



The University of Natural Resources and Life Sciences, Vienna (BOKU)

is currently inviting applications for the position of a Professor
(Klaus Fischer Foundation Professorship) of

Numerical Mechanics of Materials – Structural Bonding in Civil Engineering

The University of Natural Resources and Life Sciences, Vienna (BOKU), Department of Civil Engineering and Natural Hazards, seeks to appoint a Professor of “Numerical Mechanics of Materials – Structural Bonding in Civil Engineering” with 1st January 2024. The position is offered in accordance with § 99 (1) Universities Act 2002 in the form of a contractual employment relationship limited to 5 years.

The University of Natural Resources and Life Sciences, Vienna, the “Alma Mater Viridis”, is the University of Sustainability and Life Sciences. It is BOKU's task to make a key contribution to the conservation and protection of resources for future generations through its wide variety of expertise. Combining natural sciences, engineering plus social and economic sciences, its aim is to increase knowledge of the ecologically and economically sustainable use of natural resources. With 11,000 students and over 2,900 staff members, BOKU is one of Europe's leading life science universities.

The Department of Structural Engineering and Natural Hazards consists of the institutes “Structural Engineering”, “Green Civil Engineering”, “Mountain Risk Engineering”, “Applied Geology”, “Geotechnical Engineering”, “Soil Bioengineering and Landscape Construction” and represents with its subject areas the core competences of the Bachelor's degree programme “Environmental Engineering”, the Master's degree programme “Civil Engineering and Water Management” and the new Master's degree programme “Green Civil Engineering”. For over 25 years, experimental and numerical research has been carried out at the Institute of Structural Engineering in the field of fastening technology and structural mechanics. Furthermore, basic scientific work for numerical mechanics of material have been created in the framework of a CD laboratory.

Fundamental knowledge about bonding solid wood and wood particles with bio-based adhesives based on renewable raw materials was developed at the Department of Materials Science and Process Engineering, specifically at the Institute of Wood Technology and Renewable Resources.

The new endowed professorship can build on the existing basic research at the various institutes and should progress on the numerical modelling and the mechanics of engineering bonding techniques across materials for the entire construction industry, as well as taking into account dissolving techniques in the sense of the circular economy.

The applicant is expected to carry out numerical simulations of the time-dependent load-bearing and deformation behaviour of bonding and dissolving techniques, optimisations of numerical methods and models as well as experimental investigations. On the basis of artificial intelligence, numerical simulations are to be advanced by taking into account the circular economy and recyclable components for new construction methods as well as for the preservation of structures.

In addition to research in materials mechanics, prototypes are to be developed, methods of quality assurance established and pursued up to structural engineering approval.

Interdisciplinary cooperation within the Department of Civil Engineering and Natural Hazards and between the departments with the relevant disciplines is expected as well as outside the university with national and international research institutions. It is envisaged that the applicant will also contribute to the development of new study subjects and training areas as well as take over individual courses.

Job specifications:

- Venia docendi or foreign equivalent or an equivalent subject-relevant academic qualification.



- Relevant experience and competence in teaching, guidance in scientific work, as well as the supervision of junior scientists (PhD students). The candidate is expected to submit a teaching portfolio.
- Subject-specific research experience, national and international reputation, as well as ability to network.
- Excellent publication achievements in the scientific field.
- Sound international research experience.
- Teaching in German and English.
- Experience in the successful acquisition, execution and management of research projects.
- Cooperation with national and international research institutions and with relevant partners from public services and business.
- Management and interpersonal skills including gender and diversity management skills, communication and team skills.
- Participation in public relations.
- Participation in relevant focus and cooperation programs of the University.
- Participation in the self-governance of the University of Natural Resources and Life Sciences, Vienna.
- Excellent knowledge of written and spoken German and English or willingness to learn German in the first two years.
- Relevant practical experience in an engineering office or in a research institution.

For more information about this position, please contact the Head of the Institute of Structural Engineering, o.Univ.-Prof. Dr. Konrad Bergmeister, phone: +43 1 47654 87500, e-mail: konrad.bergmeister@boku.ac.at.

Please send your application in English by email to rektorat@boku.ac.at and one hard copy no later than **30th September 2023** (date on postage stamp) to the Rectorate of the University of Natural Resources and Life Sciences, Vienna (BOKU), Gregor-Mendel-Straße 33, 1180 Vienna, Austria.

Please include the following documents with your application:

- Brief explanation of why you believe yourself to be particularly suitable for this position (max. 1 page A4)
- CV including ORCID and details of professional, teaching and research activities (incl. teaching portfolio – further information is available in German at <http://short.boku.ac.at/lehrportfolio>)
- Draft concept for research and teaching; presentation of planned research priorities (max. 4 pages A4)
- List of publications (referenced / not referenced), presentations and projects
- Copies of 5 recent publications that you consider particularly important

By submitting the application, you also agree to the participation of an external recruitment consultant in the selection process.

The University of Natural Resources and Life Sciences, Vienna is seeking to increase the number of its female faculty members and therefore, qualified women are strongly encouraged to apply. Women are given priority when qualifications are equal, except in cases where there are outweighing factors concerning another candidate.

People with disabilities and appropriate qualifications are specifically encouraged to apply.

The employment contract is classified as group A1 of the collective agreement for university employees. Minimum gross yearly salary: € 81,571; the actual annual gross salary is subject to negotiation.

More information on this position and about BOKU and this department can be found on the website: <https://boku.ac.at/>