Summer Training on LabView and Virtual Instrumentation

With LabVIEW training program you will learn lots of new thing about daily life which can controlled by programming in LabVIEW .

Main focus of this training program is to promote the LabVIEW and technology simultaneously.

Technical knowledge of Indian student is below of average and 90% of Electronic and electrical engineers find the difficulty to developed their program using text base programming. LabVIEW remove this difficulty because it is a very different type of programming.

Course Duration: 30/45 Days

Course Content:

1. Introduction to LabVIEW

- The LabVIEW environment including windows, menus, and tools
- Creating and using LabVIEW projects
- The LabVIEW front panel and block diagram
- Searching for controls, VIs, and functions

2. Creating Your First Application

- Understanding the dataflow programming model of LabVIEW
- Recognizing different data types
- Tools for developing, cleaning and organizing your VIs

3. Troubleshooting and Debugging VIs

- Correcting broken Vis Using common debugging techniques
- Addressing undefined or unexpected data
- Implementing error checking and
- error handling

4. Using Loops

- Using structures like the While Loop and For Loop
- Adding software timing to your code
- Sharing data between loop iterations
- Plotting data to a waveform chart

5. Creating and Leveraging Structures

- Creating and using array controls and indicators
- Creating and using cluster controls and indicators
- Using type definitions to improve reuse of data structures in applications

6. Using Decision-Making Structures

- Creating and using Case structures
- Creating and using Event structures

7. Modularity (SubVIs)

- Basics of modular programming
- Creating an icon and connector pane
- Using a VI as a subVI
- Creating subVIs from an existing VI

8. Real time Acquisition and Measurement with Hardware

- Programming with the DAQmx API
- Instrument control and programming
- with instrument drivers

9. Accessing Files in LabVIEW

- High-level and low-level file I/O
- functions available in LabVIEW
- Implementing File I/O functions to read and write data to files

10. Using Sequential and State Machine

- Programming Techniques for sequential programming
- Using state programming
- Implementing a state machine design pattern

11. Digital Signal Processing

- FIR Filter Designing
- IIR Filter Designing
- Wavelet Analysis
- Real Time signal analysis of acquired data

12. Image Processing

- Image Acquisition
- Image enhancement
- Object Identification

13. Control System

- Control Design
- Simulation
- PID Controller Design

Who Could Attend?

- College students seeking future in Virtual Instrumentation.

- Education Faculty & Staff in LabVIEW.

- Electronics, Instrumentation & Communications Students.

- Students from any branch can attend the Summer Training Program.

Course Material & CD

- Software tool kit CD having (Study E-Book, Videos, Softwares)