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Status of the uTCA Digital LLRF design for SARAF Phase II

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One of the crucial control systems of any particle accelerator is the Low Level Radio Frequency (LLRF). The purpose of a LLRF is to control the amplitude and phase of the field inside the accelerating cavity.
The LLRF is a subsystem of the CEA control domain for the SARAF-LINAC instrumentation and Seven Solutions has designed, developed, manufactured and tested the system based on CEA technical specifications. The final version of this digital LLRF has been already installed in the SARAF accelerator in Israel at the end of 2021 and the first results are going to be shown.
The architecture, design and development as well as the performance of the LLRF system will be presented during this talk. The benefits of the proposed architecture and the first results obtained under different conditions will be detailed.

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