
Research engineer

Development of fuel cell test benches for the characterization of PEMFC stacks

Context and goal

In the framework of a project in collaboration with the Beblue company, the European Space Agency, and the University of Guiana, the Department of Chemical Engineering recruits a research engineer with strong background in electromechanics.

The general aim of the project is to **develop and use test benches to characterize commercial proton Exchange Membrane fuel cell stacks**. The test benches will be built by the Beblue company, to be operated on its premises. The data collection and analysis will be performed in collaboration with the Department of Chemical Engineering of ULiège. The global project with the implementation of fuel cell technologies to decarbonize specific industrial/research sites. In the case of the HYGUANE project, the goal is to replace conventional generators by operating fuel cells at the Guiana Space Center.

Role of the research engineer

The main role of the hired researcher will be to help developing the fuel cell test benches to be operated at Beblue, within a group of engineers specialized in test bench design, and to collect and analyze the data from the fuel cell stack. Modelling of the systems will be performed to predict the system behavior upon use, and operating data will be compared with those obtained under tropical climate, in Guiana. Ultimately, the project will bring information on stack behaviors under various conditions, and provide a versatile infrastructure for FC stack performance assessment.

Information

- *General:* The researcher will be hired by ULiège (Belgium) in the framework of the HYGUANE project. The work will mainly take place in Liège, both at the Department of Chemical Engineering and in the premises of the Beblue company (~500 m apart).
- *Profile:* Master in Engineering with a strong background in electromechanics.
- *Language:* fluent English (mandatory), a good level in French is an asset.
- *Duration:* 1 year, renewable once
- *Start:* Whenever possible
- *Application:* please send a detailed CV and a motivation letter highlighting your skills and interests related to this specific project to Nathalie.Job@uliege.be and vaio.stergopoulos@beblue-cryotech.eu.
- *Application deadline:* April 30th 2024
- *Supervisor:* Prof. Nathalie Job - Department of Chemical Engineering.