AIT/IEEE PES Austria Chapter Lecture Series

GREEN HYDROGEN TECHNOLOGIES FOR DECENTRALIZED INFRASTRUCTURE SOLUTIONS

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Monday, 23. November 2020, 16:30 - 17:30 (online)
(Talk in German)

Registration

Participation is free but a registration required! Login information for joining the online event will be provided right before the event starts!

Abstract

The European Green Deal provides an action plan to achieve climate neutrality in the EU by 2050. Within Fronius the vision "24 hours of sun" was created which describes a future energy system based entirely on renewable energy sources. The utilization of green hydrogen as energy storage is a key component to achieve these goals. Therefore, the development of the Fronius Solhub was an important factor for our future strategy. It is an overall solution for the storage of surplus energy from renewables, for sector coupling and the decarbonization of the energy system. With electricity from renewable energy sources water is split into hydrogen (and oxygen) via water electrolysis and can be used as:

- Fuel for emission-free transport and mobility replacing fossil fuels
- Energy storage medium with subsequent reconversion into electricity in fuel cells
- Utilization of waste heat of the electrolysis and fuel cell systems

This talk gives an overview of the Fronius Solhub system solution and the different applications it is designed for. Furthermore, the core technologies will be presented, focusing on the water electrolysis process. An outlook on future hydrogen technologies we are investigating will also be given.

About the Speakers

Markus Justl has technical responsibility for the system development of the Fronius Solhub. He is working in the System Engineering and Development department at Fronius since 2019 and is active in the field of hydrogen research and development, with focus on hydrogen production and overall infrastructure solutions, since 2015. He also works as external lecturer at University of Applied Sciences Upper Austria. He holds a master's degree in mechanical engineering and business economics from Graz University of Technology.

Hannes Zannantoni attended the Technical University in Graz, specializing in electrical engineering with a focus on energy technology. There he was already engaged in the production of hydrogen by reforming ammonia. He has been working as a development engineer in research and development at Fronius in the hydrogen sector for 6 years and was responsible for the implementation of mobile fuel cells in industrial trucks. Since 2019, he has been the technical section leader who heads the development of the electrolyser in the System Engineering & Development department at Fronius.

Organizers

This event is jointly organized by the IEEE PES Chapter Austria and the AIT Austrian Institute of Technology - Center for Energy**.** It is also supported by the IEEE IAS/PELS/IES Joint Chapter Austria.

Location Webinar (online)

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