

The Polymer Competence Center Leoben GmbH (PCCL) is the leading Austrian center for cooperative research in the field of polymer technology and polymer science. In collaboration with companies in the polymer industry and numerous academic institutions, our around 100 highly-qualified employees jointly work in R&D projects on innovative polymer solutions for a wide range of applications, including the whole rubber composite process chain from the materials design, over processing to material characterization. We currently aim to strengthen our team and offer a

## Researcher / PhD position of

### “Extending the virtual assessment of component service lifetime beyond damage initiation” (JOB ID 20240110)

#### Tasks

- Tailored test definition for a comprehensive experimental setup for characterizing fatigue behavior with a special focus on composites
- Evaluation and benchmarking of different simulation methods to predict fatigue crack growth
- Establishing a simulation strategy that will combine engineering tools which allow design engineers to predict fatigue life of engineering plastics applications, including anisotropy in detail
- Development of a multiscale approach capable of relating the complex micro-scale failure events to the macroscopic damage law
- Close cooperation with national and international project partners from industry and academia and regular presentation of results
- Communication of research results to the scientific community (e.g. papers in peer-reviewed journals, oral presentations at national and international conferences)

#### Required skills

- Master's degree in mechanical engineering, polymer science or related field or work experience related to modeling and simulation topics
- Experienced with numerical simulation tools (Abaqus, ...) and programming (Python, Matlab, ...)
- Willingness to co-operate and communicate with academic and industrial partners
- Structured and independent way of working
- Personal initiative, skills for self-organization and teamwork, effective communication skills with the ability to communicate with partner companies and research organizations
- Excellent skills in English; German skills are a clear benefit

#### We offer

- Collaboration in a highly-motivated multi-disciplinary team with excellent contacts to industry as well as to national and international research organizations
- Gross income € 3.579,- (for a classification as a PhD candidate; full-time employment, 14 times a year)
- Flexible working conditions
- Possibility to perform a PhD thesis
- We aim at increasing the number of women in our organization and would be glad to fill this position with a female researcher
- Start of employment – January/February 2024

#### Contact

Please send your application (motivation letter, CV) along with copies of your certificates and diplomas to [jobs@pccl.at](mailto:jobs@pccl.at), indicating the Job-ID 20240110. If you have any technical questions regarding the job advertisement, please contact [margit.lang@pccl.at](mailto:margit.lang@pccl.at)