



DEPARTMENT OF  
Mechanical and  
Materials Engineering

**Tier 2 Canada Research Chair  
in Nuclear Materials and/or Materials Degradation**

**Department of Mechanical and Materials Engineering  
Faculty of Engineering and Applied Science  
Queen's University at Kingston**

**Posted: April 24, 2023**

*Queen's University is situated on traditional Anishinaabe and Haudenosaunee Territory.*

The Department of Mechanical and Materials Engineering at Queen's University invites applications for a **faculty position at the rank of Assistant Professor (Tenure-track) or Associate Professor (Tenured) with specialization in nuclear materials and/or materials degradation**, with a preferred starting date of January 1, 2024. The successful candidate will be expected to develop a research program in the areas of materials degradation in extreme environments, for nuclear waste applications, and/or other nuclear-materials relevant problems, both for the existing CANDU fleet and for the emerging SMR systems. The position will expand the successful Nuclear Materials research effort at Queen's, which already includes 5 faculty and around 50 graduate students and postdocs. The successful candidate will submit an external nomination for a five-year term position as a Tier 2 Canada Research Chair, eligible for renewal once, to a maximum of two five-year terms as a Tier 2 Canada Research Chair.

Queen's University is committed to academic and research excellence while advancing inquiry to solve problems and promoting a more equitable, diverse and inclusive research enterprise. To fully realize this goal, we must ensure that we have diversity of perspective and experiences to boldly take on societal, cultural and environmental challenges. Queen's University has an employment equity program that meets the goals of the Canada Research Chairs program and the requirements of our collective agreement with the Faculty Association. **This appointment is open only to qualified individuals who self-identify as members of one or more of the Four Designated Groups under the Canada Research Chair program: women, Indigenous/Aboriginal peoples, persons with disabilities and racialized persons/visible minorities<sup>1</sup>.** All applicants will be invited to self-identify once they have applied; those who wish to be considered under our employment equity provisions are required to self-identify. Self-identification information will be held in confidence by the Equity Office and one member of the

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<sup>1</sup> The CRC Program currently employs the categories of the four federally designated groups (FDG) - Women, Indigenous Peoples, Persons with Disabilities, and Members of Visible Minorities - to monitor progress towards meeting equity goals. Queen's has an under-representation across the FDG's among Canada Research Chairholders. The Tri-Agency Institutional Programs Secretariat (TIPS) has established targets for CRC representation, with staggered deadlines for meeting targets between the period of 2020 to 2029.

selection committee. Shortlisted candidates who self-identify as Indigenous will be asked to verify their identity in accordance with the [Hiring of Indigenous Specific Positions - Interim Policy](#) prior to being invited to interview. All qualified candidates are encouraged to apply; however, in accordance with Canadian Immigration requirements, Canadian citizens and Permanent Residents of Canada will be given priority.

Prior to May 1, 2022, the University required all students, faculty, staff, and visitors (including contractors) to declare their COVID-19 vaccination status and provide proof that they were fully vaccinated or had an approved accommodation to engage in in-person University activities. These requirements were suspended effective May 1, 2022, but the University may reinstate them at any point.

Canada Research Chairs were established as part of a national strategy to foster research excellence ([www.chairs-chaire.gc.ca](http://www.chairs-chaire.gc.ca)). The successful candidate must submit an external application to the Tri-agency Institutional Program Secretariat that meets the requirements for the successful nomination of Tier 2 Chair as defined by the Canada Research Chairs Program:

- be an excellent emerging world-class researcher who has demonstrated particular research creativity;
- have demonstrated the potential to achieve international recognition in their field in the next five to ten years;
- have the potential to attract, develop and retain excellent trainees, students and future researchers; and
- be proposing an original, innovative research program of high quality.

Candidates more than 10 years from their highest degree at the time of nomination may have their eligibility for a Tier 2 Chair assessed through the program's Tier 2 justification process. Acceptable justifications are generally limited to breaks in the candidate's research career due to maternity or parental leave, extended sick leave, clinical training, and family care. Please contact [research@queensu.ca](mailto:research@queensu.ca) if you desire more information on the Tier 2 justification process. In addition, the impact of certain circumstances (including but not limited to parental leave, family responsibilities, illness, disability, research in emerging fields, limited access to resources) that may legitimately affect a nominee's record of research achievement will be given careful consideration when assessing the nominee's research productivity. Candidates are encouraged to provide any relevant information about their experience and/or career interruptions to allow for a fair assessment of their application.

### **Your Career with Queen's Engineering**

Among our top priorities in the Faculty of Engineering and Applied Science is providing opportunities for early career academics to develop distinguished research and exceptional teaching contributions while fostering an environment where all faculty can thrive. To promote ongoing success, there is support for course development and delivery that is provided by the Department, the Queen's Centre for Teaching and Learning, and the Faculty of Engineering and Applied Science. Faculty have access to a range of educational technologies including industry-leading instructional design support offered through the [Engineering Teaching and Learning Team](#). Support for faculty to develop strong research programs includes Special Research Grant

opportunities, grant writing workshops and review services, and one-to-one mentorship from experienced colleagues. Queen's Engineering is also committed to increasing the proportion of women in engineering, supported by the recent establishment of [a Chair for Women in Engineering](#).

The Department of Mechanical and Materials Engineering is comprised of approximately 30 faculty members, 600 undergraduate students, 150 graduate students, and it currently holds the inaugural Chair for Women in Engineering, Dr. Heidi Ploeg. Research in the Department is supported by four research chairs: a Tier 1 CRC in Mechanics of Materials, an NSERC Industrial Research Chair in Nuclear Materials, a University Network of Excellence in Nuclear Engineering (UNENE) Research Chair in Corrosion Control and Materials Performance, and a Tier 1 CRC in Computational Turbulence. The Department also boasts a number of world-class experimental research facilities, including the Reactor Materials Testing Laboratory ([RMTL](#)) and the Optical Towing Tank for Energetics Research Laboratory ([OTTER Lab](#)). More details about the Department can be found at [me.queensu.ca](#).

