



Canada Research Chair

Lassonde School of Engineering



LASSONDE
SCHOOL OF ENGINEERING

YORK 

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Who we are

The Lassonde School of Engineering is shaping the next generation of creators who will tackle the world's biggest challenges and find creative solutions to global problems through interdisciplinary learning opportunities. This is accompanied by a dynamic, innovative, leading-edge research that captivates, engages, empowers and impacts the world at large. We are looking to transform people and ideas with purpose.



Our Mission

The mission of York University is the pursuit, preservation, and dissemination of knowledge. We promise excellence in research and teaching in pure, applied and professional fields. We test the boundaries and structures of knowledge. We cultivate the critical intellect.

York University is part of Toronto: we are dynamic, metropolitan and multi-cultural.

York University is part of Canada: we encourage bilingual study, we value diversity.

York University is open to the world: we explore global concerns.

A community of faculty, students, staff, alumni and volunteers committed to academic freedom, social justice, accessible education, and collegial self-governance, York University makes innovation and interdisciplinarity its tradition.

York draws its strength in part from being situated in the centre of the Greater Toronto Area. York University is committed to open-minded and engaged scholarship that reflects excellence and innovation.



Toronto

Toronto is Canada's largest city and the capital of the Province of Ontario. While the city, which is on the north shore of Lake Ontario, has a population of approximately 2.9 M, the surrounding metropolitan area, the Greater Toronto Area (GTA), reaches upwards of 6 million.

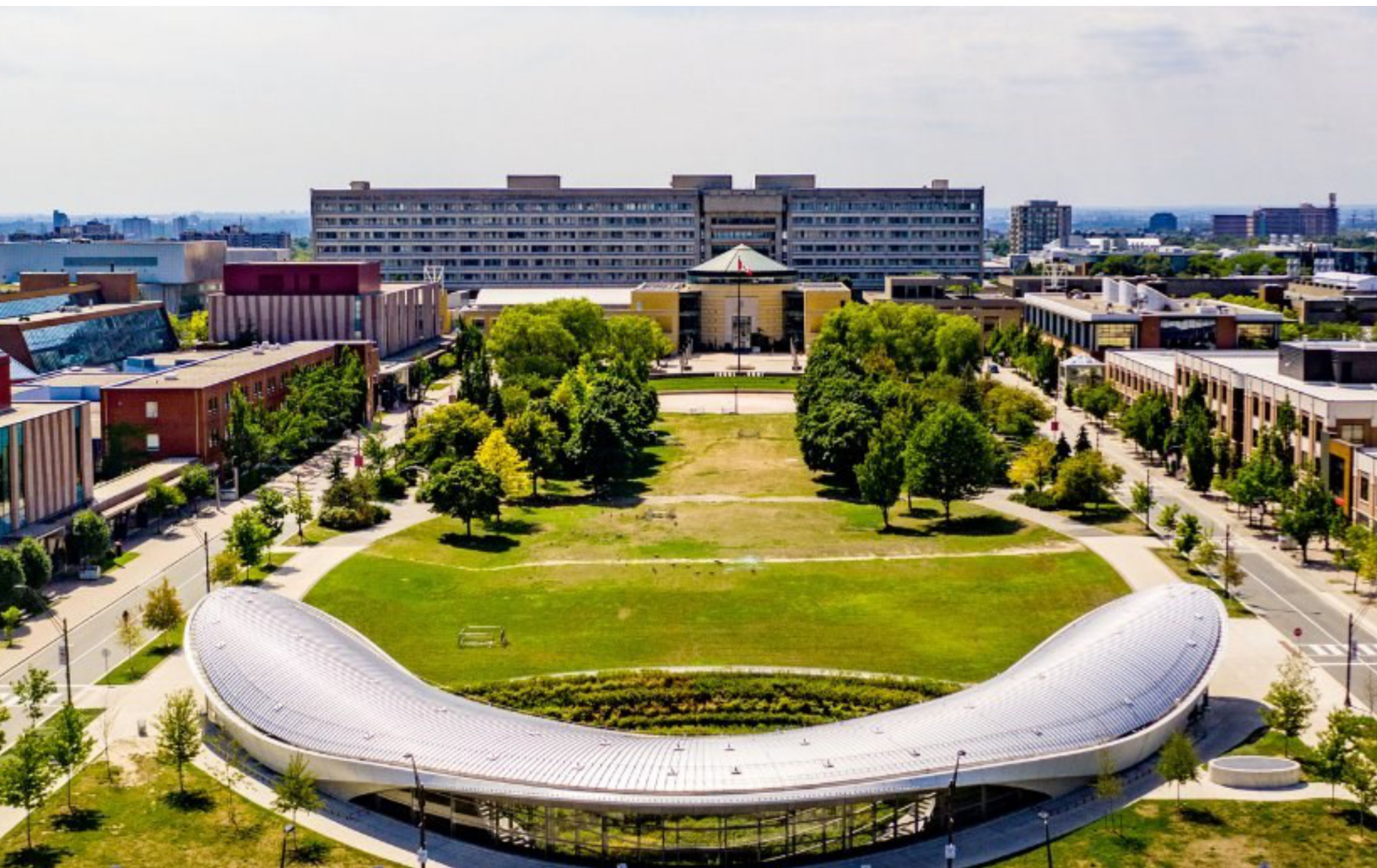
Toronto is distinctly multicultural, with an estimated 50% of the population being born outside of Canada. This has in turn made the city 'a city of neighbourhoods' because it is composed of many distinct, smaller areas with unique cultures. In Toronto, one can enjoy the sights, smells, flavours and sounds of different cultures just by hopping on the local transit system. To learn more about Toronto's, visit [Tourism Toronto's Website](#) and The City of Toronto's neighbourhood information page.



