



## **Master project:** Optimization of photomask specification process in an advanced SiGe-BiCMOS technology

Job-ID: 7063/19 | Dept.: Technology | Limitation: according to individual study program regulations | 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 330 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25  $\mu\text{m}$  BiCMOS technologies, located in a 1000 m<sup>2</sup> class 1 cleanroom.

The pilot line requires reticles which are strategically placed and ordered from an external provider. In this context you will join the data preparation team to help with the investigation of optimization of the ordering process.

### **The Tasks:**

- Developing a calculation tool based on Microsoft office to support the optimization of photomask ordering in a semiconductor research & prototyping pilot line
- Collecting, structuring and reporting data, then proposing a model to optimize photomasks specifications and cost

### **Your Qualifications:**

- Bachelor degree or equivalent in the field of microelectronics or semiconductors or another relevant field
- Curiosity and proactivity on a technical topic
- Basic knowledge of semiconductor technology
- Knowledge in Microsoft office tools
- Fluency in either English or German, handling both languages will help to carry a successful investigation

### **The position offers the following opportunities:**

- Learning the process of photomask fabrication, investigating and understanding its challenges
- Learning about lithography processes and understanding their challenges
- Interacting with different groups to gather information and data related to the topic of research

You have the possibility to work in a dynamic and multinational research institute for microelectronics with flexible working hours. Combine your theoretical knowledge from university with practical working experience.

IHP aims to achieve a balanced gender composition in the workforce. 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. René Scholz:  
[scholz@ihp-microelectronics.com](mailto:scholz@ihp-microelectronics.com).

