We are Austria’s largest Research and Technology Organisation and an international player in the research areas that we cover. This makes us a leading development partner for industry and a top employer in the scientific community. Applications are invited for a:

**Master Thesis “Methodical development of a coupled GCMS-FTIR System for In-Situ Gas Analysis of High Voltage Lithium Ion Batteries”**

This is part of a running cooperative project of AIT and the Technical University of Vienna on ageing diagnostics and safety of lithium ion batteries which aims at producing time-resolved representations of electrochemical processes which take place in electrolytes under various operating conditions. This is done through online analysis of the evolving gases with a coupled gas chromatography/mass spectrometry/ Fourier transform infrared spectroscopy (GCMS-FTIR) system. The acquired data provides a basis for both improvement of electrolyte and material/ materials combinations on the one hand and for assessing the condition of a cell for safety, lifespan, and toxicity.

**Description**

- Conduct coupled FTIR GCMS experiments
- Development of a method to quantify the analyses
- Analyzing and interpretation of generated data sets

**Candidate profile**

- Ongoing Master’s degree in chemical engineering or chemical technology
- Interest in interdisciplinairy questions and in practical laboratory experience
- Good knowledge of electrochemistry and gas chromatography is a plus

Your compensation:
EUR 680,55 gross per month for 20 hours/week based on the collective agreement (Forschungs-KV).

Please submit your application documents, including certificates, to
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