Contribution ID: **413** Type: **Contributed Oral**

C3Or3C-04: LCLS-II Helium Refrigeration System Automation

Wednesday 12 July 2023 14:45 (15 minutes)

SLAC National Accelerator Laboratory has upgraded to LCLS-II, featuring a 4 GeV superconducting linear accelerator composed of 37 cryomodules and two large helium refrigeration systems with a cooling capacity of 4 kW at 2.0 K. This paper focuses on the Helium Refrigeration System (HRS) controls and automation. It presents the various automated functions, sequences, control logics and machine protections embedded in the system. It highlights how the automation simplifies and streamlines the operation of the LCLS-II HRS.

Author: Mr SHRISHRIMAL, Swapnil Rajendrakumar

Co-authors: FAUVE, Eric (STANFORD); Dr RAVINDRANATH, Viswanath (SLAC); PFLUECKHAHN, Dirk (SLAC); APTE, Akanksha (Stanford University); ROBINSON, Dayne; KEENAN, Marcus (SLAC); VYAWAHARE, Saee (SLAC); RAMA, Biren (SLAC); CREEL, Jonathan (Thomas Jefferson National Accelerator Facility); NORTON, Robert (Thomas Jefferson National Accelerator Facility)

Presenter: ROBINSON, Dayne

Session Classification: C3Or3C: Instrumentation, Visualization, and Controls III