

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



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## **iPIX: A New Generation Gamma Imager for Rapid and Accurate Localization of Radioactive Hotspots**

*Thursday 23 October 2014 14:50 (20 minutes)*

A next generation gamma imager, with improved characteristics in terms of portability, sensitivity and angular resolution, has been recently developed in our facilities for an accurate localization of radioactive hotspots. This device, called iPIX, consists of an advanced photon detector based on a pixilated readout CMOS, a coded mask aperture and a mini CCD camera. The iPIX gamma imager is currently under the industrialization process with a primary focus on the decontamination and decommissioning (D&D) purposes.

The observed performance with an industrial prototype were very encouraging as it can significantly help in finding radioactive sources whose associated dose rates are only several nSv/h (at the measurement points) in less than a minute. Other applications, such as the radiological safety in the whole nuclear industry and Homeland Security, have been already explored and deployed to seek for potential benefits this challenging technology. This talk will present the main features of the iPIX gamma imager.

### **Country or International Organization**

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