



## Canada Research Chair Tier II in Quantum Hardware Engineering, Schulich School of Engineering

The **Department of Electrical and Software Engineering** in the **Schulich School of Engineering** at the **University of Calgary** invites national and international applications for a **Tier II Canada Research Chair (CRC) in Quantum Hardware Engineering**, with an anticipated start date of July 1 2023.

The Chair will be appointed at the rank of **Assistant Professor (tenure-track) or Associate Professor (with tenure)**. The position aligns with the University of Calgary's strategic vision and in support of its strategic academic and research priorities of leadership, teaching and research integration, and creating a dynamic environment to promote research excellence. The Chair will actively contribute to research, teaching, curriculum development, and student/postdoc supervision, and is in time expected to grow into a leadership role within the Department, School and the University. Service to the Department, School, University and community is also expected.

The successful candidate will be an emerging scholar with an original, creative, innovative and forward-looking research program, acknowledged by their peers as having the potential to become a leader in the field. The Tier II Canada Research Chair in Quantum Hardware Engineering will address a question that is critical to bridging the gap between industry and academia: how do we take scientific breakthroughs in the quantum field and translate them into functional products that benefit industry and society? Applications from researchers working to address this question are invited, with particular interest in one of:

- Quantum Computing
- Quantum Communications
- Quantum Sensing

The University of Calgary is a leader in Quantum research, with established excellence in the Institute for Quantum Science and Technology (IQST) and heading the provincial Quantum Alberta initiative. The University of Calgary has recently formed a strategic partnership with the Government of Alberta, and Mphasis, an information technology solutions provider specializing in cloud and cognitive services to establish Quantum City. The Quantum City initiative will establish quantum-focused fabrication infrastructure, new talent development programs and commercialization pathways to support the development of a vibrant economic and scientific hub based in Calgary.

The successful candidate will be expected to establish a strong research program in the area of Quantum Hardware Engineering, with the potential to achieve international recognition in the next five to ten years. They are expected to attract external competitive funding to support research activities, and to attract excellent trainees, students, and future researchers. Ability to teach a range of undergraduate and graduate courses on related topics is required. Candidates must have an earned doctorate in an engineering or science discipline with a research track record in quantum hardware or a

closely related area. The successful candidate is expected to take steps to register as a Professional Engineer with the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

For appointment at the **Assistant Professor** level, the candidate must demonstrate evidence of a track record of publications dissemination in high-impact venues, such as peer reviewed journal papers or top-ranked conferences, prior experience in working with external research funding programs, and effectiveness in teaching and graduate student supervision at the University level.

For appointment at the **Associate Professor** level, the candidate must demonstrate evidence of a strong track record of publications dissemination in high-impact venues, such as peer reviewed journal papers or top-ranked conferences, securing sustained external competitive research funding, effectiveness in teaching at the University level, and evidence of effective graduate student supervision.

In accordance with the regulations set for Tier II CRC Chairs, applicants must have received their Ph.D. within the last 10 years and be an emerging world-class researcher in a technology area suitable for application to Quantum Hardware Engineering. Candidates who are more than 10 years from having earned their highest degree and who have had career breaks, such as maternity, parental, or extended sick leave, clinical training, etc., may have their eligibility for a Tier II Chair assessed through the program's Tier II justification process. Research interruptions caused by the COVID-19 pandemic (e.g., closures) are recognized as, and may be counted as an eligible delay (credited at twice the amount of time) beginning March 1, 2020. Please contact UCalgary's Office of Research Services for more information: [ipd@ucalgary.ca](mailto:ipd@ucalgary.ca). Further information about the Canada Research Chair Program, including eligibility criteria, can be found the on the Government of Canada's CRC [website](#).

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The successful candidate will benefit from a rich ecosystem, which includes world-class engineering scholars, a focus on entrepreneurship and innovation, and a university community that supports transdisciplinary research, partnerships and collaborations, and supports research and education excellence. This position aligns with Hyperconnected World and Our Digital Future one of the research strengths identified in the [Schulich School of Engineering Strategic Plan](#), Schulich Momentum. For more information, please visit the Schulich School of Engineering and the [Canada Research Chairs website](#).

