



Student Assistant

Design and Construction of an Automated PEM Electrolysis Test Bench

Field of Science

- Batteries
- Fuel Cells and Electrolysers
- Electrocatalysis

Focus

- Experimental
- Electrochemical characterization
- Material analysis
- Development of setups
- Modellierung
- Simulation
- Literature research

Studies

- Electrical Engineering
- Mechanical Engineering
- Chemical Engineering
- Physics
- Chemistry
- Industrial Engineering

Starting Date

Directly / upon agreement

Contact

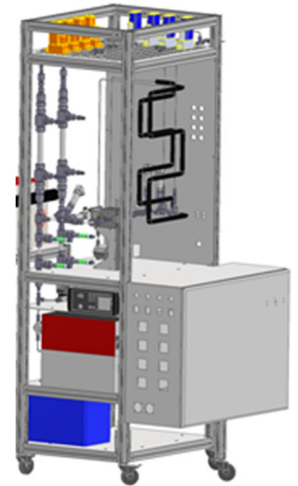
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<http://www.iam.kit.edu/et/>

Become a part of the energy transition!

Hydrogen plays a central role in the energy transition and meeting climate targets. In the field of renewable energies, polymer electrolyte membrane (PEM) electrolysis is particularly interesting due to its flexibility and partial load capability.

A modular test bench for PEM electrolysis is currently being developed and constructed at the IAM-ET, which will enable the electrochemical characterisation of various cells in order to drive forward the optimisation of the technology. The IAM-ET already has test benches for PEM fuel cells and PEM electrolysis. These are now to be supplemented by a modular test stand for electrolysis.



As a student assistant, you will work on the construction of the test bench, implement new test bench components on the hardware and software side and design a control and automation system. After completion of the test bench, you will have the opportunity to continue working in the field of characterisation and modelling of PEM electrolysis cells.

Work as a student assistant (Bachelor/Master):

We are looking for dedicated students to join our team to work between 20 and 40 hours per month. The **tasks** include:

- Support with test bench construction
- Implementation of test bench components
- Commissioning of the test bench
- Carrying out measurements on PEM electrolysis cells

About IAM-ET

We offer you the opportunity to work in an interdisciplinary team in a forward-looking subject area. Independent work and the motivation to familiarise yourself with new subject areas are required. The position is suitable for both Bachelor's and Master's students. Preference will be given to people with experience as electrician or a related field. If you are interested, please send a CV and a brief introduction to:

Mareike Sonder (mareike.sonder@kit.edu).