Postdoc Position – Computer Architecture/VLSI (f/m/d)

Heidelberg University is a comprehensive university with a strong focus on research at the highest international standards. With around 30,000 students and 8,400 employees, including numerous top researchers, it is a globally respected institution continuously ranked among the top 3 German universities and top 50 universities world-wide. Heidelberg University is the oldest university in Germany and boasts of 11 Nobel Laureates.

The Institute of Computer Engineering (ZITI) at Heidelberg University invites applications for a full-time post-doc position at the chair of computer architecture for a duration of 2 years with the possibility of extension for up to 6 years. You will be working with PhD students in the group working on various aspects and levels of **in-memory computing** (IMC), especially memristive IMC, and/or those working on **approximate computing**, especially multiprocessor systems with approximation capabilities.

The position is open and applications will be evaluated on a rolling base until it is filled (upon which the post will be removed from the website). The position provides an exceptional flexibility and a broad range of research and education themes. The skills gained in this position are excellent preparations for a career in academia as well as dynamic industrial environments such as start-ups.

Your tasks:

- Conduct research and publish in high-quality venues
- Cooperation with, guiding, and helping in supervising PhD/graduate/undergraduate students and other researchers in the team
- Prepare and teach one to two courses and help in preparation/teaching of other courses
- Write/help in writing and winning funding proposals
- Interact with project stakeholders, manage and/or help in the execution of funded projects
- Assistance/collaboration in organizational, administrative, and (team) management tasks

Your profile:

- Completed a doctoral/PhD degree in one of these fields: Computer Engineering, Electrical Engineering, Computer Science, Biomedical Engineering or similar
- Experience and skills in one or more of the scientific fields of **(general topics:)** computer architecture, VLSI, SoC, and embedded systems, **(specific topics:)** In-memory computing, memristive circuits and systems, SRAM-based in-memory computing, approximate computing, multi- and many-core SoC, RISC-V, GPGPU, machine learning accelerators and neuromorphic computing, stochastic computing, and other emerging computing paradigms, **(bonus topics:)** modelling as well as design and development of CAD tools (specially simulators) and compilers
- Very good skills in English speaking and writing. German skills are not mandatory but advantageous (willingness to learn German would be a bonus for non-German speakers).
- Very good communication and interpersonal skills
- Skilled and capable of working in teams as well as independently
- Creative and motivated
- Experience in teaching or teacher assistantship
- Experience in fabricating and testing integrated circuits in CMOS technologies would be a bonus, especially if in conjunction with memristive technologies
- Experience in supervising students would be a bonus

We offer:

- A dynamic growth environment for your professional and personal advancement
- Access to top-notch resources and infrastructure as well as flexible working hours
- Networking opportunity and visibility in a wide-spread national and international network with highest quality
- Access to many university-offers such as job-ticket and sport center
- A creative and vibrant environment in an international, science-oriented, and one of the most beautiful cities in Germany, immortalized in the works of Johann Wolfgang von Goethe, Heinrich Heine, and Mark Twain
- An internationally highly competitive salary at E13 level (more than 4'000€/month)

Please submit your application to Nima Taherinejad via (nima.taherinejad@ziti.uni-heidelberg.de). Application documents must be emailed with a title following this example **[PD-CA-2024] {Applicant's Name}** and as **single PDF** file containing (in this order):

1. Cover Letter/Letter of Interest/Motivation Letter (recomm. length: 1 page)
2. Curriculum Vitae: Free form but must include at least the details of your educational background, list of publications, research and teaching experiences, previous work experience, as well as hard (technical) and soft (people) skills
3. Online form copy (3 pages): Please fill this form (https://forms.gle/BDsQmu5bqMCbu1aX9). Once you fill each section of the form, print it as a single page PDF file before clicking on the next/submit button. Combine all three sections in the respective order and include it in your application.
4. Key publications (recomm. length: 1-2 pages): A list of three to five most important publications. Each publication should be accompanied by a short explanation of its importance (key contributions), relevance, and your role in preparing and publishing it as well as a download link (ideally on the published website). If a public link is not available yet, please append them in the "other documents" section immediately after this document.
5. Other documents: Papers from #4 that are not publicly available, plus any other/voluntary additional documents that you believe will strengthen your application and increase your chances. Please bear in mind that these additional documents may or may not be considered during the review process.

If you have any questions or concerns, feel free to send an email to the same address with a title following this example: **[QU-PD-CA-2024] {Applicant's Name}**

Heidelberg University stands for equal opportunities and diversity. Qualified female candidates are especially invited to apply. Persons with severe disabilities will be given preference if they are equally qualified. Information on job advertisements and the collection of personal data is available at www.uni-heidelberg.de/en/job-market

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We look forward to your application!!!

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