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

PhD Position (m/f/d) for Plasmonic Sensor Development

Job-ID: 0073/26 | Department: Material Research | Salary: as per tariff (E13TV-L) | Working Time: 40h/week | Limitation: initially two years with option of extension | Starting Date: 01.01.2027

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 PhD student and a member of the Adaptive Materials research group within the "Materials Research" department, you will contribute to the development of plasmonic sensor systems. Your responsibilities will include the characterization and modelling of CMOS compatible plasmonic sensing devices and their integration into systems. You will join an international team of scientists, including highly experienced researchers and several PhD students, who are looking forward to welcoming you and working with you. We value diversity of perspective highly and are pleased to have a gender-balanced team.

Your project:
The project's ambition is to transfer knowledge into industry. A strong interaction with the project leader, the laboratory leaders and the partners of the project consortium is foreseen.

Your qualifications:
You hold a Master's degree in matter physics, semiconductor devices, materials science, microelectronics or a related field. You have previous experience in optical characterization of plasmonic structures and devices. You are also experienced in data analysis. You have a background in semiconductor materials characterization.
We need you to be a strong team player, able to effectively plan and execute your own work, and to work in an organized manner with other creative minds. You will be ideally suited for this position if you have experimental, analytical and problem-solving skills, very strong communication skills, the ability to quickly learn how to use the latest technical equipment including various software, and most importantly, if you are an independent thinker.

As IHP is an international research center, it is necessary that you are fluent in English. German language skills are welcome. The improvement of German language skills is expected and strongly encouraged, e.g. through 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 | 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 | Structured induction and actively supported integration into the institute (welcome workshop, intercultural workshop, joint leisure activities)

Your application:
Have we sparked your interest? We look forward to receiving your application in German or English via our **online application form.**

For more information about the position, please contact Prof. Dr. Christian Wenger: wenger@ihp-microelectronics.com.