

# Low Level RF Workshop 2022



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## LLRF for PoFEL Accelerator

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Polish Free Electron Laser PoFEL is a new facility located in the National Centre for Nuclear Research in Swierk (Otwock, Poland). PoFEL will be based on the 200 MeV linear superconducting electron accelerator made of the TESLA type cavities, targeting VUV, IR and THZ wavelengths. The accelerator will operate in the single cavity regulation mode using solid state amplifiers. It will be able to operate in the pulsed wave (PW) mode, but the main operational mode will be continuous wave (CW). To achieve goals described above, custom and flexible LLRF system will be designed. PoFEL is currently closing design phase and soon it will go into construction phase, so this contribution will present concept of the LLRF system, proposed technologies and techniques as well as first results of tests performed in the laboratory with the prototype system and copper cavity.

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