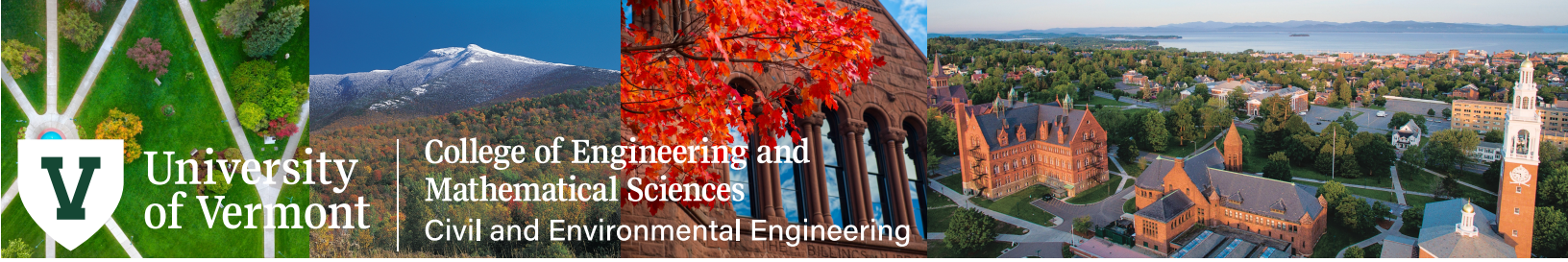

Ph.D. Positions @ the University of Vermont, Burlington, VT

The Sustainable Energy and Environments (SEE) Laboratory is seeking highly motivated and talented candidates for **fully funded PhD positions.** Our research focuses on advancing sustainable energy systems, modeling, and innovative design solutions to address environmental and energy challenges.

The SEE Lab is an interdisciplinary research group dedicated to developing cutting-edge methods and tools for sustainable energy transitions. Our expertise lies in environmental life cycle assessment (LCA), dynamic modeling and simulation (Modelica), and nature-based design practices (biomimetics). Please see specific examples of our research projects here. Our group is part of the Gund Institute for the Environment, CREATE, and the Casella Center for Circular Economy and Sustainability, and offers world-class collaboration opportunities with national laboratories, academia, and industry.

Our current openings are specifically in these research areas:

- Modeling of bee-inspired virtual electric peer-to-peer networks for distributed energy resources.
- Model-based optimal and resilient design for NASA bioregenerative life support systems (BLiSS).
- Experimental design and modeling of waste-to-energy storage equipment.

Qualifications

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

- A bachelor's or master's degree (preferred) in Engineering, Computer Science, or a closely related technical field, prior to starting the position.
- Expertise in some of the following areas: computational modeling and simulation (e.g., CFD, FEA, EnergyPlus, TRNSYS), biomimicry, LCA (e.g., SimaPro, GaBi, openLCA), fluid mechanics, hydraulics, heat transfer, thermodynamics, or building/district energy systems.
- 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.

What We Offer

- Full funding (tuition + stipend), including summer term.
- Access to state-of-the-art computational resources and collaborative networks.
- Opportunities to publish in top journals and present at domestic/international conferences.
- Supportive and dynamic research environment.

To Apply

Please submit the following to kathryn.hinkelman@uvm.edu:

- CV and cover letter.
- Academic transcripts.
- A brief statement of research interests.

Dr. Hinkelman can admit PhD students through either the CEE or Mechanical Engineering departments. Each department has its own admission and graduation requirements, so please review their websites (CEE, ME) carefully. In your Statement of Purpose, clearly state your interest in working with Dr. Hinkelman to ensure your application is considered. Further application instructions are here.

Image credits (left to right): Spatial Analysis Lab, Paul Boisvert, Sally McCay, and UVM.