Detector Support Group
Weekly Report, 2019-04-17

Summary

Hall C EPICS
- PLC programs and EPICS IOC databases developed to monitor PLC-to-EPICS heartbeat and EPICS-to-PLC heartbeat.
  - ★ All items sent to Hall C for evaluation before implementation.
- Actions added to CSS-BOY HV system screens' drop down menu to open backup GUI and execute Python-based backup program.

Hall C CAEN Test Station
- Voltage verification completed for 192 channels using the automated test stand.
- SubVI developed to analyze results by plotting all parameters of the test and comparing it to the manufacturer's specification.
- Program developed to measure current and voltage simultaneously.

HDice
- Debugged cause of Intelligent Gas Handler (IGH) failure.
  - ★ IGH's internal 24 V power supply was outputting ~30 V, but replacing power supply made no difference as equipment still takes several minutes to power on.
  - ★ Main issue seems to be inside IGH's control box as its LEDs flicker erratically on power up, potentially indicating a faulty power supply in control box.

RICH
- Air-cooling system's compressor powered off for summer shutdown.

LTCC
- Mass flow controllers rebooted to resolve communication errors.

RTPC
- Assembly of gas system's interface chassis started.

Hall A Dynapower MPS PLCs
- CompactLogix PLCs for left and right arm assembled.

Engineering Division
- On BPM PCBs, 176 resistors, 68 capacitors, and 36 diodes soldered.

Accelerator Division
- New superconducting Nb_3Sn strip resonator sample received for wire bonding tests.

DSG R&D
cRIO Test Stand
- For NI 9216 RTD module, offset error test developed.
- SubVIs developed, tested, and debugged for samples, means, accuracy, and standard deviation for all NI 9216 RTD module channels in automatic mode.

Hall A PLC Test Station
- CompactLogix 1769-L30ER PLC firmware version 21.011 installed using USB.