

## REGISTRATION FORM

### An Intensive Training Programme on LabVIEW (June 24 – July 2, 2009)

Name:

Qualification:

Designation:

Address for Correspondence

e-mail ID:

Mobile Number:

Experience (if any):

Details of Demand Draft

Place:

Signature of the Applicant

Date:

### Participants:

This training course is addressed to Engineering Faculty, Research scholars, students and engineers from industry.

At the end of the course, the successful trainees will be able to appear for **CLAD** (Certified LabVIEW Associate Developer) examination, conducted by National Instruments (NI), USA. Professionals and students use this certification to validate their expertise in the LabVIEW environment for career advancement and employment opportunities.

### Details of Registration:

Filled in application form should be accompanied by a Demand Draft of **Rs.10,000/-** (Ten Thousands only), drawn in favor of "**The Principal, Thiagarajar College of Engineering, Madurai**", payable at Madurai. The registration fee includes the course material, working lunch and snacks.

**The number of seats is limited to 15.**

Last Date for Registration: **17.06.2009**

Intimation through e-mail: **19.06.2009**

### Address for Correspondence:

**Dr. S.J. Thiruvengadam**

Co-Coordinator

TIFACCORE in Wireless Technologies

Thiagarajar College of Engineering

Madurai 625015

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## AN INTENSIVE TRAINING PROGRAMME On LabVIEW

(June 24- July 2, 2009)

Organized by



TIFAC CORE in Wireless Technologies

and

Dept. of Electronics & Communication

Engg

**Thiagarajar College of Engg.**

Madurai

625015



Supported by

**National Instruments, Bangalore**

### Course Coordinators

Dr S.J. Thiruvengadam

Mr.N.B. Balamurugan

Mr.P.G.S. Velmurugan

## TCE:

Thiagarajar College of Engineering (TCE), Madurai, an ISO 9001:2000 certified institution, affiliated to Anna University, Thirunelveli, is one among the several educational and philanthropic institutions founded by Late. Shri Karumuttu Thiagarajan Chettiar, established in 1957. This Govt. aided institution was granted autonomy in 1987 and is accredited by National Board of Accreditation (NBA). TCE offers 7 undergraduate (UG), 13 postgraduate (PG) and Doctoral programmes in Engineering and Science.

## ECE Department:

Department of Electronics and Communication Engineering offers an UG programme in Electronics and Communication Engineering and PG programmes on Communication Systems and Wireless Technologies. This DST FIST supported department has completed 14 research projects with research organizations like DRDL, RCI, DEAL, BrahMos Aerospace and ISRO and consultancy works for companies like Motorola, Honeywell, Texas Instruments, TVSICS, Amphenol, Intel, in Wireless Communication system. The department has also established National Instruments Electronics system Design lab using Educational Laboratory Virtual Instrumentation suite. The laboratory facilities in this department include vector network analyzer, vector signal analyzer, NI IF RIO boards, NI RF and Communications platform, Speedy 33 DSP kits, ASIC prototyping boards and OMAP 1510 kit code compose studio.

## TIFAC CORE:

Mission REACH launched by TIFAC, DST, Govt. of India aims to create a constellation of world class COREs (Centre of Relevance and Excellence) in diverse

disciplines across the country. The objective of TIFAC CORE at TCE is to generate trained manpower in emerging Wireless Technologies, to carry out collaborative research and product development in the allied areas of Wireless technologies

## National Instruments LabVIEW Academy @TCE:

The LabVIEW Academy set up at TCE by National Instruments is an initiative under their Planet NI (Nurturing Innovation) framework which strives to increase the employability of Indian engineering graduates by creating Centers of Excellence in engineering colleges & universities which will provide cost effective access to world class latest technology for classroom teaching/learning. To make better engineers the LabVIEW Academy follows the concept of Experiential Education using Graphical system design approach. With a strong focus on the emphasis on fundamentals in education, TCE is in alignment with the Planet NI philosophy of experiential education. The LabVIEW Academy, with its hardware and software tools, empowers the TCE to implement this belief and work on Algorithm engineering. The Academy will also enable both students and faculty to prepare for Certified LabVIEW associate developer (CLAD). The CLAD distinguishes basic proficiency in using NI LabVIEW to develop applications.

## Course Goals:

- To solve problems using LabVIEW
- To use modular programming practices
- To develop, debug and test LabVIEW VIs
- To understand VI programming architectures
- To use state machine architecture

- To use File I/O techniques
- To use data acquisition and instrument control in LabVIEW applications
- To transfer data among parallel processes
- To use LabVIEW to create applications

## Course Outline:

**LabVIEW Programming Environment:** Components of LabVIEW, Data flow, Trouble shooting and debugging VI, **Implementing a VI:** Data Types, documenting code, while, for loops, Timing a VI, iterative data transfer, plotting data, structures, relating data: arrays, clusters and type definition, **Common Design Techniques and patterns:** Sequential programming, state machines, architectures, events, timing a design pattern and event programming, **Data Management Techniques:** Communicating among multiple loops: Variables, functional global variable, race condition, synchronizing data transfer, File I/O techniques: Low, high and advanced, **Data Acquisition and interfacing instruments:** Hardware setup, software, Measuring analog input, generating analog output, instrument control: using GPIB, serial port, software architecture, Instrument I/O assistant, VISA and instrument drivers.