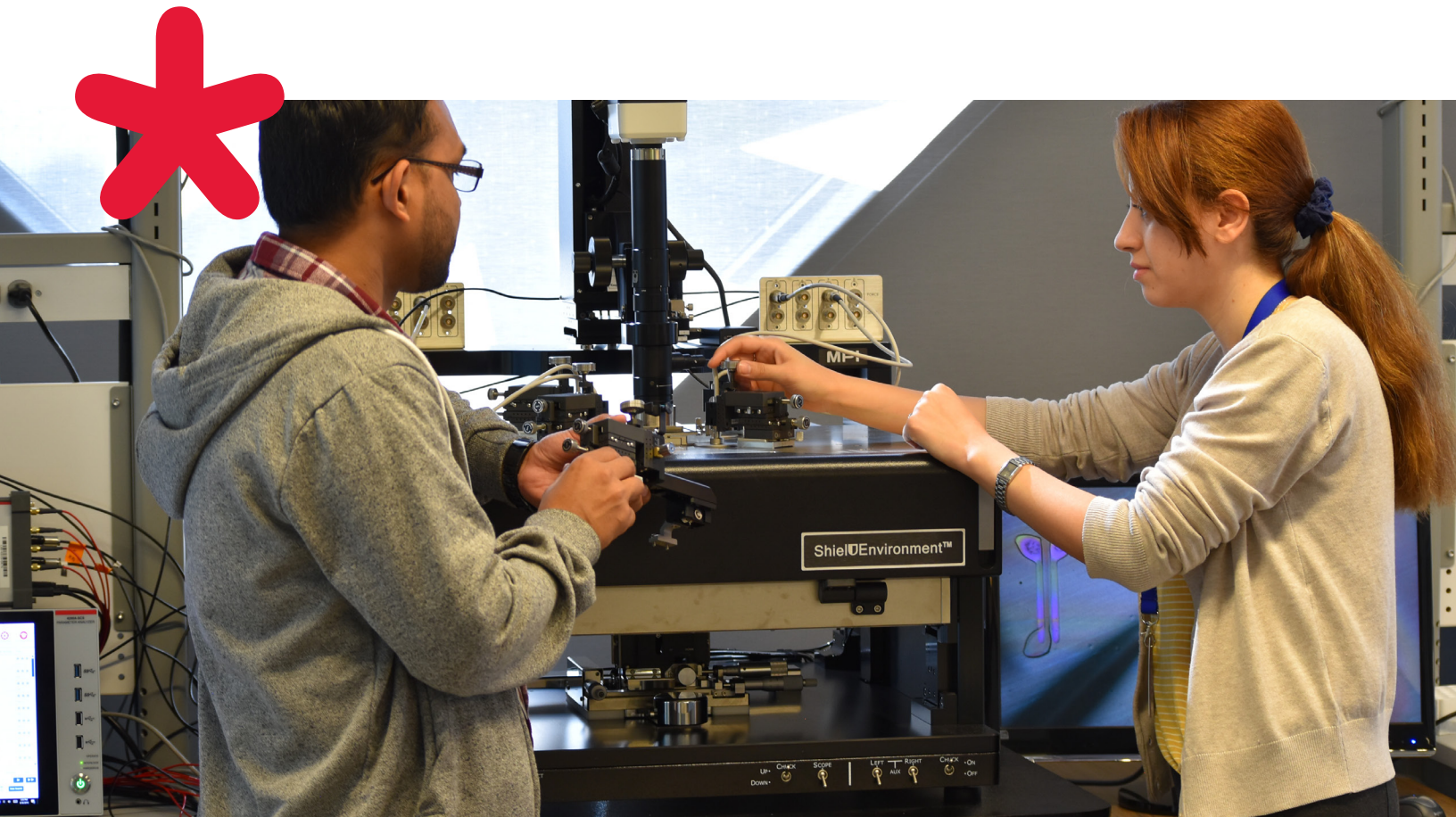


**GRADUATE PROGRAMS IN**

# **Electrical Engineering & Computer Science**



## Discover Electrical Engineering & Computer Science at Lassonde.

Our Department of Electrical Engineering and Computer Science (EECS) is one of the leading academic and research departments in Canada. Our graduate programs are research based, thriving on the broad range of active research conducted by faculty members in the Department. With 58 research faculty and over 200 graduate students and research staff, our graduate programs foster a dynamic research environment.

### Fast Facts:

**481**

Graduate Students at  
Lassonde

**200**

Graduate Students in  
Electrical Engineering &  
Computer Science

**87**

Electrical Engineering  
& Computer Science  
Faculty Members

# Program Information

## MSc in Computer Science

**Length:**

Full-time: 5 terms    Part-time: 4 years

**Components:**

Coursework and/or Thesis/Project

**Admissions Requirements:**

- Completion of a 4-year bachelor's degree in Computer Science or equivalent.
- Minimum GPA of (B+) in the final two years of the bachelor's degree.
- Completion of the equivalent of a senior-level course in the area of theoretical computer science.

## MASc in Electrical & Computer Engineering

**Length:**

Full-time: 5 terms    Part-time: 4 years

**Components:**

Coursework & Thesis

**Admissions Requirements:**

- Completion of a 4-year bachelor's degree in Computer Engineering, Computer Science, Electrical Engineering, Software Engineering or equivalent.
- Minimum GPA of (B+) in the final two years of the bachelor's degree.
- Completion of the equivalent of a senior-level project course or thesis in Electrical, Computer or Software Engineering.

