Degree thesis/specialized internship/practical semester in the field of hot rolling simulation with FEM and Python

Referenznummer 2023-0542
Stand: 02.12.2023

Ausschreibendes Unternehmen:
SMS group GmbH

Standort:
Hauptstandort
Wiesenstraße 30

Art der Stelle:
1 Stellenangebot

Beschäftigungsbeginn:
ab sofort

Anstellung:
Vollzeit

Berufsfeld:
Sonstige Berufe

Ansprechpartnerin:
Frau Melanie Hoffmann
Berufsbildung
Tel. 02733 29-2219

SMS group is renowned worldwide for its future-oriented technologies and outstanding service for the metals industry. In 2022, our team of over 14,400 employees around the world generated

sales of more than 3.1 billion euros. We apply our 150 years of experience and our digital know-how to provide the industry continuously with innovative products and processes that extend beyond our core business. We are the right partner for challenging projects and support our customers throughout the entire lifecycle of their plants and equipment. Paving the way for a carbon-neutral and sustainable metals industry is our stated goal.
Designing roll calibers and roll passes is a complex process that requires highly experienced process designers. The main challenge is to design a process that achieves the desired final profile shape while staying within the machine's capabilities. A standard approach to support the process designers is the application of the 3D FE simulations. SMS R&D develops an alternative to conventional models based on the Finite-Element-Method and Python. In order to extend the model's capabilities to capture a large variety of rolling problems, such as multi-pass rolling, its' underlying code requires further extensions and thorough testing. The generated results need to be validated using experimental data.

Degree thesis/specialized internship/practical semester in the field of hot rolling simulation with FEM and Python

YOU ACT

You will undertake theoretical work in the programming of process models • This is a challenging technical task that requires structured thinking and creativity • You will learn to apply and extend the knowledge gained from your studies • You will work as part of the development team within our R&D department and get to know our methods • Desired duration of internship: min. 3 months following consultation and based on availability.

YOU KNOW

You are studying engineering or looking to complete a natural sciences degree in physics • Through your studies, you have basic knowledge of process modeling using FEM • You are willing to investigate new subject areas • Programming experience is mandatory (e. g. Python, Fortran).

Degree thesis/specialized internship/practical semester in the field of hot rolling simulation with FEM and Python

SMS group GmbH, 57271 Hilchenbach-Dahlbruch

WE CONVINCE

A wide range of experience and expertise in supporting internships as well as bachelor's and master's theses in collaboration with various universities.
Want to seize this opportunity? We look forward to receiving your online application. For more information, contact Fee Ambaum who will be happy to help you.

SMS group GmbH
Kaufmännisch/Technisch/IT-Berufsbildung
Melanie Hoffmann
E-Mail: melanie.hoffmann@sms-group.com
share:

Bitte im Betreff der Bewerbung folgende Referenznummer angeben: **2023-0542**

Dieses Angebot auf Karriere Metropole Ruhr aufrufen:
https://www.karriere-metropole-ruhr.de/stellenangebot/650617