



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.

Master Thesis

“Thermal runaway particle venting simulation for test bed design”

Ref.Nr. B_065

Master Thesis

Understanding thermal runaway (TR) is essential for battery safety and experiments play an important role in it. The measurements of the exact heat released during the TR is an important parameter. For the optimal design of a test stand for the measurement of the released heat, TR particle vent gas simulations are to be carried out in order to design an optimised probe holder.

Your Tasks

- Introduction to OpenFOAM and TR particle vent gas simulations
- Research on heat transfer in pipe flow with particles
- Carrying out simulations
- Design of a probe holder and optimisation tools
- Documentation and publication

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

Your Profile

- Ongoing studies in process engineering, mathematics, physics, mechanical engineering
- Interest in the modelling and simulation of physical processes (particle motion, CFD), as well as the fundamentals of numerics
- First contact with numerical modelling of physical processes
- Strong initiative and a self-determined way of working

For technical questions please contact:

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APPLY NOW and JOIN OUR TEAM

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