



ArcelorMittal



Where will you have your next challenging professional experience?

ArcelorMittal is the world's number one steel company, with 320,000 employees in more than 60 countries. It has led the consolidation of the world steel industry and today ranks as the only truly global steelmaker with an industrial presence in 27 countries.

ArcelorMittal is the leader in all major global markets, including automotive, construction, household appliances and packaging.

We are visionary thinkers creating opportunities every day. This entrepreneurial spirit brought us to the forefront of the steel industry.

Join ArcelorMittal Global R&D and envision the steel of tomorrow!!

ArcelorMittal Global R&D is spanning the Globe with 14 research centers (operating in process, products, application and steel solutions) within 8 countries and more than 20 nationalities. Because quality outcomes and innovation spirit depend on quality people, we seek to attract and nurture the best people to deliver superior and innovative solutions to our customers.

Would you want to integrate a multicultural company with challenging missions and passionate people, ArcelorMittal is for YOU!

We are looking for Interns, VIE, apprentices willing to work in a multicultural environment in different domains.

English will be a plus.

Location			Contact		
Research center:	Maizières Process	Last name:	Grosjean	E-mail :	sebastien.grosjean@arcelormittal.com (+33) 3 87 70 40 39
Cluster :	Downstream Process	First name:	Sébastien	Phone number:	
Department:	Decarbonization & Finishing processes	Job title:	Research Engineer		

Training offer	
Mission title: Thermomechanical modelling of hot rolling process	
Start date: March 2024	Duration: 6 months
Worklocation: Dept of Aerospace and Mechanical Engineering Liège University (Belgium)	
Areas	
<input type="checkbox"/> Purchasing <input type="checkbox"/> Commercial / Marketing <input type="checkbox"/> Finance / Audit <input type="checkbox"/> Legal / Communication <input type="checkbox"/> Supply Chain / Logistic	<input type="checkbox"/> Production / Process / Exploitation <input checked="" type="checkbox"/> Research & Development / Metallurgy Innovation <input type="checkbox"/> Recycling / Process and Product Development <input type="checkbox"/> Human resources / Health / Safety / Environment <input type="checkbox"/> Strategy & Business Development <input type="checkbox"/> Information System / Industrial Computer Science



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<input type="checkbox"/> Maintenance	
The purpose of the mission :	
<p>The numerical simulation of steel rolling is a complex problem including not only the simulation of the strip flow but also the deformation of the rolling stand and tools. The department of Aerospace and Mechanical Engineering has developed a finite element simulation code (Metafor) that allows the simulation of solids submitted to large deformations.</p> <p>The objective of the internship is to model an industrial hot rolling process with multiple passes along rolling stands (horizontal and vertical) using Metafor.</p>	
The mission : accountabilities and activities	
<p>After a time period to master the use and the configuration of the simulation software, several models with increasing complexity could be developed to assess the use of Metafor as a modelling tool for hot rolling processes. A first 2D model will be developed before building a 3D model of the succession of a vertical pass and a horizontal pass. This 3D model will use a simplified roll geometry, before using real geometry from industrial examples. This model could then be used to compare different industrial process with various rolls geometries and evaluate their relative performance.</p>	
The environment	
<p>This internship will be carried out in the Dept of Aerospace and Mechanical Engineering in Liège University, Belgium. The student will work in an international environment involving academic researcher, R&D engineers and technicians.</p>	

Trainee's profile	
Studies level: Bac + 5	Discipline : Mechanical Engineering, computational mechanics
School/University : Engineering schools (outside France) or Grande Ecole (in France)	
Required profile and competencies	
<ul style="list-style-type: none">- Mechanical engineering student with a strong background in solid mechanics- Experience with finite element modelling and willingness to learn additional FEM softwares- Ease with programming languages – Knowledge of Python is a plus- Logical thinking, results oriented, rigorous, autonomy and team-working.- A good English level is required and French is recommended for daily use. <p>Interested candidates can send directly the CV, the cover letter and 1 recommendation letter to the Internship Advisors (sebastien.grosjean@arcelormittal.com & r.boman@ulg.ac.be).</p>	