

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

YES.

We'll show you how at Fraunhofer IIS.

Research Associate in communications systems with AI methods

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 Communications Systems division develops both messaging systems and methods as well as (neuromorphic) hardware for processing signals on embedded devices at the edge that are particularly energy efficient by using methods from AI. Our goal is to help shape the next generation of intelligent communication systems - to this end, we successfully investigate, develop, and test waveforms, algorithms, architectures, and implementations that enable us to make novel applications work in the real world.

What you will do

You will further develop the methodology and application of Artificial Intelligence in signal processing systems (among others in the context of our large-scale project Digital Signal Processing with AI Methods DSAI). For this purpose, you will develop methods to lead conventional communications technology to higher performance, bandwidth, and hardware efficiency in real-world applications by using AI concepts such as Deep Learning with LSTMs. Likewise, you will develop concepts for highly reliable next-generation mobile radio systems and be involved in their design, simulation, implementation, and testing.

What you bring to the table

- Completed scientific university studies in a STEM subject. A doctoral degree is an advantage.
- Knowledge in communications engineering (PHY/MAC layer) as well as basic knowledge in Deep Learning.
- Programming skills, preferably in Python, Julia, Matlab or C/C++.
- Experience with hardware related programming and Open RAN is an advantage
- Very good English and Good German or willingness to learn German.
- Basic experience in project management is an advantage

What you can expect

- By working on versatile projects with a high practical relevance, you can actively shape the technology of tomorrow. We offer you an open and collegial environment as well as individual development tailored to your needs through a comprehensive range of further qualifications. We support your work-life balance through flexible working hours as well as various support offers for the compatibility of private and professional life.
- Involvement in the development of novel methods of AI in communications engineering and implementation in practice.
- Optionally and with appropriate suitability there is the possibility of doctoral studies

The weekly working time is 39 hours. The contract is initially limited to two years with the possibility of extension. The position can also be filled on a part-time basis. 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. Severely disabled persons are given preference in the event of equal suitability. 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: Motivation letter, CV, certificates). We look forward to getting to know you!

Ms. Meike Hillenbrand

Fraunhofer-Institute for Integrated Circuits IIS

www.iis.fraunhofer.de/en

Requisition Number: 41044

Application Deadline: none

Location: Erlangen

