Research Assistant (m/f/d)
Antenna Measurements

Our Profile

The Institute of High Frequency Technology comprises the Chair of High Frequency Technology (Prof. Dr.-Ing. Heberling, Institute Director), the Chair of Radar Systems Engineering (Prof. Dr.-Ing. Knott) and the research group Aachen of the Fraunhofer Institute for High Frequency Physics and Radar Techniques with currently a total of 22 scientists.

While the Chair of High Frequency Technology is primarily focused on the development of antennas and antenna measurement techniques, the work at the Chair of Radar Systems Technology deals with architectures and components for radar systems in various applications.

In order to fulfil the manifold tasks in research and teaching, the institute has extensive hardware and software equipment. In the field of antenna measurements, the institute has three measurement chambers: a hybrid compact antenna test range for performing spherical near- and far-field as well as radar cross-section measurements, a planar near-field measurement chamber, and a robot-based measurement chamber. The flexibility of the robot-based setup allows the measurement of arbitrary surfaces and also enables the characterization of radar system parameters, both by means of static or dynamic test scenarios.

We are a young, dedicated team and work on both fundamental and applied research questions. The most current research topics in antenna measurement techniques consist of the implementation of compressed sensing in the spherical near-to-far-field transformation, phase-less spherical near-field measurements, and test-zone field compensation to increase the measurement accuracy and relax the requirements for today's measurement chambers. We also regularly participate in international comparison campaigns to benchmark our measurement techniques and processing algorithms as well as to compare them with other renowned institutes from industry and research.

Your Profile

You have a university degree (Master's or comparable) in electrical engineering with predominantly communications engineering content from a technical university with above-average success. You have a strong knowledge of high-frequency engineering and are eager to further develop your knowledge in the field of antenna measurement techniques and to contribute this knowledge to scientific projects and to pass it on to students in the context of teaching activities. You are interested in antenna measurement methods such as the near-field measurement technique or measurements in compact antenna test ranges.

You have a conscientious and very independent working style, are communicative, a team player, and have a very good knowledge of the English language in which you enjoy writing technical documentations. You have excellent knowledge in MATLAB. Experience with MS-Office and good knowledge of the German language are desirable but not mandatory.

Ihre Aufgaben:

- Participation in the development of research ideas as well as application and independent management and successful implementation of industrial and research projects in the field of antenna measurement techniques
- Development of algorithms for the implementation of novel measurement methods as well as their evaluation
- Publication of scientific milestones at national and international conferences as well as journals
- Participation in the education of young students by supervising relevant student work and by assisting in teaching
- Assumption of general tasks for the maintenance of the institute's operations

What We Offer

The position is initially limited to 2 years and to be filled at the earliest possible date. An extension to 4 years is possible and desirable.
This is a full-time position.
The successful candidate has the opportunity to pursue a doctoral degree.
The salary corresponds to pay grade EG 13 of the German public service salary scale (TV-L).

RWTH is a certified family-friendly University. We support our employees in maintaining a good work-life balance with a wide range of health, advising, and prevention services, for example university sports. We also offer a comprehensive continuing education scheme and a public transportation ticket available at a significantly reduced price.
RWTH is an equal opportunities employer. We therefore welcome and encourage applications from all suitably qualified candidates, particularly from groups that are underrepresented at the University. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of national or ethnic origin, sex, sexual orientation, gender identity, religion, disability or age. RWTH is strongly committed to encouraging women in their careers. Female applicants are given preference if they are equally suitable, competent, and professionally qualified, unless a fellow candidate is favored for a specific reason.
As RWTH is committed to equality of opportunity, we ask you not to include a photo in your application.
You can find information on the personal data we collect from applicants in accordance with Articles 13 and 14 of the European Union's General Data Protection Regulation (GDPR) at http://www.rwth-aachen.de/dsgvo-information-bewerbung

Contact

If you have any questions, please contact

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For further information, please visit our website at: http://www.ihf.rwth-aachen.de
Please send your application by September 3, 2021 to

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Applicants are invited to submit their applications via email to post@ihf.rwth-aachen.de. For data protection reasons, however, we recommend sending applications via mail.