FULL-TIME RESEARCH AND TEACHING ASSISTANT POSITION IN ELECTRONICS

BRUSSELS SCHOOL OF ENGINEERING

Reference: 2019/S085
Application deadline: 30/04/2019
Start date: 01/10/2019

Job Description

BEAMS (Bio, Electro- and Mechanical Engineering) laboratory is one of the largest department of the School of Engineering. Within BEAMS, the “embedded electronics” research unit delivers a broad range of teaching units in electronics, as well as the main electricity course for bachelor students.

The « embedded electronics » research unit is seeking for a full-time research and teaching assistant. This job consists in a half-time teaching (for BA and MA students) and a half-time research in the field of electronics engineering.

- the teaching part is devoted to mentoring students in exercises, labs, projects, internships and master thesis.
- the research part is devoted to a PhD Thesis (on a subject to be determined in the research fields of the Beams/Embedded Electronics Lab) under the supervision of a professor of the Department

The research and teaching assistant contract is provided for a first term of 2 years that can be renewed twice (after approval of the faculty council). The PhD thesis is then expected to be performed in a maximum of 6 years.

The courses and research of the Beams/Embedded Electronics labs belong to several fields (electricity, analog and digital micro-electronics, medical electronics, power electronics, real-time embedded systems), see http://beams.ulb.ac.be/research-units/embedded-electronics.

The present position targets a research subject in the field of didactics of electricity/electronics (Prof. Frédéric Robert). The research will study the impact on learning of preconceptions belonging to university students, and will design, test and validate teaching strategies specifically targeting the overcoming of these preconceptions. This research will follow a previous PhD thesis on the same subject.

Skills required

- fluent in French (English is an asset)
- will to invest in an teaching activity and to develop pedagogical competence
- commitment to carry out a PhD Thesis
- excellent writing skills (French and English)
- team spirit and autonomy
Courses covered

The teaching units to be covered are mainly bachelor courses, taught in French:

- ELEC-H-2001 – Electricité (ingénieurs civils)
- ELEC-H-301 – Electronique appliquée (ingénieurs civils)
- ELEC-H-201 – Electricité et électronique (bioingénieurs)

The candidate will also participate to one or several of the following courses (French or English):

- ELEC-H-305 – Digital logic circuit design
- ELEC-H-307 – Systèmes à micro-contrôleurs
- ELEC-H-308 – Compléments d’électricité appliquée
- ELEC-H-309 – Projet intégré
- ELEC-H-402 – Analog electronics
- ELEC-H-409 – Digital architectures and design
- ELEC-H-410 – Real-time computer systems
- ELEC-H-473 – Microprocessor Architectures
- ELEC-H-505 – Advanced Digital Architectures

Mentoring student projects, internship and master theses is also part of the position.

Interested?

For more information, please contact Prof. Frederic ROBERT (telephone: +32 2 650 30 64 – E-mail: frederic.robert@ulb.ac.be).

Applications must be sent by e-mail to the rectorate of the Université Libre de Bruxelles (recteur@ulb.ac.be) and to the faculty deanship (le-doyen-polytech@admin.ulb.ac.be).

They must include the following:

- a motivation letter
- a Curriculum vitae including a list of publications (a template can be downloaded at http://www.ulb.ac.be/tools/CV-type.rtf)
- a note on the applicant’s PhD research project (4 pages)
- two letters of reference

By sending in their application, applicants acknowledge they have read and understood the additional information and the regulations relevant to research staff, available at the following address http://www.ulb.ac.be/emploi/academique.html.