

Materials Center Leoben (MCL) - with a staff of 180 highly specialized employees - supports numerous companies in the production sector developing high-performance materials, manufacturing processes and products. MCL designs specific computer-aided technologies in order to accelerate innovation processes in manufacturing companies as well as to support the digitalization of the value chain and products. MCL's portfolio includes cooperative research and development projects with international and national partners from the production and research sectors as well as several consulting, laboratory and simulation services in materials science.

To strengthen our team, we are looking for someone with the following area of responsibility or requirement profile:

PhD position

Reliability of high-speed railway turnouts

Reference-n.: MCL_191

Dynamics – Fatigue and Fracture – Reliability

These topics inspire you or you are already familiar with them? Then you are the right person we are looking for!

What do we need?

- *Academic degree (master equivalent), preferably mech. engineering, materials science or physics*
- *Knowledge in programming, interest and experience in finite element methods*
- *Interest in experimental techniques and data analysis*
- *Scientific curiosity, team skills, self-initiative*
- *Good oral and written communication skills in English*

We are working worldwide in strong cooperation with well-known scientific and company partners



Your tasks?

- *Development of reliability assessment, condition monitoring and preventive maintenance concepts for high-speed railway turnouts*
- *Evaluation of on-site load measurements, residual stress measurements, fatigue and fatigue crack growth test data*
- *Finite element modelling of train passages over high-speed railway turnouts with special focus on the interaction of propagating waves in rail, slab track and subgrade*
- *Presentation of results at international conferences*
- *Writing of scientific articles for peer reviewed journals*

Our offer:

A permanent employment contract with immediate start and a gross monthly salary of € 2.928,92 (14 times per year).

Please send your complete application documents by post or email. We are pleased to get to know you!

Materials Center Leoben Forschung GmbH
c/o: Dr. Werner Ecker
Roseggerstraße 12, A-8700 Leoben
Email: bewerbung@mcl.at; www.mcl.at

