



Institute of  
Lightweight Design and  
Structural Biomechanics

## **Open Position: PhD-Student – University Assistant in Biomechanics**

### **Description:**

We invite applications for a of a PhD Student position in experimental micro- and nano biomechanics. The PhD project to be conducted has two aspects:

- 1) Conducting scientific research on the mechanics of individual collagen-fibrils as well as micro-mechanics of collagen-rich tissues as a function of age, pathology or chemical modification. We have a number of ongoing research projects in this context such that this part can be shaped according to the interests of the successful applicant.
- 2) Further development of experimental testing devices for micro- and nanomechanical characterization of individual collagen fibrils and microscopic tissue samples. This is based on a unique mechanical testing device for nanoscale fibres developed in our group.

### **Further Tasks:**

- Definition of a PhD project, based on the interests and skills of the successful candidate in the areas of instrumentation and experimental mechanics
- Execution of the project including writing of a dissertation
- Participation in higher education teaching activities (lectures, tutorials, bachelor- and masters-thesis projects)
- Writing and participation in writing of scientific publications
- Presentation of research results at scientific conferences

### **Your profile:**

- Completed Diploma- or MSc degrees in the area of biomedical engineering, mechanical engineering, physics or electrical engineering or an equivalent university degree
- Knowledge / experience in the area of biomechanics
- Knowledge / experience in computer programming
- Aim to work on a dissertation towards a doctoral degree
- German as native speaker or proof German language abilities of at least level B2 according to CEFR for participation in teaching activities
- Of advantage are: experience in instrumentation, experience in experimental (bio-)mechanics, experience in Atomic Force Microscopy, experience with CAD, experience with Matlab experience with LabView, proficiency of English language

### **We offer:**

- Diverse and exciting work
- Broad internal / external program for transferable skills and flexible working hours
- Good accessibility via public transport
- Additional benefits: Fringe-Benefits TU Wien

**For further information** contact Philipp Thurner at [philipp.thurner@tuwien.ac.at](mailto:philipp.thurner@tuwien.ac.at)

**To apply use this link:** <https://tuwien.bewerberportal.at/Job/148900> until April 22 2021