ENERGY BUSINESS REVIEW

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HYDROGEN AND FUEL CELLS EDITION

TOP HYDROGEN AND FUEL CELLS SOLUTIONS PROVIDER IN EUROPE/UK 2022

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RadBee

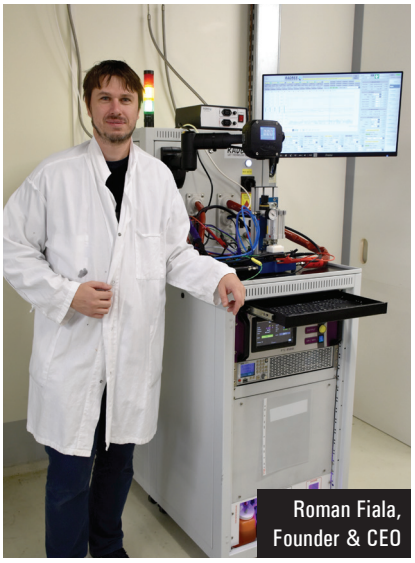
Enhancing the Performance and Durability of Electrolyzers

European Union aims to achieve 40 GW of electrolyzer capacity by 2030. It is indicative of the EU's resolve to ramp up the production of green hydrogen. Green hydrogen will likely become cost competitive with gray hydrogen by 2030 as it overcomes technological and economic obstacles in scaling up and mainstreaming hydrogen-based energy. While increasing the usage of renewables reduces the price considerably, enhancing the performance and durability of electrolyzers is the way forward to achieve further cost reductions.

RadBee addresses this challenge through its fuel cell testing solutions, producing scientific instruments and equipment focused on hydrogen-based energy solutions.

From the cost of fuel cell stack to hydrogen storage, RadBee strives to address the most pressing challenges in the field. It helps companies looking to build their fuel cell stacks by providing devices for research. "We are developing and manufacturing a wide range of systems for fuel cell technology, from less than 100 watts to 100 kilowatts and more. These systems for testing fuel cells allow our customers to do their research," says Roman Fiala, Founder and CEO at RadBee.

It is also developing essential accessories, like a gas analyzer, to analyze the stack's inlet and outlet to ensure hydrogen quality. It offers a gas analyzer system to control the quality and content of gases and measure water content. In addition, for the development of the cell itself, RadBee can measure the current density in various spots in the flow field of the fuel cell and the distribution of heat in the plane of the flow field.


Roman Fiala, Founder & CEO

Focusing on electrolyzer testing, RadBee has helped numerous customers develop electrolyzers for producing hydrogen. It has expertise in developing a wide range of cells that fit customer needs. It accomplishes this feat by leveraging its capability in current grid measurement, the current density measurement along the plane, and heat distribution along the plane of the fuel cell.

RadBee has come a long way due to Fiala's 12 years of experience in testing fuel cells and electrolyzers. Understanding the customer's needs for automatic operation with touch-free expertise, he has developed a system based on industrial automation. Facilitating standard industrial automation with its software, RadBee enables the user to automatically control all systems in the testing station.

Besides, it is also possible for customers to write their scripts to conduct procedures independently without staying in front of the station. They can run many scripts, and the test is done. Customers can then focus on other things instead of handling the devices. Another benefit RadBee offers is remote access, where the end user can sit in the office or at home, control the system, and remotely see the data. To top it off, the products are developed through customized design. RadBee discusses with customers to gauge their requirements and accordingly builds the system.

> "We are developing and manufacturing different systems for fuel cell technology for a wide range from very low power of less than 100 watts to 100 kilowatts and more. These systems for testing fuel cells allow our customers to do their research"

Moving forward, RadBee plans to improve its laboratory further and focus on research. Through every fundamental study and application, it is looking to enhance its devices. Fiala is interested in doing more basic and application research and believes RadBee is ready to develop its stack systems. EB

RadBee

The annual listing of 10 companies in Europe/UK that are at the forefront of providing Hydrogen and Fuel Cells solutions and impacting the marketplace