Scientist (m/f) for Low-Noise Design Methodology

Job-ID: 4108/17 | Dept.: System Design | Salary: according TV-L | Limitation: 1 year | Part Time (50%) | Entry Date: 01.01.2018

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 300 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25 µm BiCMOS technologies, located in a 1000 m² class 1 cleanroom.

The Research/Position:

- Analysis of methodologies for substrate noise suppression by optimal shaping of switching activities
- Investigation of the optimized GALS partitioning strategies
- Evaluation of GALS methods against synchronous methods for substrate noise reduction
- Confirmation of the methodology by design of the ASIC demonstrator and measurements in silicon

Your Qualifications:

- Master degree in Electrical Engineering
- Strong background in digital circuit architecture and design, transistor level circuit design, and microelectronics
- Theoretical knowledge of mathematical analysis and modeling of switching noise
- Experience in ASIC implementation, front-end and back-end ASIC design flow and tools (such as Cadence and Synopsys)
- Very good oral and written skills in English and German

Our Offer:

Do research in a challenging, multinational environment, with excellent career prospects. You will have the opportunity to establish an international reputation at the forefront of high tech. It is important to us to support the individual career developments of our employees (e.g. conferences, advanced trainings). More information about our scientific excellence, employment and life at IHP can be found on our website.

IHP seeks to incorporate more women into the science field. Therefore, women are strongly encouraged to apply. Disabled applicants, qualified according to the above criteria, will be given preference over other candidates with equivalent relevant qualifications.

Your Application:

We are looking forward to your application. Please send your motivation letter, CV, copies of university certificates (incl. transcript of grades) as well as working certificates and addresses of at least two referees (quoting the Job-ID) until 26th October 2017 to: career@ihp-microelectronics.com.

For further information regarding the position please contact Prof. Dr. Milos Krstic (Department System Design): krstic@ihp-microelectronics.com.