

## Open Postdoctoral and research associate positions

### Advanced nanomaterials for optoelectronics and energy: modeling, synthesis, characterization and applications

#### 1. Position description

Our group has multiple opening for postdoctoral research fellow potentially leading to a research associate position to perform multidisciplinary research that explores new applications of nanomaterials, semiconductor materials and graphene enhanced semiconductor materials. The desired candidates have expertise related to micro-nanotechnologies, such as: nano and micro-electromechanical systems (NEMS, MEMS); nanomaterials, functional materials; methods for material growth and epitaxy, CVD, MOCVD, MBE; experimental characterization of micro-nanosystems; physics, modelling and advanced design of nanostructures; integration of micro-nanosystems. Emerging areas are particularly sought for, including (but not limited to): Internet of Things (IoT) and information technology, robotics and human-machine interactions, energy, biomedical and photonics, and energy storage including Li-Ion batteries. The successful candidate will assist the Principal Investigator in the design, fabrication, characterization, and optimization of advanced materials and devices. The proposed research will involve material synthesis and characterization as well as device fabrication and testing by using the 3IT advanced nanofabrication and characterization facilities. The selected candidate will be responsible for:

- Material and device design, fabrication, characterization, and optimization
- Design of experimental tests, and analysis of the resulting data
- Interaction with industrial partners and research funding agencies
- Mentoring and training of graduate and undergraduate students
- Presenting scientific findings at group meetings and conferences
- Preparing and publishing scientific findings in peer-reviewed journals
- Preparing and filing patent applications on new inventions
- Preparing research proposals and technical reports

#### 2. Requirements :

- Ph.D. degree in material science, mechanical engineering, electrical engineering, physics, chemistry or any related area.
- Excellent track record of journal papers.
- Excellent written and oral communication skills.

#### 3. Information about the position :

- Contract: 1-year renewable up to 3 years upon yearly evaluation
- Potentially leading to a research associate position

#### 4. The Université de Sherbrooke – an enticing environment to study, work and live

For several years, the Université de Sherbrooke's Faculty of Engineering and the Institute for Interdisciplinary Research (3IT) occupy an enviable position in training and applied research by providing a friendly and collaborative environment, where discovery and initiative are strongly favored.

The Université de Sherbrooke distinguishes itself from other Canadian universities in terms of technology transfer and its impact on society. It is first in Canada for the intensity of research partnerships and demonstrates the highest rate of research growth in the country in 15 years.

Sherbrooke is a university town located 150 km east of Montreal, near the US border, in an area known for its beauty and quality of life.

**To apply, please send: curriculum vitae + cover letter + names of 3 referees + 2 selected papers to : [iotmat@usherbrooke.ca](mailto:iotmat@usherbrooke.ca)**