

## CG Rail GmbH

CG Rail GmbH is a nationally and internationally leading research and development company on innovative lightweight systems in multi-material design for rail vehicles and other transport systems in Dresden. For example, CG Rail GmbH developed the world's first lightweight metro in carbon intensive lightweight design in only 2 years, which was presented as CETROVO at InnoTrans in 2018. The unique know-how of CG Rail GmbH and its partners in the field of function-integrative lightweight system construction in multi-material design is also demonstrated by the bogie frame in carbon-intensive lightweight construction, which won the European "ERCI Innovation Award 2020". This bogie frame, which has been successfully tested over 12 million load cycles, achieves a mass saving of almost 50% compared with the metallic reference design.

For our location in Dresden, we are looking for the following person for a long time.

### **FEA-Engineer (m/w/d)**

#### Your tasks:

- On-time creation, execution and evaluation of finite element (FE) simulations for the design of highly stressed lightweight structures in fiber composite-metal mixed design
- Creation of reports and presentations (Word/Powerpoint) for detailed documentation of FE models and simulation results
- Presentation and discussion of results within the project team and with customers in the national and international environment
- Close coordination within the respective project team

#### Your profile:

- Completed university studies (Univ.-Diploma / Master) or doctorate (Dr.-Ing.) in the field of mechanical engineering (preferably specialization in lightweight design, mechanics, aerospace engineering, automotive engineering or rail vehicle engineering).
- More than 10 years of industrial work experience as a FEA engineer in the fields of aerospace and/or wind turbines and/or automotive engineering and/or rail vehicle technology
- Detailed knowledge and extensive experience (more than 10 years) for end-to-end simulation (manufacturing, operation, ...) of composite structures using the Finite Element Method (FEM)
- Ideally also experience in process simulation for fibre composites (such as flow path simulation)
- Detailed knowledge of material and damage models as well as failure criteria for composites in FEM simulation
- Many years of routine in the use of at least one common FEM software system such as HyperWorks® or ANSYS® including associated pre- and post-processors
- Routine in the use and confident handling of MS Office
- Analytical way of thinking

## *We offer:*

- *An attractive workplace in the centre of Dresden*
- *Above-average salary in the Dresden region*
- *A motivated team in an international environment*
- *Challenging tasks and a varied daily work routine with personal responsibility*

*We look forward to receiving your complete application, in which please state your salary expectations.*

*Please send your application documents to:*

*Address: CG Rail GmbH  
Freiberger Street 33  
01067 Dresden  
Germany*

*E-mail: [Bewerbung@cgrail.de](mailto:Bewerbung@cgrail.de), Phone: 0351/41673000*