IHP GmbH -
Leibniz Institute for High Performance Microelectronics/
Leibniz-Institut für innovative Mikroelektronik

Research associate position (m/f/d) in the field of neuromorphic computing

Job-ID: 5111/25 | Department: Circuit Design | Salary: as per tariff (TV-L) | Working Time: 40h/week | Limitation: initailly 2 years with option of extension | Starting Date: as soon as possible

IHP is an institute of the Leibniz Association and conducts research and development of silicon-based systems and ultra-high frequency circuits and technologies including new materials. It develops innovative solutions for application areas such as wireless and broadband communication, security, medical technology, industry 4.0, automotive industry, and aerospace. IHP employs approximately 400 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25 µm-SiGe-BiCMOS technologies, located in a 1500 m² cleanroom that meets the highest industrial nanotechnology requirements.

The position:

As a member of the Circuit Design Department, you will contribute to the development of novel in-memory computing units and the dedicated integrated circuit (IC) design of various components, primarily using deep nanoscale CMOS technologies. Your main focus will be on the design and optimization of fundamental building blocks (such as voltage reference circuits, low-dropout regulators, and operational amplifiers) as well as more complex circuits (including ADCs and DACs) to develop, fabricate, and characterize a standalone memory unit. In addition, you will participate in project acquisition activities in the area of neuromorphic computing. You will work in an international team of young and experienced members. We see a diversity of perspectives as a great asset to our team.

Your qualifications:

You hold a doctoral degree in Electrical Engineering, or are close to completing your Ph.D. in the field of neuromorphic computing. You have proven experience with emerging non-volatile memory technologies (e.g., RRAM) and possess strong expertise in analog and mixed-signal circuit design, as evidenced by successfully implemented integrated circuits. In addition, you have a solid background in the automation of integrated circuit characterization and testing. We are looking for a team member, who is able to structure his or her own work and to bring a well-organized and systematic way of working into the cooperation with creative minds. You are an ideal match for this position, when you have experimental, analytical and problem-solving skills, very strong communicative skills and the ability to quickly learn how to operate the latest technical equipment including various software.

It is necessary that you confidently handle the English language. Knowledge of the German language is welcome. The deepening of German language skills is expected and highly encouraged, for example in in-house language courses and intensive courses.

Our Offer:

Conduct research in a challenging, multinational environment giving you excellent career opportunities. You will have the chance to establish international reputation at the edge of top-notch technologies.
It is important to us to support the individual career developments (e.g. conferences, advanced trainings) as well as the personal needs of our employees by offering flexible working hours and the possibility to work off-site. The compatibility of work and family is highly valued. More information about our scientific excellence and the working environment at IHP can be found on our website.
IHP is TOTAL E-QUALITY-certified for equal opportunities for women and men at work and actively pursues the equality of all gender and all groups of people. We promote the professional development of women and strongly encourage them to apply. Disabled applicants, qualified according to the above criteria, will be given preference over other candidates with equivalent relevant qualifications.

Further advantages:

30 days holiday | special annual payment | Company pension scheme (VBL) | Flexible working hours, also part-time (no core working hours) | Possibility to work up to 40 % independent of location according to company agreement | Parent-child room as a possibility to work with a child in case of childcare bottlenecks | A wide range of further training opportunities in-house or within the framework of business trips | Discounted company ticket with monthly allowance of € 15 for various fare zones | Good transport connections, free parking at the institute | Canteen with breakfast and lunch | On-site health services | Company family and care guides | Free, confidential counselling by an external service provider in a wide variety of challenging private or professional situations, for example on how to reconcile work and family life or in psychosocial emergencies | Structured induction and actively supported integration into the institute (welcome workshop, intercultural workshop, joint leisure activities)

Your application:

Have we sparked your interest? Then we look forward to receiving your application via our **online application form.**

For further information regarding the position please contact Prof. C. Carta: career@ihp-microelectronics.com.