Design of a motor cooling sleeve

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

Our formula student car has 4 high power motors that need to be effectively cooled by our water cooling system. The aim of this thesis would be to develop a new cooling sleeve with improved cooling power while keeping the pressure loss to a minimum. Our team is currently partnering with Diabatix, a company that provides generative design software for thermal management.

Key objectives are:

- Defining the boundary conditions (flow, pressure, temperature ...)
- Defining the design space
- Learning how to work with Diabatix Coldstream
- Designing a new improved cooling sleeve

PROFILE

- (electro) mechanical engineer
- Willingness to learn new software
- Good knowledge of heat transfer and fluid dynamics

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