

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

YES.

We'll show you how at Fraunhofer IIS.

Student Assistants/ Interns/ Thesis Students

Hardware or VHDL Development in Satellite Navigation

In many applications of everyday life (e.g., navigation) and critical infrastructures (e.g., energy, IT, or mobile networks), Global Navigation Satellite Systems (GNSS) are used as an information source of position and time. It requires receiver and antenna technologies that provide precise and reliable position and time information. The Satellite-Base Positioning Systems Department of the Fraunhofer IIS in **Nuremberg** develops and tests satellite navigation receivers and antennas for various applications. Signals from Galileo, GPS, GLONASS, BeiDou, and SBAS are processed in the multi-frequency range.

We are constantly looking for interested and motivated students with hardware development and VHDL skills. A list of possible student topics to work on can be found below. Do not hesitate to contact us, if you want to propose a similar topic.

Please include a **cover letter** in your application that states which topics interests you, what type of contract you are interested in (HiWi/ intern/ thesis) and your possible weekly working hours. An exact outline for your task definition will be done in the interview process, depending on your personal preferences and skills.

Possible tasks:

- Signals processing and optimization (VHDL)
- RISC-V (VHDL | C)
- Embedded system development (C | C++ | VHDL)
- Record and replay of GNSS signals (VHDL)
- Interference detection and mitigation (VHDL)
- System testing (VHDL | C | C++)
- Hardware security (VHDL | C)
- Antenna development and testing (HFS)
- RF circuit design (SPICE | PCB development)
- Hardware assembly
- Electromechanical design (CAD | 3D printer)

What you bring to the table

- You are currently studying Electrical Engineering, Information and Communication Technologies, Mechatronics, or similar
- You are busy with your Bachelor or Master studies
- You have good knowledge in at least one of the following: VHDL, PCB design, analog/ digital circuitry, embedded C/C++
- You bring a high motivation to solve problems independently
- You bring good social skills and are fluent in English
- Your knowledge in GNSS, signal processing, Python or Git is a bonus

What you can expect

- **Flexible** working hours
- **Open** and **friendly team work**
- **Varied** tasks with room for **creativity**
- Exciting **seminars** and **events**
- **Networking** with scientists
- **Active contribution** in applied research
- **Interesting** an **innovative** projects

If you have any questions about this opening, please contact Inigo Cortes (inigo.cortes@iis.fraunhofer.de).

Weekly working hours are determined by agreement. You can start from now on (as a student assistant from **10 to 20** hours a week or as an intern for a period of at least three months). You can reduce your hours before exams and increase them during semester breaks. You can flexibly determine the working days.

We would be happy to offer you the opportunity to write a bachelor's or master's thesis in cooperation with us in the above-mentioned subject area. The thesis will be assigned and carried out in accordance with the rules of your university. For this reason, please discuss the thesis with a professor who can advise you over the course of the project.

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.

Interested?

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

Fraunhofer-Institute for Integrated Circuits IIS

www.iis.fraunhofer.de/en

Requisition Number: 60782

Application Deadline: none

Location: Nuremberg

