



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

S.No	Particulars	Details
1.	Academic Year	: 2021-2022
2.	Regulation	: 2020
3.	Department Name	: EIE
4.	Name of the Value-added course	: Real time applications development using LabVIEW
5.	No. of Credits	: 2
6.	Category: Theory/Lab/Hands-on/Skill based etc	: Hands-on
7.	Name and Details of the Joint-organization (industry/NGO etc) if any	: Aadhyaa Skills Research & Development, Chennai
8.	Resource person details	: Er.G.Anish Kumar, Director of Aadhyaa Skills Research & Development Internal faculty members of EIE department
9.	Three Member Committee details	: Dr.S.Jeyadevi, Prof/EIE Dr.A.Rajavel, AP/EIE Mrs.M.Vigneswari, AP/EIE
10.	VAC Coordinator Details	: Mrs.M.Vigneswari, AP/EIE Mrs.J.Uma Maheswari, AP/EIE
11.	Duration (30 h mandatory)	: 30 Hours
12.	Period (From-To)	: 23-02-2022 to 02-03-2022 (6 days)
13.	Venue	: Virtual Instrumentation Laboratory

# KAMARAJ

## COLLEGE OF ENGINEERING & TECHNOLOGY



An Autonomous Institution - Affiliated to Anna University, Chennai)

S.P.G. Chidambara Nadar - C. Nagammal Campus

S.P.G.C. Nagar, K. Vellakulam - 625 701, (Near Virudhunagar), Madurai District.

Submitted to the SECRETARY for approval through the PRINCIPAL

Book No.

DEPT OF EIE

Date 23/02/2022

Sl. No.

5

An approval may please be granted to  
conduct Value added courses for II year - EIE, PT, MTR  
students  
for 6 days from (23.02.2022 to 25.02.2022) &  
(28.02.2022 to 02.03.2022)

Training by internal faculty members - 4 days ✓

Training by Industrial persons - 2 days ✓ (1 & 2  
Marks)

Total No. of students - 24 students

Amount to be collected - Rs 900/-  
per student

### Enclosure:

1. Budget
2. Quotation from Aadhyaa Skills, Chennai For 2 Day  
External train
3. Students list.

1. Hlyy

2. HP  
Signature of Faculty

HOD 23/2/2022

Principal  
24/2/22.  
PRINCIPAL

### OFFICE USE

Fee for Course Materials etc

- 1) Account Head
- 2) Budget allotted
- 3) Amount committed / Spent so far
- 4) Balance available

OM

Treasurer

Secretary

## VALUE ADDED COURSES

**VA105      REAL TIME APPLICATIONS DEVELOPMENT USING LabVIEW      30HOURS**

**UNIT 1: INTRODUCTION TO LABVIEW (6)**

Block Diagram and Front Panel - Controls and Indicators - Basic Arithmetic and Logical Operations - Data Types –Numeric, Boolean and String - Array and Matrix. Iterative computational methods using If – else, Switch Case, For Loops, While Loops - Timing loop

**UNIT 2: STRUCTURES AND FILE I/O OPERATIONS (6)**

Create and configure Case structures – Sequence structures – Event structures – Formula node - Create a cluster - Read and write clusters - clusters with charts and graphs - X-Y Charts - Sub plot - Create file and folder paths - Write data to text file - Write multi-channel data to text file - Analyze data in a text file

**UNIT 3: SUBVI AND INTERFACING WITH NI myDAQ (6)**

Create an icon - Configure the connector pane - Document a subVI - Calling a subVI- Overview of NI myDAQ hardware, connecting analog and digital signals – Programming with the NI myDAQ (eg., Street light on/off control, Measurement of acceleration)

**UNIT 4: INTERFACING WITH NI ELVIS KIT (6)**

Overview of NI ELVIS hardware – Overview of NI ELVIS software -NI ELVISmx Instrument Launcher- working with NI multisim- Programming with the NI ELVIS (eg., Building voltage divider circuit, Measurement of current in electronic circuits)

**UNIT 5: INTERFACING WITH NI myRIO (6)**

Overview of NI myRIO hardware, Interfacing with IoT and embedded systems - Control of rover vehicle using myRIO.

**At the end of the course, the learner will be able to:**

**OUTCOMES:**

CO1: Develop a customized user interface prototype for initial usability testing.

CO3: Comprehend the features of hardware used for data acquisition.

