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Downloaded On: Jul. 2, 2024 11:51pm Posted Jul. 1, 2024, set to expire Sep. 30, 2024

Job Title Two Tenure-Track Assistant Professor Positions in

Aerospace Engineering

Department Department of Mechanical and Manufacturing

Engineering

https://schulich.ucalgary.ca/mechanical-

manufacturing

Institution University of Calgary

Calgary, Alberta

Date Posted Jul. 1, 2024

Application Deadline Sep. 30, 2024

Position Start Date negotiable

Job Categories Assistant Professor

Academic Field(s) Mechanical Engineering

Aerospace/Aeronautical/Astronautics

Job Website https://careers.ucalgary.ca

Apply By Email

Job Description

The **Department of Mechanical and Manufacturing Engineering** at the **University of Calgary** is pleased to invite applications for two **tenure-track** positions in Aerospace Engineering at the rank of **Assistant Professor**. The anticipated start date is **July 1, 2025 or a mutually agreed upon date**.

The first position has a focus in <u>Flight Dynamics and Control for Aerospace Engineering</u>. Areas of expertise include but are not limited to: novel control algorithms for aircraft and rockets, flight dynamics, avionics, guidance and navigation, trajectory optimization, sensor fusion, aerospace



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systems design and simulation, multi-physics and reduced order modeling for aerospace and autonomous systems. The ideal candidate will possess a strong foundation in controls and avionics coupled with a deep understanding of aerospace engineering principles.

The second position specializes in <u>Data Science for Aerospace Engineering</u>, particularly related to the development and application of computation, data-driven and evidence-based approaches in connection with current and emerging areas in aerospace and mechanical engineering. The ideal candidate will possess a strong foundation in machine learning (ML) and artificial intelligence (AI) methods, data analysis, big data analytics, and statistical modeling, coupled with a deep understanding of aerospace engineering principles. Possible areas of application include but are not limited to: aerospace design optimization, flight data analysis, digital twins, reduced order modelling, predictive maintenance, quality control, data fusion, and sensor data processing.

The successful candidate is expected to be an emerging leader with an original, creative, and promising research program, with demonstrated excellence in intellectual endeavors. This will be evidenced by scholarly output and research impact that demonstrates the potential for an independent and internationally recognized research program leading to high-quality publications, external research funding, local and international collaboration, and an excellent training environment for graduate students and research personnel.

To be eligible for consideration, candidates must hold a Doctoral degree in Mechanical or Aerospace Engineering or a closely related discipline by the start date or shortly after. Relevant industrial and teaching experience and evidence of transdisciplinary research in related areas are considered a major asset. Candidates are expected to have strong oral and written English communication skills. All candidates must be eligible for registration as a professional engineer with the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

The successful candidate will have a demonstrated ability to develop and teach a range of undergraduate and graduate courses in aerospace engineering as well as fundamental courses in general engineering and mechanical engineering, passionate about teaching and supporting student success, mentoring undergraduate and graduate students, and postdoctoral scholars, building collaborations with other researchers in the department, other departments, and faculties across campus, including the faculty members from the <u>University of Calgary Aerospace Network (UCAN)</u>. As a faculty member, you will benefit from a rich ecosystem that includes world-class research and teaching scholars, a focus on both fundamental and applied research as well as entrepreneurship, and a university community that supports inclusive excellence and transdisciplinary partnerships and collaborations. You will contribute to advancing the University's priorities in the context of the University's strategic plan <u>Ahead of Tomorrow</u>, the <u>ii'taa'poh'to'p</u> Indigenous Strategy, the <u>Institutional Sustainability Strategy</u>



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, and the Schulich School of Engineering's Strategic Plan <u>Schulich Momentum</u>. You will provide service within and outside of the Department, contribute to achieving equitable, diverse, inclusive, and accessible (EDIA) workplace and learning environments; and add to the diversity of the collegial and vibrant academic community.

