

Vacancy 145/35/035

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The UHasselt contributes to the knowledge economy in the Euregion. Active tutoring, made to measure for the students, topquality research in specific domains and an international orientation are our university's characteristics.

Owing to its small size, the university and its employees are building up to an organisation together where it is a pleasure to work.

Qualities are the only means by which people are measured. Gender, ethnicity, handicap, nationality and age are not taken into consideration.

The Faculty of Engineering Technology, capacity group Engineering Technology, research institute Research Institute: Centre for Environmental Sciences, research group Nuclear Technology Centre of Hasselt University seeks a (m/f)

PhD student dosimetry for radiotherapy

Background

The research is situated in the Faculty of Engineering Technology at Hasselt University. The research group NuTeC (Nuclear Technological Centre) is part of the Centre for Environmental Sciences. One of its specialties is dosimetry for radiotherapy.

www.uhasselt.be/nutec

Task description

The research will be linked to the BELdART national audit programs for complex radiotherapy applications. Using a Monte Carlo code (Geant4, EGSnrc...) the candidate will develop a Monte Carlo platform specifically to answer dosimetrical problems in advanced radiotherapy. The specific problems of concern can be related to energy response and uncertainties of dosimeters, geometry related problems (including motion problems, small field dosimetry, SRS, FFF...)...

The Monte Carlo platform will serve to test the dosimetrical scenarios for audits of advanced radiotherapy applications. The Monte Carlo model of a "linac" that will be developed in the course of this PhD project must be benchmarked against experimental measurements using ionization chambers, alanine EMR dosimetry, film dosimetry... Collaboration with other institutes (Jessa hospital in Hasselt, AZ-VUB in Brussels, Maastric Clinic in the Netherlands, ...) is necessary.

The candidate will be deployed for a limited percentage in the bachelor and masters of Industrial Sciences.

Profile

- Problem solving capacity
- Can work well in team
- The candidate has research interest
- Good knowledge of English. Knowledge of Dutch is a plus
- Previous knowledge/expertise in the field ' medical radiation physics' is an advantage.
- Experience in C++ and Monte Carlo calculations are recommended

Diploma

Masters of sciences, civil engineering, engineering technology both with knowledge in medical physics (or equivalent).

Final-year students are (likewise) encouraged to apply.

Employment

Scholarship for a period of 2 x 2 years (with evaluation after 2 years).

Further information

Content job responsibilities:

Prof. dr. Sonja SCHREURS, +32-11-292156, sonja.schreurs@uhasselt.be

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dr. Brigitte RENIERS, +32-11-292178, brigitte.reniers@uhasselt.be

Content terms of employment and selection procedure:

<http://www.uhasselt.be/jobs>

Application

You can only **apply online** up to and including **15 July 2015**.

Selection procedure

Preselection on the basis of CV. Interview with the selected candidates.



Hasselt University has a long tradition of paying attention to research careers. In recognition of this, the European Commission granted Hasselt University in 2011 as the first Flemish university with the right to use the 'HR Excellence in Research' logo.