Professor – Canada Excellence Research Chair in Transformative and Enabling Technologies for a Technologically Advanced Economy and Society (AP25-03-59168)

Institut national de la recherche scientifique

INRS - Institut national de la recherche scientifique - Pavillon Énergie / Matériaux / Télécommunications - 1650 Boulevard Lionel-Boulet, Varennes, Québec J3X 1P7

INRS - Énergie / Matériaux / Télécommunications - 800 Rue De la Gauchetière Ouest, Montréal, Québec H5A 1J6

1 Position available Expires on: July 6, 2025

JOB DESCRIPTION

Professor – Canada Excellence Research Chair in Transformative and Enabling Technologies for a Technologically Advanced Economy and Society

Join INRS!

Institut national de la recherche scientifique (INRS) is a human-scale university-level institution dedicated to research and graduate training. Our organization, with its 700 employees, is dedicated to supporting innovation and excellence since 1969, in a dynamic and multidisciplinary work environment.

Do you want your research to make a difference? Join an institution that stands out. More than just a university: a community!

As a member of INRS Énergie Matériaux Télécommunications Research Centre, you will contribute to its unique mission of research and graduate training directed towards serving Quebec society.

Position Summary

Institut national de la recherche scientifique (INRS) is the only institution in Quebec exclusively dedicated to research and graduate education. In partnership with the community and industry, INRS is proud to contribute to society's development through its discoveries and to help train the next generation of top-tier researchers in science and engineering, social sciences, and health.

Énergie Matériaux Télécommunications (EMT) Research Centre is inviting applications from internationally recognized candidates to submit an application to the Canada Excellence Research Chairs (CERC) Program and, if the Chair is awarded, to fill a regular faculty position. The Chair will be valued at up to $500,000 or $1,000,000 per year for eight years.

If the Chair is awarded, the successful candidate will join the EMT Centre's faculty, where around 40 professors conduct research and train graduate students (master and doctorate) and postdoctoral fellows across various disciplines. The candidate's research must align with one or more axes of the Centre's Scientific Research Program (french only) and is expected to contribute to strengthening it. The six scientific axes are:

- Sustainable energy, sources and use;
- Nanomaterials and advanced manufacturing processes;
- Ultrafast science and photonics;
- Telecommunications;
- Biomedical applications;
- Numerical modeling of physical and cognitive systems.

Research and training activities in these axes benefit from numerous labs, including major infrastructure such as the Advanced Laser Light Source Laboratory (national laboratory), Micro and Nanofabrication Laboratory, the Ultrafast Ultrahigh Speed Light Manipulation Laboratory (LULMAN), which will soon be enhanced by the upcoming QUALITY infrastructure (QUantum and Artificial Intelligence Light Infrastructure for Tomorrow's sYstems), and the Advanced Imaging Infrastructure.

If the Chair is awarded, the candidate may also apply to the John R. Evans Leaders Fund from the Canada Foundation for Innovation (CFI) to establish their research lab and enhance the Centre's existing infrastructures.

Results are expected by January 2027. The selected candidate will have up to 12 months to take up their faculty and Chairholder responsibilities.

Main Roles and Responsibilities

- Develop an independent, innovative, and transformative research program for the EMT Centre.
- Collaborate with existing research teams while developing or maintaining external partnerships.
- Secure research funding from public or private sources, in accordance with *Canada's Policy on Sensitive Technology Research and Affiliations of Concern*.
- Participate in teaching and training activities, particularly as part of the EMT Centre's graduate programs.
- Supervise graduate students, postdoctoral fellows, interns, and research staff.
- Contribute to the national and international profile of INRS.

Requirements

Education

- Ph.D. in a relevant field such as physics, chemistry, physical engineering, electrical engineering, or computer engineering (this is a requirement of INRS and not of the CERC Program).

