Technische Universität Dresden (TUD), as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinary and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the Faculty of Electrical and Computer Engineering, Institute of Electrical Power Engineering, the Chair of Power Electronics offers a position, subject to the availability of resources, as

Research Associate (m/f/x)
(Subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting as soon as possible and limited for 3 years. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position offers the chance to obtain further academic qualification (e.g. PhD).

The chair of power electronics is one of the largest and most research-intensive chairs in the field of power electronics in Germany and has an international reputation.

Tasks:
- Characterization of novel power semiconductors and power converters of different technologies (Si, SiC, GaN),
- Design, layout, assembly, and commissioning of analog as well as digital circuits, including the use and configuration of FPGAs for
  - drivers for power electronic devices,
  - data logging,
  - condition monitoring,
  - monitoring, protection, and prediction for the application in power converters,
- design and construction of test benches and prototypes,
- processing and evaluation of measurement data.
- optional: application of neural networks in the field of power electronics.

Requirements:
- university degree with above-average performance and engineering knowledge in power electronics and optionally information technology, circuit design control and automation technology or electrical drive technology,
- special knowledge and experience in the afore mentioned fields,
- ability to overview complex contexts and to work in an interdisciplinary manner
- independent working style, team and communication skills
- English language skills for scientific communication
- efficient and structured way of working and analytical mindset
- Additionally desired is experience regarding
  - hardware design, especially printed circuit board design,
- hardware description languages like Verilog or VHDL,
- scripting languages like Python or Matlab, and
- hardware-oriented language like C or C++.

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities.

Please send your comprehensive application until **January 16, 2023** (stamped arrival date of the university central mail service applies) preferably via the SecureMail Portal of TU Dresden [https://securemail.tu-dresden.de](https://securemail.tu-dresden.de) in a PDF-Document to **claudia.gaida@tu-dresden.de** resp. to: **TU Dresden, Fakultät Elektrotechnik und Informationstechnik, Elektrotechnisches Institut, Professur für Leistungselektronik, Herrn Prof. Steffen Bernet, Helmholtzstr. 10, 01069 Dresden**.

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: [https://tu-dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis)