

12th Course - Challenges in Radiation Damage and Radiation Protection during Design and Operation of Accelerator Facilities and Space Missions

Contribution ID: 32

Type: **not specified**

Models and Tools - Role of Robotics

Sunday 29 October 2023 11:40 (55 minutes)

I setup a team charged with developing Robotics solutions for interventions in accelerators at CERN in 2014. The main motivation was that half of the collective dose collected by personnel was due to simple inspections, an activity that at that time we believed could be performed effectively by robots. Initially we inspired ourselves to the work done in Nuclear installations, especially after the tragic events of Fukushima. We were immediately confronted with the large variety of equipment and environments we find at CERN that obliged us to go beyond and to develop a variety of solutions to cope with equipment not designed for robotic maintenance, and an environment where even humans have sometimes difficulty to navigate. I will present a few examples of solutions deployed at CERN, I will explain the process for the preparation and implementation of interventions and talk about the perspectives for future developments.

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