Education and Training series
Webinar #94
Prospects and challenges of the GFR technology
Hosted by the GIF Education and Training Working Group

Join us on October 02, 2024, 14:30 CEST (UTC+2)

Prospects and challenges of the GFR technology

This webinar will present the prospects and challenges of Gas-cooled Fast Reactor (GFR) technology, a promising concept that aims to combine the advantages of fast reactors—such as a closed fuel cycle, efficient burning of minor actinides, and high fuel efficiency through the breeding process—with the very high core outlet temperatures provided by its gaseous coolant. These features position GFRs as one of the most promising reactor technologies of the future.

However, alongside this potential come several challenges in design and operation. Gas, as a coolant, is generally less efficient, and fast reactor cores need to be compact to perform efficiently. This combination of relatively high-power density with a non-ideal coolant presents specific challenges, particularly in the context of emergency core cooling.

In this webinar, we will explore the current approaches to addressing these challenges and maximising the potential of GFR technology. The session will also include a historical overview of GFR development and an examination of modern GFR concepts.

The webinar will end on a Q&A session that will give the possibility to delve deeper into topics related to the initial presentation.

Dr. Patricia Paviet from PNNL, USA, chair of GIF Education and Training Working Group (ETWG), will facilitate this webinar.

The GIF ETWG webinar series started in 2016 and more than 90 webinars have been streamed since then. People from more than 80 countries have attended these webinars over the years. You can learn more about previous webinars and ETWG activities on the GIF website.

Free webcast!

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When:

October 02 – 2024
14:30 CEST (UTC+2)

Who should attend:

policymakers, industry professionals, regulators, researchers, students, general public

Speaker

Mr Petr Vácha

Petr Vácha, head of the Advanced Reactor R&D in UJV Rez, Czech Republic, has over 10 years of experience in design and safety assessment of gas-cooled fast reactor technology, currently leading a team of almost 30 scientists and engineers, and being the lead designer of the HeFASTo GFR concept. He is one of the core members of the Generation IV International Forum's GFR System Steering Committee for many years.
Mr. Vácha holds BSc and MSc degrees in nuclear reactors and energetics from Czech Technical University in Prague. During his time at UJV Rez, he has established technical expertise in fast reactor design, thermal-hydraulics of gas-cooled systems, and severe accident prevention and mitigation in GFRs.