Faculty of Computer Science

The **Institute of Theoretical Computer Science, Chair of Knowledge-Based Systems**, invites applications for a

**Research Associate / PhD Position / Postdoc**

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

within the Collaborative Research Center CRC/TR 248 „**Foundations of Perspicuous Software Systems**“ starting on **1st July 2019**. The position fixed-term to 31st December 2022. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position is suitable for PhD Students and for Postdocs and offers the chance to obtain further academic qualification (e.g. PhD or habilitation thesis).

The Computer Science CRC/Transregio 248 lays the scientific foundations for the cyber-physical systems of the future, enabling them to explain their functionality and behaviour (so-called **Perspicuous Systems**). We are researching a foundational and applicable theory of explanations for all facets of system behaviour, as well as visual and verbal elucidation methods for diverse user groups. More information can be found at [www.perspicuous-computing.science](http://www.perspicuous-computing.science).

As a member of the Chair of Knowledge-Based Systems 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 the CRC 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 member of the project teams in sub-projects E3 and C4 of the Collaborative Research Center, you will be researching new methods of intelligent information processing based on understandable rules. You will be working on one or several of the following tasks:

- Design of logical rule languages and the study of their expressive power and complexity;
- Design of methods for logical inferencing and static analysis of rule sets;
- Application of the obtained insights in knowledge representation and artificial intelligence.

The position is focussed on foundational research. Publication and presentation of research results at international venues is an important part of the work.

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

- Artificial intelligence, especially knowledge representation and reasoning
- Logic, automata theory, models of computation
- Knowledge in adjacent areas, such as formal methods and database theory

Postdocs should have made significant research contributions to one of the above areas. Candidates should be independent in organising their work, 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 CV and statement of research interest) by **15th May 2019** (stamped arrival date of the university central mail service applies), preferably via the TU Dresden SecureMail [https://securemail.tu-dresden.de](https://securemail.tu-dresden.de) by sending it as a single pdf document to [secretary_wbs@mailbox.tu-dresden.de](mailto:secretary_wbs@mailbox.tu-dresden.de) or by mail to: **TU Dresden, Fakultät**
Informatik, Institut für Theoretische Informatik, Professur für Wissensbasierte Systeme, Herrn Prof. Dr. Markus Krötzsch, 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.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis