## Barkhausen Institut gGmbH - Internet der Dinge

barkhausen institut

The Barkhausen Institut performs research on the latest hardware, software and communication technologies and demonstrates their application in tomorrow's society. Our goal is to build a flexible and trustworthy IoT platform based on reliable electronics and secure communication methods. The Wireless Connectivity and Sensing group aims to contribute towards a dependable Internet-of-Things for the next generation of wireless communication systems. We focus on mathematical analysis, simulation studies and demonstrations of multi-connectivity, physical layer security and joint communication and sensing.

# Student Assistant – Wireless Signal Processing (m/f/d)

City: Dresden; Starting date (earliest): At the earliest possible; Remuneration: by agreement; Reference number: SHK Wireless Simulations

### Tasks

The SHK will investigate state of the art simulation and digital signal processing techniques for the physical layer of joint communication and sensing wireless systems. They will configure and extend Barkhausen Institut’s software suite HermesPy to reproduce and verify published signal processing research.

Your tasks:

- Contribute source code and extend documentation of a Python codebase
- Reproduce cutting edge wireless signal processing research results
- Supervise software defined radio measurement setups

### Requirements

- Study of electrical engineering, computer science or comparable
- Good communication and writing skills in English
- Knowledge of high-level object-oriented programming, preferably Python
- Basic knowledge of digital signal processing techniques

### What we offer

- An open and creative team of enthusiastic scientists
- Office and laboratory space directly in Dresden’s city center
- Agile working hours and workflows
- Work on future technologies
- The option to derive a supervised thesis topic from your work

Payment for the position depends on your degree. If you do not yet have a degree, we pay € 15,20 per hour. If you have a bachelor's degree, we pay € 16,74 per hour. If you

have a master's degree or diploma, we pay € 21,00 per hour.

If you have passion for new technologies and the desire to develop the connected world of tomorrow with us, we are looking for you.

Life and science are compatible at our institute. We offer a range of recognised family-friendly measures, such as part-time work, mobile working and flexible working hours that take family needs into account. We also offer support for arriving in Dresden (all formalities, apartment etc.).

**Application**

Short letter of motivation and curriculum vitae to careers@barkhauseninstitut.org. We only accept complete documents as one single PDF document by e-mail. Applications that contain other file formats (e.g. Word, Excel) will not be considered in the selection process. Informal inquiries can also be submitted to the same address. Please reference “SHK Wireless Simulations” in the subject line.

Barkhausen Institut strives for gender and diversity equality. We welcome applications from all backgrounds. Severely disabled persons are given preference in the event of equal suitability.

The data submitted by you during the application procedure will be processed by the Barkhausen Institut (BI). BI shall use the data for the purposes of the application procedure. No data shall be passed on to third parties.

Reference number: SHK Wireless Simulations

By email: careers@barkhausen.org

More information at https://stellenticket.de/208973/TUD/
Offer visible until 27/12/26