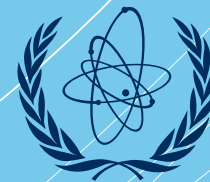


# Joint ICTP-IAEA Training Course on Physics and Technology of Water Cooled Reactors through the Use of PC-based Simulators

**06 - 10 November 2017**  
**Trieste, Italy**



**IAEA**

International Atomic Energy Agency

Further information:

Activity URL: <http://indico.ictp.it/event/8001/>

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This is a comprehensive course on understanding the physics and technology of water cooled reactors, with theoretical and hands on training. The unique course is based on intuitive blended learning and a flipped classroom approach. Operate a nuclear power plant from your laptop: Listen – Learn – Simulate.

## Description:

The purpose of the course is to provide students, professors, engineers and other educators involved in teaching topics in nuclear energy with advanced computer simulation tools to help demonstrate various aspects related to reactor physics as well as operational response characteristics and safety systems associated with various types of water cooled reactors. The course is recommended for nuclear newcomer nations that are in the process of developing their nuclear education and learning centres to support the needs of both the industry and the regulator.

Course attendees will receive a complete collection of [IAEA simulators](#) and associated material. Through the use of the simulators, participants will be able to understand the behaviour and response of Nuclear Power Plant to normal operation and abnormal conditions. Conducted by a group of highly experienced professionals, this is a must-attend training course for deep understanding of the nuclear power plant system engineering.

## Topics:

- Reactor physics and core design
- Thermal hydraulics and plant design
- Nuclear reactivity control, thermodynamics
- Reactor stability and control in steady state and in dynamic situations
- Technology design and safety system design
- Simulators familiarization – PWR, BWR, VVER, CANDU, SMR (iPWR)
- Plant overview and detailed system description
- Plant dynamics and safety
- Normal operations and transient recovery
- Operations during accidents and malfunctions

## Director:

C. BATRA, IAEA, Vienna

## Local Organizer:

C. ONIME, ICTP, Trieste

## How to apply:

Online application:  
<http://indico.ictp.it/event/8001/>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

## Deadline:

**1 August 2017**



*60 Years*

IAEA Atoms for Peace and Development



The Abdus Salam  
International Centre  
for Theoretical Physics

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