



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC with 'A' Grade, ISO 9001:2015 Certified Institution

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

REPORT OF Online FDP on "A Webinar on LabVIEW programming for Real Time Applications" using Microsoft Teams

Event Type : FACULTY DEVELOPMENT PROGRAM (Webinar)

Date / Duration : 01-07-2020 (11.30 A.M to 1 P.M)

Resource Person : **B.V.N.R.Siva Kumar**, Associate Professor, ECE Department, LBRCE,
V.V.Rama Krishna, Associate Professor, ECE Department, LBRCE,

Name of Convener : Dr. Y. Amar Babu, professor & HoD

Name of Coordinator : Dr.P.Lachi Reddy, Professor

Target Audience : Faculty and Students

Total no of Participants: 259

Objective of the event: The objective of this Webinar is to make use of the LabVIEW which is a emerging software which can be used in various domains of knowledge.

Outcome of event :

- 1)The faculty can be able to design innovative projects using LabVIEW.
- 2)The Faculty can be able to get knowledge on Research Publication process.

Description / Report on Event:

LabVIEW (Laboratory Virtual Instrument Engineering Workbench) is a graphical programming environment which has become prevalent throughout research labs, academia and industry. It is a powerful and versatile analysis and instrumentation software system for measurement and automation. Its graphical programming language called G programming is performed using a graphical block diagram that compiles into machine code and eliminates a lot of the syntactical details. LabVIEW offers more flexibility than standard laboratory instruments because it is software based. Using LabVIEW, the user can originate exactly the type of virtual instrument needed and programmers can easily view and modify data or control inputs. The popularity of the National Instruments LabVIEW graphical dataflow software for beginners and experienced programmers in so many different engineering applications and industries can be attributed to the software's intuitive graphical programming language used for automating measurement and control systems.

Building on information taught in LabVIEW Core 1, Data Acquisition and Signal Conditioning training teaches the fundamentals of PC-based data acquisition and signal conditioning. Students learn how to perform different types of acquisition and to identify the correct sensor for their measurements. Students also discuss signal conditioning fundamentals and install and configure hardware in classroom-based courses.

NI myRIO is a revolutionary hardware/software platform that gives students the ability to "do engineering" and design real systems more quickly than ever before. Complete with the latest Zynq integrated system-on-a-chip (SoC) technology from Xilinx, the NI myRIO boasts a dual-core ARM® Cortex™-A9 processor and an FPGA with 28,000 programmable logic cells, 10 analog inputs, 6 analog outputs, audio I/O channels, and up to 40 lines of digital input/output (DIO). Designed and priced for the

academic user, NI myRIO also includes onboard WiFi, a three-axis accelerometer, and several programmable LEDs in a durable, enclosed form factor.

Feedback / Suggestions :

- 1. The Webinar is useful session.
- 2. It will be used in Academics
- 3. Very Good

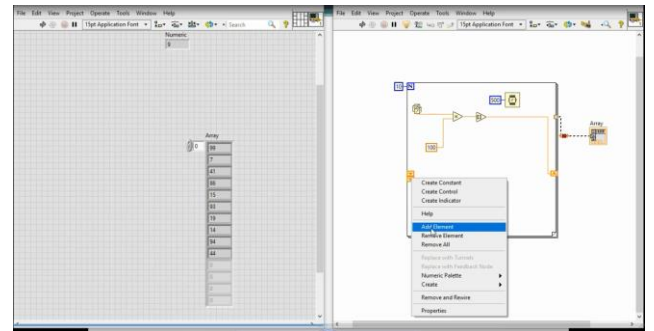
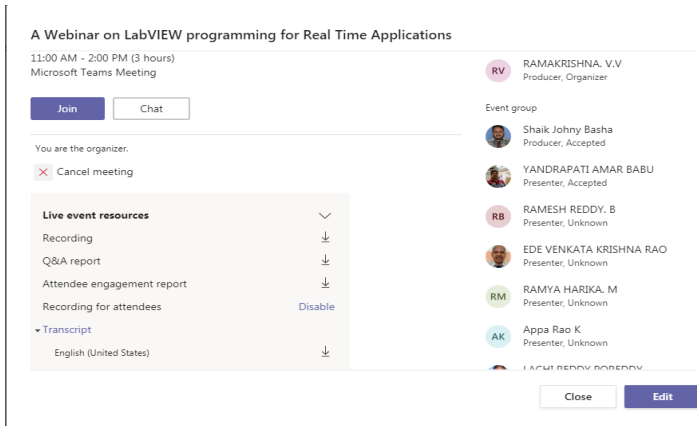
Photographs :



