

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the **Faculty of Computer Science, Institute of Computer Engineering**, the **Chair of Adaptive Dynamic Systems** offers a full-time position as

**Research Associate / PhD Student / PostDoc (m/f/x)
in Near-Memory Computing for RISC-V**

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

starting **as soon as possible**. The position is limited to 2 years, with the option of extension. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position aims at obtaining further academic qualification.

The Chair of Adaptive Dynamic Systems conducts research in the fields of reconfigurable computing, domain-specific computer architectures, networks-on-chip (NoCs), methods and algorithms for application parallelization, simulators and virtual platforms for application- and architecture exploration, hardware/software co-design and operating/runtime systems. Typical application domains are e.g. signal-/image processing and machine learning.

Tasks:

- modeling and simulation of near-memory computing architectures for RISC-V processors using SystemC and field-programmable gate arrays (FPGAs)
- developing machine learning methods to identify suitable computational kernels and optimize their placement within the processor memory hierarchy
- contributing, administrating and reporting in (inter-)national research and development projects
- publishing and presenting results at international conferences
- close cooperation with academic and industrial cooperation partners

Requirements:

- excellent university degree (M.Sc. or equivalent) in computer engineering, computer science, electrical engineering or a related field
- very good programming skills in C/C++
- fluency in English; knowledge of German is an advantage
- high self-motivation, commitment, and flexibility, as well as the ability to work effectively in an international team
- strong background in one or more of the following areas: computer architecture, RISC-V, FPGA-based systems, SystemC, VHDL or Verilog, high-level synthesis, compiler frameworks, artificial intelligence, and/or machine learning

We offer an excellent working environment in an international team with many career development possibilities.

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The university is a family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Application: Please submit your detailed application with the usual documents including a CV, a brief proposal describing their research experience and interests and an official transcript of coursework and grades using the **reference number “ADS_26-01”** by **October 8, 2026** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf file to ads@mailbox.tu-dresden.de or to:

TU Dresden, Chair of Adaptive Dynamic Systems, Prof. Dr.-Ing. Diana Göhringer, Helmholtzstr. 10, 01069 Dresden, Germany.

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

TUD is a founding partner in the DRESDEN-
concept alliance.

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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>.