

**Two Days Workshop on  
“LabVIEW for Engineers”  
7<sup>th</sup> and 8<sup>th</sup> Nov 2025**



**Organized by**

TIFAC- CORE in AUTOMOTIVE INFOTRONICS  
(Sponsored by Department of Science and Technology, Govt. of India)

**Convenor**

Dr Suprava Chakraborty, Deputy Director, TIFAC

**Co - Ordinators**

Dr Kalaiselvan N, Associate Professor, TIFAC  
Mr.Silambarasan R, Development Engineer, TIFAC

**TIFAC-CORE IN AUTOMOTIVE  
INFOTRONICS @VIT**

- The Centre is conducting need-based training programs on cutting edge technologies for students, faculties and industry participants.
- Offering consultancy services for the industries and carrying out research works through the research grants received from funding agencies.
- The Centre has so far conducted **364** Training programs
- The Centre has completed nearly **22** consultancy projects with many leading Automotive, Biomedical, Telecom and Consumer Electronics Industries.
- The Centre has filed **55** patents (includes US patents).

**Objective**

- The purpose of the proposed program is to gain knowledge and hands-on experience in Model Based Design using LabVIEW focus on Real Time Applications. The training program addresses how the hardware and software modules interface with Sensors to acquire real world signals, to analyze them and present them in an intelligent manner.
- Today, Model Based Design has reached mainstream acceptance and is used in thousands of applications in industries from automotive, to consumer electronics.
- LabVIEW is a powerful graphical development environment for signal acquisition, measurement analysis, data logging and data presentation, giving the flexibility in programming. It is an Enabling industry leading software tool

**General Requirements**

Students pursuing B. E / B. Tech / M. E / M.Tech degree / MS (SE) in any engineering discipline may apply for this Hands-on Training Program

**Registration  
details**

- Students and Research Scholars- Rs.500/- (including GST)
- Faculty- Rs.750/- (including GST)
- Course material includes program contents in soft copy.
- Training Certificate will be issued.

**Registration Link:**

<https://events.vit.ac.in/>

Registration is limited to 30 based on first come, first serve

**Venue**

Room No.: 703, Technology Tower  
7th Floor, VIT

**Date / Time:**

7<sup>th</sup> and 8<sup>th</sup> November 2025

Friday & Saturday

Time:9.30 am to 5.30 pm

**Target Participants**

- Students from any Discipline
- Research Scholars / Faculty

# Topics Covered

## Introduction to Model Based design (NI LabVIEW)

- Introduction to LabVIEW
- Programming fundamentals
- Exploring LabVIEW
- Frontpanel & Block diagram

## Modular Programming

- Creating and using Sub VIs
- Debugging VIs

## Loops and Structures

- Structural Programming
- Forloop, While loop
- CaseStructures
- Sequence Programming -
- FlatSequence,
- Stacked Sequence
- Formula and Math script Node

## Arrays, Graph and Clusters

- Array Types and its Functions
- Cluster and its Functions
- Multiplot Graphs and Charts

## Strings, Charts and File I/O

- String and its Functions
- Fileinput and output function
- Datalogging application
- Errorhandling techniques

## Creating and distributing application

- Building stand alone executables/ applications

## Data acquisition

- Hardware Introduction
- NI cDAQ, C series Modules
- MAX Configuration
- Data Acquisition
- Increasing Measurement quality
- Analog Input /output
- Scanning Multiple Analog Input
- Digital Input and Output
- Signal Express

Digital Image Processing Implementation

Digital Signal Processing Implementation

Introduction to Networking Protocols  
TCP,UDP,GPS,RFID

## Importance of LabVIEW

LabVIEW programming is crucial for rapid development of test, measurement, and control systems, thanks to its intuitive graphical interface. It enables seamless hardware integration and real-time data processing, making it ideal for engineering and research applications.

Automotive protocols are essential for ensuring reliable communication between electronic control units (ECUs) in vehicles. They enhance safety, diagnostics, and performance by standardizing data exchange across complex automotive systems

## TIFAC CORE Focuses On

- Sustainable Mobility
- Fuel Cells
- Renewable powered EV charging infrastructure.
- Advanced Driver Assistance System.
- AI based Driverless Cars for Indian Roads.
- Sub-system development related to Electric Mobility.



**Discussion session**



**Hands-on Exposure to Labview**



**Internship Opportunities**



**Project Guidance**



## TIFAC CORE-VIT Vellore



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