Addressing by HOD Dr Y.Amar Babu



Presentation By Resource person **B.V.N.R.Siva Kumar**



Presentation By Resource person **V.V.Rama Krishna**

https://teams.microsoft.com/join/19%3ameeting_M2ViMTE40DEtYTiIiOC00ZDc0LWl2MDQtYihkMjU2MWl4YiFi%40thread.v2/0?context=%7b%22Tid%22%3a%2207f3ae2f-c55d-46be-9215-1453785ba103%22%2c%22Oid%22%3a%22234b580b-0231-4556-8992-b587b6f63b52%22%2c%22IsBroadcastMeeting%22%3a%22true%7d

Online Link Of Webinar

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L B Reddy Nagar, Mylavaram-521 230, Krishna District, Andhra Pradesh.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report

on

Two Weeks Industrial Training Program on “Fundamentals of LabVIEW for Engineering Applications”

19-04-2021 to 01-05-2021

Resource Persons : Mr. B.V.N.R. Siva Kumar, Associate Professor, ECE Dept.
Mr.V.V. Rama Krishna, Associate Professor, ECE Dept.

Coordinator : Dr. T. Satyanarayana, Professor & Mentor, NI LabVIEW, ECE Dept.

Target Students : II B. Tech. ECE

No. of Participants : 27

Objective: To make students aware of myDAQ, myRIO including sensors and to use LabVIEW software for developing real time technical projects in the electronics domain.

Benefits of the Event:

1. Hands-on expertise in implementing technical projects with the help of LabVIEW software and hardware tools like myDAQ, myRIO, Sensors, Support for IoT platform.
2. Facilitates getting prestigious CLAD (Certified LabVIEW Associate Developer) Certificate that helps in placement opportunities in automobile, communication, automation & electronics companies.
3. Eligible to get Certificate (Duration of 100 Full Hours) of 2 weeks Industrial Training/In-House Training (non-credit) program which is mandatory at the end of IV Semester as per R17 Regulations.

About the Program

LabVIEW (**L**aboratory **V**irtual **I**nstrument **E**ngineering **W**orkbench) is a graphical programming environment which has become prevalent throughout research labs, academia, and industry. It is a powerful and versatile analysis and instrumentation software system for measurement and automation. Its graphical programming language called G programming is performed using a graphical block diagram that compiles into machine code and eliminates a lot of the syntactical details. LabVIEW offers more flexibility than standard laboratory instruments because it is software based. Using LabVIEW, the user can originate exactly the type of virtual instrument needed and programmers can easily view and modify data or control inputs. The popularity of the National Instruments LabVIEW graphical dataflow software for beginners and experienced programmers in so many different engineering applications and industries can be attributed to the software's intuitive

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Details for Registration

- **Registration Fee** per participant: Rs. 500/-.
- **Registration Link:** <https://forms.gle/rmcmfqLxmuuZYpyX8>
- The Maximum number of participants per batch is limited to **40 only**.
- Selection follows “**First come first serve basis**”.
- The details of schedule of activities for the two weeks are enclosed.

