Research associate / PhD candidate (f/m)

Job description:

The Institute of Radio Frequency Engineering and Electronics conducts research in the field of highly-integrated millimeter-wave wireless modules and integrated photonic-electronic systems. The state-of-the-art semiconductor technologies e.g. SiGe, GaAs, along with flip-chip bonding, 3D printing and other packaging technologies are deployed for this purpose. The major research goal is to develop concepts for miniature millimeter-wave systems with integrated antennas or photonic components, which could be manufactured at a low-cost for mass-market applications, such as wireless communication links with data rates exceeding 100 Gbps, modules for fiber optic communication, compact and high-accuracy sensors for industrial automation, drones and so on. Additional research associates / PhD candidates are required for the following research topics:

- Integrated millimeter-wave circuits (RF-CMOS, SiGe, GaAs)
- Millimeter-wave antennas and packaging solutions

The job profile includes working on the research projects as well as independent coordination of projects. Further, the associate should independently supervise students/interns, implement the results of his/her research work in the form of prototypes and take up teaching tasks as well.

The associate will work in an interdisciplinary research field, located at the cross-section of electronics, information technology, computer science and mechanical engineering, which offers an enormous amount of scientific freedom. The duration of the PhD typically varies from 3 to 5 years. KIT is outstanding in terms of its international network. The associate will have the opportunity to work towards highly-sophisticated and demanding scientific tasks, which will require a high degree of independent-work as well as advanced learning.

Qualification:

The candidate should have an excellent master’s degree in the field of electronics and information technology or physics. An experience in the field of circuit technology/millimeter-wave technology is desirable. Ideally, the candidate should have prior-knowledge in the field of electromagnetic field simulations, antennas or circuit design. We expect a high level of interest in conducting scientific research, team spirit, communication and the ability to work independently. Ideally, the candidate should be familiar with the radio frequency measurement equipment. Good speaking and writing skills in German and English are required.
We offer:

We offer an attractive and modern workplace with access to excellent facilities of KIT, diverse and responsible tasks, a wide scope of advanced training options, supplementary pension with the VBL (Pension Authority for Employees in the Public Service Sector), flexible working time models, a job ticket (BW) allowance, and a cafeteria/canteen.

Salary:

The salary is based on the Wage Agreement for Public Service in the States (TV-L, E13).

Institute:

Institute of Radio Frequency Engineering and Electronics (IHE)

Contract duration:

Limited to one year.

Starting date:

As soon as possible

Applications up to:

25.11.2018

Additional information:

For further information, please contact Prof. Dr.-Ing. Thomas Zwick, E-Mail: thomas.zwick@kit.edu

Application:

Interested candidates are asked to send a motivation letter, curriculum vitae, copies of academic degrees and transcripts of records as a single PDF file by email to Marion Jentzsch (Email: marion.jentzsch@kit.edu)

We prefer to balance the number of female and male employees. Therefore we kindly ask female applicants to apply for this job.

If qualified, handicapped applicants will be preferred.