

A MTCA based LLRF for the LILAC injector of the NICA project

Tuesday 1 December 2020 17:05 (15 minutes)

In a cooperation between BEVATECH GmbH and the MTCA TechLab a MicroTCA.4 based Low Level Radio Frequency (LLRF) system was developed and is currently under testing at BEVATECH. This system will be deployed at the Light Ion Linac (LILAC) at the Joint Institute for Nuclear Research (JINR) for the Nuclotron-based Ion Collider facility (NICA). The LLRF system controls the amplitude and phase of 6 cavities at an operating frequency of 162.5 MHz. In addition it is enhanced by controls for six dynamic tuners based on a ChimeraTK system in order to guarantee frequency stability of the cavities.

In this contribution the project and its current status will be shown with emphasis on its key features and possibilities for future projects.

Summary

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Session Classification: Session 3

Track Classification: Applications in research facilities