



**Tenure-Track Faculty Position in Biomechanical Engineering with a
specialization in Human Motion Analysis**
Department of Mechanical and Materials Engineering
Stephen J.R. Smith Faculty of Engineering and Applied Science
Queen's University at Kingston, Canada

February 2026

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

The Department of Mechanical and Materials Engineering in the Stephen J.R. Smith Faculty of Engineering and Applied Science at Queen's University invites applications for a tenure-track faculty position at the rank of Assistant Professor in Biomechanical Engineering with specialization in Human Motion Analysis, with a preferred starting date of July 1, 2026 or January 1, 2027. This posting is to fill an existing vacancy within the University.

Qualifications

Candidates must have a Ph.D. degree in Mechanical Engineering, Biomechanical Engineering, Biomedical Engineering, or a related discipline, completed at the start date of the appointment. The successful applicant is expected to have domain expertise in human motion analysis and musculoskeletal (MSK) biomechanics with clinically relevant investigations of the upper and/or lower extremities, using experimental and/or computational approaches with modalities such as motion capture and dynamic imaging (e.g., markerless/marker-based systems, wearable sensing, electromyography, biplanar videoradiography, computed tomography, magnetic resonance imaging). They will be able to leverage Queen's existing motion-analysis and imaging platforms housed at the [Human Mobility Research Laboratory](#) and the [Skeletal Observation Laboratory](#) to advance translational MSK biomechanics research, with programs aligned to Canadian tri-agency priorities (CIHR, NSERC).

The main criteria for selection are academic and teaching excellence, including:

- evidence of high-quality scholarly output that demonstrates potential for independent research leading to peer assessed publications and the securing of external research funding;
- strong potential for outstanding teaching contributions at both the undergraduate and graduate levels;



- demonstrate 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.).

The successful candidate will also be expected to make contributions through service to the department, the Faculty, the University, and/or the broader community. The annual salary for this appointment is expected to be between \$150,000 and \$180,000 (CAD). Actual Salary will be commensurate with qualifications and experience.

As part of the application process at Queen's University, our recruitment system uses Artificial Intelligence (AI), as defined under the Ontario Employment Standards Act, to ask job-related questions and confirm eligibility for hire. All final hiring decisions are made using non-AI related processes.

Vaccination Requirements

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.

The Faculty and Department

As one of Canada's leading research-intensive universities, Queen's University is focused on being the quality leader in Canadian higher education and is dedicated to promoting research and scholarship of national and international distinction. The Department of Mechanical and Materials Engineering is comprised of approximately 30 faculty members, 700 undergraduate students and 200 graduate students. Research excellence in the Department is supported by five research chairs: a Canada Excellence Research Chair (CERC) in Impact of Radiation in Energy and Advanced Technologies, a Tier 1 Canada Research Chair (CRC) in Mechanics of Materials, a Tier 1 CRC in Cell Mechanics and Mechanobiology, a University Network of Excellence in Nuclear Engineering (UNENE) Research Chair in Nuclear Materials, and a UNENE Research Chair in Corrosion Control and Materials Performance. The Department houses a number of world-class experimental research facilities, including the Optical Towing Tank for Energetics Research Laboratory (OTTER Lab) and the Reactor Materials Testing Laboratory (RMTL), along with strong ties to Ingenuity Labs and the Kingston Health Sciences Centre



(KHSC). The Department is also home to the [Chair for Women in Engineering](#). More details about the Department can be found [here](#).

Within the broader biomedical engineering ecosystem, the Department offers substantial capacity across mechanobiology, rehabilitation engineering, wearable/robotic systems, and tissue engineering. For human motion and musculoskeletal biomechanics specifically, candidates will find outstanding infrastructure in the [Human Mobility Research Lab](#) and the [Skeletal Observation Lab](#). These labs are housed in Hotel Dieu Hospital – Kingston's ambulatory patient care centre. The labs contain integrated platforms for motion capture and dynamic imaging (e.g., markerless/marker-based systems, electromyography, wearable sensing, force plates, instrumented treadmills, biplanar videoradiography, computed tomography). The labs have embedded access to clinicians and clinical populations through KHSC. These capabilities sit alongside motor control facilities within the Centre for Neuroscience, enabling cross-disciplinary studies that span neuromotor control and in vivo joint mechanics. This environment is strengthened by major research chair appointments and sustained Canadian Foundation of Innovation (CFI) and Canadian tri-agency (CIHR, NSERC) investment in support of high-impact, collaborative research and training.

Our rapidly changing world presents unprecedented opportunities and significant challenges. Smith Engineering is changing the face of engineering education, so future engineers can be leaders in the face of complex and multidisciplinary global issues. This new model of engineering education will be technically rigorous, experientially focused, socially conscious and creatively inspired. It will ensure graduates have the knowledge and tools to not only create our technology and processes but to guide their evolution, and how they integrate with society and the world. To promote on-going teaching success, there is support for course development and delivery provided by the [Engineering Teaching and Learning Team](#), the [Queen's Centre for Teaching and Learning](#), the Department, and Smith Engineering.

