



UNIVERSITÉ  
LAVAL

Faculté de foresterie, de géographie et de géomatique  
Département des sciences du bois et de la forêt

## Wood Science Ph.D. Research Assistantship - Chipper-canter performance

The Renewable Materials Research Centre (CRMR) (Department of Wood and Forest Sciences - Université Laval) is seeking for a highly motivated Ph.D. candidate to undertake a research project on chipper-canter performance for processing softwoods from Eastern Canada. The Ph.D. programme will start in September 2017. The research is part of a collaborative project funded by the Natural Sciences and Engineering Research Council of Canada (NSERC) and one tool manufacturing company, DK-SPEC. The project aims to optimize the performance of chipper-canters to allow better utilization of the biomass and improve wood products quality.

The offered position is part of an interesting and challenging project which will contribute to the improvement of the Canadian forest industry. The job will be carried out in an international environment focusing on research, industrial partnership, and innovation. The Université Laval (UL) is the oldest French-language university in North America. It is among the largest universities in Canada and a leading university in knowledge, research, and innovation in wood sciences. By choosing UL, you are opting for an intellectually stimulating campus in the beautiful Quebec City.

The specific objectives of the research project are:

- To evaluate the effect of the cutting speed as a function of cutting width on the chip size distribution under frozen and unfrozen wood conditions.
- Modelling of the chip formation mechanism taking into account most important machining parameters as well as the effect of tool wear.
- Model validation must be done with logs under frozen and unfrozen conditions.

**Location:** Renewable Materials Research Centre (CRMR), Pavillon Gene H. Kruger, Université Laval, Quebec City, Canada

### Eligibility:

The candidate must hold a B.Sc. and M.Sc. degrees in wood science, mechanical engineering or a closely related discipline with preferably a wood science background. Proficiency in English and French (written and oral) communication are necessary. The studies will be held in French.



CENTRE DE RECHERCHE  
SUR LES MATÉRIAUX  
RENOUVELABLES

Pavillon Gene-H.-Kruger (418) 656-2438  
2425, rue de la Terrasse, Télécopieur : (418) 656-2091  
Université Laval www.materiauxrenouvelables.ca  
Québec (Québec) G1V 0A6  
Canada

**Stipend:** 21 000 CAN \$/year during three years.

**How to apply:**

Applications must include the following documents:

1) Cover letter of motivation, 2) B.Sc. and M.Sc. academic transcripts, 3) A resume/curriculum vitae which fully describes qualifications and experience and provides contact information for three professional references.

Applicants should send all the required documents to: Claudia Cáceres – [Claudia.caceres@sbf.ulaval.ca](mailto:Claudia.caceres@sbf.ulaval.ca)

**Application deadline:** Applications will be received until April 30<sup>th</sup> 2017 or until the position is filled.

**Links of interest:**

For more information about the professor in charge of the project: Prof. Roger Hernández, please visit:

<https://www.sbf.ulaval.ca/professeurs/roger-hernandez>

For more information about our research center (CRMR), please visit:

<https://www.materiauxrenouvelables.ca/en/home/>

For more information about Université Laval, please visit:

<http://www2.ulaval.ca/en.html>

For more information about international students expenses, please visit:

<http://www2.ulaval.ca/en/future-students/education-costs-and-financing/fees-and-budgeting.html>

Graduate tuition fees – International students - Doctoral Degree with Exemption  
All doctoral students can benefit of the doctoral degree exemption given by the university.

For more information about life in Quebec, please visit:

<http://www.quebecregion.com/en/>