



PhD Position (m/f/d) in the Field of Design of Radio Frequency (RF) Circuits for Space Applications

Job-ID: 5086/22 | Department: Circuit Design | Salary: as per tariff (TV-L) | Working Time: 40h/week (part-time work option) | Limitation: initially 2 years with option of extension for three more years | Starting Date: November 1, 2022

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 research group Energy-Efficient Wireless & Analog Circuits within the department Circuit Design you will contribute to research into RF design and design methodology for radiation-tolerant RF circuits for Space applications. Your detailed tasks will include the design, layout and experimental verification of transceiver circuits intended for on-satellite wireless communication as well as localization applications. Energy efficiency, radiation tolerance and reliability under harsh environmental conditions are key requirements for a successful design.

An international team of 25 researchers including very experienced senior and junior scientists as well as PhD students is looking forward to welcoming you in their team. Flat hierarchies and mutual support are important to us. We see diversity of perspectives as a great advantage for our team and strive for a balanced gender mix.

Your qualifications:

You hold a Master's degree in Electrical Engineering or a comparable study area with focus on integrated circuit design. You are already experienced in using EDA software for integrated circuit design. Ideally, but not mandatory you have a background in RF circuit design and knowledge on SiGe-Heterobipolartransistors (HBT) including their semiconductor technology. Finally, you are also a strong team player and confidently handle the German and English language.

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 very welcome. The consolidating 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. An orientation guide will help you to quickly integrate into the institute and to familiarize yourself with the field.

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 **until September 15, 2022** via our [online application form](#).

For further information regarding the position please contact Dr. Gunter Fischer: career@ihp-microelectronics.com.

