Joint Appointment Engineering Mathematics in the Stephen J.R. Smith Faculty of Engineering and Applied Science and Faculty of Arts and Science at Queen's University December 2023

Building on a history of interdisciplinary engineering education, the Stephen J.R. Smith Faculty of Engineering and Applied Science and the Faculty of Arts and Science at Queen's University invite applications for a **tenure-track teaching-focused faculty position at the rank of Assistant Professor with specialization in Mathematics and Engineering.** The preferred start date for the appointment is July 1, 2024.

<u>Qualifications</u>: The successful candidate must have a Ph.D. in Applied Mathematics, Engineering, or a related discipline by the start date of the appointment. Professional engineering licensure in Canada, or the eligibility to obtain licensure, is also a requirement. Note that all forms of engineering licensure in Canada from any province are considered acceptable (e.g., P.Eng., limited engineering license, etc).

The main criteria for selection are:

- Outstanding teaching contributions at both the undergraduate and graduate levels, and an ongoing commitment to academic and pedagogical excellence. Teaching will make up approximately 70% of the position;
- Demonstrated excellence in research, including a strong publication record commensurate with years since obtaining a PhD and expertise that complements existing research areas in Engineering Mathematics in the Department of Mathematics and Statistics and in Smith Engineering;
- Evidence of an ability to work collaboratively in an interdisciplinary and student-centred environment;
- Strong potential for innovation and curriculum development in an interdisciplinary context;
- The ability to collaborate with faculty working in engineering education and/or engineering design in a variety of engineering disciplines will be considered an asset.
- A continuing commitment to high quality scholarly work including supervising undergraduate and graduate research students;
- Evidence of high-quality scholarly output that demonstrates potential for independent research. Ability to secure external research funding is also an asset.
- The successful candidate will be expected to provide effective service contributions to the Faculties, University, and broader community.

Given the interdisciplinary engineering and mathematics focus of this position, the appointment will be held jointly between the Department of Mathematics and Statistics in the Faculty of Arts and Science and one of the Departments of Chemical Engineering, Electrical and Computer Engineering, or Mechanical and Materials Engineering within Smith Engineering. Identification of the home department within Smith Engineering will be based on the experience and background of the successful candidate. The successful candidate will also be expected to provide effective service contributions to the Faculty, University, and broader community.

Salary will be commensurate with qualifications and experience.

Mathematics and Engineering at Queen's

Queen's University is one of Canada's leading research-intensive universities. We are focused on being the quality leader in Canadian higher education and are dedicated to promoting research and scholarship of national and international distinction.

The Queen's Mathematics and Engineering (MTHE) program is more than 50 years old and provides a unique blend of engineering and mathematics. It has a reputation both in academia and industry for producing outstanding graduates and has been fully accredited by the Canadian Engineering Accreditation Board (CEAB) since 1974. It offers options in Applied Mechanics, Computing and Communications, and Systems and Robotics. Its strength derives from it being an interdisciplinary collaboration between the Department of Mathematics and Statistics in the Faculty of Arts and Science and Smith Engineering.

The Department of Mathematics and Statistics is housed within the Faculty of Arts and Science at Queen's University. It offers an excellent environment for research and teaching with very high standards and a collaborative environment. It currently has Engineering research foci in Control Theory, Fluid Mechanics, Information and Communication Theory, Machine Learning, and Data Analytics. For more information about the Mathematics and Engineering Program, please see https://www.queensu.ca/mathstat/mthe.

More broadly the Faculty of Arts and Science makes up over half of Queen's University and is home to more than 30 departments and units. It has approximately 450 faculty members and more than 10,000 full-time undergraduate and graduate students. It is home to the Department of Mathematics and Statistics, as well as two other departments that offer engineering science programs, including the Department of Geological Sciences and Geological Engineering and the Department of Physics, Engineering Physics, and Astronomy.

The Stephen J.R. Smith Faculty of Engineering and Applied Science delivers 10 undergraduate programs with over 3000 undergraduate students, and 5 graduate programs with 500 graduate students. Smith Engineering 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 the Technology Engineering and Management course in Chemical Engineering which draws students from engineering, business, arts and science, and law.

Among our top priorities in <u>Smith Engineering</u> is providing opportunities for early career academics to develop exceptional research and teaching contributions while fostering an inclusive environment where all faculty can thrive. To promote on-going teaching success, there is support for course development and delivery provided by <u>the Queen's Centre for Teaching and Learning</u> and the <u>Engineering Teaching and Learning Team</u>. Smith Engineering understands that we need to focus on making <u>Engineering for Everyone</u> 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 <u>a Chair for Women in Engineering</u> to improve the proportional representation of women in engineering, the new <u>Engineering Strategic Plan</u>, the dynamic outreach programs including <u>Indigenous Futures in Engineering</u> and <u>Black Youth in STEM</u>.

Queen's University

<u>Queen's University</u> 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.

In 2023, for the third year in a row, Queen's University has <u>ranked in top 10 globally Times</u> <u>Higher Education Impact Rankings</u>, securing the position of third worldwide and first in North America. The rankings measured over 1,700 post-secondary institutions on their work to advance the United Nations' Sustainable Development Goals (SDGs).

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 33 Canada 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 <u>Queen's Human Resources</u>.

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 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 <u>Queen's University Biological Station</u>, north of the city, encompasses 34 km² of diverse lands, affording premier learning and research opportunities.

Application Process

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. Visit Inclusive Queen's for information on equity, diversity and inclusion resources and initiatives. 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. Applications from all qualified candidates will be considered in the applicant pool. In order to support your employment at Queen's, we require you to indicate whether or not you will need a work permit.

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, indicating whether or not you will require a work permit and/or require support with an extension of your work permit in the future;
- a current Curriculum Vitae (including a list of publications);
- a statement of teaching interests and experience (including teaching outlines and evaluations if available);
- a statement of commitment to as well as ideas and any experience on how to ensure equity, diversity, and inclusivity in scholarly activities;
- a statement of research interests; and
- letters from four referees, at least one of which must address teaching.

Application materials should be submitted through <u>Mathjobs.org</u>. Recommendation letters may be uploaded directly on <u>Mathjobs.org</u>, sent by e-mail to <u>mathjobs@queensu.ca</u>, or mailed to:

Department of Mathematics and Statistics Jeffery Hall 48 University Ave Kingston, ON K7L 3N6 Canada

In order to ensure full consideration, complete applications should be received by February 10, 2024.

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 <u>mathjobs@queensu.ca</u>.

Academic staff at Queen's University are governed by a <u>Collective Agreement</u> between the University and the <u>Queen's University Faculty Association (QUFA)</u>, which is posted at <u>https://qufa.ca/collective-agreement</u> and at <u>http://www.qufa.ca</u>.