Faculty of Computer Science

The Chair of Computational Logic at the Institute of Artificial Intelligence offers a position as

Senior Research Associate / Postdoc

(Subject to personal qualification employees are remunerated according to salary group E 14 TV-L)

within the ERC Consolidator Grant „A Grand Unified Theory of Decidability in Logic-Based Knowledge Representation” (DeciGUT) starting at the next possible date. The position is fixed-term until to 30 September 2023. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position aims at obtaining further academic qualification (e.g. habilitation thesis). Balancing family and career is an important issue. The post is basically suitable for candidates seeking part-time employment. A part-time employment of 50% of the fulltime weekly hours is possible.

The aim of the ERC project DeciGUT is to create a unified, model theoretical basis for decidability, which in turn will enable the definition of new, even more expressive but decidable knowledge representation languages. The formalisms studied include description logics, rule languages, and fragments of first- and higher-order predicate logic in general. The project is thus of high relevance for various scientific fields such as artificial intelligence, database theory and mathematical logic with potentially far-reaching practical effects, for example in the areas of semantic technologies and information systems.

As a senior member of the Chair of Computational Logic you will be part of a successful team of experienced researchers of many nationalities and backgrounds. You will work in the vibrant scientific environment of a prestigious ERC project and TU Dresden, one of the leading German research universities. Dresden is a highly livable city with a rich cultural life and beautiful nature.

Tasks: As a senior researcher in the ERC project you will be leading and coordinating research on fundamental principles for computational properties (such as decidability, complexity) of reasoning tasks in the field of knowledge representation. The position is strongly focused on challenging foundational research. Publication and presentation of results in high-ranking journals and at renowned international conferences will be a central part of your work. Of great importance for the success of the project is also a lively exchange with the international experts in the field. Hence, you are expected to undertake research visits and organize project-related workshops.

Requirements: We are looking for experienced, motivated, and talented staff members with a very good university degree (M.Sc. or equivalent) and a PhD in computer science, mathematics or a related area, and with firm background knowledge in one or more of the following topics:

- artificial intelligence, knowledge representation and reasoning
- mathematical logic, model theory, algebra
- database theory.

You should have documented expertise in at least one (preferably several) of the above areas, witnessed by significant research contributions. Candidates should be proactive and independent in organizing their work, ready to mentor PhD and master students, keen on working with teams of experts across other projects, and fluent in English, oral and written.

Applications from women are particularly welcome. The same applies to people with disabilities. Please submit your comprehensive application (including motivation letter, CV, statement of research interests, and record of publications) by 26.07.2019 (stamped arrival date of the university central mail service applies), preferably via the TU Dresden SecureMail Portal https://securemail.tu-
dresden.de by sending it as a single PDF document to sebastian.rudolph@tu-dresden.de or by mail to TU Dresden, Fakultät Informatik, Institut für Künstliche Intelligenz, Professur für Computational Logic, Herrn Prof. Dr. Sebastian Rudolph, Helmholtzstr. 10, 01069 Dresden. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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