Canada Impact+ Research Chair in

Trustworthy, Quantum-Resilient AI for Cyber-Physical Infrastructure

Department of Electrical and Computer Engineering

Faculty of Engineering and Applied Sciences

Posting Date: **April 6, 2026**
Closing Date: **May 5, 2026, or until position is filled**
Expected Start Date of Appointment: **September 2026**

The Department of Electrical and Computer Engineering at Memorial University invites applications for the Canada Impact+ Research Chairs (CIRC) competition targeting **Trustworthy, Quantum-Resilient AI for Cyber-Physical Infrastructure**. CIRCs will be appointed for a period of eight years in values of either $8 million ($1 million per year) or $4 million ($500,000 per year), with the possibility of a 4-year extension at 50% of the original award value, determined by an external review in Year 7 of the award. The awardee may also request an additional $100,000 per year over six years to recruit an Early Career Researcher (ECR) and to apply for research infrastructure funding. While the CIRC program places no restrictions on nationality, the candidate must be internationally based (both working and residing outside of Canada) at the time of the Intake's application deadline.

The CIRC program is a one-time-only initiative, funded by the Government of Canada, designed to recruit top-tier international researchers with expertise in key areas addressing critical national and global challenges. The program emphasizes both research excellence and tangible impact. The eight CIRC-identified strategic priority areas include: Advanced digital technologies (including artificial intelligence (AI), quantum and cybersecurity); Health, including biotechnology; Clean technology and resource value chains; Environment, climate resilience and the Arctic; Food and water security; Democratic and community resilience; Manufacturing and advanced materials; and Defense and dual-use technologies.

Newfoundland and Labrador's geographic position as a gateway to the Arctic presents Memorial University with a unique opportunity to lead research on Arctic maritime infrastructure. The Faculty of Engineering and Applied Science and the Department of Electrical and Computer Engineering have established expertise and facilities in ocean technology, offshore engineering, and sustainable infrastructure, combined with emerging capabilities in advanced digital

technologies, creating an ideal environment for the successful candidate to develop the **Trustworthy Quantum-resilient AI** research program. The successful CIRC candidate will be appointed at the rank of Full Professor, or Associate Professor with the opportunity to apply for promotion to Full Professor within 2 years of the appointment's start date. The salary for the position will be commensurate with qualifications and experience, in accordance with the Memorial University of Newfoundland Faculty Association (MUNFA) Collective Agreement.

Memorial also has an all-Indigenous Committee on Engaging Research Involving Indigenous Groups to ensure that research, including classroom research, meets high ethical and responsible standards. The focus is on research with, by, and for Indigenous Peoples that emphasizes engagement grounded in understanding and respect. More information can be found here.

Candidate Profile

The successful candidate will be an established, internationally recognized research leader whose scholarship has made a significant impact in the field. They will have primary responsibility for directing the research program and all related activities and will be expected to develop and implement a plan for an inclusive research environment that fosters equity, accessibility and diverse participation at all levels.

The successful candidate will have:

- A PhD* in Electrical and Computer Engineering or a closely related discipline;
- A demonstrated record of world-class research excellence in the development and application of trustworthy, explainable, and quantum-resilient AI frameworks for resource management and secure coordination in sixth-generation (6G) communication-enabled, un-manned vehicular networks (UVNs) comprised of unmanned aerial vehicles (UAVs), and unmanned ground vehicles (UGVs). The UVN deployment contexts will target situations like disaster response, surveillance, search-and-rescue, autonomous logistics, and border monitoring, which represent the safety- and mission-critical cyber-physical operations.
- Evidence of sustained high-impact contributions, publications in leading journals, and success in securing external research funding;
- A demonstrated commitment to equity, diversity, and inclusion and anti-racism (EDI-AR) in research, teaching, and mentorship;
- Experience mentoring a diverse group of students, trainees, and research personnel;
- A record of service to the academic and professional communities through leadership and engagement.

**This is a requirement of Memorial University, not the Canada Impact+ Research Chairs program.*

How to Apply

Memorial University's Canada Impact+ Research Chairs competition involves a two-stage process as outlined below.