Toronto

York Region, or the 'Regional Municipality of York', is the municipality on the northern border of York University's Keele campus while the city of Toronto lies to the south. York Region is part of the GTA and has a population of just over 1 million, and is composed of nine cities and towns. York Region has its own public transit system, the York Region Transit (YRT/VIVA), in addition to being partially served by the provincial transit system, GO Transit, and Toronto's Toronto Transit Commission (TTC).

For more information, see [York Region's official website](#) and [the region's online resources for newcomers](#).



Our Campus

York University was founded in 1959 and has now plants its flag at three central campuses: Glendon, Keele and Markham Centre. York also has two locations in downtown Toronto: the Miles S. Nadal Centre and the Osgoode Professional Development Centre, as well as international locations in India and Costa Rica. The third largest university in Canada, York is a positive force for change as a leading teaching and research university. The student body is both large and diverse with over 53,000 students from 178 countries walking through its halls with over 1,400 full-time faculty members and librarians.

Our self-contained campus of over 500 acres boasts a mix of natural landscapes and modern facilities such as our Bergeron Centre of Engineering Excellence, renowned performance arts facilities, two state-of-the-art TTC subway stations and the Allan I Carswell Observatory, home to the largest telescope on a Canadian university campus. The Lassonde School of Engineering makes its home at this campus.

York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek (a-nish-na-bek) Nation, the Haudenosaunee (ho-dee-no-sho-nee) Confederacy, the Huron-Wendat, and the Métis. It is now home to many Indigenous Peoples. We acknowledge the current treaty holders, the Mississaugas of the New Credit First Nation. This territory is subject to the Dish With One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region. Since its inception in 1959, York University has been a university characterized by consistent growth and innovation.



Our Campus

Markham

Coming Fall 2023, York University's bold dream becomes an exciting reality. Located in the heart of Markham, the new campus will accommodate up to 4,200 students in Phase 1, with the flexibility to respond to future growth demands. The Markham Centre Campus (MCC) will be urban, connected and integrated with local and global communities. Programs will revolve around core themes of technology and entrepreneurship, as applied in different contexts and professional fields.

