

Canada Research Chair (CRC) Tier 2 in Energy Systems Innovation

The Department of Mechanical Engineering at the University of Victoria invites applications from emerging researchers with the potential for developing a world class research program in Energy Systems Innovation. The applicant will combine a core technical innovation focus in energy storage (thermal, electrochemical, mechanical) and/or conversion (fuel cells, electrolyzers, flow batteries, secondary cell batteries, supercapacitors) with an energy systems perspective (e.g. techno-economic modeling, life cycle analysis, grid integration, energy transitions). The successful applicant will:

- be appointed to the Mechanical Engineering Department at the rank of Assistant Professor (appointment at the rank of Associate Professor may be considered for eligible applicants with exceptional qualifications);
- become a member of the Institute for Integrated Energy Systems (IESVic) – a long established multi-disciplinary UVic research institute focused on charting feasible pathways to innovative, decarbonized and sustainable energy systems; and
- work with colleagues in the Department and IESVic to complete a nomination for a Tier 2 Canada Research Chair in Energy Systems Innovation, sponsored by the Natural Sciences and Engineering Research Council (NSERC).

The Department of Mechanical Engineering offers Bachelors, Masters, and Ph.D. degree programs. We have 30 faculty members, including three Canada Research Chairs, over 500 undergraduate students, and over 130 graduate students. Industrial collaboration enriches our teaching and research activities, and our expertise in Clean Energy Systems, Clean Transportation, Aerospace, Biomedical Systems, Mechatronics and Robotics is demonstrated in vibrant undergraduate and graduate curricula that expose our students to cutting-edge engineering tools, technologies and systems. With an excellent collegial atmosphere and strong collaborative spirit, the Department empowers faculty to build research networks across academia and industry, secure research support from industry, provincial, federal and international sources and deliver impactful innovation.

Many of the Department's 30 faculty are members of IESVic, each combining expertise in a particular technology area (e.g. renewable generation, energy storage, etc.) with an appreciation of the broader human and policy dimensions of energy use. IESVic research is multi-faceted, spanning energy conversion, distribution and storage technologies, systems-level techno-economic assessment and energy planning, policy and business innovation. These elements are united by a common goal of charting pathways to a 'net-zero' future. IESVic researchers develop breakthrough technologies, tools and methods and seek to mobilize that knowledge at a multitude of scales including buildings, remote communities, cities and regional, provincial or national energy systems. IESVic research underpins [UVic's 2022 Times Higher Education Impact Ranking of 2nd in the world for Sustainable Development Goal \(SDG\) 13 Climate Action](#). The institute is also the primary driver behind UVic's vision of Accelerating Community Energy Transformation ([ACET](#)) - UVic's submission to the Canada First Research Excellence Fund (CFREF) competition. Information on IESVic can be found on [the web](#).

The successful candidate will:

- hold a Ph.D. in mechanical or chemical engineering or a closely-related discipline;
- be a registered professional engineer in Canada, or be eligible to apply for registration with [Engineers and Geoscientists of British Columbia](#);
- be an emerging researcher in the field of Energy Systems who demonstrates particular research creativity in analytic and/or experimental aspects of energy systems design, characterization, modelling, and integration;
- present a vision for an innovative research program with potential to achieve international recognition in the next five to ten years;
- be committed to establishing collaboration across disciplines, develop academic, government and industry partnerships, and engage in community energy initiatives with real world impact;
- show potential to translate the knowledge generated by their research program through the [UVic Research Partnerships and Knowledge Mobilization office](#);
- have clear ideas and aspirations to contribute to the Department's drive to increase the diversity of our student population and foster a supportive and inclusive environment for all; and
- demonstrate a strong commitment to excellence in undergraduate and graduate engineering education as evidenced by:
 - potential for excellence in teaching courses related to the Energy Systems discipline, and,
 - an inclusive approach to mentoring and supervising diverse students both in classroom and research environments.

Tier 2 CRC's are one of Canada's premier early career recognition and recruitment programs, and are intended for exceptional emerging scholars (i.e., candidates must have been an active researcher in their field for fewer than 10 years at the time of nomination). However, applicants who are more than 10 years from having earned their highest degree (and where career breaks exist) may have their eligibility for a Tier 2 Chair assessed through the program's [Tier 2 justification process](#). For more information on the CRC program generally and on eligibility specifically, please consult the [Canada Research Chairs](#) website.

