Contribution ID: **570** Type: **Paper**

STUDY ON THE IMPLEMENTATION OF NUCLEAR FORENSICS IN VARIOUS LEGAL SYSTEMS

All illicit activities concerning nuclear or other radioactive materials found outside of regulatory control (MORC) insofar as they are sanctionable by the criminal law, should be followed by a criminal investigation and possibly prosecution, depending on the legal requirements applicable in that specific jurisdiction. Given the seriousness of the offences regarding MORC and the potential dangers posed by such materials, as recognized and required by various international legal instruments such as CPPNM and ICSANT , specific deeds involving nuclear or other radioactive materials should make object of criminal proceedings, which can also provide the basis for exchange of information and international cooperation.
Nuclear Forensics provides the essential tools for unfolding the criminal investigations and prosecutions where nuclear or other radioactive materials are concerned. IAEA recommends that member states develop nuclear forensics capabilities according to their nuclear security related needs [NSS15] [1]. However, after such needs are identified and technical capabilities are established, it can prove challenging to actually implement Nuclear Forensics as a functional tool to prevent and respond to Nuclear Security Events on a national level. The reason for this is the specificity of legal provisions in national law systems.
This paper presents the legal requirements that have to be taken into consideration during the implementation of Nuclear Forensics within the national legal framework of a state, with the purpose to collect, analyse and interpret evidence of illicit activities involving nuclear or other radioactive materials found out of regulatory control. It provides an overview of the main role of Nuclear Forensics within the criminal investigation while focusing on the specificity of the Civil vs Common law systems. We also look into the roles and responsibilities of the main stakeholders in criminal investigations in the different legal systems and how that might influence the nuclear forensics'integration and valorisation in the overall national security system. The study of the successful implementation of nuclear forensics in Romania will offer a good example of the development of such capabilities and how to bring them into effective action in accordance with the national framework.

By way of reviewing the literature and comparing various legal frameworks that apply to different legal systems worldwide, we endeavour to demonstrate that, when implementing new scientific tools like those offered by Nuclear Forensics within the scope of the criminal investigation, the peculiarities of various legal systems have to be taken into consideration. While some of the same fundamental principles are at the basis of both Civil and Common Law, they evolved separately and have their own legal structures and rules of procedure, even though throughout history the two systems obviously influenced one another. Nuclear forensics plays an essential role in the efforts which states undertake during the response and prevention of nuclear security events. In order to be effectively used for the purpose of criminal proceedings, it has to be implemented in an effective legal way, in accordance with national legal requirements, following the same legal principles and procedures as those applying to traditional forensics.

[1] NSS15, IAEA, Vienna (2011)
[2] The common law and civil law traditions, 2010 Berkeley University, The Robbins Collection, retrieved online on 20.11.2018

State

Romania

Gender

Male

Primary authors: Dr APOSTOL, Andrei I. (Horia Hulubei National Institute for Physics and Nuclear Engineering (IFIN-HH), Bucharest-Magurele, Romania); Mrs DINU, Elena (Directorate for Investigating Organized Crime and Terrorism (DIICOT), Bucharest, Romania)

Presenter: Dr APOSTOL, Andrei I. (Horia Hulubei National Institute for Physics and Nuclear Engineering (IFIN-HH), Bucharest-Magurele, Romania)

Track Classification: MORC: Nuclear forensics