



virtual  vehicle

VIRTUAL VEHICLE is a leading international R&D center for the automotive and rail industries. The center focuses on advanced virtualization of vehicle development. This linking of numerical simulations and hardware testing leads to a powerful HW-SW system design. About 300 people are now employed at our site in Graz - their expertise enables the efficient development of affordable, safe and environmentally friendly vehicles.

Bachelor-/Master Thesis

“System Layout of Photovoltaic Integration into EV”

Ref.Nr. B_071

Bachelor-/Master Thesis

In this master's thesis, a simulation tool is to be designed. This includes the modelling of an electric car with integrated photovoltaics. The PV system should be designed in such a way that it covers at least the annual sum of energy for cooling and air conditioning. Various PV cells and different electrical connections should be analysed. In addition, various real dynamic driving cycles can be simulated using an existing tool. The simulations are carried out in Matlab Simulink.

Your Tasks

- Modelling in Matlab/Simulink and Simscape.
- Creation of energy management with PV system.
- Calculation of different cycles under various boundary conditions.
- Evaluation of energy and CO2 reduction potentials for various scenarios.

What we expect from you

- Degree in electrical/mechanical engineering or similar.
- Interest in alternative energy systems.
- Motivation to work in a young, international team.
- You need a supervisor at a university.

What we 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

For technical questions please contact:

Christian Doppler
+43-(0)316-873-9080

Data Protection Notice

Virtual Vehicle Research GmbH processes your application to manage your application. For further information please see our [Data Protection Notice](#). If you consent that your submitted data is also stored in our talent pool for

up to 1 year after the last contact with you, please let us know by E-mail. You may withdraw your consent at any time.

APPLY NOW and JOIN OUR TEAM

Kontakt: Barbara Cappello | +43 316 873 9016 | Inffeldgasse 21a, 8010 Graz | www.v2c2.at