



Report on NI LabVIEW Internship Program

Organized by



LabVIEW (short for Laboratory Virtual Instrumentation Engineering Work bench) is a platform and development environment for a visual programming language from National Instruments. Scientists and researchers around the world have applied LabVIEW successfully for research and development (R&D) in academia. LabVIEW, is used to build virtual instrumentation and take an effective graphical system design approach.

LabVIEW is a proven integrated development environment for interfacing with measurement and control hardware, analyzing data, publishing results, and distributing systems using a graphical programming approach.

LabVIEW designed to be used in

- ✓ Signal processing, analysis, and connectivity
- ✓ Integration with real-time systems, FPGAs, and other deployment hardware
- ✓ Data management, logging, and reporting
- ✓ Application distribution
- ✓ Development tools and validation
- ✓ Control and simulation

Internship was conducted by **Ms. Lavanya shree, National Instruments, Hyderabad** and **Mr. Mahesh G S from Opti thought, Chennai** from 11th to 31st July 2019.

In this course, **totally 81 members** were participated from ECE Department, out of which **6 faculties of ECE department** also undergone with the LabVIEW internship training.

Internship program includes LabVIEW Core I and Core II concepts of programming.

LabVIEW Core-1 Course Details

Navigating LabVIEW:

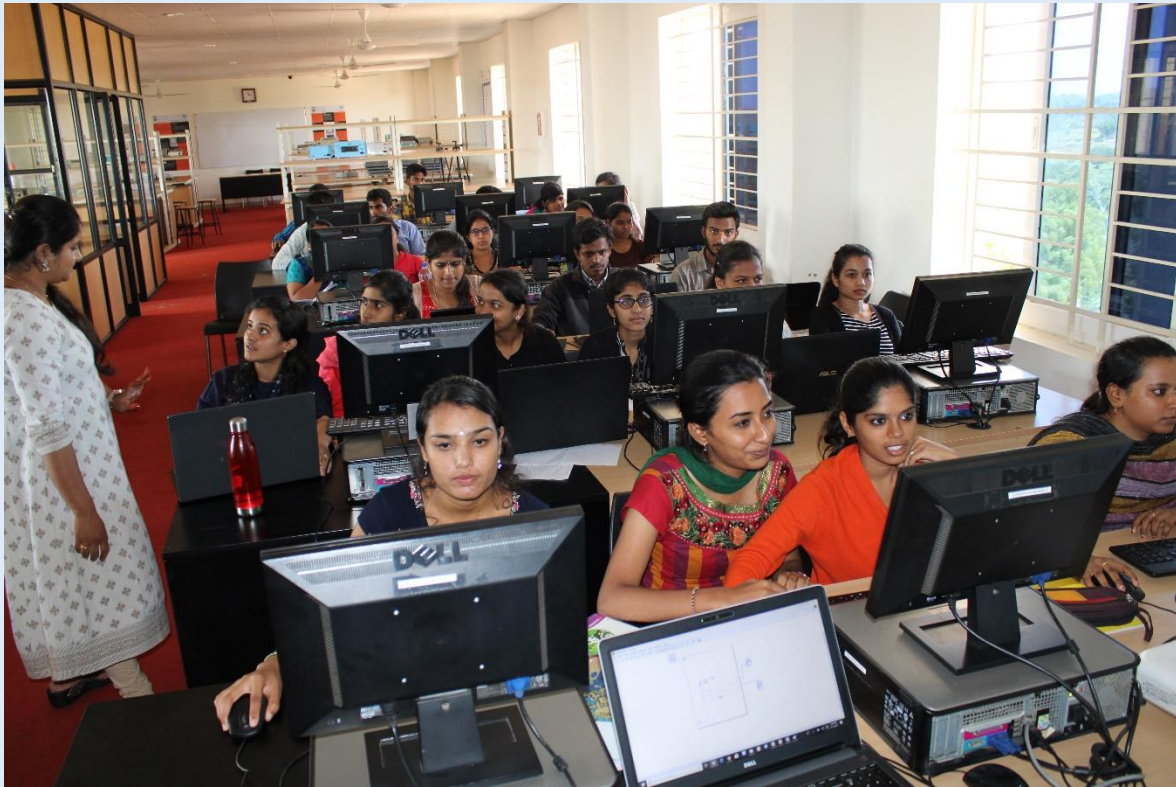
- Introducing LabVIEW Environment
- Comparison with Text Based Programming
- Creating and using LabVIEW projects
- Parts of VI-Front Panel-Block Diagram-Icon and Connector Panel-Controls
Pallette-Functions Pallette- Documentation of VIs

Creating First Application:

- Indicators-Controls- wiring the controls and indicators- building VIs- run
modes data
- Types in LabVIEW- development of GUIs- LabVIEW help
- Searching controls, VIs and functions- implementing a VI- basic
arithmetic's in LabVIEW
- Understanding the dataflow programming model of LabVIEW
- Recognizing different data types
- Tools for developing, cleaning and organizing your VIs
- Using Express VIs to build a basic VI



Picture: Mr. Mahesh guiding the students during the internship



Picture: Ms. Lavanya shree interacting with the students during the internship program

LabVIEW Core 2 concepts includes

- Data acquisition using LabVIEW- digital I/o- analog I/o- reading data from real world- writing data to real world Communicating Data Between Parallel Loops
- Implementing Design Patterns
- Creating and Distributing Applications

During Internship Program hands-on sessions was there with MyDAQ and MyRIO hardware kits, which were brought from SJBIT-NI LabVIEW academy, Bengaluru. Students were done with small projects with the hardware kits.

On successful completion of the three-week program, on 31st July 2019 the CLAD certification exam was conducted. Totally 59 members appeared for the exam including six faculty members. **Among 59 members, 19 students and five faculties were successful in clearing the Certified LabVIEW Associate Developer(CLAD) certification Exam.**

Benefits of the short term training as follows:

- ✓ More than 200 companies like Honeywell, BOSCH, National Semiconductors, BHEL, General Electric Corporation, TATA power, Indian Air Force etc. have been benefited from NI training programme in India.
- ✓ Companies like Siemens, General Electric Corporation, Delphi recruit candidates with experience in LabVIEW.
- ✓ All sorts of hardware and software projects can be done using LabVIEW.
- ✓ CLAD cleared students will be given priority while recruitment.
- ✓ CLAD cleared persons are allowed to give training on LabVIEW and they will get an opportunity to do their own startup.