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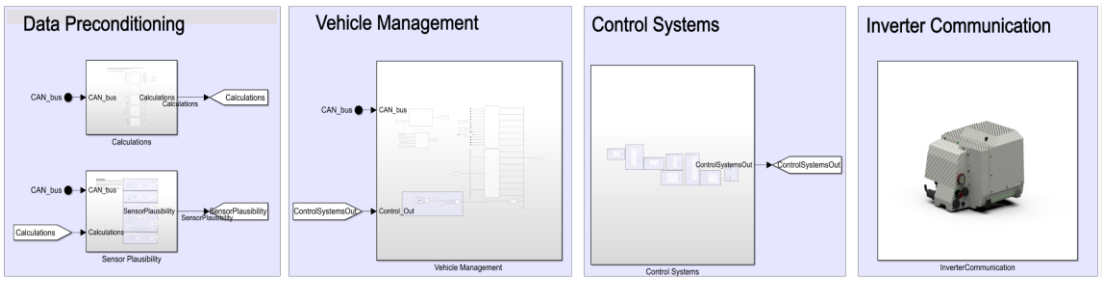
Vehicle Dynamics

Vehicle Control Unit



Job Description?

In order to be able to move our race cars stable, reliable and as fast as possible even in the limit range of the tyres, we use driving dynamics control systems. By controlling wheel slip and distributing the drive torque to the four individually controlled wheel hub motors (Torque Vectoring), we aim to achieve maximum longitudinal and lateral acceleration.
At the same time, temperature and power limits have to be monitored to protect components and ensure compliance with the Formula Student regulations.

The control model is built with MATLAB Simulink and is installed on the race cars using software developed in-house.

What will be your task?

- Further development and validation of vehicle dynamics control systems
- Regular installation of updated control software on the vehicles
- Active participation in the test operation of the vehicles
- Collaboration in cross-group tasks (production, ...)
- Participation in group and team meetings

What are our requirements?

- Preferably studies in the field of Mechanical engineering, Electrical engineering, physics, CES, computer science
- Interest in vehicle dynamics and control engineering correlations and simulations
- Prior knowledge in Matlab & C++
- Independent working method
- High motivation and dedication to the team
- Very good knowledge of English

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