Contribution ID: **201** Type: **Parallel Talk**

The GFNUN´S Nuclear Innovation: An Innovation Edge Case from a Developing Country Originated in Basic Research

Wednesday, 25 October 2017 14:20 (25 minutes)

During the last two decades, the Nuclear Physics Group of National University (GFNUN) has been leading nuclear basic research, generating innovation edge based on its own basic research, training researchers, public servers and society, and building technological transfer. The nuclear Colombian context presents a weakness on strategical nuclear programs and politics based on technical knowledge, low technical formation of decision makers and regulatory supervisors, and low coordination and not assumed responsibility between different governmental dependencies [1]. Colombia is a developing country which economy is highly depending on extractives activities, commodities, agro-industry and tourism. GFNUN is leading three main techniques not only to be applied in the local context but also worldwide which are an innovative methodology to evaluate radioactive materials, and nuclear techniques for corrosion detection and explosives detection for security and defense, and humanitarian demining purposes.
An interesting point as example of the technological evolution is the fact that ate sixth year of developing the demining detection technique, GFNUN found a derived application based on. This is corrosion diagnosis with gamma retrodispersion and explosives detection for security and defense. Now, the corrosion detection technology and explosives detection are starting their third and first year of development, respectively, and the results are promissory but specialized strategies for the technological transfer to the market, potential investors, and a trustworthy royalties system for the researchers are needed; specially in a developing economy context.

1. Isabel Martinez. AIP Conference Proceedings. 1753, 090003. (2016).

Primary authors: MARTINEZ SOLARTE, Maria Isabel (Universidad Nacional de Colombia); CRISTANCHO MEJIA, Luis Fernando (Nuclear Physics Group (GFNUN), Universidad Nacional de Colombia, Bogotá.)

Presenter: MARTINEZ SOLARTE, Maria Isabel (Universidad Nacional de Colombia)

Session Classification: Parallel Sessions - NAT

Track Classification: Nuclear Analytical Techniques and Applications in Art, Archeology, Environment, Energy, Space and Security