

Bachelor thesis, master thesis

Modelling: Sustainable Production Processes in Metal Forming

Energy savings are essential for reducing costs in bulk metal forming. The sector is one of the most energy-intensive in Germany. In order to manufacture products sustainably and to maintain their own margins in a competitive industrial landscape, companies are forced to achieve such savings. In the basic research project, we support industry in identifying a partial heating strategy for semi-finished products so that only the parts relevant for forming need to be heated for a cross-wedge rolling process.

Your tasks

Mathematical modeling of the heating geometry and simulation:

In a student (final) thesis, you will develop an approach for the mathematical modeling of the geometric heating profile, based on multiple influencing factors on the heating and forming process. You will take the respective strength of influence of each factor into account and expand and/or validate the models through simulation.

Your profile

You are studying one of the following subjects:

- Mechanical Engineering
- Industrial Engineering (with content related to metal forming)
- Engineering Informatics / Computer Engineering
- similar degree programs

You are interested in simulation and mathematical problem-solving.

In addition, you have knowledge of simulation software (preferably Forge) and statistical analysis (preferably MATLAB or Minitab).

Good German and/or English skills, both written and spoken, are required.

We offer

- independent, scientific work
- well-equipped workspaces
- working at home by arrangement
- shared use of the kitchen
- potential long-term collaboration



Bitte sende deine aussagekräftige Bewerbung in einer einzigen PDF-Datei an jobs@iph-hannover.de.

Die Bewerbung muss Anschreiben, Lebenslauf sowie Prüfungsleistungen des Studiums / Zeugnisse enthalten.

Contact



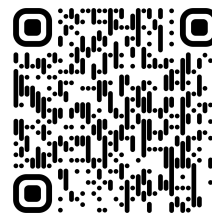
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