Data Acquisition Hardware and Software For Laser Application

Year of Implementation :- (2012-2013)
Client and Location: - Lastec, DRDO, New Delhi
Project Summary:-

- Control the Laser Controller device from main software application.
- Develop the Front end screen to interface the Sine Wave
- Function generator module and feed this signal to Lock-In amplifier Digital card.
- Develop the Front end screen to interface the Pulse generator module.
- Interfacing the Pulse generator module and synchronize with Laser controller.
- GPIB Interface to control & acquire the data from Laser Controller device.
- Calibrate the Acquire Signal by implementing formulas and algorithms.
- Control Interface and acquiring data from Lock-In Amplifier device to PC.
- Development for Sequential Interlocking of whole Control System.
- Development of GUI interfaces based on the result.
- Development of multiple control screens for devices.
- Data logging with respect to real clock and specified time intervals.
- Report generation with Microsoft Excel and in specified Format.
- Fitment of all the modules in a metal box.
- **Using Advantech USB Multifunction DAQ, ADAM-4100 series and NI GPIB Module.**