UVic is committed to upholding the values of equity, diversity, and inclusion in our living, learning and work environments. In pursuit of our values, we seek members who will work respectfully and constructively with differences and across levels of power. We actively encourage applications from members of [groups experiencing barriers to equity](#). Read our full equity statement here: www.uvic.ca/equitystatement

In accordance with the University's Equity Plan and pursuant to Section 42 of the BC Human Rights Code, preference will be given to women and gender minorities, racialized minorities, Indigenous Peoples and persons with disabilities. Our search committee will first review the pool of applications from those who self-identify with one of these designated groups. For your application to be considered in this first round of review, you must self-identify in your cover letter. The committee will review other applications in the event that they do not find a suitable candidate in the initial pool. The University of Victoria requires all students, staff and faculty coming to campus to declare their COVID-19 vaccination status. The declaration is confidential and will be securely stored. New employees will be required to be fully vaccinated for COVID-19 prior to beginning employment at the University of Victoria.

Candidates should submit a single PDF document that includes:

1. a cover letter providing an overview of the candidate's qualifications and how their research experience will complement the position as described;

2. a detailed curriculum vitae;
3. a max 3-page description of the candidate's proposed research program;
4. a max 2-page description of the candidate's teaching experience and philosophy;
5. a statement on commitment to equity, diversity and inclusion; and
6. contact information for four referees.

In forming their EDI statement, applicants are asked to refer to the [Equity Action Plan](#), particularly our institution's its 5 universal goals, and elaborate on how they will build and lead a diverse research team that champions inclusivity, ensures that all members have opportunity to reach their full potential and works to create opportunities for meaningful collaborations across the UVic campus.

To be considered, please submit your application package via email to mech.asst.chair@uvic.ca, with the subject line "MECH CRC Energy Systems Position" by 28 February 2023.

Applications should be addressed to:

Dr. B. Buckham
Chair, Department of Mechanical Engineering
University of Victoria
PO Box 1700 STN CSC
Victoria, BC, Canada V8W 2Y2

The University of Victoria community acknowledges with respect the Songhees, Esquimalt and WSÁNEĆ peoples on whose traditional territory the university stands and whose historical relationships with the land continue to this day. The [University of Victoria](#) is situated in the City of Victoria, the capital of British Columbia, at the southeast tip of Vancouver Island. Founded in 1963, the University has developed into one of Canada's leading universities with a reputation for excellence in research and teaching.

The University of Victoria is consistently ranked in the top tier of Canada's research-intensive universities. Vital impact drives the UVic sense of purpose. As an internationally renowned teaching and research hub, we tackle essential issues that matter to people, places and the planet. Situated in the Pacific Rim, our location breeds a profound passion for exploration. Defined by its edges, this extraordinary environment inspires us to defy boundaries, discover, and innovate in exciting ways. It's different here, naturally and by design. We live, learn, work and explore on the edge of what's next—for our planet and its peoples. Our commitment to research-inspired dynamic learning and vital impact make this Canada's most extraordinary environment for discovery and innovation. Experience the edge of possibilities for yourself.

The University of Victoria and the Faculty of Engineering are committed to supporting early career academics work to develop outstanding teaching & research contributions. The successful candidate will be immersed in a supportive, collaborative research community at IESVic focused on electrification, decarbonization, sustainability and economic development through clean technology. Support and engagement opportunities can also come from the [Pacific Institute for Climate Solutions](#), an endowed provincial research institute hosted at UVic that informs climate change mitigation in BC and Canada, as well as [CIFAL Victoria](#), a new training centre at UVic that empowers communities and governments to action the UN Sustainable Development Goals.

Teaching release is provided for new Faculty to develop an engaging curriculum and establish impactful research programs and to develop curriculum that translates their cutting-edge research methods and outputs into our senior undergraduate and graduate courses. The UVic Learning and Teaching Support

and Innovation Centre ([LTSI](#)) provides supports for curricular planning, technology integration and professional development for young Faculty.

The University acknowledges the potential impact that career interruptions can have on a candidate's record of research achievement. We encourage applicants to explain in their application the impact that career interruptions have had on their record. Persons with disabilities, who anticipate needing accommodation for any part of the application and hiring process, may contact Faculty Relations and Academic Administration in the Office of the VP Academic and Provost at FRrecruit@uvic.ca. Any personal information provided will be maintained in confidence.

Please note that reference and background checks, including credential and degree verification, may be undertaken as part of this recruitment process. Faculty and Librarians at the University of Victoria are governed by the provisions of the [Collective Agreement](#). Members are represented by the [University of Victoria Faculty Association](#).