26th National Symposium on Cryogenics and Superconductivity

Contribution ID : 109

Invited Talk (IT): CRYOGENIC INSTRUMENTS USING EMERGING ETHERNET TECHNOLOGY FOR INDIGENEOUS AUTOMATION NETWORK AT IUAC

Thursday 23 Feb 2017 at 11:45 (00h30')

Content :

Sensors and actuators are the main control elements of any cryogenic network. In order to build devices compatible to future emerging technologies like Internet of things, indigenous cryogenic instruments with built-in control capabilities interconnected over Ethernet based compact embedded servers, has been implemented at IUAC to replace conventional commercial instruments& control crates. Right now we have intelligent meters for cryogenic temperature,liquid nitrogen & helium level,vacuum and pressure for analog measurements, IP based digital input outputs for digital control and analog outputs for digital PID operations. A complete control application software is also built using these indigenous hardware to be part of cryogenic control room at IUAC.

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