



Karlsruhe Institute of Technology

Karlsruhe Institute of Technology
Personalservice (PSE)

Kaiserstraße 12
76131 Karlsruhe

<http://www.pse.kit.edu>

**Doctorate Research Assistant
in the area of “ Design, Test, and Reliability of Emerging Non-Volatile Spintronics
Memories and New Computing Paradigms”**

| | |
|---|---|
| Job description: | <p>This project investigates design, test, and reliability aspects of new computing paradigms based on non-volatile spintronics memory technologies. In spintronic memories, not only the electrical information but also the spin of electrons is used to store data. As a result, these non-volatile memories have very low standby power consumption, are very dense and also have very good performance for on-chip memories. Due to their resistive states, they can be used for the implementation of new paradigms such as Computing in Memory (CiM) or Neuromorphic computing. However, to enable spintronics for mass production still a variety of challenges at device, circuit, and system-level have to be resolved.</p> <p>The aim of this research is to explore various aspects related to design, test and reliability issues for spintronic memories and emerging computing paradigms associated with that. This PhD research will be done in collaboration with the leading industry. The possibility to pursue a Doctorate (PhD) degree exists.</p> |
| Qualification: | <p>The applicants should hold a university degree (Diploma or Master) in the area of Computer Science or Electrical Engineering and should also have strong English communication skills (both Oral and Writing). Suitable candidates must possess a strong willingness for research exploration, independence, self-learning, creativity, teamwork and communication skills as well as the willingness in the preparation of research proposals.</p> |
| We offer: | <p>We offer an attractive and modern workplace with access to excellent facilities of KIT, diverse and responsible tasks, a wide scope of advanced training options, supplementary pension with the VBL (Pension Authority for Employees in the Public Service Sector), flexible working time models, a job ticket (BW) allowance, and a cafeteria/canteen.</p> |
| Salary: | <p>The remuneration occurs on the basis of the wage agreement of the civil service in TV-L, E 13.</p> |
| Institute: | <p>Institute of Computer Engineering, Chair of Dependable Nano Computing (CDNC)</p> |
| Contract duration: | <p>limited</p> |
| Starting date: | <p>As soon as possible</p> |
| Application up to: | <p>01.09.2020</p> |
| Contact person in line-management: | <p>Prof. Mehdi B. Tahoori will be pleased to provide you with detailed information.</p> |

Application:

Please send the full application with a motivation letter, curriculum vitae, copies of academic degrees and transcripts of records as a single PDF file to mehdi.tahoori@kit.edu

We prefer to balance the number of female and male employees. Therefore, we kindly ask female applicants to apply for this job.

If qualified, handicapped applicants will be preferred.

Karlsruhe Institute of
Technology
Personalservice

KIT is certified as a family-friendly university (familienfreundliche Hochschule) and offers part-time employment, leaves for family-related reasons, dual career options, and individual coaching for family-work balance.