

MASTERS IN NUCLEAR SECURITY

Continuing global efforts to improve the security of nuclear and other radioactive material against the threat of malicious acts are being assisted by a new initiative, the development of a corps of professional experts to strengthen nuclear security. The IAEA, the European Commission, universities, research institutions and other bodies working in collaboration have established an International Nuclear Security Education Network (INSEN). In 2011, six European academic institutions, the Vienna University of Technology, the Brandenburg University of Applied Sciences, the Demokritos National Centre for Scientific Research in Greece, the Reactor Institute Delft of the Delft University of Technology in the Netherlands, the University of Oslo, and the University of Manchester Dalton Nuclear Institute, started developing a European Master of Science Programme in Nuclear Security Management.

In March 2013, the masters project was inaugurated when ten students commenced studies at the Brandenburg University of Applied Sciences in Germany for two weeks. In April, they moved to the Delft University of Technology in the Netherlands for a further two weeks of studies. The pilot programme consists of six teaching sessions in different academic institutions. At the inauguration in Delft, IAEA Director General Yukiya Amano commended this effort to train a new generation of experts who can help to improve global nuclear security. "It is clear that we will need a new generation of policy-makers and nuclear professionals — people like you — who will have a proper understanding of the importance of nuclear security," Mr. Amano told students and faculty members.

"The IAEA's goal is to support the development of such programmes on a global basis," said David Lambert, Senior Training Officer in the IAEA's Office of Nuclear Security. "An existing postgraduate degree programme focused on nuclear security at Naif Arab University for Security Sciences (NAUSS) is currently supported by the Arab League. Instructional materials from the Master of Science in nuclear security degree framework developed for the IAEA and the global education community by the International Nuclear Security Education Network (INSEN) are currently being incorporated into this programme."

Postgraduate level programmes in nuclear security have been offered by a number of

academic institutions in the Russian Federation and the United Kingdom for nearly a decade with IAEA support.

And since 2002, the IAEA has trained more than 11000 people from 120 States through a variety of activities to improve their capabilities in the area of nuclear security. But a survey in 2007 found that there was no comprehensive nuclear security programme in place worldwide. Three years later the IAEA published *Educational Programme in Nuclear Security* (IAEA Nuclear Security Series No.12) which outlines a Master of Science programme and certificate programme in nuclear security.

"There was significant interest in the proposals contained in it," said Lambert. INSEN's first meeting in August 2011 attracted 42 participants from 21 States, including from 26 universities, and two international organizations. "Through INSEN, the IAEA offers university accreditation guidelines and each university develops a curriculum as it sees fit," said Lambert. A technical university will offer something very different from an institution offering political science courses.

IAEA assistance to universities or other academic institutions consists of the development of textbooks, offering professional development support and reviewing academic curricula. In addition, the IAEA facilitates cooperation and collaboration among educational and research institutions. "The goal is to ensure the availability of nuclear security experts who are able to deal with future nuclear security challenges at the national or regional level," said Lambert. As some States prepare to introduce nuclear power, and nuclear techniques are used ever more widely in industry, agriculture, science and medicine, the demand for well qualified experts and specialists in nuclear security will likewise grow.

"INSEN's priorities for the near future are scaled to complement international efforts to strengthen nuclear security on a global scale," said Lambert. "Possible malicious acts involving nuclear or other radioactive materials are a real threat. We have to remain vigilant and constantly do more to meet this threat. Developing the skills of professionals is an important part of the defences we are building."

Peter Rickwood, IAEA Division of Public Information.