

# Research report: virtual reality interactive simulator for training healthcare professionals in the use of radiations

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The application of ionizing radiation in medicine requires a rigorous attention to procedures in order to minimize the risks to the healthcare professional and to the patient. Risk minimization involves the training of the professional and the adequacy of the facilities.

Virtual Reality (VR) is an already consolidated tool for training procedures, including those of the health sciences. In this context, an interactive VR simulator (Figure 1) representing a radiotherapy room (bunker) for training healthcare professionals and the inspectors of such facilities was developed [1].

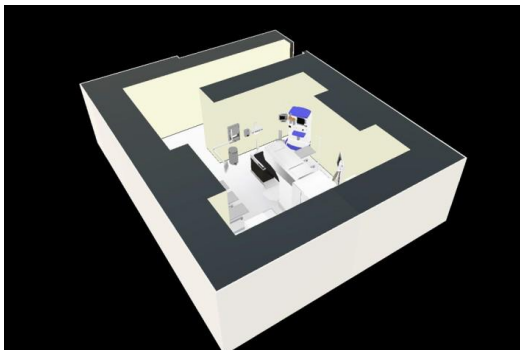


Figure 1. Virtual Reality Simulator

This VR model allows the user to perform the normal activities on the operation and the inspection procedures of the facility. The model was based on the blueprints of a real radiotherapy clinic (Figure 2).



Figure 2. Virtual radiotherapy clinic

The virtual model of the radiotherapy bunker, developed at the Institute of Nuclear Engineering, was presented to experts of the General Coordination of Medical and Industrial Facilities of CNEN and is in the process of receiving small modifications to the specific needs for its adequateness, as a training tool, in a training course, sponsored by the International Atomic Energy Agency (IAEA), for inspectors of radiotherapy installations [2].

This work shows the possibility of using Virtual Reality in the development of a tool for training professionals working in radioactive installations.

## Referencias

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