

The Faculty of Mechanical Engineering, Electrical and Energy Systems of Brandenburg University of Technology (BTU) Cottbus-Senftenberg invites applicants for a

PROFESSORSHIP

Hybrid Manufacturing (w3)

(Hybride Fertigung)

with research-oriented focus.

The advertised professorship is the successor to the professorship "Design and Manufacturing" by Prof. Dr.-Ing. habil. Markus Bambach. The department is of particular importance in the orientation of the BTU with regard to the structural change in Lusatia. An active participation of the appointed department head in current or planned future large projects as well as close cooperation with the chairs of the Center of Lightweight Materials PantaRhei, the Institute of Production Research and the prospective major research institutions in Cottbus is required.

We are looking for a scientifically outstanding person who represents the field of hybrid manufacturing in research and teaching. The research focus of the applicant should be in the area of hybrid manufacturing processes. Methods from metal forming and additive manufacturing processes of metallic materials (steel, titanium, nickel, aluminum, ...) have to be combined to represent hybrid process chains.

ideally the applicant should have:

- in-depth knowledge of the forming processes, including forming simulation. In particular, a close link between material and technology competence is desired, which serves as basis for targeted property design based on metallurgical and microstructural mechanisms.
- or in-depth knowledge along the entire process chain of powder and wire-based additive manufacturing processes based on various energy sources, including their simulation and modeling.
- competencies in digital design, simulation and optimization of components with regard to different requirements (including lightweight construction).
- experience in basic research, proven e.g. by application for publicly funded (DFG, BMBF, EU...) projects and publications in peer-reviewed journals.
- experience in application-oriented research with industrial companies, proven e.g. by projects (AIF, ZIM...), joint publications and patents.
- is ready for interdisciplinary cooperation, in particular with the institutes and faculties of the BTU.

In teaching, the applicant is primarily involved in the bachelor's and master's degree courses in mechanical engineering and industrial engineering, with lectures on the basics of manufacturing technology and, in particular, in-depth courses in the research area. Participation in a new English-language course in engineering sciences is expected. Further development of the courses is expected.

For further information, please contact:

Prof. Dr.-Ing. habil. Sabine Weiß

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Other duties result from the requirements set by § 42 Brandenburgisches Hochschulgesetz (Higher Education Act of the State of Brandenburg - BbgHG) in conjunction with § 3 BbgHG. Prerequisites and conditions of employment follow §§ 41 paragraph 1 (no. 1 - 4a) and 43 of the BbgHG.

Lectures are also to be held in English. Experience in the acquisition and realization of third-party funded projects is expected. The research topics should be relevant for DFG (German Research Foundation) funding or other international Research Foundations.

BTU Cottbus-Senftenberg strives to increase the proportion of women in teaching and re-search and specifically encourages qualified female scientists to apply. As a family-oriented University, BTU offers a Dual Career Service. Qualified applicants with disabilities will be given priority.

The application, including academic certificates, curriculum vitae, a list of publications, as well as proof of teaching experience, should be send as a single pdf file with a max. file size of 7 MB **by September 18, 2020** to:

**Dean of the Faculty of Mechanical Engineering, Electrical and Energy Systems
BTU Cottbus - Senftenberg, Postfach 101344, 03013 Cottbus**

E-Mail: fakultaet3+bewerbungen@b-tu.de



The BTU carries the seal of quality of The German Association of University Professors and Lecturers (Deutscher Hochschulverband, in short DHV). She is thus honored for her fair and transparent negotiations on the appointment of new professors.