



Research Associate (m/f/d) in the field of “6G Wireless Communications Systems Design”

Job-ID: 31012/22 | Department: System Architectures | Salary: as per tariff TV-L | Working time: 40h/week (part-time work option) | Limitation: initially 2 years with option of extension | Entry 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 350 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 Wireless Broadband Communications research group within the department of System Architectures you will contribute to research in beyond the state-of-the-art communication technologies. Your tasks will include the development and implementation of 6G wireless communications systems. Research topics include Physical Layer Design for 6G-Communications, Algorithms and Architectures for Joint Communication and Sensing as well as Aspects of Wave-Propagation, Beamforming and MIMO.

An international team of 20 scientists including very experienced senior researchers as well as several PhD students is looking forward to you. Flat hierarchies and mutual support are important to us. We see diversity of perspectives as a great advantage for our team. We strive for a balanced gender mix in our team.

Your qualifications:

You hold a Master's degree in Computer Science, Electrical Engineering, Communications Engineering or a comparable study area. You are already experienced in Wireless Communications Systems and Physical Layer aspects. Ideally, but not mandatory you have a background in developing and implementing PHY layer algorithms and architectures. Some knowledge on wave-propagation and communications systems architectures is beneficial.

Experience in state-of-the-art simulation tools such as MATLAB is mandatory. Some experience in Hardware design (digital and/or analog) as well as the use of relevant tools (VHDL, FPGA) is beneficial.

Depending on your detailed qualifications, the position is suitable both for PhD students as well as Postdocs.



You are also a strong team player. 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 consolidating of German language skills is expected and highly encouraged, for example in in-house language courses and intensive courses.

Our Offer:

Do 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. An orientation guide will help you to quickly integrate into the institute and to familiarize yourself with the field. In the context of your work, you are encouraged to obtaining a PhD degree.

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.

Your application:

Have we sparked your interest? Then we look forward to receiving your application via our [online application form](#).

For further information about the position, please contact Prof. Eckhard Grass: career@ihp-microelectronics.com.



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