

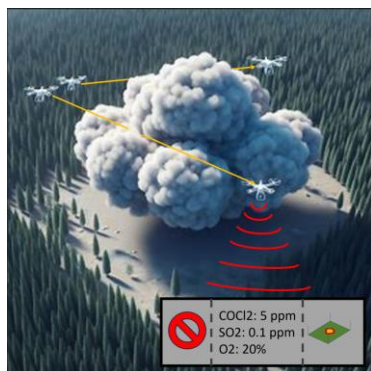
VIRTUAL VEHICLE is a leading international R&D center for the automotive and rail industries. The center focuses on advanced virtualization of vehicle development. This linking of numerical simulations and hardware testing leads to a powerful HW-SW system design. About 300 people are now employed at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

Bachelor-/Master Thesis

„Drone-based measurement of the gas concentration“

Ref.Nr. B_074

Bachelor-/Master Thesis



Drones are used to monitor air quality in order to detect toxic components in the air. For this purpose, a sensor is mounted on the drone which determines the concentration of a gas at a specific point.

By using remote sensing methods, the area that can be monitored by drones can be significantly enlarged. In spectroscopic remote sensing methods, a beam of light is emitted from a light source. The light beam is then collected and analysed by a detector.

The distance between the light source and detector can be several kilometres for stationary applications. These distances cannot be achieved for drone-based spectroscopy. The aim is to achieve a distance of up to 50 metres between the drones. The molecules located between the light source and the detector absorb in characteristic spectral ranges. This means that both gas components and concentration can be determined by analysing the spectra.

Your Tasks

- Development of a system for measuring methane.
 - Setup and calibration.
- Measurement realisation.
 - Collaboration in the development of the drone control system.

What we expect from you

- Enjoy solving difficult measurement tasks.

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:

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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

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