Invitation to Summer School on

Implementation of Emerging Technologies

31st August – 4th September 2025, Halden, Norway

In co-operation with the OECD Nuclear Energy Agency (NEA) and the Norwegian Nuclear Research Centre (NNRC), the Halden HTO Project will continue the successful tradition of providing knowledge transfer to the young generation and contribution to competence building in the nuclear industry. Therefore, the Halden HTO Project will organise a Summer school on *Implementation of emerging technologies*, 31st August – 4th September 2025, in Halden Norway.

The rapid technological development provides new opportunities for the nuclear industry, but safe implementation might also imply new considerations and requirements. The aim of the 2025 Summer school is therefore to address various considerations related to implementation of emerging technologies in new and modernised plants. The lectures will cover topics such as: examples of emerging technologies, relevant standards and guidelines, approaches and methods related to function allocation, the control room design process and issues related to safety and security assurance.

The summer school is primarily aimed to reach young professionals in the start of their career and will provide useful insights from the perspectives of the regulators, vendors and utilities. However, the summer school may be useful also for more experienced people motivated for learning more about the topic. The lectures will be supported by examples from the Halden HTO experimental program. To emphasize the networking aspect of the event, this will be an in-person event only.

Accommodation and fee:

Fee: 6500 NOK+VAT

The fee must be paid by credit card when registering. It covers lunches, two joint dinners, coffee breaks, course materials, associated events and other related costs.

Accommodation: A block pre-reservation has been made for the Summer School participants at Thon Hotel Halden. Please book your stay on the below link, before June 27th. After this date the pre-reservation will be closed. The hotel price is 1395 NOK per person per night, breakfast included. This must be paid by the participant on departure. The hotel can be cancelled until 16:00 on day of arrival Please book your room using this link:

IFE Institutt for Energiteknikk Halden

All bookings after 27th June must be made directly to Thon hotel Halden by email. Notify them that you are attending Summer School 2025 to get IFE's hotel prices.

Registration:

Registration deadline: 15th August. Please register on the link below, fee must be paid by credit card.

Summer School on Implementation of Emerging Technologies 2025 Halden Norway

Tentative agenda:

Day 0: Sunday evening 31st August 2025: Getting acquainted, joint dinner.

Day 1: Monday 1st September 2025

- Introduction to the Summer school
- Overview of OECD NEA's role and functions in nuclear safety
- The NEA Halden HTO program and needs of the nuclear industry regarding implementation of emerging technologies
- Examples of emerging technologies for modernized and new plants

Day 2: Tuesday 2nd September 2025

- Relevant standards and guidelines
- Function allocation of technology and humans in new and modernised plants

Tuesday evening: Joint dinner

Day 3: Wednesday 3rd September 2025

- Evaluation and Safety & security assurance of emerging technologies
- New technologies and the control room design & evaluation process
- Role of AI, data robotics and digital twins
- Cyber security

Day 4: Thursday 4th September 2025

- Demonstrations IFE labs
- Summary

The Summer School is expected to finish with lunch at 12:30 on day 4.

A more detailed agenda will be provided later.

Halden, 6th March, 2025

Andreas Bye
Programme Manager
OECD NEA Halden HTO Project