

## The development of the MTCA.4 based LLRF system in the UTEF

*Monday, 15 September 2025 14:00 (20 minutes)*

The Ultrafast Transient Experimental Facility (UTEF) is a third-generation synchrotron light source, which consists of a 500MeV full-energy LINAC injector and a storage ring. The LINAC contains one thermionic cathode electron gun, one 500MHz Sub-harmonic buncher, one 3GHz buncher and nine 3GHz SLAC type accelerating tubes. 6 sets of MTCA.4 based LLRF system provide low noise RF phase and amplitude actuations and precise RF signal detections for the LINAC. Pulse-to-pulse feedbacks will be applied on amplitude and phase to achieve the RF stabilities. This talk gives an introduction of the development and measurement of the LLRF system.

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**Session Classification:** Session