LabVIEW Syllabus

Durations: 15 Days

Introduction of LabVIEW:

- ✓ LabVIEW Environment : Definition
- ✓ Necessity of LabVIEW
- ✓ Definitions of VI
- ✓ LabVIEW benefits
- ✓ Programming and Execution methods
- ✓ Introductions of 3rd party interfaces and toolkits

Designing the Software:

- ✓ How to start up the Vis
- ✓ Front panel designing and working environment
- ✓ Definitions of Control and Indicators
- ✓ Types of Control and Indicators
- ✓ Explanations of Controls Palette
- ✓ Explanations Block Diagram and its working
- ✓ Terminals
- ✓ Functional Platte
- ✓ Status Bar or Window tool bar

Basic Programming:

- ✓ How to use Numerical functions
- ✓ Designing of Boolean operations
- ✓ Comparator applications
- ✓ Exercises in basic programming

Designing of Sub Programs:

- ✓ Need of SubVI
- ✓ What is SubVI
- ✓ How to use the Connector Pane with terminals
- ✓ Various types in SubVI plots

Programming Loops:

- ✓ About For loops
- ✓ How to use Shift registers
- ✓ While loop designing
- ✓ Flat Sequences

- ✓ Applications based on Loops

Structures:

- ✓ Case Structure : Definition and designing method
- ✓ Event Structure : Definition and designing method
- ✓ Working models in structures

Data Handling:

- ✓ Introduction of String, Arrays and Clusters
- ✓ Working with string functions
- ✓ About arrays and designing
- ✓ How to do clustering in Vis
- ✓ Differentiations between Waveform charts and Waveform Graphs
- ✓ Acquire and use the system files based on File I/O functions
- ✓ Report Generations in various files such as MS excel, TDMS, LVM files

External Interfaces:

- ✓ MAX and VISA explanations
- ✓ GPIB communications
- ✓ Serial communications and interfacing methods
- ✓ LabVIEW instrumentation drivers

Data Acquisitions Process and Instrument Control based on Embedded Controllers:

- ✓ Acquiring the real time digital data to the LabVIEW User interface
- ✓ Controlling the LED operations
- ✓ Acquiring of real time analog sensor values
- ✓ Controlling the Motors
- ✓ Create most interaction Vis

Projects:

- ✓ Process of temperature control
- ✓ Process of Lightning system control