



## Research Assistant (m/f/d)

The Zittau/Goerlitz University of Applied Sciences sees itself as a responsible employer promoting the potential of its employees based on equal opportunities and family-friendliness. It offers a motivating environment that enables and recognizes excellent performance. Commitment of all those involved and openness to change are essential.

### VACANCY

At the Zittau/Goerlitz University of Applied Sciences, the Institut für Oberflächentechnik (Surface Engineering Institute), for the project „**Optimization of dielectric interfaces using nano structured surfaces**“ funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation), invites applications for the vacancy (40 hours/week) of

#### **Research Assistant (m / f / d) - Keyword: Longitudinal Interfaces**

To be filled presumably from November 1, 2021 and limited until October 31, 2024. This position allows for a cooperative doctorate.

At inclined interfaces formed by different materials changes of the electrical field distribution are very well known. Additionally, cavities can arise due to surface roughness and assembly inaccuracies, which allow partial discharges above a certain size, which lead to damage to the insulating material and the interface. In this DFG project, the wrinkling process by means of plasma modification is intended to create the required structure sizes (resulting in cavities below 10  $\mu\text{m}$ ) on the surface of longitudinal interface materials to increase the electrical interface strength and subsequently reduce the use of additional materials and reduce the component size.

The job holder has to cover following **tasks** in particular:

- Design and construction of a scientific test setup to determine the interfacial strength of elastomers,
- Modelling, calculation and evaluation of the dielectric behaviour of the interface using the FEM method,
- Developing of physical principles of the model and performance of validating measurements in high-voltage test fields,
- Coordination and organization of the collaboration with the cooperation partner as well as writing and presenting interim and final reports in the course of the project,
- Writing scientific contributions for international and national anthologies, conferences and congresses and their presentation and discussion as well as
- Discussion of scientific content with industry partners and other research institutions (colleges, universities, research centres) as well as in expert panels (conferences).



## The following knowledge and skills are required

- Very good university degree (Dipl.-Ing., Dipl.-Ing. (FH) or equivalent) in the field of electrical engineering,
- In-depth specialist knowledge and relevant experience in the field of high-voltage technology,
- Experience in the field of conceptual design, construction of high-voltage test setups and independent implementation of experiments,
- Experience in the writing of technical test reports and test reports as well as in the production of scientific texts (German and/or English standard equivalent to the minimum of B2 level (CEFR)).

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## Other optional requirements

- Experience in using MS Office, LabVIEW, MATLAB, Python, COMSOL® and
- Experience in project management.

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## We expect

- High level of self-organization and a sense of responsibility, committed and team-oriented way of working,
- Willingness and interest to develop professionally and personally,
- High level of enthusiasm for scientific work,
- Willingness to participate in meetings and conferences as well as
- Confident demeanour and communicative skills.

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## We offer

- An interesting and demanding field of activity in a qualified, open-minded and committed team,
- Flexible and family-friendly working hours within the framework of the applicable service agreement,
- Personal and professional development opportunities through targeted further training,
- Attractive social benefits (company pension scheme, annual special payment, capital-building benefits for public service employees),
- Company health management with offers for health promotion as well as the possibility of using a sponsored job transportation ticket.

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The remuneration is paid in the salary group **11 TV-L** if the personal requirements are met. The primary place of work is Zittau. A trial period is agreed. The Zittau/Goerlitz University of Applied Sciences strives for a balanced staff structure and therefore welcomes applications from people of any gender. Severely disabled people will be given preference if they have the same professional qualifications. The Zittau/Goerlitz University of Applied Sciences has set itself the goal of increasing the proportion of women in teaching and research and therefore expressly encourages women to apply.

Is this vacancy interesting to you? Then we look forward to receiving your detailed application (including cover letter, résumé, diploma and job references) up to **03.10.2021** (date of arrival) **by email** to:

**stellenangebote@hszg.de**  
(Attachments only in PDF format)

Should you have further questions of technical nature, please contact the director of the project, Prof. Dr. techn. Stefan Kornhuber (phone: +49 3583612-4365; E-Mail: [S.Kornhuber@hszg.de](mailto:S.Kornhuber@hszg.de)). For more information, see [www.hszg.de](http://www.hszg.de).

