Technische Universität Braunschweig - Institute of Semiconductor Technology

With around 16,000 students and 3,800 employees, the Technische Universität Braunschweig is one of Germany´s leading institutes of technology. It stands for strategic and performance-oriented thinking and acting, relevant research, committed teaching, and the successful transfer of knowledge and technologies to the economy and society. We consistently advocate for family friendliness and equal opportunities. Our research focuses are mobility, engineering for health, metrology, and city of the future. Strong engineering and natural sciences are our core disciplines. These are closely interconnected with economics, social and educational sciences and humanities. Our campus is located in the midst of one of the most research-intensive regions in Europe. We work successfully together with over 20 research institutions in our neighborhood as we do with our international partner universities.

Scientific Manager (m/f/d)
for our new large and strategic research initiative
“BRIGHT” in the Nitride Technology Center NTC

(up to TV-L E14, up to 100%) The Institute of Semiconductor Technology is the speaker institute of the Nitride Technology Center NTC, one of the largest university-based research initiatives in the field of GaN technology. More than 20 groups are working on materials, analysis, chip processing and systems integration, both in the field of photonics as well as power and HF electronics. We are offering a fully funded position (initially limited to 5 years). The position is central to our NTC BRIGHT initiative. The candidate will manage the collaboration inside the NTC BRIGHT consortium, lead the NTC BRIGHT office and support the speaker in quality management, identification of strategic directions, exploitation of scientific achievements and project development. BRIGHT will “Bring Light to Microelectronics”, by developing GaN/CMOS chiplet technology. This includes front end GaN chip-processing as well as the development of silicon CMOS microelectronics as backplanes. The BRIGHT consortium includes groups more than 20 teams from nitride technology, nano-characterization, front-end chip-processing, hybrid integration and CMOS design, as well as from applications like optical neuromorphic computing, power electronics, optical communication and sensing, AI and deep learning, and autonomous systems like autonomous aerial vehicles. Prof. Andreas Waag, the speaker of the NTC BRIGHT initiative, is a leading expert in GaN technology and its applications. His team is devoted to device inspiring research and has made key contributions to many areas of GaN technology and its applications. This includes the exciting new field of optical neuromorphic processing enabled by novel GaN microLED modules. You will join this visionary initiative at an early stage and take a key position for shaping microLED technology and its application. Your work will be primarily managing the large consortium of more than 20 diverse teams from TU Braunschweig, Leibniz Universität Hannover, Physikalisch-Technische Bundesanstalt Braunschweig PTB, and Ostfalia University of Applied Sciences. We are looking for a highly motivated candidate who will contribute talent, creativity, and commitment to an extremely dynamic research environment. NTC BRIGHT is based at the Institute of Semiconductor Technology (IHT), which houses dedicated cleanroom infrastructure through the Nitride Technology Center and Epitaxy

Competence Center. We are part of the Laboratory for Emerging Nanometrology (LENA), which provides cutting-edge micro- and nanoscale characterization tools. Our research is embedded within the Cluster of Excellence QuantumFrontiers and the Quantum Valley Lower Saxony (QVLS), as well as the Cluster of Excellence PhoenixD. We also maintain strong national and international collaborations.

City: Braunschweig; Starting date (earliest): 01/10/25; Duration: 5 years;
Remuneration: EG 14 TV-L; Closing date: 15/09/25

Working field

• playing a central role in aligning the scientific activities of the various teams
• collaborating closely with the management board in continuously reviewing strategic directions
• leading the office team of the NTC BRIGHT consortium (presently one more position, to be filled)
• identifying promising novel applications and initiate technology transfer
• maintaining and cultivating a network of public-private-partnerships
• building up international visibility
• maintaining intense communication with our stakeholders (ministry, presidential boards)
• collaborating closely with in-house experts in optics, microelectronic design, clean-room processing (including nitride, silicon, and hybrid platforms), advanced micro/nano metrology, CMOS design
• bridging the gap between groups from semiconductor technology and applications, like optical neuromorphic processing, AI and deep learning, communication technology and autonomous aerial vehicles
• engaging with world-class research centers in semiconductor technology and its applications.
• contributing to collaborative projects with external partners and integrate into a dynamic, interdisciplinary team of Andreas Waag at IHT.

You will gain valuable international experience, with the opportunity to conduct visits abroad, at our international partners, if desired. Besides these key tasks, you will have the opportunity to identify you own research area and publish extensively in leading scientific journals and participate in national and international conferences, in order to build your own scientific career. You may also be involved in teaching activities, including course preparation and supervision of student theses.

Requirements

• A scientific university education (preferably PhD degree) in the field of physics, electrical engineering or similar.
• Experience preferred in one of the topics of the BRIGHT consortium, like e.g. semiconductor technology, optics or quantum technology, but not a prerequisite.
• Very high proficiency in English, fluency in the German language is preferable.
• You are flexible, can perform under pressure and work well in a team.

What we offer

• Pay in accordance with the collective agreement TV-L, pay grade up to E14 with up to 100%, depending on the assignment of tasks and fulfilment of personal requirements.
• A special payment at the end of the year as well as a supplementary benefit in the form of a company pension, comparable to a company pension in the private sector.
• Counting with the support of neighbored office teams from the Cluster of Excellence QuantumFrontiers, the Quantum Valley Lower Saxony, as well as the Institute of Semiconductor Technology.
• Interesting and diverse tasks in a pleasant working atmosphere with a friendly and motivated team.
• A workplace that is basically suitable for part-time work, although the position is to be filled full-time, as well as flexible working and part-time options and a family-friendly university culture, awarded the “Family-friendly university” audit since 2007.
• A wide range of continuing education and company health care programs as well as a vibrant campus life in an international atmosphere.
• Financial support to carry out research stays abroad.

Application

We welcome applicants of all nationalities. At the same time, we encourage people with severe disabilities to apply. Applications from severely disabled persons will be given preference if they are equally qualified. Please attach a proof of disability to your application. We are also working on the fulfilment of the Central Equality Plan based on the Lower Saxony Equal Rights Act (Niedersächsisches Gleichberechtigungsgesetz—NGG) and strive to reduce under-representation in all areas and positions as defined by the NGG. Therefore, applications from women are particularly welcome in this case.

The personal data will be stored for the purpose of processing the application. By submitting your application, you agree that your data may be stored and processed electronically for application purposes in compliance with the provisions of data protection law. Further information on data protection can be found in our data protection regulations at https://www.tu-braunschweig.de/datenschutzerklaerung-bewerbungen .
Application costs cannot be reimbursed.

Questions and Answers
Do you have any questions? For more information, please contact Dr. Jana Hartmann: +49 531 391 3761.

Deadline for applications is September 15, 2025.

If we have aroused your interest, please send your application with informative documents in PDF format, preferably by e-mail to jana.hartmann@tu-braunschweig.de or by post to

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Institute of Semiconductor Technology
Attn: Dr. Jana Hartmann
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38106 Braunschweig

More information at https://stellenticket.de/196968/TUB/
Offer visible until 15/09/25