

# Summer Internship Program

1<sup>st</sup> batch From 21<sup>st</sup> May 2018

2<sup>nd</sup> batch from 4<sup>th</sup> June 2018

Internship Program for ECE,EEE,ET&T,BME, IE,AE Students

Internship Program Based on Industrial requirements for job

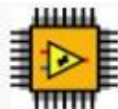
Interfacing Real Time System with NI Hardware, Sensor,  
Devices & Software



NATIONAL INSTRUMENTS

**LabVIEW™**

Graphical System Design Platform



Conducted by :

National Instruments Innovation Center  
Department of Electronics and Communication Engineering  
ITS Engineering college Greater Noida

## ABOUT SUMMER INTERNSHIP PROGRAM

ITS Engineering College is offering Summer internships for students pursuing a B. Tech, M. Tech or PhD degree in one of the following disciplines: Mechanical, Electrical, Electronics, Biomedical, Instrumentation, Control System, Automobile, Aeronautical and Aerospace Engineering.

This internship program can be tailored according to the need (job profile) of the company. During this program following aspects will be covered a) Design Circuit on bread board using Multisim (b) Logical Programming using LabVIEW (c) Interfacing of Sensors with the circuit (d) Acquire data using LabVIEW software (e) More than 300 small project (f) Two real time projects (g) Mechatronics Projects

Interns will utilize many Sensors, DAQ system and other hardware to design their own Real Time projects and will gain practical experience and knowledge which is highly required by Electronic based companies.

ITS Interns will gain experience on various aspects of engineering review, technical problem solving, and/or research and development. The program ensures that Interns are working with specific platform which will give complete Industrial delivering classification services, recognizing technology according to real-time, and trusted technical advice for industrial application.

## ABOUT NI INNOVATION CENTER

The department of Electronics and Communication Engineering has “National Instruments (NI) Innovation Centre” under the banner of Excellencia. The NI Innovation centre has NI training Centre as well as NI academy. This centre has complete NI platform of both software and hardware as LabVIEW-2015 (Full Development System, Professional Development System, Vision Development Module, etc.), Multisim, NI MyRIO, NI MyDAQ, Wireless Sensor Network, ELVIS Board, NI Smart Camera, Robotic starter kit Mechatronics kits etc

### AIM:

1. Train Interns according to real time industrial approach.
2. Improve the technical knowledge of students for better carrier development,
3. Train students for projects design and real time problem solving

## POGRAM OUTLINE

1. Interns will work 25 days in our lab to learn.
2. We will give 20 days to work on their project.
3. Interns will learn on Circuit design, Spice code generation, Programming, Simulation, Signal Processing , Image processing, Control system, EXE. & Installer development, Data acquisition from sensor .
4. Interns will develop more than 50 small Project based on Simulation and 2 hardware projects.
5. Interns will be provided certificates after successful completion of 45days training program and project submission

### Program Date & Time

Date:-

21<sup>st</sup> May to Onwards

4<sup>th</sup> June to Onwards

Time :- 8.30 to 12.30

Charge:

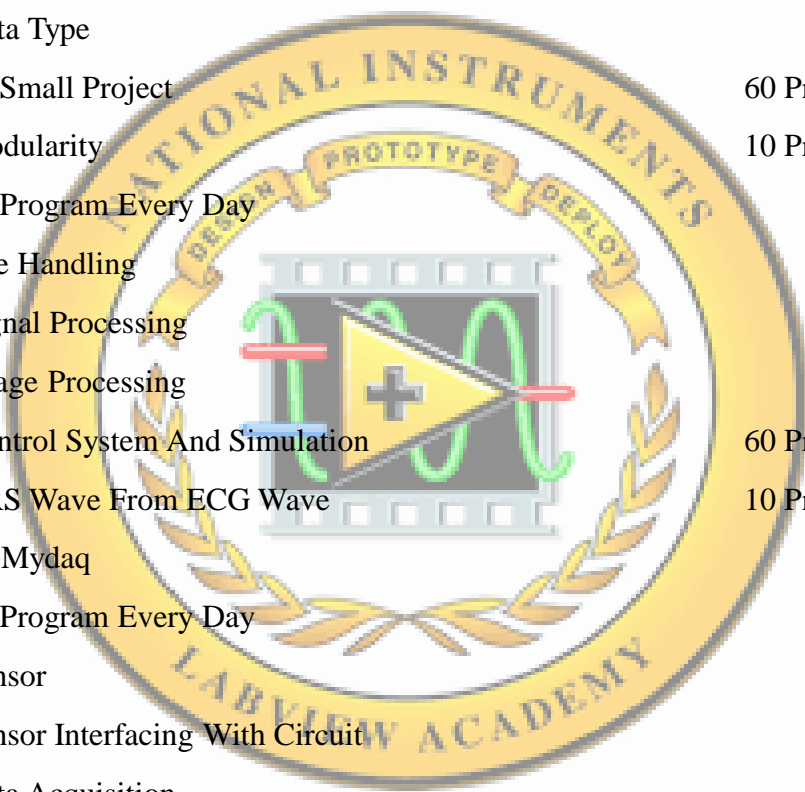
3000/-

Accommodation is available according to paid basic

# Course content



Week	Content	Remark
Week 1	Multisim Introduction & Programming Microcontroller 8051 PCB Circuit Design Circuit Analysis 10 Program Every Day	60 Program
Week 2	Introduction Of LabVIEW Data Type 10 Small Project Modularity 10 Program Every Day File Handling	60 Program 10 Projects
Week 3	Signal Processing Image Processing Control System And Simulation QRS Wave From ECG Wave NI Mydaq 10 Program Every Day Sensor	60 Program 10 Projects
Week 4	Sensor Interfacing With Circuit Data Acquisition Data Storage And Controlling Small Projects 10 Program Every Day	60 Program
Week 5	Project Work	
Week 6	Project Work Report Submission Certification	