Standard Requirements

- Meet the CERC Program eligibility: "Nominees must be full professors or associate professors expected to be promoted to full professor within one or two years of the nomination. Alternatively, if they come from outside the academic sector, nominees must possess the qualifications necessary to be appointed at these levels."
- The CERC Program imposes no restrictions on nationality or country of residence: "Researchers who hold a full-time academic appointment at a Canadian institution are eligible to be nominated […] If an institution nominates a researcher who is currently at a Canadian institution, the nominating institution must demonstrate the net benefit to the country in moving the researcher from one Canadian institution to another."
- Have an outstanding record of research achievements and scientific output of international scope and tangible impacts.
- Demonstrate strong potential for collaboration and complementarity with other EMT Centre faculty members within a multidisciplinary perspective, and with other researchers in the same or related fields elsewhere in Canada and abroad.
- Demonstrate ability to supervise graduate students, postdoctoral fellows, and research staff.
- Have a proven ability to establish and sustain an equitable, diverse, and inclusive research environment (e.g., recruitment strategy, fair access to training, mentoring, and professional development).
- Have a demonstrated entrepreneurial spirit and capacity to secure research funding. Current grants/contracts will be considered an asset.
- Demonstrate excellent potential for original, productive, high-impact, and formative graduate research, demonstrate strong scientific leadership and have international recognition to apply to the 2026 CERC competition.

- Propose a research program that must align with the CERC challenge area “Technologically Advanced Canada” and demonstrate structural benefits for EMT Centre and INRS.

The working language is French. Advanced knowledge of English is essential. Candidates with limited knowledge of French are strongly encouraged to apply. The necessary resources will be made available to facilitate the successful candidate's learning.

Inclusive Environment

INRS is committed to an Equal Access Employment Program and adheres to employment equity obligations under the Federal Contractors Program. It values equity, diversity, and inclusion, and invites applications from all qualified individuals, particularly from women, members of visible minorities and ethnic minorities, Indigenous Peoples, persons with disabilities, and members of 2SLGBTQIA+ community.

Selection tools can be adapted for applicants with disabilities at any recruitment stage. For accommodation or EDI-related questions, please confidentially contact the Equity, Diversity and Inclusion Advisor, Léa Maude Gobeille Paré, at: leamaude.gobeillepare@inrs.ca.

INRS also asks selection committees to consider career interruptions or special circumstances during application reviews. Applicants are encouraged to describe how any relevant personal circumstances may have affected their research record, so that a fair assessment of their research productivity can be made.

Additional Information

Posting period: June 4, 2025 – July 6, 2025

INRS encourages candidates who meet the requirements to apply online via the “Jobs” section by **July 6, 2025**, and include:

- A brief letter of interest;
- Their complete CV;
- A copy of their three most significant publications;
- A description of their current and future research interests and the proposed CERC research program (maximum six (6) pages, references excluded);
- A summary of their teaching and mentorship experience and philosophy (maximum one (1) page);
- Contact information for three references.

Incomplete applications will not be considered.

Should additional documents need to be attached to your application, and only if they are in a format that cannot be downloaded, we invite you to send them to the following address:

Institut national de la recherche scientifique
Centre Énergie Matériaux Télécommunications
1650, boul. Lionel-Boulet
Varennes, Quebec, Canada
J3X 1P7

BENEFITS

Sécurité d'emploi

Programme d'aide aux employé.e.s et aux étudiant.e.s

Rémunération globale et conditions de travail concurrentielles

Horaire d'été et vacances annuelles avantageuses

Régime de retraite à prestation déterminée (RRUQ)

Plan complet d'assurances collectives

Job type:
Regular Position / Full-time

Work shifts:
Day

Work schedule:
35 hrs/week

Salary:
$115,644.00 - $190,911.00 CAD Yearly

Unionized:
Yes

Required documents

- **Curriculum vitæ**
- **Letter of interest**
- **Copy of their three most significant publications**
- **Description of their current and future research interests and the proposed CERC research program (maximum six (6) pages, references excluded)**
- **Summary of their teaching and mentorship experience and philosophy (maximum one (1) page)**
- **Contact information for three references**