LabVIEW Software (Laboratory Virtual Instrumentation Engineering Workbench)

NI (National Instruments) Academic Site Department Teaching License Includes:
1 Year of SW Maintance, LabVIEW PDS, Measurement, Studio, Imaq Vision, LabVIEW RT, LabVIEW DSC, and other Add on SW. (50 Users)

**Data Acquisition Card:** NI USB-6009 14-bit, 48 kS/s Multifunction I/O Hardware.

**Scope:** LabVIEW is product of National Instruments. LabVIEW is a development system for industrial, experimental, and educational measurement and automation applications based on graphical programming, in contrast to textual programming - however, textual programming is supported in LabVIEW. LabVIEW has a large number of functions for numerical analysis and design and visualization of data.

LabVIEW now has several toolkits and modules which brings the LabVIEW to the same level of functionality as Matlab and Simulink in analysis and design in the areas of control, signal processing, system identification, mathematics, and simulation, and more. In addition, LabVIEW has, of course, inbuilt support for the broad range of measurement and automation hardware produced by National Instruments. Communication with third party hardware is also possible due to the availability of a large number of drivers and the support for communication standards as OPC, Modbus, GPIB, etc.

**Prerequisites:**

- Experience with Microsoft windows.
- Experience writing algorithms in the form of flow chart or block diagrams.

**Importance of LabVIEW:** This software allows you to create applications using basic design templates and architectures to acquire, process, display and store real world data. Further it prepares you to develop test and measurement, data acquisition, instrument control, data logging and measurement analysis applications.