Research Engineer Generative Design (Leuven, Kortrijk or Lommel)

As a Research Engineer Generative Design, you will contribute to groundbreaking research into the development of novel methods for generative design tools, both at a conceptual as a 3D detailed design level.

At Flanders Make, we conduct research aimed at innovation in the (manufacturing) industry of the future. In the upcoming projects, we want to develop prototype software tools which use advanced generation methods that can accelerate the design engineering processes by producing reliable design suggestions. You will investigate how these can be applied both to cyber-physical product designs as well as large-scale production environments.

Develop algorithms for the design generation of complex systems

By working at Flanders Make you will work together in a research team combining expertise in software, mechanical and mathematical engineering, machine learning, artificial intelligence and modelling of cyber-physical systems. You will get the opportunity to build your expertise in several domains, forming you as a multi-disciplinary expert. Through our projects you will work together with experts from both industry and academia, pushing the state-of-the-art on generative design to the next level.

In this position, you will develop algorithms that perform automated design space exploration of complex industrial systems such as electrical drive trains, automated warehouses, and assembly systems. Instead of being an expert in one single optimization strategy, you will focus on combining different optimization techniques in a integrated generative workflow. Your algorithm will help designers and engineers find the best system designs that satisfy their complex requirements. Additionally, your algorithms will need to scale and operate in an industrial context for real-life problems.

Creative problem solver with design optimization expertise

As a Research Engineer Generative Design, you are:

- Interested in applied research that bridges the gap between academia and industry;
- Eager to collaborate with an interdisciplinary research team in a project-based setting;
- Willing to constantly learn new techniques, technologies and skills and stay up to date on the latest academic and industrial research trends, especially as generative design is a rapid growing field;
- Capable of communicating your innovative algorithms to both industrial and academic stakeholders.

We are looking for a candidate with:

- Minimum 1-3 years of relevant industrial experience;
- Knowledge and background in optimization techniques such as constraint programming, mixed integer programming, or population-based heuristics;
- Experience with simulation-based optimization, multi-objective optimization, or design space exploration:
- Fluent in developing complex algorithms combining multiple optimization approaches and software packages, preferably in Python;
- A Master Degree in Engineering (Mathematical, Computer Science, Mechanics) or Applied Mathematics or Software Engineering.

Having any of the following is a big plus:

- Experience with parametric CAD design or product configurations;
- Affinity with machine learning, artificial intelligence;
- Experience with software development, version control (GitHub), unit testing, …;
- Knowledge of the industrial product development process;
- Experience with discrete event simulation or agent-based simulation.

Our offer to you

Flanders Make offers you a challenging job working with experts in various fields on real industrial problems.
The opportunity to work with innovative companies active in Flanders.
The opportunity to work with national and international research institutes.
A warm, enthusiastic and international first-class colleagues.
An open-minded and flexible working environment.
An attractive salary with fringe benefits.
Flanders Make colleagues work together on projects in Belgium from our sites in Kortrijk, Lommel and Leuven (flexible workplace policy).

How to apply?

To apply, go to http://jobs.flandersmake.be.
Fill in the online application form and upload a motivation letter and CV **until 20/06/2026.**