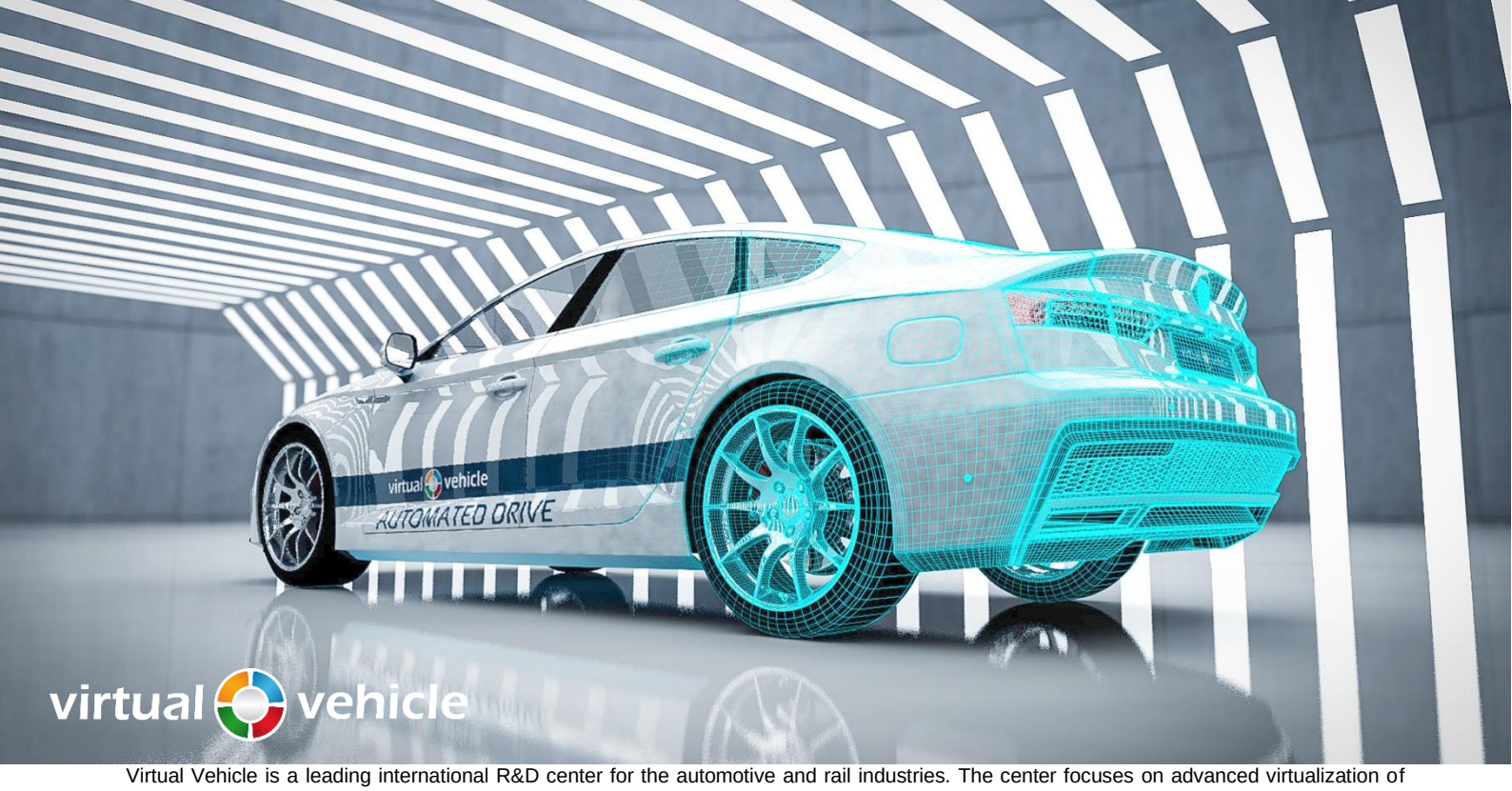

Virtual Vehicle is a leading international R&D center for the automotive and rail industries. The center focuses on advanced virtualization of vehicle development. About 300 people are employed at the site in Graz - their expertise enables the efficient development of affordable, safe and environmentally friendly vehicles.

Master Thesis

“Further development of an active FE human model”

Ref.Nr. R_019

Master Thesis

In the context of automated driving, the stage directly before a possible crash is becoming more and more important. During this time, for example, braking and evasive manoeuvres are carried out by the vehicle, which have a significant influence on the position of the occupant and subsequently influence the kinematics of the occupant. So-called FE Human Body Models (HBMs) are used for the virtual quantification of the occupant loads. In order to simulate the (active) human behaviour during a braking or evasive manoeuvre, an approach developed at Virtual Vehicle applies the human muscle activity in the simulation model via an external controller. Simplifications were made for this in a first version, which will be improved step by step in the master's thesis.

TASKS

- Becoming acquainted with the subject matter
- Carrying out FE simulations with human models
- Adaptations to the controller
- Validation with existing test data

PROFILE

- Student in the technical field
- Interest in modelling and simulation as well as control engineering

OFFER

- Collaboration and contribution in an engaged, dynamic team
- Interesting work in an international research center
- **Paid** Thesis
- Mentoring program for new employees’
- Diverse sports and health activities regularly
- Corporate Events

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APPLY NOW and JOIN OUR TEAM

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