

## **Experimental infrastructure control systems development**

### **ABSTRACT**

The mandate of the Detector Technology group, in the CERN Physics Department, includes the development, construction, operation and maintenance of particle detectors for the experiments at CERN. The group clusters many common services and infrastructure, which are available to all experiments at CERN. In this talk we present a wide range of control systems for experimental infrastructure, whose development is based on industrial components, mainly PLCs and National Instruments. We illustrate the requirements and the solutions applied on control systems for detector cooling, detector vacuum, and experimental magnets. As well, an overview is given on safety systems for experimental magnets, detectors, and roman pots at the LHC.