



The **Brandenburg University of Technology Cottbus–Senftenberg (BTU)** is a young up-and-coming university and the only technical university in the state of Brandenburg. With more than 1,500 employees, BTU is one of the largest employers in Lusatia and is particularly convincing here due to its compatibility of work and family life.

In **Faculty 1 MINT - Mathematics, Computer Science, Physics, Electrical Engineering and Information Technology**, the following position is **to be filled as soon as possible in the Department of Radio Frequency and Microwave Technology** in Berlin as part of a third-party funded project:

Academic staff (m/f/d) – Linear Sub-THz InP HBT Electronics

fixed-term for 36 months, full-time, E 13 TV-L

Reference number: 223/24

InP electronics are gaining importance in high-performance applications in the sub-THz range. As part of a DFG-funded research project, the linearity of InP HBTs is to be researched and improved in a joint effort with the University of Duisburg-Essen and the Ferdinand-Braun-Institut, Leibniz-Institut für Höchstfrequenztechnik, Berlin. Your task within the project will be to derive a physics-based model of the transistors. This begins with numerical simulation (TCAD) of the device physics, includes the derivation of analytical descriptions of the transistor behavior and is intended to expand the compact FBH-HBT model and thus enable circuit design in InP-HBT technology.

These are your tasks:

- scientific work within the framework of the research priorities of the department
- Collaboration in the preparation and implementation of third-party funded projects, here in the project: "Improvement of the linearity of InP DHBTs for SubTHz broadband applications"
- Lecture and publication activities on the subject of research
- Creation of articles for reports and presentations
- Other research-related administrative tasks

This is what you bring with you:

You have successfully completed a scientific university degree within the meaning of the fee schedule for the TV-L (accredited Master's / university diploma / equivalent) in a field relevant to the activity (electrical engineering, physics or comparable).

Personally, you are characterized by the ability to work scientifically, independence, flexibility and good communication skills.

For further information about the position to be filled, please contact Prof. Dr- Ing. Matthias Rudolph (e-mail: matthias.rudolph@b-tu.de, phone: 0355 69-4118).

This is what we offer you:

You can expect exciting and varied tasks in a highly innovative research project.

The BTU offers you excellent conditions for your scientific qualification and research. In addition, there are many advantages of the Cottbus–Senftenberg science location, which impresses in particular with its interdisciplinarity, such as convenient transport connections to Berlin or Dresden and attractive and inexpensive housing options in the Lusatian Lake District.

You can expect far-reaching options for flexible working hours, such as working from home, in order to enable a better work-life balance and to achieve higher job and result satisfaction through more personal responsibility in the design and implementation of your work.

Become a part of the BTU family. We look forward to meeting you.

The BTU Cottbus-Senftenberg is committed to equal opportunities and diversity and strives for a balanced gender ratio in all employee groups.

The BTU strives to increase the proportion of women in research and teaching and therefore strongly encourages qualified female applicants to apply.

The submission of application photos will not be required.

Please note the detailed [information on the selection procedure](#) on the website of the BTU Cottbus–Senftenberg.

Please send **your application documents** in one PDF document **exclusively by e-mail until the 19.11.2024** to the **Dean of Faculty 1 MINT - Mathematics, Computer Science, Physics, Electrical Engineering and Information Technology, Brandenburg University of Technology Cottbus-Senftenberg**, e-mail: fakultaet1+bewerbungen@b-tu.de, stating the reference number.



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