Contribution ID: **114** Type: **not specified**

Lessons Learned from Designing and Constructing the ALICE ITS Upgrade Detector

Wednesday 24 January 2018 09:00 (30 minutes)

As a major part of an upgrade of its apparatus during the LHC Long Shutdown 2 in 2019/2020, ALICE will replace its Inner Tracking System (ITS) by a newly constructed silicon tracker based on Monolithic Active Pixel Sensors (MAPS).

By today, the design and R&D phase of the detector is completed, the design reviews of the different components are passed and the construction is underway.

This contribution gives an overview of the project and its organisation, highlighting challenges and crucial decisions that had to be taken to arrive to a working solution that can be implemented in time. Addressed items contain the qualification and selection of the pixel chip, its mass production and quality assurance, as well as the assembly of detector modules and their test.

Finally, the plans for the mechanical integration and electrical interfacing together with a timeline for commissioning and installation of the detector in the cavern are laid out.

Presenter: MAGER, Magnus (CERN)

Session Classification: CLICdp Vertex and Tracker R&D