





## **Monthly Bulletin**

This project has received funding from the Euratom research and training programme 2014-2018 under grant agreement No 661910

MAY 2ND, 2019	ISSUE NO. 12
In this bulletin	In this issue, we have updated the list of courses, <b>adding new information</b> on <b>pre-existing and new courses</b> .
	The Course by <b>FUSENET and Framatome</b> on <b>Regulation and its Application</b> <b>in Nuclear Projects is going to be repeated in September</b> .
	In addition, we also advertise about <b>independent E&amp;T activities in the</b> <b>nuclear field</b> , not belonging to the ANNETTE Project.
	We again retrieve the suggestion that, if you apply for support by the ENEN+ project, you should prompt the Course Providers about this request, soon at the time of being contacted. Please decide if you want to apply on your own or let the Course Providers apply for you, <u>carefully avoiding</u> <u>duplication of applications</u> .
	Please, also read the ENEN+ <u>Mobility Manual</u> for knowing the conditions for applications and avoid rejection.
	We had up to now more than 250 applications most of them for multiple courses. However, finalised applications have been less numerous. So, please, keep in touch with ENEN Staff and Course Providers to solve any problem for assuring participation.
	Thanks for your interest in our courses !
	Link to the course application page
	Link for asking support for mobility to the ENEN+ project
	PLEASE LOOK ALSO AT THE COMPLETE OFFER FOR LAST MINUTE SELECTION OF COURSES ALREADY ADVERTISED
COMING SOON COURSES	European SAfeguards Research and Development Association
	UPPSALA UNIVERSITET
1-day Workshop Safeguarding Nuclear Fuel Cycle	<b>Workshop: Safeguarding Nuclear Fuel Cycle</b> The goal of this 1-day workshop is to setup a generic safeguards system for a case study of a country with a given nuclear fuel cycle.

May 13,2019 Stresa (Italy)	The workshop starts with two presentations on nuclear safeguards and on the nuclear fuel cycle in order to give a common starting point for all participants. The presentations will focus on topics that will be used for the rest of the workshop. A case study will be further presented to the participants, describing the characteristics of a fictional country with a well-described nuclear fuel cycle. The participants will be divided in two groups and each group will develop an acquisition path analysis based on the information provided. The results will be discussed among the two groups. Following the discussion, one group (so-called Inspectors) will have the task to develop a safeguards approach based on the acquisition path analysis, whereas the second group (so-called Proliferators) will try and develop acquisition paths to obtain material for a nuclear weapon without being detected. Each group will finally present the results of their analysis and a group discussion is foreseen. More information
1-day Workshop State-level Safeguards Approaches May 17,2019 Stresa (Italy)	Workshop: State-level Safeguards Approaches In implementing safeguards, the International Atomic Energy Agency (IAEA) considers a State's nuclear and nuclear-related activities and capabilities as a whole, within the scope of the State's safeguards agreement. For each State, a customized State-level safeguards approach is developed on the basis of a structured, technical method and by systematically taking into account the State specific factors. The workshop presents an overview on the general processes to develop and implement State-level safeguards approaches, starting with the collection and evaluation of information, and to plan, conduct safeguards activities. Case studies using fictitious model states will illustrate the implementation of safeguards in States with different State specific factors.
	CONTACT For questions and further information, please contact: Riccardo Rossa Scientific collaborator Nuclear Science and Technology Studies at SCK•CEN Email: riccardo.rossa@sckcen.be
MASSIVE OPEN ONLINE COURSE ON NUCLEAR SAFETY CULTURE By TECNATOM and UNED (June 11 <sup>th</sup> , 2019)	<ul> <li>MOOC (Massive Open Online Course):</li> <li>Introducing safety culture and its application to the nuclear field</li> <li>A completely online, free, international course. General information about the MOOC is available in the link above.</li> <li>30 h of participant work - 1ECTS</li> <li>Divided in 4 independent NOOCs (Nano Open Online Courses):</li> <li>NOOC I. What is safety culture?</li> <li>MOOC III. Understanding Nuclear Safety Culture</li> <li>NOOC III. Developing leadership for safety</li> <li>NOOC IV. Refreshing Nuclear Basics</li> <li>Open now the free registration, by clicking on each NOOC above.</li> <li>We are actually in the production process. The course is expected to start on June 11<sup>th</sup> 2019 and will be active during three weeks.</li> <li>If you want to receive information about the MOOC/NOOCs, please fill the form here</li> <li>We highly thank those advertising this initiative within the nuclear sector, but as well towards professionals from other industries (specially high-risk industries), as well as master students of nuclear and other technical studies, to gather a varied audience to enhance global networking and a collaborative learning experience. This course will allow a research study and its dissemination is crucial to achieve massive participation from the main target groups.</li> </ul>
Regulation and its Application in Nuclear Projects	FUSENET The European Fusion Education Network
Framatome (Karlstein, close to Frankfurt), Germany <u>September 9th and</u> 10th, 2019	<b>Course Outline</b> The course is directed towards engineers that are employed by the ITER Organization, Fusion for Energy, or their sub-contractors in the ITER project (down to the lowest level, i.e. in the supply chain), or in any other supply chain company active in fission new build projects. Preferably they should be active in ITER (or any other fission/fusion new build) related design, procurement, manufacturing, construction, assembly, and commissioning of ITER (or fission/fusion new build) equipment.