Smith Engineering delivers 10 undergraduate programs to over 3000 undergraduate students, and 5 graduate programs to over 500 graduate students. The Faculty is well known for its record of leadership in interdisciplinary engineering education, including being one of the first engineering schools in Canada to establish an Integrated Learning Centre, significant community service learning modules in First-Year instruction, an interdisciplinary "design spine" coordinated across all undergraduate programs in the Faculty, and a course in Technology Engineering and Management that draws students from engineering, business, arts and science, and law.

Among our top priorities in Smith Engineering is providing opportunities for early career academics to develop exceptional research and teaching contributions while fostering an inclusive environment where all faculty can thrive. 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.

Smith Engineering understands that we need to focus on making [Engineering for Everyone](#) and is working toward a more diverse and inclusive community in an effort to make our learning and working environment better, and to advance the practice of engineering. The Faculty strives to make a difference through commitments such as the establishment of a [Chair for Women in Engineering](#) to improve the proportional representation of women in engineering, the new [Engineering Strategic Plan](#), the dynamic outreach programs including [Indigenous Futures in Engineering](#) and [Black Youth in STEM](#). Visit [Inclusive Queen's](#) for more information on equity, diversity and inclusion resources and initiatives.

Institution

[Queen's University](#) has a long history of scholarship, discovery, and innovation that shapes our collective knowledge and helps address some of the world's most pressing concerns. Home to more than 25,000 students, Queen's offers a comprehensive research-intensive environment. Diverse perspectives and a wealth of experience enrich our students and faculty while a core part of our mission is to engage in international learning and research.

Queen's is in the top 200 of the QS World University Rankings. In 2025, for the fifth straight year, Queen's ranked among the global top 10 in the Times Higher Education (THE) Impact Rankings. THE Impact Rankings, an international ranking of universities that are advancing the UN Sustainable Development Goals within and beyond their local communities. Queen's placed sixth worldwide and first in Canada out of over 2,300 universities in more than 120 countries.

From Nobel Prize-winning research exploring the building blocks of the universe to cancer care and treatment to sustainable technologies, our university is tackling humanity's most pressing challenges.

A member of the U15 group of Canadian research universities, Queen's is home to a vibrant research community that includes 46 Canada Research Chairs, two Canada Excellence Research Chairs, and over 20 research institutes who work in partnership with communities, governments, and industry to advance research and innovation, making a measured impact on Canada and the world.

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. Employees 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](#).

The City

The University is situated on the traditional territories of the Haudenosaunee and Anishinaabe, in historic Kingston on the shores of Lake Ontario. Queen's is an integral part of the Kingston community, with the campus nestled in the core of the city, only a 10-minute walk to downtown. Kingston's residents enjoy an outstanding quality of life with a wide range of cultural and creative opportunities, with access to many natural areas and proximity to vibrant First Nations Communities including Tyendinaga and Akwesasne. Kingston is a unique Canadian city of 125,000 with a distinct blend of history, recreation, industry, and learning. Kingston offers unique waterfront living with many recreational opportunities. It is within a two-and-a-half hour drive (two-hour train ride) to the commercial, industrial and political hubs of Toronto, Montreal, and the nation's capital, Ottawa, and a thirty minute drive from the international bridge linking Ontario and upstate New York. The city is also the origin of the historic Rideau Canal system – a UNESCO International Heritage site, and is close to Frontenac Provincial Park, the Thousand Islands National Park, and the Frontenac Arch UNESCO World Biosphere Reserve. The [Queen's University Biological Station](#), north of the city, encompasses 34 km² of diverse lands, affording premier learning and research opportunities. Visit [Inclusive Queen's](#) for information on equity, diversity and inclusion resources and initiatives.

How to Apply

The University invites applications from all qualified individuals. Queen's is strongly committed to employment equity, diversity and inclusion in the workplace and encourages applications from Black, racialized/visible minority and Indigenous people, women, persons with disabilities, and 2SLGBTQ+ persons. In accordance with Canadian immigration requirements, Canadian citizens and permanent residents of Canada will be given priority, including any qualified individuals who have a valid legal work status in Canada. Please indicate in your application if you have a valid legal work status in Canada. Applications from all qualified candidates will be considered in the applicant pool.

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.



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 in the Department of Mechanical and Materials Engineering at mmeadmin@queensu.ca.

Those interested in this position should submit a complete application package, including the following documents:

- a cover letter, indicating whether or not you have a valid legal work status in Canada
- a current Curriculum Vitae (including a list of publications);
- a statement of research interests;
- a statement of teaching interests and experience (including teaching outlines and evaluations if available); and,
- a statement of experience with, and commitment to, facilitation and promotion of Indigenization, equity, diversity, inclusion, anti-racism, and accessibility; and,
- names and contact information of three referees.

The deadline for applications is **March 31, 2026**. Applicants are encouraged to apply and upload all documents in their application packages electronically as PDFs on the following website: <https://apply.smithengineering.queensu.ca/123959>.

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 <http://queensu.ca/facultyrelations/faculty-librarians-and-archivists/collective-agreement> and at <http://www.qufa.ca>.