

GENERATION IV NUCLEAR REACTOR SYSTEMS FOR THE FUTURE



Course overview

The general objective is to provide participants with an up-to-date basic knowledge on the six concepts selected for the 4th generation of nuclear systems (SFR, LFR, GFR, VHTR, SCWR, MSR).

Who is the course for?

Professionals, engineers, researchers and students with an interest in a global view of the 4th generation of nuclear reactors. Scientists already involved in Gen IV systems activities or planning to work in such areas.

Entry requirements

Basic knowledge on nuclear reactor physics is desirable.

Competences covered

- Acquire a general view of GIF (Generation IV International Forum) objectives and organization.
- Explain the rationale for the development of a 4th generation of nuclear reactors.
- Describe the main characteristics of each system, and formulate their design, performance and safety characteristics.
- Discuss the technical challenges they are faced with for practical development.

Duration 5 days (30 hours)

Location INSTN/CEA-Saclay, France

Groups limited to 20

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Course code 558



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Course content

The course covers the 6 systems selected by GIF (SFR, LFR, GFR, VHTR, SCWR, MSR) and addresses cross-cutting aspects (safety, materials and fuels, energy conversion, nuclear fuel cycle).

Focus on Gen IV demos and prototypes (ASTRID, ALFRED, ALLEGRO, HTR-PM).



Why take this course?

Lectures by renowned experts from France and other countries (China, Czech Republic, Italy, Germany).
Tutorials (How to “design” a fast neutron reactor using simple calculations).
The course is supported and advertised by GIF (https://www.gen-4.org/gif/jcms/c_97306/education-and-training).

Please contact us for more information on this course.