Schedule of Activities

- Day-1 : Introduction to LabVIEW, Virtual Instruments, Navigating LabVIEW, Creating your first application.
- Day-2 : Troubleshooting and Debugging VIs
- Day-3 : Using Loops
- Day-4 : Creating and Leveraging Data Structures, Using Decision making Structure
- Day-5 : Modularity (Sub VIs), Acquiring Measurements with Hardware
- Day-6 : Accessing Files in LabVIEW
- Day-7 : Connecting and Configuring NI myDAQ, Hands-on NI myDAQ- Accessing DAQ Assistant.
- Day-8 : Acquisition & Calibration, Data Acquisition & Logging, Acquisition & Linearization
- Day-9 : Introduction NI Embedded Platform – RIO, Connecting & Configuring NI myRIO
- Day-10 : Hands-on NI myRIO – Sensor Data Acquisition & Calibration in FPGA
- Day-11 : Hands-on NI myRIO – Configuring & Connecting myRIO through Wi-Fi
- Day-12 : Hands-on NI myRIO – Interfacing Mobile Devices, NI RIO Platform for Academic Projects & Research

Feedback/Suggestions:

1. Requires more practical sessions to understand all the modules well.
2. Implementation of one real time project after program would really help a lot.
3. Overall sessions were very useful and informative.

Comments on feedback:

Due to unexpected second phase lock down of Covid-19, it was difficult to spare time on implementing real time projects including more practical sessions. We consider it in future programs.

Photograph



Dr. Y. Amar Babu, HoD, ECE addressing the participants during Inaugural Function of Workshop along with **Dr. T. Satyanarayana**, Coordinator of the Program on 19-04-2021.

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L B Reddy Nagar, Mylavaram-521 230, Krishna District, Andhra Pradesh.

Fundamentals of LabVIEW for Engineering Applications

(19-04-2021 to 01-05-2021)

REGISTERED STUDENTS

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Signature of the Coordinator

Head of the Department



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Department of Electronics and Communication Engineering (ECE)

Center of Excellence LabVIEW



Circular

Date: 06-04-2021.

It is hereby informed to all II B.Tech. Students that LabVIEW Centre of Excellence, Department of ECE is organizing Two Weeks Industrial Training Program on "Fundamentals of LabVIEW for Engineering Applications" during 12-04-2021 to 25-04-2021. The proposed program would enable the II B.Tech students of ECE, EEE, ME & EIE to get the following benefits.

1. Awarding Mandatory Certificate under 2 weeks (Duration of 100 Full Hours) Industrial Training/In-House Training (non-credit) category at the end of IV Semester-R17 Regulations.
2. Hands-on expertise in implementing technical projects with the help of LabVIEW software and hardware tools like myDAQ, myRIO, Sensors, Support for IoT platform.
3. Further, it facilitates getting prestigious CLAD (Certified LabVIEW Associate Developer) Certificate that helps in placement opportunities in automobile, communication, automation & electronics companies.

Details for Registration

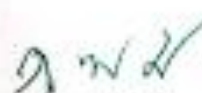
- Registration Fee per participant: Rs. 500/-.
- Registration Link: <https://forms.gle/rmcmfqLxmuuZYpyXB>
- The Maximum number of participants per batch is limited to 40 only.
- Selection follows "First come first serve basis".
- The details of schedule of activities for the two weeks are enclosed.

For more details, contact:

- i. Mr. B.V.N.R. Siva Kumar, Assoc. Professor, Dept. of ECE
- ii. Mr. V.V. Rama Krishna, Assoc. Professor, Dept. of ECE


Dr. T. Satyanarayana
Mentor, NI LabVIEW


Dr. Y. Anwar Babu
HoD


Dr. K. Appa Rao
Principal



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Department of Electronics and Communication Engineering (ECE)

Center of Excellence LabVIEW

Two Weeks Industrial Training Program on

“Fundamentals of LabVIEW for Engineering Applications”

From

19-04-2021 to 01-05-2021

Dr. T. Satvanarayana
Mentor NILabVIEW

Dr. Y. Amar Babu
HoD

Dr. K. AppaRao
Principal

Feedback link: <https://forms.gle/4hPwYLSNhUW3oPZw5>