

framatome

**IC academy**  
Training Solutions 2021

# IC academy

With more than 40 years of training experience, Framatome's full training portfolio includes courses on virtually every aspect of nuclear power plant construction and operation. We also design individually tailored training programs and courses to suit our customers' specific requirements. Our long-standing relationships with global experts, utilities, and institutions give us the necessary expertise to offer valuable insights into nuclear safety policy and procedures.

**Our training solutions focus on:**

- Certified, experienced instructors and experts in all fields of nuclear technology
- Competent advice and support regarding your intended training goals
- Practical courses with applied training on real-life systems
- Training curriculum customized to your needs
- High-quality training materials individually tailored for each course and customer

## Our promise to you

Framatome offers comprehensive training solutions for the development, construction and maintenance of nuclear power plants. Our IC academy is home to world-leading experts in the industry, ready to share their know-how and experience with your operational teams. Framatome delivers the training programs you need to help you achieve your team's development goals.

## Your performance

is **our** everyday **commitment**

# TRAINING LOCATIONS

**Framatome offers extensive system and operations training at our modern training facilities or on-site at customer locations worldwide.**

 **France**

Framatome France offers instrumentation and control trainings drawn from decades of operational experience and best practices. Courses are available at Framatome sites in Lyon and Paris, as well as at actual plant sites like Flamanville. To ensure the best training for all customers, classroom and hands-on instruction are provided by our training experts.

 **Germany**

For more than 40 years Framatome has provided extensive training courses covering both nuclear plant construction and operation at our Training Center in Karlstein and Erlangen. Comprehensive instrumentation and control training is further supported by actual platforms and component mock-ups allowing participants to learn in realistic environments.



**USA**

Located in Lynchburg, Va., Framatome's Technical Training Center is located on 3.5 acres, with full-scale mock-ups, classrooms, offices, and labs to meet the growing nuclear site maintenance needs in the U.S. and around the world. Course participants receive classroom and hands-on training for plant-specific instrumentation and control configurations and new procedures in a safe, realistic environment.

**China****Slovakia**

We also offer instrumentation and control academy training courses near customer locations in China and Slovakia for our local customers in Asia and Eastern Europe. The full list of courses is continually expanding and is also available in customers' native language. Our teams of trainers look forward to welcoming you at one of the Framatome facilities, or provide training at your local facility.



# PROCESS CONTROL SYSTEM

## ISKAMATIC B

DURATION	LOCATION	LANGUAGES
5 days	 Framatome Karlstein	  German, English on request

### TARGET GROUP

Utility employees from engineering, operation and maintenance departments, and employees of licensing authorities.

### OBJECTIVES

The participants are familiarized with the ISKAMATIC B control system and its applications. After the course, the participants will be able to:

- Perform engineering
- Operate ISKAMATIC B
- Interpret signal patterns
- Detect malfunctions
- Work with the documentation

### CONTENT

Overview of the ISKAMATIC B process control system

- System data and design
- Logic symbols
- Design of the standard cabinet (ISKAMATIC E)
- Documentation (function diagrams and circuit diagrams)
- Alarm annunciation concept
- Binary signal conditioning and limit signal generation
- Control interface
- Undervoltage monitoring
- Fault isolation and priority control
- Sub-loop control
- Subgroup control
- Group control
- Protective logics
- Practical exercises on modules

### PREREQUISITES

General basic knowledge of signal conditioning, control technology and logic functions.

### OTHER INFORMATION

Participants: 6 to 8 persons

Contact: [ic-academy@framatome.com](mailto:ic-academy@framatome.com)  
for more information

# IC academy

Organization  
and information

## **SPECIFIC TRAINING REQUIREMENTS**

Do you have specific requirements for a training course? We can put together a tailor made course. Please contact us and we will be happy to advise you.

**Please email us at:**

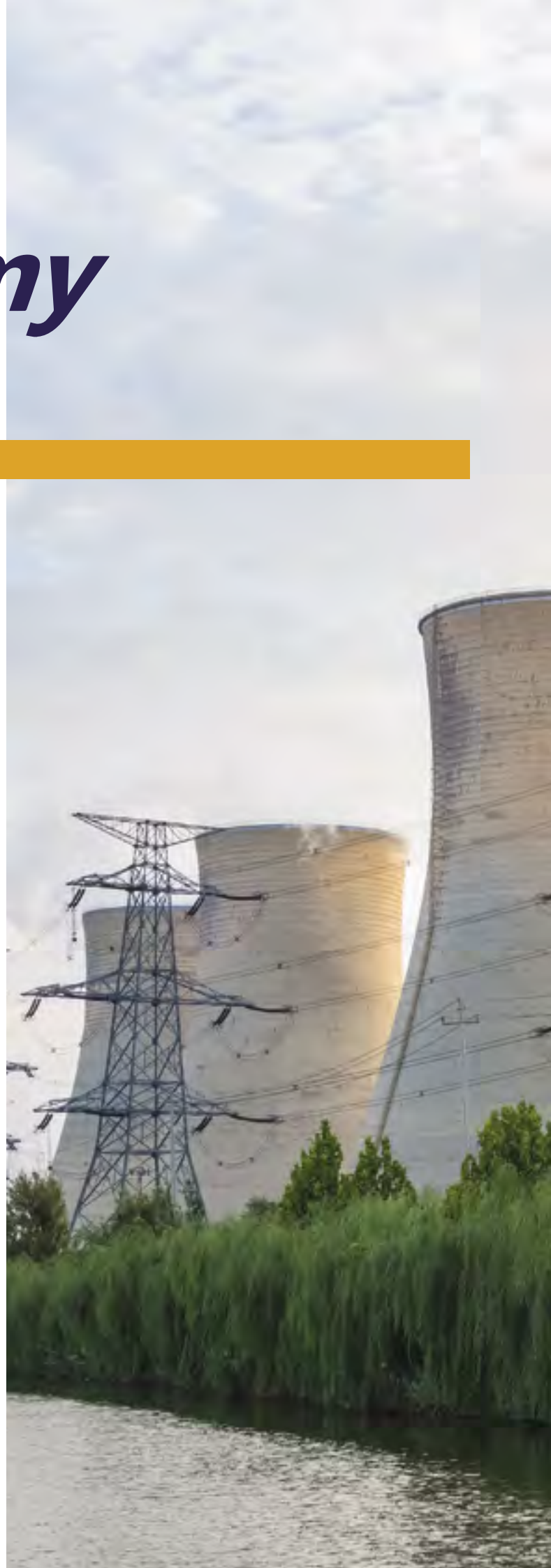
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Framatome is an international leader in nuclear energy recognized for its innovative solutions and value-added technologies for the global nuclear fleet. With worldwide expertise and a proven track record for reliability and performance, the company designs, services and installs components, fuel, and instrumentation and control systems for nuclear power plants. Its more than 14,000 employees work every day to help Framatome's customers supply ever cleaner, safer and more economical low-carbon energy.

Visit us at: [www.framatome.com](http://www.framatome.com), and follow us on Twitter: @Framatome\_ and LinkedIn: Framatome.

Framatome is owned by the EDF Group (75.5%), Mitsubishi Heavy Industries (MHI – 19.5%) and Assystem (5%).



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# framatomē

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