FULL-TIME ACADEMIC POSITION IN BIG DATA MANAGEMENT

BRUSSELS SCHOOL OF ENGINEERING - ECOLE POLYTECHNIQUE DE BRUXELLES

Reference : 2021/A035
Application deadline: 15/02/2021
Start date: 01/10/2021

Job description

The School of Engineering (EPB) of the Université Libre de Bruxelles (ULB) offers a full-time academic position in Big Data Management.

The candidate will be integrated in the Web and Information Technologies (WIT) laboratory of the Department of Computer and Decision Engineering (CoDE). The CoDE department has a track record of cutting-edge research (both on a fundamental and applied level) in database systems, distributed databases, big data processing, data management, business intelligence, mobility data management, artificial intelligence, metaheuristics, data mining, swarm robotics, optimization and decision engineering, and is well-equipped for research in these areas. The department strives for excellence in its research and education, as witnessed by its two ERC grant holders, the organization of the Erasmus Mundus Joint Master in Big Data Management and Analytics (BDMA), and the Marie Sklodowska-Curie Joint Doctorate on Data Engineering for Data Science (DEDS).

Area of Research: Computer Science, focusing on Big Data Management
The applicant must have an excellent scientific track record, both theoretical and applied, in big data management. Specifically, we invite applications from candidates with academic research expertise in one or more of the following related disciplines: distributed databases, big data platforms, bioinformatics, clinical informatics, digital health, NoSQL, data integration, scalable data management, stream computing, advanced query processing (e.g. approximate query processing), large-scale data analysis systems, and big data systems. Expected publication venues include conferences such as: VLDB, SIGMOD, EDBT, ICDE, …, and journals such as: ACM TODS, VLDB Journal, …

Educational and scientific goals:

Scientific goals:
The candidate is expected to reinforce the research of the CoDE department by initiating and conducting research in big data management that is related but complementary to the department's current research. The candidate will contribute to the research profile of the EPB by developing knowledge, innovation, and economic value in the field of Engineering Sciences. The research of the EPB is organized according to cross-disciplinary themes that reflect the major societal challenges of today: Health, Food, Energy, Transport, Environment, Security, and Inclusive Societies.

The successful applicant will develop research activities in his/her domain of expertise in collaboration with the other members of the WIT laboratory as well as with other teams of the EPB.

The successful candidate is expected to launch and seek funding of new research projects in his/her domain of expertise. In this context, the applicant will be invited to apply for a grant from the European Research Council (ERC) and for other sources of funding (the Brussels Institute for Research and Innovation, the Fonds National de la Recherche Scientifique, European Commission, Regional funds, …). The candidate will receive support from the ULB Research Department for this purpose.

Educational goals:

The successful candidate is expected to teach at the Bachelor and Master level in the programs offered at the Brussels School of Engineering. Specifically, the candidate will be involved in the program Master of Science in Computer Science and Engineering, the Erasmus Mundus Joint Master on Big Data Management and Analytics, and the specializing Master in Data Science and Big Data. All courses in these master programs are taught in English. Teaching at the bachelor level is in French.

As a member of the WIT laboratory, the successful candidate is expected to take on duties to help in the coordination and organization of the programs of the faculty, including the two international programs: Erasmus Mundus Joint Master Degree on "Big Data Management and Analytics" (BDMA) and Marie Sklodowska-Curie Joint Doctorate "Data Engineering for Data Science" (DEDS). The teaching duties include lectures, as well as exercise and laboratory sessions. Proposing and supervising students' projects, internships and theses are part of the position.

Courses covered at the time of recruitment:

The successful applicant will be expected to have sufficient expertise to teach the following courses (lectures and/or practical sessions)

- INFOH417: Database Systems Architecture (at the Master level, offered in the program Master of Science in Computer Science and Engineering, Master in Computer Science, and the Erasmus Mundus Joint Master on Big Data Management and Analytics)
- INFOH509: XML and Web Technologies (at the Master level, offered in the program Master of Science in Computer Science and Engineering, Master in Computer Science)
- INFOH515: Big Data - Distributed Data Management and Scalable Analytics (at the Master level, offered in the program Master of Science in Computer Science and Engineering, Master in Computer Science, master in Bioinformatics, master in Data Science/Big Data)

Teaching duties may be reviewed periodically and are subject to modification over time.

Qualifications required:

PhD Degree (with doctoral thesis) in Engineering (specialisation Computer Science) or Computer Science

Skills required

- Applicants must have at least 4 years of research experience at the time of their recruitment, and an excellent scientific record.
- Post-doctoral experience and an excellent scientific record are a plus.
- Exchange periods outside of the applicants' home institution (during or after their PhD) will be taken into consideration when evaluating applications.
- Experience in designing and participating in research projects
- Experience with respect to various aspects of academic education: coordination and organization of courses, development of teaching materials, and supervision of practical projects and dissertations.
- Experience in organizing and running international educational programs, such as Erasmus Mundus, is a plus.
- Applicants should be able to demonstrate involvement in national/international partnerships.
- All applicants must be able to teach in French at the end of the third year following their appointment.

- Required languages:
    - French: At least level A2 in CEFR
    - English: At least level B1 in CEFR

Career stage: experienced researcher (at least 3 years of postdoctoral experience).

Interested ?

For more information, please contact prof. Esteban Zimányi (telephone: +32 2 650 31 85 – E-mail: ezimanyi@ulb.ac.be).

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

They must include the following:

- an application letter
- a Curriculum vitae including a list of publications :
  if you want you can complete a standard form via our website at https://www.ulb.be/fr/documents-officiels/completer-votre-cv-en-ligne. Once completed, it must be downloaded and attached to the application file.
- a 7,000-character report (4 pages) presenting the applicant's research activities and a research project, including how these will integrate into ULB's research teams
- a teaching dossier including a 7,000-character report (4 pages) on the applicant's previous teaching activities and a teaching project for the first five years in this position; these must be relevant to the faculty and to the teaching profiles for the programmes to which the applicant is to contribute
- a note on the applicant's international achievements and projects (no more than 4 pages)
- the names and e-mail addresses of five referees (respecting the gender balance) who may be contacted by those in charge of evaluating applications. These referees should not have conflicts of interest because of family or emotional ties.

The appointment to the academic staff of ULB is made at "Premier Assistant" level if the candidate has had a PhD for less than eight years (on 1 October of the year of appointment). If the candidate has had a PhD for eight or more years, on 1 October of the year of appointment, then the appointment is made at the "Chargé de Cours" level. As of their appointment, members of academic staff are authorised to use the honorary title of "Professeur".

Equal opportunities policy

ULB's personnel management policy is geared towards diversity and equal opportunities.

We recruit candidates on the basis of their skills, irrespective of age, gender, sexual orientation, origin, nationality, beliefs, disability, etc.

Would you like to be provided with reasonable accommodation in the selection procedure because of a disability, disorder, or illness? Do not hesitate to contact Marie Botty, the Gender and Diversity resource person of the Human resources Department - SPES (marie.botty@ulb.be). Be assured of the confidentiality of this information.

More details on the ULB gender and diversity policy are available at https://www.ulb.be/en/about-ulb/gender-equality-at-ulb.

You will find all the regulations relating to academic careers on our site at http://www.ulb.ac.be/emploi/academique.html.