

Dosimetric System for MPD detector Control System

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Content

One of the component of the Nuclotron-based Ion Collider fAcility (NICA) Complex being built in Joint Institute for Nuclear Research (JINR) in Dubna, Russia is Multi-Purpose Detector (MPD). Its work is monitored and controlled by the Slow Control system. The electronic equipment of this system is placed in the racks located on the multilevel mechanical support construction. "The prototype dosimetry system to protect NICA Slow Control electronic equipment" project was started to design a prototype dosimetry system for continuous monitoring of the MPD Slow Control electronic devices to protect it against accidental ionizing radiation which can occur in case of the NICA failure or its abnormal functioning. The system will be fitted out with alarming features to inform the chosen persons about crossing a safe threshold of the radiation above which the electronics will be possibly destroyed by the irradiation. Afterwards, the controlled switching off of some the NICA Complex devices can be possible. The article describes the actual state of that system and the future plans for upgrading the system. In detailed will be show logical structure of the control program and its functionality.

Area of contribution

Experiment: prototypes and instrumentations

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