

Cryogenic Instrumentation Section

Cryogenic Instrumentation Section is involved in providing instrumentation support to various cryogenic activities of our Centre. It has also been involved in designing, developing and commissioning of various control and instrumentation systems and has been an integral part of various projects in VECC.

The section takes care of different hardware (sensors, DAQs) as well as software (GUI) development and deployment of the total instrumentation system as per users' requirements.

The section is mainly responsible for the instrumentation of superconducting magnet cryostat and cryopanel. The section has developed customized extraction drive control system and took part in designing control instrumentation for axial magnetic field measurement system of the superconducting cyclotron.

In addition, the section has taken active part in the instrumentation of the prototype test cryostat for superconducting RF cavities, SMES magnet coil instrumentation and also working on the instrumentation of the Superconducting RF cavities and ANURIB Project.

The section has developed an SMS based alert system for sending SMS to the relevant authorized personnel when a system parameter is critical. The program reads selected process variables from the PLC and compares them with pre-set values to generate SMS through a GSM modem for sending SMSs to the respective authorized personnel on shift. This would enhance the effective utilization of manpower, where critical information regarding the system can reach the relevant personnel very fast even if they are away.