Application Instructions:

Interested candidates are encouraged to apply online via the UCalgary Careers site. Please be aware that the application website allows for only **four attachments**. Your four application attachments should be organized to contain the following (which may require you to merge documents):

- Cover letter and Curriculum Vitae, including the name and contact information of three referees
- Statement of EDIA experience, contribution, and leadership plan (up to 2 pages).
 - This should include approaches that will be taken to incorporate EDIA in research and scholarship activities, as well as in teaching and learning activities inside and outside the classroom. It could also include approaches to working with students with diverse background. Past contributions to EDIA may also be described.
- Statement of research interests, accomplishments, and vision (up to 2 pages) and one of your research manuscripts (published or under preparation), all combined into one document
- Statement of teaching philosophy (up to 2 pages).
 - This can include information on teaching experience, training, and mentoring inside and outside the classroom at the undergraduate, graduate, and postdoctoral levels.

Your statements on EDIA, research, and teaching are equally important when assessing your application. Applications exceeding the page limit per statement will be disregarded.

Application Deadline: September 30, 2024

Questions may be addressed to:

Dr. Qiao Sun

Head, Department of Mechanical and Manufacturing Engineering

Email: qsun@ucalgary.ca



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EEO/AA Policy

The University of Calgary recognizes that candidates have varying career paths and that career interruptions can be part of an excellent academic record. Candidates are encouraged but not required to provide any relevant information about their experience and/or career interruptions to allow for a fair assessment of their application. Selection committees have been instructed to give careful consideration to, and be sensitive to the impact of career interruptions, when assessing the candidate's research productivity.

Schulich School of Engineering

The Department of Mechanical and Manufacturing Engineering, part of the Schulich School of Engineering, is home to 44 full-time faculty and over 800 undergraduate and 360 graduate students. Our academic offers include undergraduate (BSc) and graduate (MSc, PhD, MEng) programs in mechanical engineering, along with minors in aerospace, mechatronics, manufacturing, biomedical, digital, energy and environment engineering, and graduate certificates. Aligned with the Schulich Momentum strategic plan, the Schulich School of Engineering continues to pursue its vision of global recognition for research impact and innovation, inclusivity in engineering, contributions towards Truth and Reconciliation, and enriching student success and experience.

The University of Calgary has launched an institution-wide Indigenous Strategy committing to creating a rich, vibrant, and culturally competent campus that welcomes and supports Indigenous Peoples, encourages Indigenous community partnerships, is inclusive of Indigenous perspectives in all that we do.

As an equitable and inclusive employer, the University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their academic and professional success while they are here. In particular, we encourage members of the designated groups (women, Indigenous peoples, persons with disabilities, members of visible/racialized minorities, and diverse sexual orientation and gender identities) to apply. To ensure a fair and equitable assessment, we offer accommodation at any stage during the recruitment process to applicants with disabilities. Questions regarding [diversity] EDI at UCalgary can be sent to the https://www.ucalgary.ca/equity-diversity-inclusion and requests for accommodations can be sent to Human Resources (hrhire@ucalgary.ca).

All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. In this connection, at the time of your application, please answer the following question:



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Are you a Canadian citizen or a permanent resident of Canada? (Yes/No)

To learn more about academic opportunities at the University of Calgary and all we have to offer, view our <u>Academic Careers website</u>. For more information visit **Careers in the Schulich School of Engineering**.

The University strongly recommends all faculty and staff are fully vaccinated against COVID-19.

About the University of Calgary

UCalgary is Canada's entrepreneurial university, located in Canada's most enterprising city. It is a top research university and one of the highest-ranked universities of its age. Founded in 1966, its 36,000 students experience an innovative learning environment, made rich by research, hands-on experiences and entrepreneurial thinking. It is Canada's leader in the creation of start-ups. Start something today at the University of Calgary. For more information, visit ucalgary.ca.

About Calgary, Alberta

Calgary is one of the world's cleanest cities and has been named one of the world's most livable cities for years. Calgary is a city of leaders - in business, community, philanthropy and volunteerism. Calgarians benefit from a growing number of world-class dining and cultural events and enjoy more days of sunshine per year than any other major Canadian city. Calgary is less than an hour's drive from the majestic Rocky Mountains and boasts the most extensive urban pathway and bikeway network in North America.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Qiao Sun

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