The ISaR Institute for Safety and Reliability

The ISaR Institute is a scientific organization offering expertise and methods for assessing and optimizing the safety and the reliability of nuclear power plants and other complex systems. Main fields of activity are consulting on nuclear and interdisciplinary safety issues, analytical research related to simulation and probabilistic safety assessment, and training of graduates for nuclear careers. ISaR is located at the campus of the TU München in Garching near Munich.

www.isar.tum.de

The Chair of Nuclear Engineering of TUM

The NTech Chair of the Technische Universität München belongs to the Faculty of Mechanical Engineering located at the Garching Campus. The chair is offering both a Bachelor and a Master program in nuclear engineering. Activities focus on applications of nuclear technology and safety analysis of nuclear systems. Current research points relate to best estimate safety analysis of NPPs and to neutronic and thermal-hydraulic methodologies.

www.ntech.mw.tum.de

The ENEN Association

The European Nuclear Education Network is a non-profit international organisation whose mission is to preserve and further develop higher nuclear education and expertise. Members are universities and organisations involved in the application of nuclear science and ionising radiation with established relations to universities. At present ENEN has 46 members in 18 countries. Most members are European universities providing high level scientific education in nuclear disciplines.

www.enen-assoc.org

Training Course on

Operation of Nuclear Power Plants

Place
Munich, Germany

Date
February 9th - 13th, 2009

Who should attend?

The course module is tailored to university graduates in engineering and science preparing for careers at nuclear utilities, vendors, suppliers, regulators, international organisations, expert organisations and consultants. The module is also well suited for young academic professionals in nuclear organisations and for nuclear re-education of engineers and scientists working in other fields.

Lecturers

The lectures are given by internationally renowned experts and executives from industry, research institutes and universities.

Registration deadlines

Early registration: February 2nd, 2009
Late registration: February 5th, 2009

Registration fees*

Early registration: 2.500 €
Late registration: 3.000 €

* Fees include VAT, cover lectures and course material.

Public bodies and ENEN members receive a 20 % reduction.
Grants are available for a limited number of students.

Information / registration

Ms. Heike Roehrich
ISaR Institute for Safety and Reliability
Walther-Meissner-Str. 2
85748 Garching
Germany

Phone: +49 89 289 139 - 11
Fax: +49 89 289 139 - 49

E-mail: courses@isar.tum.de
Further details and registration at www.isar.tum.de/courses

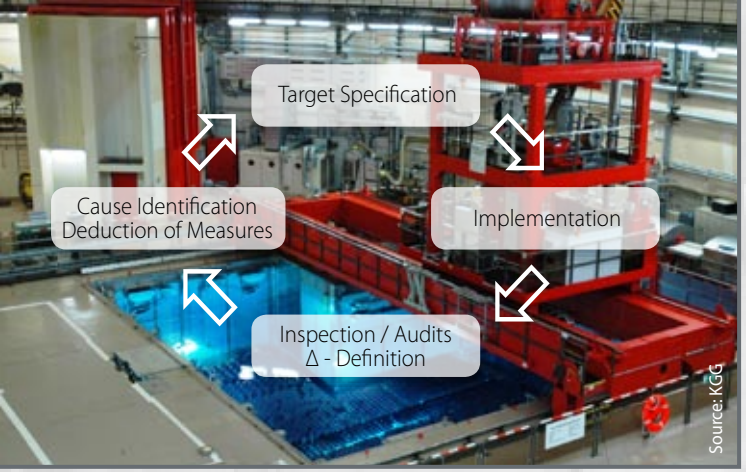
Venue and Accomodation

The lectures will be given on the premises of the Technical University of Munich.

Training Courses

Operation of Nuclear Power Plants

Munich | February 9th - 13th, 2009



Summary

This course module covers present day practices in the operation of light water reactor (LWR) power plants. The technological bases of plant operation are explained as well as successful strategies to achieve excellence in plant safety, availability and economical competitiveness. Special emphasis is put on the procedural and organisational aspects of operation.

Objectives

Participants are expected to achieve a good understanding of

- the organisation of a nuclear power plant
- structure and major contents of the plant documentation
- definitions of different operating conditions and reactor states
- concepts to control abnormal events and accidents
- refueling management procedures
- major maintenance and periodic test concepts
- the preparation of outages
- basic requirements and concepts related to industrial safety and fire protection
- ageing phenomena and procedures to deal with them
- boundary conditions set by laws and regulation
- significance and major concepts of coolant chemistry
- requirements and organisation of radiation protection
- the procedures to treat operational waste and spent fuel
- good practices to implement lessons learned from operating experience
- national and international systems for event classification and reporting
- the role of human factor aspects for NPP operation
- role and design of safety management systems
- how plant modifications are planned, prepared and managed.

Syllabus

- Organizational and operational structures of NPPs
- Process structure for operation
- Operational manual, technical specifications
- Accident management procedures
- Normal operation conditions
- Control of abnormal operation conditions, incidents and accidents
- Shut-down, outage states, start-up procedures
- Maintenance and periodic tests
- Outage preparation
- Ageing phenomena
- Coolant chemistry
- Refueling strategies
- Industrial safety, fire protection, environment
- Waste treatment (operational waste, spent fuel)
- Feedback of experience
- Safety management systems and tools
- Process of plant modifications
- Related laws and regulations