CO3: Build the real time control systems for industrial process.

CO4: Create communication with the field instruments by data acquisition.

CO5: Select the most appropriate hardware to implement the real time projects.

CO	Program Outcomes												Program Specific Outcomes	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	H	M	L		M							M	M	L
CO2	H	H	M		M							M	M	L
CO3	H	H	M	L	M							M	H	M
CO4	H	M	L	L	M							M	H	M
CO5	H	M	L	L	M							M	H	M

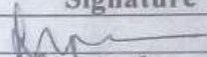
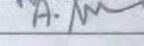
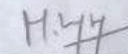
**DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING**

**Submitted to the Principal through Dean (Academic Courses)**


Sub: Requisition to recommend the Value added course on “Real time applications development using LabVIEW” for 2020-2024 batch UG candidates of EIE, PT, MTRE department during the academic year 2021-2022 even semester-Reg.

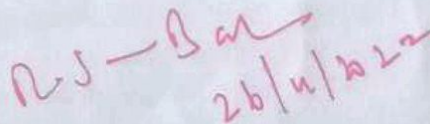
As per the current needs in industry, we need to provide the Value added course to the II year UG candidates of EIE, PT, MTRE department (2020-2024 batch) during the academic year 2021-2022. In connection with this clause, the meeting has been convened by the three member committee and discussed about the scrutinizing process to evaluate the Value added course.

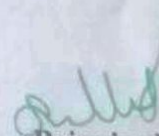
**Members List**

S.No.	Members	Category	Signature
1.	Dr.S.Jeya Devi, Prof/EIE	Head of the Department	
2.	Dr.A.Rajavel, AP/EIE	UG coordinator	
3.	Mrs.M.Vigneswari, AP/EIE	Expert	

The three member committee members recommended the Value added course on “Real time applications development using LabVIEW” for 2020-2024 batch UG candidates of EIE, PT, MTRE department during the academic year 2021-2022 even semester

  
HOD/EIE

  
Dean (Academic Courses)

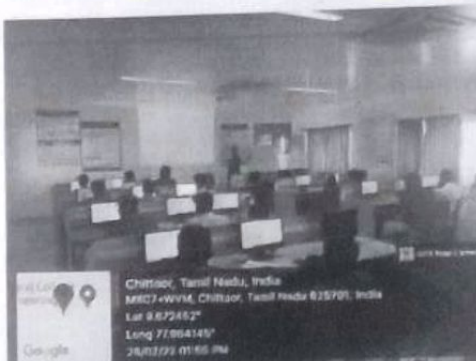
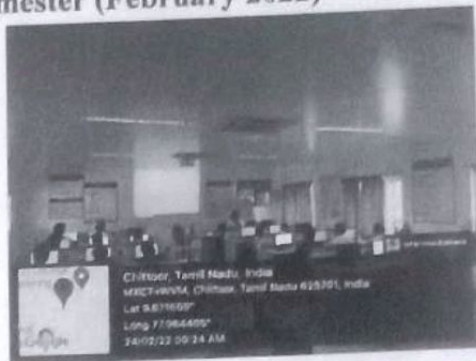
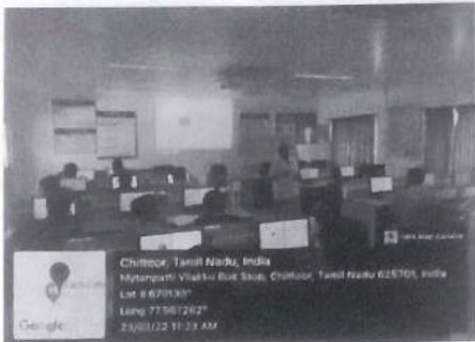
  
Principal

# KAMARAJ<sup>®</sup>

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### Department of Electronics and Instrumentation Engineering in association with Aadhyaa Skills Research and Development Value Added Course Real time applications development using LabVIEW 2021-2022 Even Semester (February 2022)



1 H.Y  
 2 W  
 Co ordinators

HOD/EIE

Department of Electronics and Instrumentation Engineering

Value added Course on "Real Time Applications development using LabVIEW" - Attendance Sheet

