Fraunhofer
IIS

Research Associate –

Development 5G Mobile Communication Systems

The Fraunhofer-Gesellschaft (www.fraunhofer.com) currently operates 76 institutes and research institutions throughout Germany and is the world's leading applied research organization. Around 30,000 employees work with an annual research budget of 2.9 billion euros.

Our Broadband and Broadcast Department is driving the development of new technologies for wireless communication systems. Our services include system design and analysis, waveform design and algorithm development, implementation of real-time prototypes in hardware and software, protocol design and overall system validation.

Are you interested in developing powerful communication systems in the 5G environment – from the basics all the way to production readiness?

Then we have just the job for you!

What you will do
- Developing algorithms for novel communication systems such as 5G technology extensions and verification in simulation
- Implementing and testing signal processing on the software defined radio platform Open Air Interface 5G in C/C++, with focus on the physical and MAC layer
- Performance analysis of latest 5G technologies from 3GPP with the developed real-time capable prototypes and/or their components in the laboratory using a powerful channel emulator

What you bring to the table
- Master's degree in the field of Communications Technology or a similar subject
- Good knowledge of 4G and 5G mobile communication systems
- Good command of English

Skills required:
- C Programming
- Embedded Software Development
- Linux
- Version control system (git, subversion)
- Communication Systems – Physical Layer and / or MAC layer
- Lab / Field Testing

Ideally knowledge in:
- Open Air Interface
- Software Architecture Design
- Scripting Language (Perl, TCL, bash/csh)
- C++ Programming
- MATLAB for Communication Systems
- 3GPP 5G NR or LTE

The position is also suitable for those just beginning their careers with appropriate knowledge and experience from internships, their studies or dissertations.

What you can expect
By working on a wide range of projects with a strong practical component, you will help shape the technology of tomorrow. We offer an open and friendly working environment and a personalized development plan tailored to your

needs through our comprehensive range of further training/education opportunities. We promote your work-life balance by offering flexible working hours and various support offers that help in your balancing private life and career.

The weekly working time is 39 hours. The position is initially limited to 2 years with the aim to extend it subsequently. We value and promote the diversity of our employees' skills and therefore welcome all applications - regardless of age, gender, nationality, ethnic and social origin, religion, ideology, disability, sexual orientation and identity. Appointment, remuneration and social security benefits based on the public-sector collective wage agreement (TVöD). Additionally Fraunhofer may grant performance-based variable remuneration components.

With its focus on developing key technologies that are vital for the future and enabling the commercial utilization of this work by business and industry, Fraunhofer plays a central role in the innovation process. As a pioneer and catalyst for groundbreaking developments and scientific excellence, Fraunhofer helps shape society now and in the future.

Interested?
Apply online now (PDF: cover letter, CV, transcripts). We look forward to getting to know you!

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Requisition Number: 33699   Application Deadline: None   Location: Erlangen