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STATUS AND PERSPECTIVES OF THE JINR MULTIFUNCTIONAL INFORMATION AND COMPUTING COMPLEX

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The large research infrastructure project "Multifunctional Information and Computing Complex (MICC) of JINR" is an integral part of the Seven-Year Plan for the development of JINR for 2024-2030. A large research infrastructure project is justified and timely, given the decisive importance of the continuous development of the information and computing infrastructure, which will allow JINR to stay at the forefront of scientific research in different fields that the Institute is conducting and will conduct in the coming years.

The main objective of this project is to ensure computing for obtaining physics results within the priorities of the JINR research programme. There are among them the experiments of the NICA megaproject and the JINR neutrino program, the experiments at the LHC and other large-scale experiments, as well as other theoretical and experimental studies, according to the Seven-Year Plan for the development of JINR. Constant support for users from the JINR Laboratories and its Member States is also a high priority.

The MICC is one of JINR's basic facilities. The MICC computing infrastructure consists of four advanced software and hardware components: the Tier1 and Tier2 grid sites for distributed data processing, the HybriLIT heterogeneous platform with hyperconverged "Govorun" supercomputer for high-performance hybrid computing, the cloud infrastructure and the distributed multi-layer data storage system. This set of components ensures the uniqueness of the MICC on the world landscape and allows the scientific community of JINR and its Member States to use all progressive computing technologies within one computing complex.

This talk presents a survey of the JINR MICC and describes its potential for future development.

Summary

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