



At Technische Universität Bergakademie Freiberg, Faculty of Mechanical, Process and Energy Engineering, the



**W2 Professorship for "Modelling of Thermo-Chemical Conversion Processes"
Position number 288-1/2019**

needs to be filled at the earliest possible date.

Position description:

The professorship for "Modelling of Thermo-Chemical Conversion Processes" is dedicated to the numerical modelling of thermo-chemical conversion processes in teaching and research. These processes are characterised by reactive flows and multiphase material systems, along with, in some cases, high temperatures and pressures, and are particularly evident in the fields of energy (e.g. pyrolysis, partial oxidation and combustion) and chemistry (e.g. syntheses, hydrogenation, particle formation). The modelling is to cover the entire scale range, from the molecular level to industrial application (multi-scale modelling).

We are looking for a person with relevant teaching experience who has an outstanding track record in the aforementioned subject areas through academic research or through demonstrable applied or industry-related research. The focus will be on modelling thermo-chemical processes in the raw materials industry, further developing and mathematically optimising these processes, and developing of digital twins of processes from chemical and energy process engineering. The scientific, model-based connection to the large-scale facilities and laboratory equipment available at the Freiberg site is another focus of research.

In teaching, the applicant is expected to present content relevant to modelling thermo-chemical processes and their application in chemical and energy process engineering in the bachelor's, master's and diploma degree programmes in process engineering and in other degree programs. Being prepared to conduct teaching and further education events in English is a requirement.

The candidate must fulfil the general conditions of appointment for professors under § 58 of the Saxon Higher Education Autonomy Act (SächsHSFG) of 15 Jan 2013 (Saxon Law and Ordinance Gazette Year 2013 Gazette No 1 p. 3) as amended. The university provides active support in the provision of childcare and in mediating appropriate job positions for the candidate's partner or spouse. TU Bergakademie Freiberg pursues an instructional and research concept in which the successful candidate is expected to move their main residence to Freiberg or its immediate vicinity.

TU Bergakademie is committed to increasing the ratio of women in teaching and research positions. Qualified female scientists are therefore invited to apply. Severely disabled applicants will be given preferential consideration in the event of equal suitability.

The application documents must be submitted by 31.03.2020 to **Technische Universität Bergakademie Freiberg, Dezernat für Personalangelegenheiten, Akademiestraße 6, D-09596 Freiberg.**

For further questions, please contact the chairman of the Appointment Committee,
Prof. Christos Aneziris (Christos.Aneziris@ikgb.tu-freiberg.de)