SIQURO

SiQuro at the Innovation Village exhibition in Brussels

Some members of the SiQuro project research team attended the Innovation Village Exhibition, organized within the SPIE Photonics Europe Conference held in Brussels from 4 to 7 April, 2016.
In the booth, researchers from the Nanoscience and Crypto Labs of University of Trento together with FBK presented a new prototype based on Quantum Random Number Generation, developed during the SiQuro project into the WP4 activity.
The demo, consisting of a CMOS detector coupled with an LED, obtained a good interest in the scientific community.

A SiNC-LED and SPAD based Quantum Random Number Generator

- CMOS technology
- photon detectors matrix and LED
- Compact: ready for integration
- Robust
- Cheap

Si nanocrystals emits photons. Single Photon Avalanche Diodes are state of the art detectors with single photon detection capability and high dynamic range. Every pixel of the array is able to independently generate random bits, which allows fine-tuning of the device to application requirements, trading off bit-rate vs. size.
This technology makes hardware random number generators available for mass manufacturing and integration with portable devices and automotive components.

CMOS-QRNG is the technology to strengthen the fundamentals of the security chain of networked devices.

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