

## Researcher Modelling, Simulation and Control for Smart Machines and Vehicles

**You simulate multi-physical models for the design of smart machines and vehicles or develop and validate control algorithms.**

### Function

Mechatronic systems are becoming increasingly complex, we demand more features and better performances and impose more and more requirements onto systems. Consequently it is becoming more and more important to use intelligent model-based development methods.

On real-life industry motion systems applications, you will:

- work together in a research team which combines expertise in control, machine dynamics modelling, and signal processing.
- play a key role in analysis and system identification, in the development of multi-physical predictive models, and/or in the development of control algorithms;
- work with different machines and/or vehicles
- work in close collaboration with experts from our industrial partners and have regular contacts with experts from knowledge centres in Belgium and abroad.
- trace and present industrial challenges and new research opportunities.

### Profile

You have

- A Master or Phd in Engineering (Mechanical, Electronical, Electrical, Automotive, Modelling & Simulation, Control systems, Mechatronics, Robotics)
- Expertise in the field of modelling, simulation or control of dynamical systems
- A Track record in research on topics closely related to research domains of Flanders Make is a big plus;
- A keen interest to apply theoretical concepts on practical case problems. Any experience with applications on machines and/or vehicles is a plus, either in an academic or an industrial setting.
- Experience with modeling software (Simscape, Amesim, Matlab, a,d/or Simulink)

You are

- Passionate about research and new technologies
- A good conceptual thinker
- Result oriented, responsible, self directing and team player
- A good communicator
- Eager to learn

**Working at Flanders Make:**

[This movie](#) shows what you can expect from an industry driven research project at Flanders Make.

*Flanders Make* is the strategic research centre for the manufacturing industry. Our mission is to strengthen the long-term international competitiveness of the Flemish manufacturing industry. That's why we work together with SMEs and large companies on pre-competitive, industry-driven technological research, resulting in concrete product and production innovation in the vehicle industry, the manufacturing industry, and production environments.

Because of our unique position between industry and research, our teams combine application and system proficiency with technological and scientific knowledge. We focus on 4 key competences, all based on modelling and virtualisation:

1. Sensing, monitoring, control and decision-making for products and production
2. (Co)design and optimisation of products and production
3. Motion product specification, architecture, and validation
4. Flexible assembly specification, architecture, and validation

We operate from our offices in Leuven and Lommel and from research facilities at the Flemish universities. Learn more about working at Flanders Make on [www.flandersmake.be/jobs](http://www.flandersmake.be/jobs)

Take a look at our research and our projects at Flanders Make. [www.flandersmake.be](http://www.flandersmake.be)

**Convinced? Send your motivation letter and cv**

Do you feel you can contribute to our research with your expertise? Do you share our values and our mission? We are looking forward to reading about your story, your interest for Flanders Make and for this job in particular.

To apply, please send your motivation letter and cv to [humanresources@flandersmake.be](mailto:humanresources@flandersmake.be)