## PhD in Electrical Engineering & Computer Science

**Length:**

Full-time: 4 years    Part-time: 6 years

**Components:**

Coursework & Industrial internship OR teaching practicum & Dissertation

**Admissions Requirements:**

- Applicants must have a master's degree in Computer Engineering, Computer Science, Electrical Engineering, Software Engineering, or a closely related field.
- Minimum GPA of (B+) in the coursework for the master's degree program.





# Research Areas/Strengths

The graduate program in Electrical Engineering & Computer Science allows you to study the fields of Computer Engineering, Computer Science, Electrical Engineering and Software Engineering.

**You will have the opportunity to conduct research in the areas of:**

- Artificial Intelligence
- Biomedical Engineering
- Computer Graphics
- Computer Vision
- Human-centred Computing
- Information Systems
- Integrated Circuits
- Micro/nanoelectronics
- Networks
- Power and Renewable Energy Systems
- Software Engineering
- Theory of Computation
- Virtual Reality
- Communication
- Data Science
- Computer Security

## Powering the Future: Exploring Grid Systems with Dr. Pirathayini Srikantha

Dr. Pirathayini Srikantha, an assistant professor in the Electrical Engineering and Computer Science department at Lassonde, tell us about her research, which focuses on power grid systems and the distribution of electricity. In this episode, you will learn about her career path and the work she does as a professor here at Lassonde.



**Listen now:**



# Organized Research Units

At York University, Organized Research Units (ORUs) have a strong history of collaborative, innovative and interdisciplinary research. Lassonde's ORUs provide a home for research development beyond traditional academic units. ORUs serve as synergistic hubs for participatory research programs that bring together expertise from various disciplines.

- Centre for Research in Earth and Space Science
- Centre for Innovation in Computing @ Lassonde
- The Mobility Innovation Centre
- Manufacturing, Technology, and Entrepreneurship Centre
- Centre for Artificial Intelligence & Society
- York Centre for Vision Research
- One WATER

Learn more:



## Discover Connected Minds

New technologies are revolutionizing society, creating a 'techno-social collective' where humans and intelligent machines are deeply interconnected. While such advances present exciting opportunities, they also present significant risks, especially for vulnerable populations.

The Connected Minds Program, a \$318.4M first-of-its-kind next-gen research initiative, envisions a world where breakthroughs in technology promote social health and justice for all, with special focus on the Indigenous Peoples of Canada.

Learn more:



# Graduate Funding

The Lassonde School of Engineering provides a competitive, guaranteed funding package to help meet the financial needs of our graduate students in order to promote excellence in research and teaching. Last year our graduate students took home **\$17,000 to \$18,000** after paying tuition\*. Additional funding is also available through scholarships and awards.

In addition to our already impressive funding packages, the Lassonde School of Engineering offers top-ranked applicants the York Graduate Scholarship in recognition of academic excellence. The York Graduate Scholarship is awarded in Year 1 and is non-renewable. No special application is necessary for this scholarship and all eligible applicants are automatically considered.

\*Amounts are subject to change in future years.



## Enhancing Astronaut Training Through Gender-Inclusive Perception of Self-Motion Study

Lassonde Professor Michael Jenkin aims to develop more inclusive training by focusing on women's perception of self-motion in partial gravity through a project called SMUG-PS. This research explores gender differences in handling partial gravity, especially relevant for lunar, Martian, and planetary missions. Results will enhance training methods, benefiting mission success and astronaut health. This initiative aligns with Lassonde's commitment to diversity and inclusion, forging valuable partnerships for impactful research.



Read more:





# Alumni Spotlight

## Shivani Sheth

MSc in Earth & Space Science from Lassonde

“I have always been fascinated by technology, whether it was computer games, apps, websites, chat boxes or speech systems. All this really sparked my passion for computer science. In addition, my love for mathematics supported my interests and made learning fun. For me, becoming a computer scientist means I will have skills that I can use to create a better world.

My focus of study is Artificial Intelligence. AI not only has the ability to automate tools but it can help us perform tasks that are beyond human capabilities. This power can be utilized in creating a positive change in the world, such as smartirrigation systems, combating human trafficking and much more.”

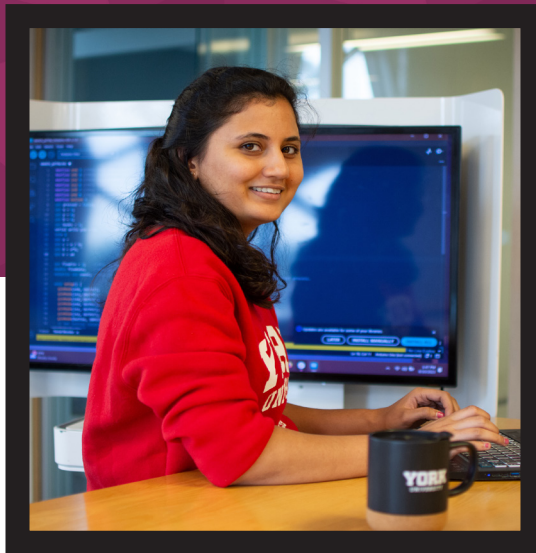


## Preserving Privacy in a Digital Age: Insights from Prof. Yan Shvartzshnaider

Yan Shvartzshnaider, a Software Engineering professor at Lassonde, explores evolving privacy and security challenges in computer systems. In this episode, he guides us through the difficulties of establishing effective privacy measures in a constantly changing technological environment. As online education grows, we discover significant privacy issues in this shift. Professor Shvartzshnaider shares insights on protecting our digital experiences, addressing data security and online surveillance concerns.

Listen now:





## Connect with us!

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