Contribution ID: **101** Type: **not specified**

# Internet of radiation Sensors (IoS)

The recent availability of affordable solid-state radiation sensors, of reliable and cheap micro-controllers and memories, together with new developments in the fields of wireless communication, low power microelectronics and efficient batteries, make possible building a practical, fully automated and remotely controlled network of radiation sensors. The development of a network of smart radiation sensors is perfectly aligned with powerful trends in the contemporary technological landscape, as the far-reaching concept of the "Internet of Things"(IoT). The goal of the Internet of radiation Sensors (IoS) project is to design, build, test and operate such a network, with applications in the fields of environmental monitoring, individual dosimetry on the workplace and for the general public, monitoring and tracking of radioactive materials. It responds to the urgent needs of a vast community of scientists and researchers: on the one hand, it makes radiation monitoring more reliable, more sensitive, and more easily applicable to a variety of different situations; on the other hand, it drastically increases the quality of the data collected by a radiation monitoring system.
The initial development of the IoS project is thought for the CERN environment: considering the availability of unique infrastructure, distributed over a large geographical area, the variety of skills and expertise, and the highly diversified testing ground for radiation applications, CERN is in a truly unique position to host this research.
The IoS project can branch out into many applications for hospitals, environmental protection, monitoring of nuclear infrastructures etc. It may as well provide a platform for monitoring elements of environmental risk beyond radiation.

## Summary

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