



Vehicle Dynamics Controls

Green Innovation meets performance

Our Project

Formula Electric Belgium is a team of engineering students who build a **Formula-Student racecar** to compete in international competitions. We design and build a brand-new car every year and compete with other teams in multiple worldwide competitions during the summer months. Formula Student is by far the biggest **engineering competition** in the world and continues to grow. From next year on, we will be competing in both the **electrical** and **driverless** competition. You can join the project as a volunteer. This allows you to contribute to the next race car whilst keeping a flexible schedule.

Tasks

As a vehicle dynamics control engineer, you will take care of the **control algorithms** which tends to improve the vehicle handling during certain driving manoeuvres.

You will be responsible for either the **torque vectoring** or the **control of the semi-active suspension system**. Apart from that, you also need to select the most suitable sensors to implement them in the car. Next, these algorithms are developed in the **MATLAB/Simulink** environment whereafter they are downloaded to the ECU.

The work doesn't end when the race or tests are over. Then it's the time to analyse the obtained data to get some information about the performance of the car and the driver.

Profile

- Basic knowledge about Vehicle Dynamics
- Experience using MATLAB

Returns

- A unique engineering experience
- Developing your hard- and soft-skills in a company-like environment
- Work with the newest technologies and innovative companies
- Work in a team with a network of well over 120 partners
- A summer season packed with competitions all over Europe
- An experience of a life-time!

Up for the challenge?



Submit your **resume** and **motivation letter** (one page) to
<https://formulaelectric.be/vacancies-theses/>