S.No	Dept.	Roll No	Student Name	23.02.22		24.02.22		25.02.22		28.02.22		01.03.22		02/03/22	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	EIE	20UEI001	S.Vishwa	OB	OB	OB	OB	OB	OB	Sing	Sing	Sing	Sing	Sing	Sing
2.	EIE	20UEI003	S.Kirubakaran	Sing	Sing	Sing	Sing	Sing	Sing	Sing	Sing	Sing	Sing	Sing	Sing
3.	EIE	20UEI004	T.Ashok Kumar	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash	T.Ash
4.	PT	20UPT001	R.Vignesh	R.Vignesh	R.Vignesh	R.Vignesh	R.Vignesh	R.Vignesh	R.Vignesh	AS	AS	R.Vignesh	R.Vignesh	R.Vignesh	R.Vignesh
5.	PT	20UPT002	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel	M.Kathirvel
6.	PT	20UPT003	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath	M.Mohan Prasath
7.	PT	20UPT004	J.Selva Kumar	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel	J.Sel
8.	PT	20UPT005	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka	P.Sureka
9.	MTR	20UMT001	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen	R.Naveen
10.	MTR	20UMT002	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul	G.Rahul
11.	MTR	20UMT003	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion	R.Gem Relion
12.	MTR	20UMT004	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan	C.Vecranan
13.	MTR	20UMT005	S.Karthikyan	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi	S.Karthi
14.	MTR	20UMT006	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala	K.Sakthi Bala

S.No	Dept.	Roll No	Student Name	23/02/22		24/02/22		25/02/22		28/02/22		01-03-22		03-03-22	
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
15.	MTR	20UMT007	R.Ramanavel	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan	R.Pan
16.	MTR	20UMT008	M.E.Naveen Prakash	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N	M.P.N
17.	MTR	20UMT009	V.Anandakrishnan	V.A	V.A	V.A	V.A	V.A	V.A	V.A	V.A	V.A	V.A	V.A	V.A
18.	MTR	20UMT010	S.Bhuvaneshwaran	S.B	S.B	S.B	S.B	S.B	S.B	S.B	S.B	S.B	S.B	S.B	S.B
19.	MTR	20UMT011	S.Sabarivasan	S.S	S.S	S.S	S.S	S.S	S.S	S.S	S.S	S.S	S.S	S.S	S.S
20.	MTR	20UMT012	R.Manikandan	R.M	R.M	R.M	R.M	R.M	R.M	R.M	R.M	R.M	R.M	R.M	R.M
21.	MTR	20UMT013	K.Harrish Babu	K.H	K.H	K.H	K.H	K.H	K.H	K.H	K.H	K.H	K.H	K.H	K.H
22.	MTR	20UMT014	P.Krishna Kumar	P.K	P.K	P.K	P.K	P.K	P.K	P.K	P.K	P.K	P.K	P.K	P.K
23.	MTR	20UMT015	V.Harish Ramachandran	V.H	V.H	V.H	V.H	V.H	V.H	V.H	V.H	V.H	V.H	V.H	V.H
24.	MTR	20UMT016	R.Esakkianand	R.E	R.E	R.E	R.E	R.E	R.E	R.E	R.E	R.E	R.E	R.E	R.E

1. H.H  
2. H.H  
Co ordinatdrs

HOD/EIC



22.02.2022

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

**Circular**

The Department of Electronics and Instrumentation Engineering in association with Aadhyaa Skills Research and Development, Chennai is planned to conduct Value added Course on "Real time applications development using LabVIEW" to the second year students of EIE, PT and MTRE department from 23-02-2022 to 02-03-2022.

- **Venue:** VI Lab EIE -3<sup>rd</sup> floor
- **Session Time:** 9.00 am to 4.00pm
- **VAC Schedule:**
  - 23-02-2022 to 28-02-2022 -Sessions handled by internal faculty members (4 Days)
  - 01-03-2022 & 02-03-2022 - Sessions handled by Industrial expert (2 Days)
- **Industrial Expert details:**
  - Mr. Anish kumar G, Director,
  - Aadhyaa skills Research & development (LabVIEW),
  - Chennai.

1 H.44  
2 up  
Co ordinators

HOD/EIE

**ELECTRONICS AND INSTRUMENTATION ENGINEERING**

05-03-2022

**Report on Feedback of Value added course**

The Department of Electronics and Instrumentation Engineering conducted the Value added course on the titled "Real time Applications and developments using LabVIEW" to the second year students of EIE, PT and MTR department from 23-02-2022 to 02-03-2022 (6 days). The feedback was collected from the students and analyzed.


