Internship in microfabrication and advanced characterization for applications in optoelectronics

Record number : OPR-1102

Overview

RESEARCH DIRECTION

Gwenaëlle Hamon, Professeure - Department of Electrical and Computer Engineering

INFORMATION

gwenaelle.hamon@usherbrooke.ca

ADMINISTRATIVE UNIT(S)

Faculté de génie
Département de génie électrique et de génie informatique
Institut interdisciplinaire d'innovation technologique (3IT)

LEVEL(S)

1er cycle
2e cycle
3e cycle

LOCATION(S)

3IT - Institut interdisciplinaire d'innovation technologique
Campus de Sherbrooke

Project Description

Context :

The University of Sherbrooke, and particularly the Interdisciplinary Institute of Technological Innovation (3IT), has expertise in numerous cutting-edge fields of micro, nano, and optoelectronics. A 750 m² clean room, along with numerous specialized equipment, is available to research teams. Additionally, the 3IT hosts an international joint unit of the CNRS, the Laboratory of Nanotechnologies and Nanosystems (LN2), in partnership with several CNRS laboratories in France.
The internship work will be conducted within Professor Gwenaëlle Hamon's research group, which specializes in micro-fabrication processes and the characterization of optoelectronic devices such as solar panels, photodetectors, lasers, and more.

Main tasks :

Clean room work
Microfabrication including photolithography, plasma etching, thin film deposition etc.
Advanced characterization: SEM, AFM, profilometry, etc.
Electric measurements of optoelectronic devices
Weekly follow-up meetings with the research group

Your profile :

Ongoing master/engineering degree in physics, materials science, nanotechnology or a related field
Motivation to work in field of microelectronics and optoelectronics
Ability to work autonomously
Interpersonal skills and ability to work in a team with individuals from diverse backgrounds
Assets:
Knowledge of photonics, optoelectronics and semiconductor physics
Knowledge of microfabrication and advanced characterization methods

Email address : recrutement-groupe-hamon@usherbrooke.ca

This project can accommodate one or more students in the following programs :
- 3rd cycle research internship
- 2nd cycle research internship
- Undergraduate research internship

Discipline(s) by sector

Sciences naturelles et génie

Génie électrique et génie électronique

Funding offered

To be discussed