



Assignment internship is Chemistry, Biotechnology or Chemical Engineering student

Living Lab Biobased Brazil

The Living Lab Biobased Brazil is a transnational Living Lab in the field of Biobased Economy, created in 2014 by a consortium of Dutch Universities of Applied Sciences in collaboration with several Brazilian universities. The Living Lab helps students with internships and graduation projects in Brazil and the Netherlands with the focus on Biobased Economy. We also help students finding accommodation, and offer buddy support, Portuguese/Dutch classes, a bye-bye meeting and an introduction weekend in Brazil or the Netherlands.

In return the Living Lab expects you contribute to the Living Lab blog. You have to blog about your personal and internship experiences during your stay in the Netherlands. We also expect you to participate in the mini symposium at the end of each semester.

These events help you to increase your personal network and is focused on your personal development! For more information please see: <http://www.biobasedbrazil.org/>

University information

Avans University of Applied Sciences was founded on 1 January 2004 following a merger of Hogeschool Brabant and Hogeschool 's-Hertogenbosch. At Avans University of Applied Sciences, around 29,000 students study 54 different courses. 2,400 employees work at 20 schools, 4 support units and 1 Learning and Innovation Centre.

Students, lecturers, professors and education professionals together form a lively network within our educational institution. Knowledge and competency development is the driving force and the connecting factor behind this.

Our varied and modern learning environment enables each student to develop his or her skills and ambitions to their maximum potential.

Our inspiring lecturers are experts in their fields and have a thorough knowledge of learning processes, enabling them to challenge students to push their boundaries and excel. The schools have structured their curricula, teaching and examinations based on our educational vision. We collaborate with a wide range of companies, professions and organizations as part of its teaching and research activities.

For more information please see the promotional YouTube video <https://www.youtube.com/watch?v=5nsPBIE04Q4> :

Research project

Biorefinery of Lemna (duckweed)

Introduction

The regions of Flanders (Belgium) and Noord-Brabant (Netherlands) want to explore new biobased possibilities for greenhouses. One of these options is the cultivation of Spirulina (algae) in order to obtain a blue biobased dye. The possibilities for Spirulina cultivation are researched in the Interreg subsidy project 'Blue Chain'. With the cultivation of Spirulina, a lot of nutrient rich waste water is produced. This waste water can be treated and discharged on surface water. However, in a biobased economy it is much more logical to re-use this nutrient-rich residue.

As part of the Interreg project, the research group Biobased Energy looks at the possibilities to cultivate Lemna (duckweed) on the nutrient-rich residue and extract valuable products from Lemna such as high quality proteins (e.g. for glue), cellulose and colour dyes. The research is done in cooperation with several research institutes and companies (see overview at the end).

Project

The aim of this internship / graduation project is to extract valuable products from Lemna. You will work on the refinery of fresh Lemna and the extraction, isolation and analysis of products from Lemna using different techniques. Depending on your (study) background we will define a more specific project description.

The internship / graduation project will be done for the research group Biobased Energy of Avans. Experiments will take place at the Avans laboratories under supervision of the main researcher of the project. Jappe de Best is the project manager of the project. Feel free to contact us if you are interested or if you want more information regarding this project.

Final product

The student will write a report that contains an overview of all activities and findings.

Starting date

February 2017. The length of the assignment is approximately 5 months (20 weeks). The student who will execute the assignment get a fee of €550,- per month.

The intern will be part of a research team lead by the adviser and supervised by a professors of Avans University of Applied Sciences.

Desirable skills/qualities of the student

Good knowledge of the English language is required. The background of the student is Chemistry, Biotechnology or Chemical Engineering at studies at undergraduate, graduate or PhD level.

Interested?

Please contact the following person of your home university:

Brazilian University

UFMG
UFV
PUC Minas

Contact person

Daniel Rotsen
Prof. Vladimir Oliveira Di Iorio
Prof. Laura Hamdan de Andrade

Contact information

minasmundi3@dri.ufmg.br
dri@ufv.br
lauraandrade@pucminas.br