**PhD Candidates**

In the capacity as German national library of science and technology, by our future-oriented services we aim to guarantee that the infrastructural requirements for a continuous provision of researchers in science and industry with high-quality information and literature are met and constantly improved. The services we offer in our capacity as a University Library ensure that Leibniz Universität Hannover is also provided with scientific and educational information resources on-site.

**The Technische Informationsbibliothek (TIB) – German National Library of Science and Technology – Program Area C, Research and Development, is looking for**

**PhD Candidates (E 13 TV-L, 75 %)**

in order to fill a position in the TIB Research and Development Department under the supervision of Prof. Dr. Sören Auer and Dr. Anna Kasprzik (junior research group “Scientific Knowledge Engineering”; SKE).

The candidates’ competence area should be squarely rooted in computer science or a related field, they should be able to work independently and based on agile principles, grasp new knowledge quickly, be able to combine abstract reasoning with concrete problem solving, think outside of the box, and be interested in mastering complex challenges.

**Requirements:**

- A Master degree in a relevant field (Computer Science, Mathematics, Information Science, Computational Linguistics)
- A solid background in formal methods from Theoretical Computer Science / Linguistics (logics, semantics, graph structures) and the interest to apply them in scenarios with a certain complexity
- Excellent proficiency in modern programming languages and modern software engineering methodologies (architectures, databases, visualization, analytics). Proven team software development skills are a plus
- Experiences with the implementation of semantic technologies (alignment, structural validation and verification, querying; natural language processing) are a plus
- Experiences with library metadata, subject classification, and authority files are a plus
- Proficiency in spoken and written English. Proficiency in German is an advantage

**Potential PhD topics** within the research group "Scientific Knowledge Engineering" (SKE) include (but are not limited to):

- Development of knowledge organization systems (KOS; ontologies, thesauri) and semantic architectures for the industrial context (Smart Factory, "Industrie 4.0")
- Development, validation, and structural improvement of library-specific KOS (vocabularies, authority files, classifications) based on semantic technologies and formal methods
- Development of semantic solutions for the six TIB subjects (technology, architecture, chemistry, information technology, mathematics, physics) and associated interdisciplinary subjects (such as industry, mobility, agriculture, etc.) based on use cases defined by the target communities and patrons of TIB and from interdisciplinary contexts

**What we offer:** We provide an scientifically and intellectually inspiring environment with a practical mindset embedded in a leading technical university and one of the largest technical information centers which is part of the Leibniz Association. Our aim is to provide the environment and resources to make the research group leaders successful in their field.

- Depending on their profiles, PhD candidates will work in the context of a national, European, or international research and innovation project.
- Funding is available for equipment and for travelling to conferences and research visits.
- A portfolio of technology components to build on, including DBpedia (co-founded by Prof. Dr. Auer), VoCol, OntoWiki, Qanary QA, SlideWiki, the BigDataEurope Platform, etc.
- Qualified candidates will start in pay grade 13 TV-L (75 %) of the German public service pay-scale.
- The positions are open until filled. Initial appointment will be for 3 years with the possibility of extension, starting as soon as possible.

Questions regarding the positions can be addressed to the junior research group leader Dr. Anna Kasprzik (anna.kasprzik[at]tib.eu) or to the director of TIB, Prof. Dr. Sören Auer (soeren.auer[at]tib.eu).
**How to apply:** Please send your CV, a letter of reference and a two-page motivational statement (incl. research and technology interest) with the subject 60/2017 before 24 January 2018 to

Technische Informationsbibliothek (TIB)
Personalservice
Herrn Daniel Eilers
Welfengarten 1 B
30167 Hannover
Germany

You can also send your complete application in a single PDF by email to bewerbung[at]tib.eu. Please do not send emails larger than 10 MB.

TIB provides ideal working conditions, and continuously takes action to enable its employees to combine career interests with family life.

Severely disabled candidates with comparable qualifications will be given preferential treatment.

We look forward to receiving your application.

Please note that your application documents will not be returned.

Application and travel costs cannot be reimbursed.