Stage 1

Applications must be submitted as a single PDF file, with the subject heading: **CIRC ECE applicant_NAME**, and quoting the reference number: F98765-2026-14. The application should include the following information, and be provided in the order listed below:

a) A **cover letter**, including a vision for the *CIRC in Trustworthy, Quantum-Resilient AI for Cyber-Physical Infrastructure* (2 pages max);
b) An up-to-date **Curriculum vitae** with a clear summary of major research, leadership and knowledge mobilization achievements;
c) **A research plan** for the duration of the 8-year CIRC, outlining objectives, methodology, expected outcomes, and impacts (3 pages max);
d) **Significant contributions to research and innovation** (2 pages max);
e) **Teaching philosophy** and plan including mentorship of undergraduate and graduate students, postdoctoral fellows, and/or early-career faculty colleagues (2 pages max);
f) Copies of **three relevant technical publications**;
g) A statement on how the applicant's research program fosters and implements best practices in equity, diversity, inclusion and anti-racism (For guidance see http://www.nserccrsng.gc.ca/_doc/EDI/Guide_for_Applicants_EN.pdf), and;
h) Names and contact information of **at least three referees**.

The successful candidate should also be eligible for registration as a professional engineer in the Province of Newfoundland and Labrador.

Application packages should be submitted through this portal: CLICK HERE TO APPLY as soon as possible but no later than **May 5, 2026**. The application review will begin immediately and continue until the position is filled. Candidates with inquiries about this position, the Department of Electrical and Computer Engineering, the Faculty of Engineering and Applied Sciences, and / or the broader Memorial community, are encouraged to contact the Electrical and Computer Engineering Department Head, engrecehead@mun.ca.

Memorial acknowledges that career paths can be diverse and that life circumstances, such as illness, disability, and family and community responsibilities, are often an expected part of life and are likely to affect a nominee's record of research achievement. Applicants are encouraged to explain in their cover letter any life circumstances that may have resulted in career interruptions, if applicable. These impacts will be carefully considered during the assessment process.

Memorial University is committed to employment equity, diversity, inclusion and anti-racism, and encourages applications from all qualified candidates, including: women; people of any sexual orientation, gender identity, or gender expression; Indigenous Peoples; visible minorities, and racialized people; and people with disabilities. All applicants are invited to identify themselves as

a member of an equity-deserving group(s) as appropriate.

To be considered an equity-deserving group member, applicants must complete the employment equity (EE) survey, and provide permission to share their survey responses with the search committee. Once applicants submit their application, they will receive the EE survey via email, and have 7 days to complete it.

Memorial is committed to providing an inclusive learning and work environment. If there is anything we can do to ensure your full participation during the application process, please contact Mandy Penney, equity@mun.ca, and we will work with you to make the appropriate arrangements.

Stage 2

The successful candidate will be registered with the CIRC program as Memorial's nominee and will complete the CIRC application with support from the Faculty of Engineering and Applied Science and Memorial's Research Initiatives & Services (RIS). The completed nomination package will be submitted electronically by the CIRC's application deadline. Please note that nominees only become Chairholders once the submitted application has been successfully awarded by the CIRC Program.

Memorial University

As Newfoundland and Labrador's only university, Memorial University plays an integral role in the province's education and cultural life, offering diverse undergraduate and graduate programs to more than 17,000 students from over 120 countries. Memorial's St. John's campus provides a distinctive and stimulating environment for learning in the capital city. Home to many natural wonders, including puffin colonies, whales, and icebergs, St. John's is steps from the Atlantic Ocean, with a vibrant arts and culture scene, mild temperatures, and access to a wide range of year-round outdoor activities.

The Faculty of Engineering and Applied Science offers accredited undergraduate and graduate programs in civil engineering, computer engineering, electrical engineering, mechanical engineering, ocean and naval architectural engineering, and process engineering, following a fully integrated co-operative education model, as well as course-based master's programs in computer engineering, energy systems, environmental systems, oil and gas, and safety and risk engineering. New programs to be launched in the next year include an undergraduate program in mechatronics engineering and two graduate programs in software engineering and artificial intelligence (in partnership with computer science).

We acknowledge that the lands on which Memorial University's campuses are situated are in the traditional territories of diverse Indigenous groups, and we acknowledge with respect the diverse histories and cultures of the Beothuk, Mi'kmaq, Innu, and Inuit of this province.