

Nuclear Security Education and Training in Ghana.

Radiation sources and ionising radiation are widely used in various sectors of the Ghanaian economy which includes but not limited to Medical (General X-ray Units, CT Scanners, Dental, Fluoroscopy Units, Mammography, Radiotherapy and Nuclear Medicine), Industry (Moisture/density gauges, level gauges, thickness gauges, X-ray and gamma scanners), Agriculture, mineral mining, Oil and gas industry (well logging), road construction, breweries, NDT, other industrial facilities, Research and teaching etc. In addition, Ghana is one of the emerging country's embarking nuclear power project with projections to commence construction by 2023. In recent times, the security challenges associated with nuclear materials, facilities, and technologies are emerging at an alarming rate, necessitating corresponding counter measures. It is imperative therefore to establish education, training and tutoring which are key Components Needed to Develop and Maintain Technical Expertise for Effective Nuclear security regime. Ghana has invested significant resources in nuclear security education and training to meet the requirements of its future nuclear programme as well as existing facilities using Radiation sources and ionising radiation. The Department of Nuclear Safety and Security is one of the Departments of the School of Nuclear and Allied Science (SNAS) established in 2006 by the Ghana Atomic Energy Commission in collaboration with the University of Ghana. The Department offers MPhil and PhD Degree programmes in Health Physics and Radiation Protection and also an IAEA sponsored Postgraduate Education Course in Radiation Protection and Safety of Radiation Sources (PGEC). The mandate of the Department is to develop human capability and capacity in Radiation Protection, Nuclear Safety and Security. One main challenge in introduction of degree/ postgraduate programme in Nuclear security as in various developing countries is the national accreditation requirement of job prospects for graduates of nuclear security programme. Recognizing this challenge, Department therefore reviewed the programmes to introduce Nuclear Security as a core and elective courses into existing MPhil and PhD degree programmes in Health Physics and Radiation Protection Curricula. The department is determined to provide an appropriate national nuclear security human resource development programme which is essential in order to guarantee the sustainability of nuclear security knowledge and skills in Ghana. In this paper, the approach, gains and challenges of nuclear security education in Ghana is discussed.

Gender

Male

State

Ghana

Author: Dr KPEGLO, DAVID OKOH (Radiation Protection Institute/ Graduate School of Nuclear and Allied Science, University of Ghana-Atomic Campus)

Co-authors: Prof. FAANU, Augustine (Graduate School of Nuclear and Allied Science, University of Ghana-Atomic Campus); Dr LAWLUVI, Henry (Graduate School of Nuclear and Allied Science, University of Ghana-Atomic Campus); Prof. DAMPARE, Samuel Boakye (NATIONAL NUCLEAR RESEARCH INSTITUTE, GHANA ATOMIC ENERGY COMMISSION); Prof. SERFO-ARMARH, Yaw (Graduate School of Nuclear and Allied Science, University of Ghana-Atomic Campus)

Presenter: Dr KPEGLO, DAVID OKOH (Radiation Protection Institute/ Graduate School of Nuclear and Allied Science, University of Ghana-Atomic Campus)

Track Classification: CC: Capacity building (e.g. human resource development and sustainability, nuclear security education and job-specific performance training including for newcomer countries)