



### **Object: available Positions for Ph.D projects and Post-doc fellowships**

Four different positions (2. Ph.D. and 2 PDF) are now available at University of Sherbrooke. The projects will be conducted at the Center of Innovative Technologies in Ecodesign (CITE) of University of Sherbrooke, under the supervision of Pr Saïd Elkoun and Pr Mathieu Robert. CITE is located in the city of Granby (70 km from Montreal and Sherbrooke). This research facility is a brand new infrastructure (17 000 sq.ft) totally dedicated to research on the development of bio-sourced materials especially from Canadian resources.

Previous researchers at CITE have developed several different techniques for extracting cellulosic reinforcements (CR) from Canadian fiber crops. Different types of CR are now available to reinforce polymer composites for different applications, especially in the automotive industry.

#### **Topics:**

The projects are dealing with the elaboration of polymer composites reinforced with the new CR. The projects are subcategorized in the following topics:

##### *- CR characterization:*

The CR are characterized to reveal the physical and chemical properties (i.e. morphology, chemical content and surface chemistry).

##### *- CR functionalization:*

The CR are modified by using different functional groups to ensure their compatibility with polymers (either thermoset or thermoplastic).

##### *- Composite processing:*

The composites are reinforced through different types of polymer processing techniques (such as injection molding, thermoforming, infusion, etc) the optimization of the parameters in these techniques is required.

##### *- Composite characterization:*

Physical, mechanical and thermal properties of the composites are investigated to determine the optimized characteristics for the composites.

#### **Candidates profile:**

The candidate must have completed the following requirements prior to admission:

- English proficiency

The candidates must demonstrate the required level of English proficiency for the admission in university of Sherbrooke:

IELTS 6.5, TOEFL internet-base 86 or paper-base 567 (minimum of 20 for each band) or TOEIC 750.

- A Master's or a Ph.D.'s degree in Materials Science, Materials Engineering, Materials Chemistry, Polymer Composite or equivalent.
- Having a good command in composites or polymer science.
- (for Ph.D.) clear evidence of research ability or potential
- Two letters of recommendation

For any further details concerning the offer or to apply for the positions, please contact:

*Pr Mathieu Robert, Ph.D.*

Directeur Scientifique

Carrefour d'Innovations en Technologies Écologiques (CITÉ)

Université de Sherbrooke

1-819-821-8000 #63138

The logo for CITE (Carrefour d'Innovations en Technologies Écologiques) features the word "CITÉ" in a bold, sans-serif font. The letter "I" is stylized with a small green square above it. The letter "É" has a small green horizontal bar above its top right corner.