

In house simulation platform Driverless

OUR PROJECT

Formula Electric Belgium is a student-run electric race team which competes in Formula Student, the world's largest competition for engineering students. We aim to push the limits of performance, innovation and sustainability within electric racing every year, which is only possible with the help of our Thesis students. These pioneers are responsible for performance-defining innovations within the team, and we would love for you to join our team of highly ambitious and motivated engineers. As a Thesis student, you will research, design, prototype and test your innovations alongside the full-time members which make sure the team pushes itself and the car to new heights.

AIM AND OBJECTIVE

At this point, we can only test our algorithms by replaying data from a testrun we did in real life. This is good for testing the perception algorithms but you can't test if the speed improves as you're only replaying data. A solution for this is a virtual testing platform in which we mimic the real world to test the actuation algorithms, preferably as realistic as possible.

This year, a part-timer already started on this platform and there were 3 theses about MPC (Model Predictive Control) so there is already quite some information there. The main goal for this thesis is combining everything together into a working product, which is a working simulator. This simulator should work the same way as the car works and work with the algorithms.

PROFILE

- Experience in Object-Oriented Programming
- Knowledge of C++
- Some knowledge of vehicle dynamics is a bonus
- Interested in simulations
- Well-organized
- Communicative

RETURNS

- Practical experience in a high-end engineering context
- Work with the newest technologies and innovative companies
- Developing your hard- and soft-skills in a company-like environment
- Participation in the biggest student competition in the world

INTERESTED?



Send us your contact details and field of interest to

recruitment@formulaelectric.be