Glendon

Glendon is the bilingual leader in research and teaching in Toronto, as well as the founding campus of York University. Established in 1966, Glendon is well known for its personalized student experience thanks to its small class sizes and access to its internationally-recognized faculty members. It also offers exclusive international study and exchange programs, and houses innovation, entrepreneurship and experiential learning hubs.



Research

York is a globally recognized research institution that is at the forefront of local and global social challenges through the implementation of innovative solutions. York has ramped up research intensity in recent years with:

- 39 Canada Research Chairs
- Over \$100 M in research grants & awards
- 347 international university partners
- Home to 27 organized research units ([ORUs](#))
- 13, 158 publications since 2016



Research

York researchers have played key roles in many of the important discoveries and influential scholarship of the past half century. They include the discovery of the Higgs boson particle and the exploration of Mars; changing the way we think about youth marginalization and homelessness; developing novel approaches to health care delivery; developing insight into the social and political history of Canada and understanding the environmental changes brought about by colonial expansion on Indigenous societies; advancing understanding of computer and biological vision and probing the impacts of digital gameplay; 7 studying the formation and development of language policy in Canada; generating new insights into brain development in children with autism and intellectual disabilities across the lifespan; discovering that lifelong learning involves adaptations that are linked to the brain's performance; encouraging civic dialogue through performance and public art; working to improve the global plight of refugees and exploring immigration solutions; shaping future thought on suburbanization and today's ecological crisis; mapping the spread of infectious diseases through mathematical modelling; and studying virus resistant plants to bolster the survival of agricultural crops and combat the effects of climate change.



Research

Research at York is strongly engaged internationally and has significant global impact. Indeed, over the past five years, 55% of York publications resulting from the collaboration of two or more authors have at least one author from outside of Canada. This leads all Ontario universities.

York scholars have achieved the highest recognition in their fields. They include over eighty Royal Society Fellows and twenty-five Distinguished Research Professors. They have been inducted as members of the College of New Scholars, Artists and Scientists and named Killam Professors, Humboldt Fellows, Fulbright Scholars, and Trudeau Foundation Fellows. They have been recognized as Steacie Medalists and Governor General's Award winners and receive a range of disciplinary honorifics and prizes for their books, lectures and other scholarly achievements. York's allocation of thirty-five Canada Research Chairs complemented by over thirty York Research Chairs and over thirty-five named Chairs and Professorships, and a recently reinforced mechanism to broadly enhance faculty research engagement, demonstrates the University's support for its faculty across disciplines.



Research Chairs

Within Lassonde, there are currently four Canada Research Chairs, 10 York Research Chairs and one endowed chair. York Research Chairs are York University's internal counterpart for the national Canada Research Chairs (CRC) program and recognizes outstanding researchers at York. The chairs can be seen [here](#) and are listed below:

Canada Research Chairs



Michael Brown: Tier 1 Canada Research Chair in Computational Vision



John Tsotsos: Tier 1 Canada Research Chair in Computational Vision



Isaac Smith: Tier 2 Canada Research Chair in Planetary Science



Pirathayini Srikantha: Tier 2 Canada Research Chair in Reliable and Secure Power Grid Systems

Research Chairs

York Research Chairs

- **James Elder:** Tier 1 York Research Chair in Human and Computer Vision
- **Rick Wildes:** Tier 1 York Research Chair in Computational Vision
- **Dan Zhang:** Tier 1 York Research Chair in Advanced Robotics and Mechatronics
- **Zheng Hong (George) Zhu:** Tier 1 York Research Chair in Space Technology
- **Rob Allison:** Tier 2 York Research Chair in Stereoscopic Vision and Depth Perception
- **Michael Daly:** Tier 2 York Research Chair in Planetary Science
- **Hany Farag:** Tier 2 York Research Chair in Integrated Smart Energy Grids
- **Ali Sadeghi-Naini:** Tier 2 York Research Chair in Quantitative Imaging and Biomarkers
- **Ping Wang:** Tier 2 York Research Chair in AI Empowered Next Generation Communication Networks
- **John Moores:** Tier 2 York Research Chair in Space Exploration



Research Chairs

Endowed Chairs

- **Satinder Kaur Brar:** James and Joanne Love Chair in Environmental Engineering

See all Canada Research Chairs at York University [here](#).

