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## MANAGEMENT OF NUCLEAR KNOWLEDGE ON AN INTERNATIONAL SCALE USING A SMALL UNIVERSITY RESEARCH REACTOR

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**Abstract.** The Atominstitut Vienna operates a 250 kW TRIGA Mark-II reactor since March 1962 used for nuclear education and training in the fields of neutron- and solid state physics, nuclear technology, reactor safety, radiochemistry, radiation protection, dosimetry, low temperature physics and fusion research. During the past 20 years about 640 students graduated with a diploma - or PhD degree from the Atominstitut attached to the University of Technology Vienna.

To perform nuclear relevant academic studies the Atominstitute offers about 100 highly specialised theoretical lectures and about 10 practical courses where students have to perform experiments in small groups of four on subjects mentioned above. Although the TRIGA reactor is a rather low power research reactor it is very easy and cheap to operate and an excellent tool to transfer knowledge and experience to the younger generation. This reactor is therefore not only used by other European universities such as University of Manchester or Bratislava Technical University but also by nuclear institutions such as the GRS/Germany, NPP Bohunice and NPP Mochovce for nuclear training.

On an international scale the Atominstitut co-operates closely with the nearby located IAEA in international research projects, coordinated research programs (CRP) and supplying expert services. Regular training courses are carried out for the IAEA for Safeguard Trainees, fellowship places are offered for scientists from developing countries and staff members carry out expert missions to research centres in Africa, Asia and South America. In the past 20 years more than 120 IAEA fellows from all over the world have been trained at the Atominstitut. The fellows spend between one to twelve month at the Atominstitut and are integrated in the respective work program. Experience showed that out of this fellowship a long-term relation between the institutes continues.

The paper focuses especially on the transfer of knowledge between generation on a national scale and also between a European research institute and overseas research centres on an international scale through exchange of experts and fellows.

Although Austria has a strong anti-nuclear policy nuclear knowledge has to be preserved as many neighbouring countries operate nuclear power plants, and discussions on international or bilateral level have to be carried out by educated experts in the nuclear field and not by emotions. Further the future of Austria's power supply may require a revision of its anti-nuclear policy and therefore also long-term knowledge management is necessary. Finally nuclear knowledge is not only nuclear power but all areas of nuclear applications in industry, medicine and agriculture. The Atominstitut is presently one major contributor in preservation of knowledge in Austria.