## List of some Hardware Projects

1. Mechatronic Systems QNET
2. Quanser QNET DC Motor Add-On Board
3. myRIO Integrated Project
4. Hall-Effect Sensor
5. Buzzer/Speake
6. Photointerrupter
7. Rotary Encoder
8. Servo
9. Thermistor
10. PID Position Control
11. Motor Control
12. Sensing Position or Distance



**Click This Url for registration**

[https://docs.google.com/forms/d/e/1FAIpQLSeH\\_QyUfTH3keLhyu9x1BePDQtdqUkTc8bkxYa2zSO9Emgfsg/viewform](https://docs.google.com/forms/d/e/1FAIpQLSeH_QyUfTH3keLhyu9x1BePDQtdqUkTc8bkxYa2zSO9Emgfsg/viewform)

## Certification

We will provide three kind of certification

1. Summer Internship Certification.
2. Certificate by VNurt Technology to Innovative Projects
3. CLAD Certification by National Instruments after clearing CLAD Exam

**Eligibility:**

1. 2nd, 3rd & 4th B.Tech, Students of Electronics, Electrical, Instrumentation, Communication, Biomedical & Control System Engineering Branch.
2. M.Tech & Ph.D Students according to their project.
3. Faculty of Engineering College.

**Registration form**

1. Name: .....

(In Capital Letters)

2. Department: .....

3. Sem /Year: .....

4. Organization: .....

5. Address (Correspondence):.....

.....

.....

6. Contact No.:.....

7. E-mail ID:.....

8. If you want accommodations than feel here

For Payment:-**Account Name** :- I.T.S. Engineering College, **A/c No.** 85563060000038.

**IFSC Code** : SYNB0008556, **Address of Bank**: Syndicate Bank, Navyug Market, Ghaziabad

Note:- For registration fill this form carefully and send scan copy to ***ni.lab@its.edu.in***

Date:

Signature of Applicant

**Program Coordinator**

Mr. Nitesh Pradhan (8319146306)  
(Coordinator NI Innovation Centre)

[nitesh.ece@its.edu.in](mailto:nitesh.ece@its.edu.in)

**NI Lab Coordinator**

Ms. Garima Chandel (9411671328)

**Program Controller**  
Prof. Dinesh Chandra  
HOD-ECE Department  
[hod.ece@its.edu.in](mailto:hod.ece@its.edu.in)

## FAQ



### ✓ What is our aim?

We will provide experiential education to our interns, where they will rapidly develop prototypes using Test, Measurement, and Control.

Our aim is ready to students for recruitment opportunities based on LabVIEW, Instrumentation, Hardware testing & Simulation Projects.

### ✓ Benefit of this internship

One of the recurring themes in any entry level job search is lack of experience. "Where do I get experience if no one is willing to hire me?" The answer is simple: Get an internship. An internship offers you the chance to learn by doing in a setting where you are supervised by a work-place professional and have the opportunity to achieve your own learning goals, without the responsibilities of being a permanent employee.

An internship also offers you the opportunity to work with someone who can become a mentor for you - not only in the internship but throughout your career.

***In current time companies are offering job on the basis of Technical knowledge and problem solving approach. In India their are large number of companies are looking a trained technical Engineer who can Install Software, Install Hardware, Make communication Between hardware and software and able to make interfacing with sensor to DAQ Device.***

### ✓ What is the National instruments Innovation Center?

The department of Electronics and Communication Engineering has "National Instruments (NI) Innovation Centre" under the banner of Excellencia. The NI Innovation centre has NI training Centre as well as NI academy. This centre has complete .NI platform of both software and hardware as LabVIEW-2014(Full Development System, Professional Development System, Vision Development Module, etc.), Multisim, NI MyRIO, NI MyDAQ, Wireless Sensor Network, ELVIS Board, NI Smart Camera, Robotic starter kit Mechatronics kits etc

### ✓ What we will going to Covered?

Circuit Design using Multsim, 8051 Programming Using Multisim, Filter and Circuit analysis using Multism, Graphical programming Using LabVIEW, Databases generation using LabVIEW, 2D & 3D graphs and plot using Lab, Program Installer and Exe Design Using LabVIEW, Modularity, State Machine Algorithm using LabVIEW, Signal Processing , Image Processing , Control System and Fuzzy logic, NI myDAQ , A to D and D toA conversion, Sesor interfacing(Potentiometer, Pressure sensor, Proximity sensor, IR Sensor, Temprature sensor, acceleration sensor).

## FAQ



### ✓ What is Nation Instruments?

National Instruments India was set up in 1998 to propagate the revolutionary Virtual Instrumentation technology in the country. Our consistent double digit growth and increased investments by NI in India is a testament to the success we have enjoyed in the adoption of Virtual Instrumentation technology in India. We understand the nuances and issues that Indian engineers and scientists face and have introduced various India - specific initiatives, to enrich the lives of Indian engineers.

National Instruments believes in constant innovation and invests 16% of its annual revenue in Research & Development. National Instruments India has a Research and Development wing in Bangalore which helps customers across the globe. NI India R&D has received more than 7 patents for innovations in the fields of Motion Control algorithms, RF and software development.

### ✓ What is the LabVIEW?

LabVIEW is systems engineering software for applications that require test, measurement, and control with rapid access to hardware and data insights.

### ✓ What is the Filed of Application?

Automotive, Bio-medical Engineering, Robotics, Civil & Structural Engineering, Metallurgy, Mechanical & Production Engineering, Power Electronics, Process Control Design, Remote Sensing, Telecommunications, Industrial Automation, Image Processing, Aerospace, Military.