

Post-Doctoral Research Associate Position on *Fabrication and Design of Wideband Accelerometers* Simon Fraser University, British Columbia, Canada

We have an opening for a post-doctoral research associate to work on the development of highly sensitive, wideband accelerometers at the Integrated Multi-Transducer Systems Laboratory (IMuTS Lab: <http://imuts.ensc.sfu.ca/>) at Simon Fraser University, BC, Canada. IMuTS Lab houses a wide array of MEMS characterisation equipment. We have access to two cleanrooms at SFU that house world-class facilities for micro/nano-fabrication and characterization.

We are seeking a motivated, self-starter individual to work as part of our team towards the design, fabrication, and testing of highly-sensitive, wideband silicon micro-accelerometers. The successful candidate will work within a team of researchers and engineers from academia and industry that collaborate on different aspects of this project. The candidate will be involved in different aspects of this project, but the main responsibilities will lie along microfabrication and testing of the devices. The post also involves administrative responsibilities such as writing quarterly reports and coordinating the delivery of project milestones. As a senior member of the group, the candidate is expected to take part in the training of the junior team members and publication of the research results. The candidate must be a hands-on experimentalist with in-depth understanding of MEMS inertial sensors.

The position is available immediately until filled. The initial appointment is for one year. Additional employment may be available after the first year subject to the satisfactory performance and availability of funds.

Interested individuals should forward a complete CV, including the relevant microfabrication expertise, list of publications, and names of three references to Dr Behraad Bahreyni (bba19@sfu.ca or +1-778-782 8694).

Common duties:

- Develop and characterise microfabrication processes;
- Aid in design of devices and provide feedback based on measurements and simulations;
- Contribute to project administration and writing of technical reports;
- Work together with other team members comprising post-graduate students, post-doctoral researchers, and academic staff to deliver project objectives;
- Interface to industry partners and contribute to project dissemination activities.

Requirements:

- PhD in Electrical or Mechanical Engineering, Material Science or a related field.
- Prior first-hand experience in microfabrication, starting from process flow design to implementation, characterization, and troubleshooting;
- Familiarity with characterisation of fabrication processes, materials, and MEMS;
- Strong communication skills (oral and written).

Desired qualifications include a subset of:

- Background on the design and testing of inertial microsensors;
- Prior experience on MEMS packaging;
- Prior experience in closed-loop control of MEMS;
- Experience on interface circuit design for inertial sensors.