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 Plate
- 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