Contribution ID: **329** Type: **Oral talk (15 min + 5 min questions)**

Construction Management Information System at JINR

Friday, 15 July 2022 13:10 (20 minutes)

Earlier this year the commissioning of an all-around Construction Management information System (CMIS) was completed as a joint effort of two JINR Laboratories (LHEP and LIT). The system is particularly useful for the fine-grained control and continuous feedback of the production of complex multipart objects like the detectors subsystems composing the MultiPurpose Detector of the NICA facility at LHEP. The structure and functonalities of CMIS at JINR are based on a previous system developed by Kybernetika s.r.o.(Slovak Republic) for the upgrade of the Inner Tracking System of the ALICE experiment at CERN and was reconfigured to be transferred and deployed on the available computational platform of JINR in a joint effort by specialists from Kybernetika and JINR's LIT and LHEP. The system is composed of a web user interface and a collection of web-accessible API functions that are connected to an Oracle database. The CMIS may hold several projects at the same time and for each of them it allows to control several aspects of the production process including (but is not limited to) the human resources, the project organization and planning, as well as the current status and tests results history of every component of the detector consenting for the direct interfacing of the assembly and testing hardware/software to the construction database, so that information ranging from the current location of a component in-transit to/from an assembly site down to the final position of a single chip inside the detector may be tracked down and recorded.
Currently, the CMIS is meant to be used to follow the production of silicon tracker detectors at the STS department of the LHEP at JINR but since it is centrally hosted at LIT it might be also used by other hardware production projects at JINR (or outside) whose complexity would make it very hard to fulfilling its quality and timing requirements otherwise.
In this presentation a general overview of the full system will be given along with a focusing on the modules that allow specifically for the control of the production and assembly of the hardware to be produced. It will also include real examples of custom cross-platform user interfaces developed for the easy use of the system by the operators.

The speaker is a student or young scientist

No

Section

1. Experimental and theoretical studies of nuclear reactions

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