

Graduate Research Assistant Positions on *Development of Micro-Gravimeters*

Simon Fraser University, British Columbia, Canada

Introduction: The Intelligent Sensing Laboratory (ISL: <http://sense.fas.sfu.ca/>) at Simon Fraser University, BC, Canada, has an opening for a post-doctoral research associate to join our team. We have a vibrant research team that develops advanced materials, micro- and nano-devices, sensor systems, and signal-processing algorithms for sensors. As a team member, the successful applicant will work to develop highly sensitive MEMS gravimeter systems. ISL houses a wide array of microsystem characterization equipment. The group utilizes two cleanrooms at SFU, with world-class facilities for micro- and nanofabrication and characterization. We are inviting technically strong and motivated candidates to join our team and design, fabricate, and characterize devices, systems, and methods for compact micromachined gravimeter systems.

Qualifications: Candidates must be motivated, self-starting individuals who will join our team of researchers and engineers to collaborate on various aspects of our projects. The candidate must be a hands-on experimentalist with an in-depth understanding of micromechanical devices and sensors, their interface electronics, and their characterization. The candidate will be involved in all aspects of the project, spanning the design, modelling, fabrication, integration, and testing of devices, as well as the development of characterization protocols, documentation of results, and interactions with industrial partners. While the majority of the experimental work will focus on the design and characterization of devices, the successful candidate is expected to spend a portion of their time in the cleanroom fabricating and characterizing devices. The successful candidates must possess excellent time management skills to work effectively as a team. All team members are expected to assist each other and share their experimental methods within the group without restriction.

What we offer: The positions are funded at competitive rates. The successful applicants will work within a vibrant research team and will be exposed to several other projects, providing numerous opportunities for learning and contributions at different levels. Our past team members have moved on to academic and industrial positions at leading Canadian and international institutions.

How to apply: The intended start date for the position is Summer 2026, but earlier start dates may be considered. Further information, including required documents and contact methods, is published at <https://sense.fas.sfu.ca/opportunities.html>.

Review of applications will begin on January 15, 2026 and continue until the positions are filled. Qualified applicants will be contacted directly to arrange technical interviews. Candidates must be able to complete the SFU graduate application process as quickly as possible. The initial appointment is for two years and will be renewed subject to satisfactory performance and availability of funds. We encourage members of underrepresented groups in science and engineering to apply to these positions.

Priority will be given to candidates who are citizens, permanent residents, or valid study-permit holders of Canada.

Required qualifications:

- Academic excellence and surpassing the University and School admission requirements;
- BSc and/or MSc degrees in Electrical/Mechanical Engineering, Physics, or a related field;
- Demonstrated experience in a subset of the following areas:
 - MEMS design and fabrication
 - CAD tools for MEMS design and fabrication
 - CAD tools for circuit simulation and PCB design
 - Experimental characterization of MEMS/electronics
 - Interface circuit design and understanding trade-offs between noise, sensitivity, dynamic range, and power consumption
 - Sensor signal processing
- Ability to work in the lab, cleanroom, and the field;
- Ability to work independently as well as collaboratively with others;
- Excellent communication skills (oral and written).

Additional information:

Intelligent Sensing Laboratory:

<https://sense.fas.sfu.ca/>

SFU 4D LABS cleanroom facility

<https://www.4dlabs.ca/>

Simon Fraser University admission requirements:

<https://www.sfu.ca/gradstudies/apply/applying/requirements.html>

School of Mechatronic Systems Engineering requirements for graduate studies:

<https://www.sfu.ca/mechatronics/current-students/graduate-students/academic-programs/doctor-of-philosophy.html>

Equity, Diversity, and Inclusion at SFU:

<https://www.sfu.ca/edi.html>