



Research Associate (m/f/d) for Development of Integrated Photonic Electronic Devices & Circuits

Job-ID: 7078/24 | Department: Technology | Salary: as per tariff (TV-L) | Working Time: 40h/week (part-time option possible) | Limitation: initially 2 years with option of extension | Starting Date: as soon as possible

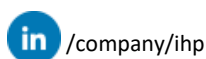
IHP is an institute of the Leibniz Association and conducts research and development of silicon-based systems and ultra-high frequency circuits and technologies including new materials. It develops innovative solutions for application areas such as wireless and broadband communication, security, medical technology, industry 4.0, automotive industry, and aerospace. IHP employs approximately 380 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 "Silicon Photonics" within the department Technology you work closely with "Process Integration" and "Process & Device Research" groups. You will contribute to research & development of advanced silicon photonics technologies, devices and circuits. Your tasks will include development & study of prototypes of innovative integrated devices and circuits for quantum communications as well as broadband optical transmission, reception and amplification for on and off-chip signaling. An international team of more than 15 people is looking forward to working with you. Flat hierarchies and mutual support are important to us. We see diversity of perspectives as a great advantage for our team.

Your tasks:

You will develop SiPho IQ modulation circuits for low and high photon count information exchange. You will also perform numerical analysis, device optimization and characterization/demonstration of integrated light sources & associated circuits. In addition, you will develop and advance the corresponding device & compact models & verification in integrated test circuits.





Your qualifications:

You hold a university degree (Bachelor's/Diploma/Master's) in physics, mathematics, electrical engineering, electronics, microelectronics or a comparable study area. A PhD in an area related to electronic/photonic device and circuit development is an advantage. You are already experienced with functional principles and technology of electronic and photonic components. You have good programming and analytical skills. You have a track-record of first scientific publications and presentations at scientific conferences.

You are also a strong team player with generally good technical understanding, prudence and practical skills in working with complex mechanical and electronic measurement systems. 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.

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 Dr. L. Zimmermann: career@ihp-microelectronics.com.