## How to Apply

**Interested candidates are encouraged to submit an application online via the 'Apply Now' link.** Please be aware that the application process allows for only four attachments. Your four application attachments should be organized to contain the following (which may require you to merge documents, such as publications):

- Cover letter and curriculum vitae, including the name and contact information of three referees

- Statement of research interests, accomplishments and vision (maximum 3 pages)
- Statement of teaching philosophy (maximum 2 pages)
- Statement on equity, diversity and inclusion (maximum 2 pages)

Questions may be addressed to:

Dr Andy Knight  
 Head, Department of Electrical and Software Engineering  
[andy.knight@ucalgary.ca](mailto:andy.knight@ucalgary.ca)

**Applications are accepted until February 15, 2023**

The University of Calgary has launched an institution-wide [Indigenous Strategy](#) in line with the foundational goals of [Eyes High](#), committing to creating a rich, vibrant, and culturally competent campus that welcomes and supports Indigenous Peoples, encourages Indigenous community partnerships, is inclusive of Indigenous perspectives in all that we do.

*As an equitable and inclusive employer, the University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their academic and professional success while they are here. In particular, we encourage members of the designated groups (women, Indigenous peoples, persons with disabilities, members of visible/racialized minorities, and diverse sexual orientation and gender identities) to apply. To ensure a fair and equitable assessment, we offer accommodation at any stage during the recruitment process to applicants with disabilities. Questions regarding [diversity] EDI at UCalgary can be sent to the [Office of Equity, Diversity and Inclusion](#) ([equity@ucalgary.ca](mailto:equity@ucalgary.ca)) and requests for accommodations can be sent to Human Resources ([hrhire@ucalgary.ca](mailto:hrhire@ucalgary.ca)).*

*All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. In this connection, at the time of your application, please answer the following question: Are you a Canadian citizen or a permanent resident of Canada? (Yes/No)*

The University of Calgary recognizes that candidates have varying career paths and that career interruptions can be part of an excellent academic record. Candidates are encouraged but not required to provide any relevant information about their experience and/or career interruptions to allow for a fair assessment of their application. Selection committees have been instructed to give careful consideration to, and be sensitive to the impact of career interruptions, when assessing the candidate's research productivity.

To learn more about academic opportunities at the University of Calgary and all we have to offer, view our [Academic Careers website](#). For more information visit [Careers in the Schulich School of Engineering](#).

The University strongly recommends all faculty and staff are fully vaccinated against COVID-19.

#### **About the University of Calgary**

The University of Calgary is situated on land adjacent to where the Bow River meets the Elbow River; the

traditional Blackfoot name of this place is “Mohkinstsis”, which we now call the City of Calgary. Calgary is home for the traditional territories of the Blackfoot and the people of the Treaty 7 region in Southern Alberta and the Métis Nation of Alberta, Region III.

The University of Calgary is Canada’s leading next-generation university – a living, growing and youthful institution that embraces change and opportunity with a can- do attitude. Located in the nation’s most enterprising city, the university is making tremendous progress on its Eyes High journey to become one of Canada’s top five research universities, grounded in innovative learning and teaching and fully integrated with the community it both serves and leads. Ranked as the top young university in Canada and North America, the University of Calgary inspires and supports discovery, creativity and innovation across all disciplines. For more information, visit [ucalgary.ca](http://ucalgary.ca).

#### **About Calgary, Alberta**

Ranked by the Economist Intelligence Unit as the most livable city in North America, and 3rd most livable in the world, Calgary is one of the world's cleanest cities and one of the best cities in Canada to raise a family. Calgary is a city of leaders - in business, community, philanthropy and volunteerism. Calgarians benefit from a growing number of world-class dining and cultural events and enjoy more days of sunshine per year than any other major Canadian city. Calgary is less than an hour's drive from the majestic Rocky Mountains and boasts the most extensive urban pathway and bikeway network in North America.

Posting Date: January 4, 2023

Closing Date: February 15, 2023