Most of the students agreed that content delivered by the resource person is excellent and resource persons addressed the doubts and queries raised by interacting with them.

Based on the findings, it is identified that the course will help the students in their career in doing mini projects, contests participation and placements. Most of the students felt that the duration of the course may be increased. In addition to that, they are interested in attending the next level of LabVIEW course.

Most of the students concurred that this course provided the experiential learning through Hands on sessions. Most of the students agreed that this course was satisfied. The students agreed that they are exposed with practical knowledge on LabVIEW software and hardware.

The feedback analysis states that the students are exposed with practical knowledge on LabVIEW software and hardware and overall rating of this course is admirable.

1 H.Y.H  
2 U.P  
Co ordinators

  
HoD/EIE

**ELECTRONICS AND INSTRUMENTATION ENGINEERING**

03-03-2022

**Report on Value added course**

The Department of Electronics and Instrumentation Engineering is conducted the Value added course on the titled "Real time Applications and developments using LabVIEW to the second year students of EIE, PT and MTR department from 23-02-2022 to 02-03-2022 (6days). The course was handled by the internal faculty members and an Industry expert from Aadhyaa Skills Research and Development. Internal faculty members handled the sessions on fundamentals of LabVIEW and Interfacing with NI myDAQ Hardware. The Industry expert, Mr.G.Anish Kumar, LabVIEW trainer from Aadhyaa Skills R&D handled the sessions of Interfacing with hardware modules of ELVIS and RIO kit. The students had hands on experience with data types and programming concepts of loops, structures, arrays, clusters, file I/O operations, SubVI and Data Acquisition. They performed simulation projects as well as accomplished small projects with real time sensors and hardware modules. The students are also given activities like creating programs, implementation of small projects, assessments, awareness for CLAD exams and discussion of CLAD sample questions. This will help the students to do the curriculum projects and scope to place in the core companies.

1. HHH  
2. W  
Co ordinators

HoD/EIE

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

Feedback for Value added Course

“Real time applications and developments using LabVIEW”

1. Your perception on content delivery of the resource persons  
a)  Excellent                      b)  Very Good                      c)  Good                      d)  Fair
2. Did the resource persons attentively address and cleared the doubts and queries raised?  
a)  Excellent                      b)  Very Good                      c)  Good                      d)  Fair
3. Interactions of the resource persons with participants  
a)  Excellent                      b)  Very Good                      c)  Good                      d)  Fair
4. Whether this program is helpful to you in your career? (Mini projects/ contests/placement)
5. Your opinion about duration of the course being conducted?  
a)  Number days to be increased                      b)  Satisfied with number of days
6. Rate your learning experience through hands on sessions?  
a)  Excellent                      b)  Very Good                      c)  Good                      d)  Fair
7. Overall rating of this Hands on training programme?  
a)  Excellent                      b)  Very Good                      c)  Good                      d)  Fair
8. Are you interested in attending the next level of LabVIEW courses in future?  
a)  Yes                      b)  No

9. Mention the take away from this course?

*Basics of My RIO*

10. Your general suggestions for the improvement of this program.

*The overall session was a good experience*

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

Feedback for Value added Course

"Real time applications and developments using LabVIEW"

1. Your perception on content delivery of the resource persons

- a) Excellent                      b) Very Good                      c) Good                      d) Fair

2. Did the resource persons attentively address and cleared the doubts and queries raised?

- a) Excellent                      b) Very Good                      c) Good                      d) Fair

3. Interactions of the resource persons with participants

- a) Excellent                      b) Very Good                      c) Good                      d) Fair

4. Whether this program is helpful to you in your career? (Mini projects/ contests/placement)

Yes

5. Your opinion about duration of the course being conducted?

- a) Number days to be increased                      b) Satisfied with number of days

6. Rate your learning experience through hands on sessions?

- a) Excellent                      b) Very Good                      c) Good                      d) Fair

7. Overall rating of this Hands on training programme?

- a) Excellent                      b) Very Good                      c) Good                      d) Fair

8. Are you interested in attending the next level of LabVIEW courses in future?

- a) Yes                      b) No

9. Mention the take away from this course?

We almost had a great chance to use those gadgets

10. Your general suggestions for the improvement of this program. eg:- MyRIO.

This program should have been extended for more days so that we could get better.