Research Engineer Functional Safety for the Vehicle of the Future (Automotive)

You execute research projects, developing the intelligent and autonomous vehicles of the future (cars, drones, AGV’s, ...).

As an expert or a high potential in functional safety, you will execute research projects, developing the intelligent and autonomous vehicles of the future (cars, drones, AGV’s, ...).

Challenge the design for hazards

You will work together in a research team that sets up the system architecture and testing procedures for new automation functionalities in highly automated vehicles for a variety of industry partners (automotive sector, AGVs, public transport, logistic transportation, drones, ‘follow-me’ vehicles, ...). Being highly involved in every stage of the development, you are responsible to make sure that the new system will achieve the required level of safety integrity.

More specific, you:

- Think about the electric/electronical design together with the team;
- Map possible hazards and risks, caused by the malfunctioning behavior of electronic and electrical systems, taking into account the (A)SIL level of the vehicle application;
- Challenge team members to see the vulnerabilities of the design (“What if...”);
- Perform safety analyses, from the first idea until the execution faze, using standards to follow up on the safety of items and system elements;
- Impact directly on the architecture concept with your results;
- Figure out which tests will be needed to prove the functional safety is sufficient.

Our team is currently working on several high-performance autonomous mechatronic systems, always aiming to implement a proof of concept of the new technology in demonstrators for the participating companies: more info

Creative mind with passion for functional safety

You have:

- A Master or PhD in Engineering (Electrical, Electronical, Automotive or Safety Critical Engineering);
- Knowledge of standards (e.g. ISO26262, ISO61508), or the willingness to learn these standards on short notice;
- Some experience with techniques for analyses (e.g. FMEDA, FMEA, HARA, HAZOP, FTA);
- Broad knowledge in vehicle technology and modelling software (SysML modeling, MATLAB/Simulink);
− Knowledge of the system engineering process (requirement, configuration management, ...);
− Affinity with programming languages (e.g. Python, C++, relational SQL data bases);
− Track record in functional safety is highly appreciated, preferably in automotive or in a related sector.

You are:

- Passionate about functional safety and new technologies;
- Creative and able to turn ideas into high-tech solutions;
- A confident communicator;
- A team player who can build sustainable relationships;
- Analytic and systematic in your approach;
- Research-minded and eager to learn.

Impact directly on top-technology and automated vehicles

Flanders Make offers 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.

Depending on your place of residence or preference, you can work on one of our sites (flexible workplace policy).

Flanders Make

*Flanders Make* is the strategic research centre for the manufacturing industry. From our sites in Lommel, Leuven and Kortrijk, we stimulate open innovation through excellent research.

Our purpose: realising a top-level research network in Flanders that delivers full support to the innovation projects of manufacturing companies. This way, we want to contribute to new products and production processes that help to realise the vehicles, machines and factories of the future.

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. Decision & Control  
2. Design and optimisation  
3. Motion product specification, architecture, and validation  
4. Flexible assembly specification, architecture, and validation

More information on our research:  
[www.flandersmake.be](http://www.flandersmake.be)
How to apply:
To apply, go to [http://jobs.flandersmake.be](http://jobs.flandersmake.be).
Please fill in the online application form and upload a motivation letter and cv.