See all York Research Chairs at York University [here](#).



Research Vision

[The Lassonde School of Engineering](#) is developing a dynamic, innovative, and leading-edge education and research environment that captivates, engages, empowers, and impacts the world at large. Research vision for the School focuses on:

- Creation of a research culture that fosters the cross-pollinating of ideas and disciplines
- Identification of new, emerging, and interdisciplinary research areas to build capacity and growth
- Extensive networking and partnerships
- Creation of a critical mass of faculty and students in strategic priority areas
- Building Centres of Excellence or new Organized Research Units and supporting existing vital ones
- Implementation of independent and vigorous graduate studies within Lassonde to provide flexibility in the admission process, to attract the best students
- Intensification of presence in, and engagement of, the community to raise research awareness and improve recognition and quality of programs



We are building research clusters in the following areas:

- Technology Entrepreneurship & Knowledge Mobilization
- AI, Society & Mobility
- Water Security and Environmental Engineering
- Materials, Energy and Sustainability
- Automation in Health Systems and Technology
- Critical Infrastructure



Research Strength

Broadly, the School has strength areas in:

- Computer Networks & Communications Software
- Electrical and Electronic Engineering
- Space & Planetary Science
- Atmospheric Science
- Materials Science
- Water & Environmental Studies

The School is currently part of three organized research units:

- 1) The Centre for Innovation in Computing
- 2) Centre for Research in Earth and Space Science (CRESS)
- 3) York Centre for Vision Research (CVR)

Lassonde has an annual research report which highlights major accomplishments by our researchers over the past year. See the most recent edition [here](#).



Research Strength

The School is also affiliated with [Vision: Science to Applications \(VISTA\)](#) which is a collaborative program funded by the [Canada First Research Excellence Fund](#) that combines expertise from Lassonde with the Faculties of Health, Science, Liberal Arts and Professional Studies, and the School of the Arts, Media, performance & Design.

For more information about the Lassonde School of Engineering visit: www.lassonde.yorku.ca/



The Position

The Lassonde School of Engineering, York University invites highly qualified candidates to apply for a professorial stream tenure-track appointment in any field that is a current or developing area of strength of the Lassonde School of Engineering (described in the numbered list below) at the Assistant or Associate Professor level, to commence July 1, 2022. The successful candidate will be nominated for a NSERC Tier 2 Canada Research Chair in Science or Engineering. The successful candidate will be appointed to a department best suited to their research and teaching. Salary will be commensurate with qualifications and experience. All York University positions are subject to budgetary approval. This appointment is contingent upon a successful nomination to the Canada Research Chairs program (<http://www.chairs-chaires.gc.ca/>) at the Tier 2 level.

Lassonde School of Engineering is committed to providing a welcoming and supportive environment for all who wish to study, teach and conduct research. For this search, only candidates who self-identify as a member of one or more of the following underrepresented groups may apply: women, Aboriginal (Indigenous), Black peoples of African Descent (for example Africans and African heritage people from the Caribbean, Americas, Europe) and persons with disabilities.



The Position

The four departments within Lassonde are:

- [Civil Engineering](#)
- [Earth and Space Science and Engineering](#)
- [Electrical Engineering and Computer Science](#)
- [Mechanical Engineering](#)

A PhD in a relevant field of Science or Engineering is required, with a demonstrated record of excellence in research and in teaching. The successful candidate will be expected to engage in outstanding, innovative, and as appropriate, externally funded research at the highest level.

