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MicroTCA for the new 200MHz Cavity-controller of the CERN SPS

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The LLRF of the CERN SPS has gone through a complete renovation during the Long Shutdown 2019-2020. The upgrade was motivated by the High Luminosity LHC project (HL-LHC) that calls for the doubling of the SPS beam intensity .
Installation of two additional cavities and the obsolescence of the aging electronics required the redesign of the 200MHz cavity-controller system (RF feedback) and of the Beam-Control system (beam based loops). These new designs are now implemented on the MicroTCA platform.

The architecture of the SPS upgrade, the 200MHz cavity-controller and the timing receiver on MicroTCA will be presented.

Summary

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