

# Research Assistant | Dissertation



A Research Assistant | Dissertation position in the area Robust Engine Solutions is now open at the COMET-K1-Zentrum LEC EvoLET. The topic of research is Main Parameters of Spark Plug Wear

## **Topic description**

The main parameters that influence wear cannot be described by the approaches to developing spark plugs available today. The challenge is to describe the conditions in the combustion chamber via parameters that cause wear, the connection between the spark plug and cylinder head and especially the material properties of the spark plug. To make advances in spark plug development, it is necessary to understand wear mechanisms and their interaction in detail.

## **Tasks**

- Describe the main influences on spark plug wear (literature studies, experimental tests)
- Develop a simulation model that describes and quantifies spark plug wear
- Develop strategies to lengthen the service life of spark plugs using simulation
- Conduct experimental tests to validate strategies for minimizing spark plug wear

## **Requirements**

- Degree from a technical university (technical physics or equivalent)
- Basic programming knowledge (e.g., Fortran, Matlab)
- Good command of German and English (speaking and writing)
- Dedication and willingness to work in a team

## **Salary**

Following the salary scale set out in the collective agreement and the academic staff model of Graz University of Technology of 1 January 2015, the salary for this position is € 2,662.90 gross per month.

## **Start**

Beginning of 2016

## **Contact information**

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