Research engineer Manufacturing Machines

As a research engineer anufacturing machines, you develop the Additive Manufacturing and High-Precision Machines of the future in cooperation with the Flemish high end industry.

Flanders' Make is currently performing research into advanced production processes in two research programmes: 'Manufacturing High-Precision Components' and 'Additive Manufacturing for Serial Production'. To convert studied process innovations into industrial applications, new machine concepts are required.

Function

It is your job to select the optimal machine architecture with the appropriate sensors and actuators, and to concretize this architecture in a functioning test set-up. You also develop and test control algorithms to optimize production process quality.

We develop, among others, a completely new machine architecture for 3D-printing in serial production combined with robotised post-processing. We also develop a hybrid production platform in which multi-axial processing is integrated and combined with laser hardening.

Your tasks:

- Together with a team of researchers coordinated by a project leader you conceive and compare several machine concepts, based on an analysis of the needs of the users and the requirements imposed by production processes.
- Together with a designer, you concretize a selected machine concept and develop it into a functioning test set-up.
- You install sensors on the machine to monitor the production quality
- You develop algorithms which translate a CAD file with product specifications into suitable steering signals for the different machine actuators.
- You develop control algorithms which adapt the steering signals to the machine actuators to optimize the measured production quality and speed.
- Together with production process specialists you integrate process innovations on the operational test set-up and prove their proper performance by executing a test plan (or by having such test plan executed).
- You ensure the transfer of knowledge to companies through the implementation of the developed technology on their machines.

Profile

You have

- Master's degree or PhD in Engineering (Mechatronics, Production engineering, Control,…);
- Track record in research and/or design of manufacturing machines or other mechatronic systems;

- Experience in different production processes or the design of production machines is a plus;
- Experience with condition monitoring and control design for machines is a plus;
- A broad technological perspective.

You are

- Passionate about research and new technologies;
- Result oriented, responsible, self directing and team player;
- A good communicator;
- Studious and eager to increase your expertise.

Offer

- Flanders Make gives you the opportunity to develop yourself in the network of top industry and universities and research institutes;
- An open-minded, flexible and challenging working environment;
- A warm atmosphere and top colleagues;
- An attractive salary with fringe benefits.

The assignment is in Belgium at Flanders Make, site Leuven.

How to apply

Please send your motivation letter and cv to: humanresources@flandersmake.be.