***Please see the [official ad](#) for more details.**

Applicants should have a clearly articulated program of research and specialize in one or more of the following areas:

- (1) *Earth or Space Sciences*
- (2) *Vision Research*
- (3) *Computing Research*
- (4) *Technology Entrepreneurship or Knowledge Mobilization*
- (5) *AI, Society or Mobility*
- (6) *Water Security or Environmental Engineering*
- (7) *Materials, Energy or Sustainability*
- (8) *Automation in Health Systems and Technology*
- (9) *Critical Infrastructure*



The Position

York University has a policy on [Accommodation in Employment for Persons with Disabilities](#) and is committed to working towards a barrier-free workplace and to expanding the accessibility of the workplace to persons with disabilities. Candidates who require accommodation during the selection process are invited to contact Prof. John E. Moores, Chair of the Search Committee at ad.research@lassonde.yorku.ca.

York University is an Affirmative Action (AA) employer and strongly values diversity, including gender and sexual diversity, within its community. The AA Program, which applies to women, members of visible minorities (racialized groups), Aboriginal (Indigenous) people and persons with disabilities, can be found at www.yorku.ca/acadjobs or by calling the AA line at 416-736-5713. Applicants wishing to self-identify as part of York University's Affirmative Action program can do so as part of the online application process. York acknowledges the potential impact that career interruptions (e.g., maternity leave, leave due to illness, etc.) can have on a candidate's record of research achievement. Applicants are encouraged to explain in their application the impact that career interruptions may have had on their record of research achievement; this will be taken into careful consideration during the assessment process.



Eligibility

1. Obtained PhD in an engineering or science area less than 10 years ago not including the following:

- This does not include stoppages due to parental, medical, bereavement, etc.
- This also does not include leaves taken since the beginning of the COVID pandemic (March 1st, 2020)

2. Only individuals from one or more of the following underrepresented groups:

- Women, Aboriginal (Indigenous), Black peoples of African Descent (for example Africans and African heritage people from the Caribbean, Americas, Europe) and persons with disabilities

Please see the CRC website (<http://www.chairs-chaires.gc.ca/>) for further eligibility details.





Application Package Requirements

The deadline for receipt of completed applications is **January 31st, 2022**. You should complete the online application process at <https://apply.lassonde.yorku.ca>.

- 1) Letter of Application (indicating the rank you wish to be considered for)
- 2) Up-to-date Curriculum Vitae
- 3) Statement of Contribution to Research
- 4) Teaching Dossier or Statement of Contribution to teaching and curriculum development/teaching evaluations
- 5) Three Samples of Most Significant Scholarly Works
- 6) Contact information for three referees including email address, mailing address and phone number

If the successful candidate is in an Engineering field, commitment to the engineering profession shall be demonstrated by being licenced as a Professional Engineer in the province of Ontario or by becoming licenced soon after appointment.

Commitment to Equity

Lassonde is committed to challenging the status quo to build a just, equitable, diverse, and inclusive community. Our commitment to equity, diversity, and inclusion (EDI) can be seen through our [multiple year action plan](#) which we launched in 2019. In addition to a dedicated [EDI sub-committee](#), the Lassonde School of Engineering has launched a dedicated [EDI Seed Funding program](#). This program includes funding for faculty members who need to go on leave due to life events such as maternity/paternity leave. This funding allows faculty to hire a research associate, postdoctoral visitor or lab manager to support laboratory activities in their absence or a lecturer for course release.

Tenure and Promotion in Canada:

This is a tenure-track position which means that a tenured professor has job security and permanent appointment. More details on the tenure and promotion at York can be found [here](#). This also includes near guaranteed sabbaticals. See more information [here](#).

Questions or Inquiries

Please contact Prof. John E. Moores, Chair of the Search Committee at ad.research@lassonde.yorku.ca if you have any questions about this position.

