Shaping the Future for Sustainable Technologies

The Large Engines Competence Center (LEC) is one of the world’s leading research institutions in the field of sustainable transport and energy systems and offers excellent career prospects in a scientific environment of the highest quality. The cooperation with world-leading industrial partners and renowned research institutions allows application-oriented top-level research with the aim of preserving an environment worth living in for future generations.

Job description

The work focuses on the detailed investigation of flow, mixture preparation, injection, ignition, combustion, pollutant formation, knocking and pre-ignition in large engines. These processes are investigated by fundamental investigations on single-cylinder research engines as well as on special test rigs with the aid of sophisticated measurement technology, including optical technology. The aim of the investigations is to analyze and understand these processes in order to provide data for the modeling and improvement of combustion systems.

Major responsibilities

- **Setup** fundamental experiments on various test rigs which make it possible to measure combustion-relevant processes at defined conditions.
- **Plan and execute** the tests, select suitable measurement techniques to ensure the best possible performance as a basis for the development of simulation models.
- **Analyze** the results to gain a deeper understanding of the influence and interactions of different boundary conditions on the relevant phenomena.
- **Develop and improve** measurement concepts and measurement techniques
- **Validate** the measurements and make the results usable for numerical analyses, simulation and model development
- **Communicate** the measurement results in regular internal meetings and to project partners
- **Disseminate** the project results in the form of scientific publications and elaborate a PhD thesis

Your profile

- Qualified degree (MSc, Dipl.-Ing) in Physics
- Strong interpersonal skills with initiative and perseverance
- English fluent, German would be an asset
- A valid work permit for Austria is a prerequisite

Our offer

- Doctoral thesis within an exciting research project
- Availability of outstanding research infrastructure
- Self-reliant work in an excellent team and with international partners
- Possibilities for further personal and professional development
- The offered position is full time with an annual salary of € 39.100
- Earliest starting date: January 14th, 2019

The LEC supports equal opportunity and diversity. We are looking for committed and motivated people with a passion for research.

Contact:

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Become part of our successful LEC team! We look forward to your application.

www.LEC.at