

Canada Research Chair, Tier 2

Assistant or Associate Professor

Faculty of Engineering

Date Posted: March 4, 2020

Canada Research Chair Tier 2 in Quantum Computing and Engineering

The Faculty of Engineering invites applications for a Canada Research Chair (CRC) Tier 2 in Quantum Computing and Engineering. This CRC builds upon UVic's research strengths in computer science, electrical engineering and data science. The successful applicant will be nominated by the university for a CRC Tier 2 and, upon approval by the CRC Secretariat, will then be offered a position at the rank of Assistant or Associate Professor (eligible for tenure). The anticipated start date is July 1, 2021.

Requirements

Tier 2 CRCs 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). 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.

The Province of British Columbia has set a course for quantum research and education with its proposed Quantum Computing Cluster Strategy and its goal to establish a Quantum Algorithms Institute (QI) to advance quantum innovation. The Faculty of Engineering, along with the Faculty of Science, are developing a UVic Cluster in Quantum Science and Engineering (QSE) comprising three research chairs. The proposed UVic QSE cluster will help realize many advantages for the formidable quantum ecosystem in our region, including: the ramping up of world-class research and development; training of highly qualified personnel in quantum algorithms, materials and quantum devices; development of research infrastructure; and economic benefits such as start-up companies. This proposed Canada Research Chair (CRC) Tier 2 in Quantum Computing and Engineering will address theoretical and practical aspects of quantum computing. Areas of interest include, but are not limited to: quantum algorithms, quantum complexity, quantum information theory, quantum programming languages, quantum software engineering, applications of quantum computing to optimization and machine learning, and hybrid quantum/classical computing. The proposed chair will be a cross-appointment between the Departments of Computer Science (CSC) and Electrical & Computer Engineering (ECE). The research environment will also include the Province's Quantum Algorithms Institute and UVic's Matrix Institute of Applied Data Science, a new research centre that is looking to coordinate, expand research capacity, and enhance UVic's reputation as a world-class destination for research and teaching in data science. The Matrix

Institute of Applied Data Science has well developed ties to the technology industry in B.C., with a strong focus on innovation and technology transfer.

The University seeks an emerging world-class researcher whose excellence in scholarship can be demonstrated in different ways, including some combination of: sustained publication in top-tier journals; presentations at internationally recognised and respected conference venues; research collaborations with industry or government (national or international); and, industrial experience. Candidates must propose an original, high-quality research program, with the potential to: achieve international recognition; attract and develop excellent students and researchers; and attract external funding. Evidence of ability to develop successful inter-disciplinary research collaborations is an asset.

The CRC is expected to be a high-quality teacher and supervisor, with a track record of creating inclusive class environments and supporting a diverse student body. The CRC will be cross-appointed to either the Computer Science or Electrical & Computer Engineering Department, therefore an ability to teach core courses in at least one of those disciplines is required. They must demonstrate their support for equity, diversity and inclusiveness in university or other settings.

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.

Additional information

Faculty and Librarians at the University of Victoria are governed by the provisions of the Collective Agreement (www.uvic.ca/vpacademic/). Members are represented by the University of Victoria Faculty Association (www.uvicfa.ca/).

Contact information

To be considered, please submit a completed application package including the following:

- a cover letter providing an overview of how the candidate's qualifications fulfill the criteria above;
- a detailed curriculum vitae, including lists of publications and service activities;
- a three-page description of the candidate's proposed research program;
- a one-page description of the candidate's three most important research contributions to date;
- a maximum two-page statement of teaching experience and approach, including evidence of teaching effectiveness and working well with diverse students;
- a one-page statement identifying their strengths and experiences in promoting diversity; and
- contact information for three referees, preferably including one referee at arms-length.

The application package should be uploaded at <https://academicjobsonline.org>, addressed to Dr. Colin Bradley, Chair of Search Committee. In order to be considered, application packages must be received by April 30, 2020. You are asked to upload your C.V. and other personal information to this service, which is provided for the convenience of you and your referees. The service stores data on servers located outside of Canada; the data is therefore not in the custody or under the control of the University of Victoria. You may wish to review the privacy statement on <https://academicjobsonline.org>. If you do not wish to use this service, please submit your complete application package to Prof. Colin Bradley, Associate Dean Research Engineering (engradr@uvic.ca).

Application deadline

The closing date for applications is April 30, 2020.

Equity statement

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

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. For more information, see <http://www.chairs-chaire.gc.ca/program-programme/equity-equite/recruitment-recrutement-eng.aspx>

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.

The University of Victoria campus is located on the traditional territories of the Coast Salish Peoples and we are privileged to do our work in a way that is inspired by their history, customs and culture. Our connections to Indigenous communities – as well as global communities – are important to us.