	The course will impart specific knowledge on nuclear licensing and the impact of licensing requirements on the design as well as on subsequent down-stream activities. Furthermore, it will be complemented by additionally training the skills that are necessary in the nuclear environment of a fission or fusion project like ITER. <b>Course Content</b> The training contains the following: 1. Introduction to and overview of national / international nuclear law(s) and related regulation, involved national and international organizations (e.g. ASN, IAEA), 2. Main licensing activities / deliverables / responsibilities,
	<ul> <li>and introduction to relevant C&amp;S, their impact on regulation or licensing,</li> <li>4. Introduction to and overview of nuclear risks, safety objectives, and derived requirements,</li> <li>5. Basic safety principles: management / technology / process oriented (e.g. defense in</li> </ul>
	<ul> <li>depth),</li> <li>6. Introduction to (deterministic and probabilistic) safety analysis and related tools used by different technical disciplines for simulations in support of licensing,</li> <li>7. How to integrate nuclear regulation requirements into fusion projects, and perform requirements management,</li> <li>8. How to apply nuclear regulation requirements in design/manufacturing/construction/assembly/commissioning activities.</li> </ul>
	<b>REQUESTED BACKGROUND</b> The targeted trainees should have undergone a suitable technical engineering education, preferably in a technical subject matter important for their actual job position. They shall be able to understand the basic design of a power plant and its systems and components, and the technical basics (physics/chemistry resp. design/operation) of a nuclear (fission or fusion) reactor.
	APPLY HERE In order to apply for this course, please enroll at the <u>ANNETTE application page</u> and then contact: Goerge Baltin, Email: goerge.baltin1@framatome.com
	CONTACT         For questions and further information, please contact:         Goerge       Baltin         Course       Manager       at         Framatome       Training       Center       Germany         Email:       goerge.baltin1@framatome.com       Center       Germany
STILL COLLECTING APPLICATIONS FOR FPS@KIT SCHOOL	Karlsruhe Institute of Technology
	<ul> <li>COURSES OFFERED BY THE FRAMATOME PROFESSIONAL SCHOOL (FPS) AT KIT FOR ANNETTE</li> <li>Design Basis Accidents for Light Water Reactors and Numerical Simulation Tools (20-24 May 2019)</li> <li>Reactor Exercises (20-25 July 2019)</li> <li>Design of Pipelines against Earthquake Loads (on demand)</li> </ul>
	<ul> <li>AN EXTENDED OFFER BY FPS@KIT FOR ANNETTE (TENS OF PLACES)</li> <li>Reactor physics calculations with deterministic methods (link);</li> <li>Beyond-design accidents, core-melt accidents (link);</li> <li>Thermohydraulic Stability Analysis (link);</li> <li>Radiolytic Gas Management in Boiling Water Reactors (link);</li> <li>Stress Analysis (link);</li> <li>Light Water Reactor (LWR) core design and fuel management (link);</li> <li>Light Water Reactor (LWR) core feedback and transient response (link).</li> <li>For a general description of course conditions, look at this link</li> </ul>

e-LEARNING COURSE REMINDERS	
	REMINDERS
<u>Principles of</u> <u>Radiation Protection.</u> <u>International</u> <u>Framework.</u> <u>Regulatory Control</u> (e-learning)	
	Lecturers: Mrs. Gabriela Rosca-Fartat Mr. Gabriel Stanescu, PhD "Horia Hulubei" National Institute for Physics and Nuclear Engineering (IFIN – HH) Nuclear Training Centre 30 Reactorului, RO-077125, Bucharest-Magurele, Romania Method of Delivery: Asynchronous e-learning. Final Examination: multiple-choice test In order to apply for this course, please use the application form on the ENEN website: <u>ANNETTE application page</u>
SINGLE AND TWO- PHASE THERMAL- HYDRAULICS - for nuclear applications	UNIVERSITÀ DI PISA
(e-learning)	<u>SINGLE AND TWO-PHASE THERMAL-HYDRAULICS</u> The theoretical lectures and exercise material are already posted. Videos fully available. Contact: <u>walter.ambrosini@unipi.it</u>
	INFORMATION ON INDEPENDENT EUROPEAN E&T INITIATIVES
ELINDER COURSE 'Decommissioning licensing and environmental impact assessment'	In the framework of the European ELINDER project, the SCK•CEN Academy for Nuclear Science and Technology organizes a specialisation training course in decommissioning 'Decommissioning licensing and environmental impact assessment'
	SCK•CEN Lakehouse in Mol, Belgium.
	<b>Objective</b> Activities related to the decommissioning of nuclear installations significantly differ from those performed during the operational period. The various actors (managers, engineers, technicians, health physicists, regulatory bodies, etc.) are faced with specific issues such as changing environments, numerous "one shot" operations, the production of huge amounts of waste, discrepancies between original design and the final layout of the facility, etc. The regulatory requirements and associated licensing procedure necessitate a good preparation for the dismantling strategy, safety assessment, risk management and environmental impact assessment. With the many questions emerging when a decommissioning project has to be set up, it is of utmost importance that the involvement of the stakeholders addresses the concerns of society.

The main objective of this training course is to provide the participants with the basic requirements regarding the licensing and environmental impact assessment of a decommissioning project and to share experience from ongoing decommissioning projects. Visit the SCK•CEN Academy website for a detailed programme. Target audience All stakeholders such as regulators, plant managers and operators, health physicists, technical service organisations should take benefit from this event. Registration Online registration is mandatory for all participants via the SCK-CEN Academy website. The registration deadline is **October 2, 2019**. Prices are available on the website of the ELINDER training course **GENERAL INFO: European Nuclear Education Network** Association Web page of ANNETTE Courses http://www.enen.eu/en/projects/annette/annette-project-courses1.html Web page for course application: Tel: +32 484 20 15 04 http://www.enen.eu/en/projects/annette/eoi1.html E-mail: <u>secretariat@enen.eu</u> LINK TO COURSE LIST LINK TO THE APPLICATION FORM Web page concerning the grants of the ENEN+ project https://plus.enen.eu/grants/

PLEASE READ CAREFULLY THE INSTRUCTIONS TO APPLY FOR GRANTS !