

Symposium on International Safeguards: Linking Strategy, Implementation and People - IAEA CN-220



Contribution ID: 183

Type: oral

Nuclear Safeguards and Nonproliferation Education at Texas A&M University

Tuesday, 21 October 2014 16:20 (20 minutes)

The MS degree in Nuclear Engineering –Nonproliferation at Texas A&M University is administered by the Nuclear Security Science and Policy Institute (NSSPI). The oldest and largest of its kind in the US, 45 MS and 15 PhD students conducted technical research in relevant areas: safeguards, nuclear security, nonproliferation, and arms control. In addition to focusing on graduate education with a wide combination of internationally-recognized talent, NSSPI faculty lead research and service activities in safeguarding of nuclear materials and reducing nuclear threats. Texas A&M Nuclear Engineering students take relevant nonproliferation and safeguards courses (within the College of Engineering and the Texas A&M Bush School of Government) as well as conduct their research under competent experts. The complete educational experience here is unique because of the strong research and educational support NSSPI provides. This paper will detail these endeavors and convey contributions from NSSPI for developing next-generation safeguards experts via practical experiences and strong affiliations with real-world practitioners.

The safeguards and nonproliferation education program blends historical, legal, technical and policy aspects that is unique for a technical university such as Texas A&M. Beyond classroom lectures, NSSPI provides opportunities for students ranging from asynchronous learning modules to practical experiences. Publically-available self-paced, online course modules in basic and advanced safeguards education have been developed by NSSPI as supplemental nuclear education for students and professionals. By leveraging NSSPI's contacts, students participate in exchange programs with international institutions as well as partake in experiences like engaging safeguards practitioners at nuclear fuel cycle facilities around the world, conducting experiments at internationally-renowned laboratories, and representing their communities at workshops worldwide (e.g., Japan, Norway, etc.). The practical experiences at Texas A&M are valuable in the students' educational development and will be discussed in this paper.

Country or International Organization

Nuclear Security Science and Policy Institute/Texas A&M University

Primary author: GARIAZZO, Claudio (Nuclear Security Science and Policy Institute)

Co-author: CHARLTON, William (Texas A&M University)

Presenter: GARIAZZO, Claudio (Nuclear Security Science and Policy Institute)

Session Classification: Training and Education in Nuclear Non-proliferation and Safeguards