

Canada Excellence Research Chair in Human-Centred Robotics and Machine Intelligence



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The University of Waterloo has developed one of Canada's largest and most active [robotics and intelligent systems research groups](#). Our researchers are conducting fundamental research into neural networks, autonomous systems and human-machine interaction, while developing robots that can drive cars, defuse land mines, and perform surgery.

The CERC opportunity

Waterloo has been selected to nominate a prestigious 7 year **Canada Excellence Research Chair in Human-Centred Robotics and Machine Intelligence**. The successful nominee will be appointed to a full-time tenured position, ideally at the rank of Full Professor, within Waterloo's renowned Faculty of Engineering.

[Canada Excellence Research Chair](#) (CERC) awards are among the most prestigious and generous research chairs awarded globally. The successful nominee will be supported by a \$10 million grant from the Government of Canada, matched by an equal commitment from the University. They will be joined by at least six additional permanent faculty hires over the next five years, all working to pioneer scientific discovery, technology development and IP creation in this critical area.

Exceptional candidates

The CERC candidate will be an exceptional researcher with a proven track record of discovery and innovation. They will have demonstrated a clear ability to lead, manage and grow multi-institutional and multidisciplinary research collaborations, and develop strong relationships with partners in related academic fields and in government and industry. They will be committed to excellence in supervision, mentorship and research training, and enthusiastic about communicating their research to audiences beyond academia. They will also be committed to the values of equity, diversity and inclusion – key ingredients for successful innovation.

The successful candidate will propose an ambitious frontier program of high-quality research within the broad area of human-centred robotics and machine intelligence. The program will explore new ways to create intelligent machines, capable of operating safely, efficiently and dependably alongside people. Solving these challenges will require a sustained and collaborative academic effort at the intersection of many fields of study.

The Chair's research program may focus on fields including, but not limited to:

- intelligence
- autonomy
- machine vision
- machine learning
- human-machine interaction
- multi-robot systems
- advanced robotics and sensing
- neuromorphic engineering

Exceptional researchers from around the world are encouraged to apply - the program imposes no restrictions on nominees with regard to nationality or country of residence. Candidates should hold a PhD in Engineering, Computer Science or a closely related field.

The ideal candidate would be a full professor, but in exceptional cases associate professors who are expected to be promoted to the full professor level within one or two years of the nomination will also be considered. Alternatively, if they come from outside the academic sector, nominees must possess the necessary qualifications to be appointed at these levels. The successful nominee will take up their position on or after July 1, 2019.

The University of Waterloo respects, appreciates and encourages diversity and is committed to accessibility for persons with disabilities. We particularly welcome applications from women, members of visible minorities, Indigenous/Aboriginal peoples and persons with disabilities. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority in the recruitment process.

State-of-the-art environment for research and collaboration

Waterloo is ranked #1 for Engineering in Canada and #15 for Computer Science globally (U.S. News and World Report 2018). Our robotics research leads Canada for citations and for research impact (Thomson Reuters Web of Science); our AI research is ranked top 5 in North America for citation impact (THE World University Rankings).

These strengths will be reinforced in Fall 2018, with the opening of Waterloo's [Robohub](#): a two-storey 100m² experimental robotics arena in the heart of the new Engineering 7 building, supporting research into robot coordination, autonomy, and human-robot interaction.

Our robotics teams collaborate extensively with Waterloo's leading groups in [artificial intelligence](#), [automotive autonomy](#), and [healthy aging](#). Eight of Waterloo's Canada Research Chairs work in these areas, alongside a younger cohort that includes ten recipients of Ontario's Early Researcher Awards.

[Three more reasons](#) to apply.

Waterloo as an innovation hub

The University of Waterloo has been recognized as Canada's most innovative university for the past 26 straight years. We are a key academic partner in two of Canada's recently launched Innovation Superclusters: [SCALE.AI](#), defining a new, AI-powered global supply chain platform; and [NGM Canada](#), driving collaboration between the technology and manufacturing sectors.

- Waterloo's "inventor-owned" Intellectual Property (IP) policy allows researchers complete freedom to disseminate and commercialize their research as they see fit. All IP originating from students, faculty or staff remain the property of the innovator — not the university.
- Waterloo is one of the world's leading universities for the creation of unicorns (billion dollar companies), ranked 4th in the world (Pitchbook 2017).
- Engineering students and faculty have launched over 650 new companies, spurring Waterloo Region towards the 2nd highest start-up density in the world after Silicon Valley (Compass Report 2016).

How to apply

For More Information: Interested candidates are encouraged to contact Pearl Sullivan, Dean of Engineering, for more information at dean.engineering@uwaterloo.ca.

To Apply: Please send a curriculum vitae and a statement of interest in the position, in confidence, to Dr. Charmaine Dean, Vice-President University Research, at vpresearch@uwaterloo.ca.

Review of applications will begin on May 1, 2018, and will continue until the position is filled.