**Criteria:**

Candidates must have a PhD or equivalent degree in Mechanical Engineering, or a related discipline, completed at the start date of the appointment.

The main criteria for selection are:

- demonstrated excellence in research, including a strong publication record commensurate with years since PhD obtained;
- expertise that complements existing research areas in the department;
- a high potential for excellence in teaching at both the undergraduate and graduate levels, and an ongoing commitment to academic and pedagogical excellence in support of the department's programs;
- evidence of an ability to work collaboratively in an interdisciplinary and student-centred environment;
- Professional engineering licensure in Canada, or the eligibility to obtain licensure, is a requirement. Note that all forms of engineering licensure in Canada are considered acceptable (e.g., P.Eng., temporary engineering license, provisional engineering license, etc.); and
- evidence of high-quality scholarly output that demonstrates potential for independent research leading to peer assessed publications and a comprehensive strategy and/or demonstrated ability to attract and retain external research funding.

The successful candidate will be required to make contributions through service to the department, the Faculty, the University, and/or the broader community. Salary will be commensurate with qualifications and experience.

**Queen's University Commitment to Equity, Diversity and Inclusion**

Queen's University is committed to excellence in research and research training for the benefit of Canadians and to achieving a more equitable, diverse and inclusive Canadian research enterprise. Within the Faculty of Engineering and Applied Science, innovation thrives with new perspectives and experiences, and the diversity of our workforce enhances our research and

teaching excellence. People from across Canada and around the world come to learn, teach and carry out research at Queen's University. With foundational values of collaboration, respect and diversity, we are committed to embracing an inclusive environment and supporting each member of our community to reach their fullest potential. Ranking 1<sup>st</sup> in Canada and 5<sup>th</sup> in the World in the 2021 Times Higher Education Impact Rankings, Queen's is committed to advancing the United Nations Sustainable Development Goals. We encourage those who share our commitments to diversity and inclusion to join our Faculty.

The University is situated on the traditional territories of the Haudenosaunee and Anishinaabe, in historic Kingston on the shores of Lake Ontario. Kingston's residents enjoy an outstanding quality of life with a wide range of cultural, recreational, and creative opportunities. Visit [Inclusive Queen's](#) for information on equity, diversity and inclusion resources and initiatives.

Faculty and their dependents are eligible for an extensive benefits package including prescription drug coverage, vision care, dental care, long term disability insurance, life insurance and access to the Employee and Family Assistance Program. You will also participate in a pension plan. Tuition assistance is available for qualifying employees, their spouses and dependent children. Queen's values families and is pleased to provide a 'top up' to government parental leave benefits for eligible employees on maternity/parental leave. In addition, Queen's provides partial reimbursement for eligible daycare expenses for employees with dependent children in daycare. Details are set out in the Queen's-QUFA Collective Agreement. For more information on employee benefits, see [Queen's Human Resources](#).

Additional information about Queen's University can be found on the [Faculty Recruitment and Support](#) website.

To comply with federal laws, the University is obliged to gather statistical information as to how many applicants for each job vacancy are Canadian citizens / permanent residents of Canada. Applicants need not identify their country of origin or citizenship; however, all applications must include one of the following statements: "I am a Canadian citizen / permanent resident of Canada"; OR, "I am not a Canadian citizen / permanent resident of Canada". Applications that do not include this information will be deemed incomplete.

In addition, the impact of certain circumstances that may legitimately affect a nominee's record of research achievement will be given careful consideration when assessing the nominee's research productivity. Candidates are encouraged to provide any relevant information about their experience and/or career interruptions.

**A complete application consists of:**

- a cover letter (including one of the two statements regarding Canadian citizenship / permanent resident status specified in the previous paragraph);
- a current Curriculum Vitae that includes a comprehensive list of publications (with supervised students on publications clearly identified), awards, and grants received;
- a statement of research interests and achievements;
- a statement of teaching interests and experience (including teaching outlines and evaluations if available);
- a statement identifying their strengths and experiences with respect to increasing equity, diversity, and inclusion in their institutional environment; and,
- The names and contact information of three references.

Applications will begin to be reviewed on May 31, 2023, and will continue to be received until the position is filled. Applicants are encouraged to send all documents in their application packages electronically as PDFs to the Mechanical and Materials Engineering (MME) Administrative Assistant at [mmeadmin@queensu.ca](mailto:mmeadmin@queensu.ca) although hard copy applications may be submitted to:

Dr. Keith Pilkey  
Professor and Head  
Department of Mechanical and Materials Engineering  
Room 201, McLaughlin Hall  
130 Stuart Street  
Queen's University  
Kingston, Ontario  
CANADA K7L 3N6

The University will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant's accessibility needs. If you require accommodation during the interview process, please contact the MME Administrative Assistant at [mmeadmin@queensu.ca](mailto:mmeadmin@queensu.ca).

Academic staff at Queen's University are governed by a [Collective Agreement](#) between the University and the [Queen's University Faculty Association \(QUFA\)](#), which is posted at [Collective Agreements / LoU's / MoA's | Faculty Relations Office \(queensu.ca\)](#) and at <http://www.qufa.ca>.

Appointments are subject to review and final approval by the Provost. Only nominees external to Queen's University will be considered. (Please note that, for the purposes of this competition, Queen's Term Adjuncts and Adjunct-1s will be considered as external nominees).