



## Koneru Lakshmaiah Education Foundation

(Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

Category -1 University by UGC, Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram, Guntur District, A.P., India. PIN 522 302

Phone No. 08645 - 350200; [www.kluniversity.in](http://www.kluniversity.in), [www.klef.edu.in](http://www.klef.edu.in)

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### NI LabVIEW ACADEMY

**Department Name** : ECE  
**Event Date(s)** : 30.01.2018 to 02.02.2018  
**Event Time** : 9.30 am to 4.30pm  
**Event Name** : Training on NI Hardware(myRIO and myAQ)  
**Event Category** : To demonstrate the functions of myRIO and myDAQ in building Engineering applications  
To interface PIR sensor, Temperature sensor, LED, DC and stepper motors with myRIO  
**Event Venue / Room No.** : Jasmine Hall  
**Faculty Coordinator EMP.ID** : 4621  
**Faculty Coordinator Name** : Dr.M.Sujatha, Professor, ECE  
**Faculty Coordinator Email-ID:** [sujakarthik77@kluniversity.in](mailto:sujakarthik77@kluniversity.in)

NI Hardware training(myDAQ and myRIO) has been organized for the LabVIEW trained students. The training was held on 30-01-2018 and 31-01-2018 for batch-1 and 01-02-2018 and 02-02-2018 for batch 2 students.

#### Resource Persons

- 1.Mr.Anish Kumar, Application Engineer, National Instruments
- 2.Mr.Balaji, Application Engineer, National Instruments

The Day -1 schedule has been planned as below

S.NO	TOPIC	TIMING
	<p><b>OVERVIEW OF TRANSDUCERS,SIGNALS AND SIGNAL CONDITIONING</b></p> <p><b>i DAQ System Overview</b></p> <p><b>ii Sensors and Transducers</b></p> <p>iii • Temperature</p> <p>iv • Light</p> <p>v • Sound</p> <p>vi • Force and Pressure</p> <p>vii • Fluid Flow</p> <p>viii • pH</p> <p><b>Signals</b></p> <p>i • Analog Signal and its Information</p> <p>ii • Digital Signal and its Information</p> <p><b>DAQ Hardware and Software</b></p> <p>MyDAQ Hardware and Discussing Specification.</p>	9:00-10:00
	<p><b>Exercise 1- To display state, rate, level, shape &amp; frequency of signal</b></p> <p><b>Exercise 2:Oral Exercise</b></p>	10:00-10:15
	<p>DAQ ACQUISITION HARDWARE AND SOFTWARE</p> <p>i DAQ Hardware Overview</p> <p>ii • Terminal Block &amp; Cable</p> <p>iii • DAQ Signal Accessory (DSA)</p> <p>iv • DAQ device</p> <p>v ii. Components of a DAQ Device</p> <p>vi • Interfaces</p> <p>vii • Analog Input Circuitry</p> <p>viii • ADC</p> <p>ix • DAC</p> <p>• Digital I/O Circuitry</p> <p>• Counter Circuitry</p>	10:15-11:00
	<p><b>i Measurement and Automation Explorer</b></p> <p>ii • Data Neighborhood</p> <p>iii • Devices and Interfaces</p> <p>iv • Scales</p> <p>v • Software</p> <p>vi vi. Creating Simulated DAQ Device</p>	11:15-12:00
	<p><b>i Choosing Appropriate DAQ Hardware</b></p> <p>ii • Bus of DAQ device</p> <p>iii • Signals to measure</p> <p>iv • Accuracy</p> <p>v iv. DAQ Software Overview</p>	12:00-12:15 12:15-1:00
	<p><b>Lunch</b></p>	1:00-2:00
	<p><b>Exercise 3.</b> Simple Generating and Acquiring data using DAQ assistant( N samples and Continuous Samples)</p> <p><b>Exercise 4.</b>Function Generator</p> <p>Summarizing</p> <p>Signal Conditioning</p>	3:15-3:35 3:35-4:00 4:00-4:30

**The Day -2 schedule has been planned as below**

**LIST OF EXPERIMENTS USING NI MYDAQ AND USB DAQ**

- Generating and Acquiring signal using DAQ system( N samples and continuous samples)
- Generating more than One signal and Acquiring same signal like (Sine, square, Triangle, Sawtooth )
- Interfacing Sensor with DAQ system
- LED (To use DIO)
- Switch
- Buzzer
- Temperature Sensor(Acquiring Analog data)
- Interfacing of all the sensors and control.
- Tank Level Indicator with LED and buzzer Alert
- LED alert Program and blinking LED
- Buzzer based Alert system
- Switch Based LED control and monitoring system
- Traffic Light using State machine
- Speed limiter and control system in vehicle speedometer(**done only in batch 2**)
- Reverse car parking alert (**done only in batch 2**)



Mr.Anish kumar and Mr.Balaji,Application Engineers ,National Instruments training students on NI Hardware applications



Mr. Anish Kumar and Application Engineer, National Instruments training students on NI Hardware-myDAQ



**The following are the faculty involved in the training**

- 1.Dr.Biraj,AP/ECE**
- 2.Mr.Pratap,AP/ECE**
- 3.Mr.SivaVaraprasad,AP/ECE**
- 4.Mr.Veerendranath,AP/ECE**
- 5.Mr.Madhav Prasad,AP/ECE**
- 6.Mr.Agam Das Gowsami, AP/ECE**
- 7.Dr.M.Sujatha,Professor/ECE**

List of Students for Hardware Training (myDAQ and myRIO)

## LIST OF PARTICIPANTS

### BATCH -1

S.NO	NAME OF THE STUDENT	ID NUMBER	SECTION	Signature
1	Y.Harsha	160040303	S11	Y. Harsha.
2	G.K.V.S.S.R.PAVAN	160040281	1	G.K.V.S.S.R. Pavan
3	Eanumula Eswar Sai Yeswanth	160040225	11	E. Eswar Sai Yeswanth
4	Inavolu venkata sai siva krishna kiran	160040307	12	A. venkata sai siva krishna kiran
5	P. Yeswanth	160040749	9	P. Yeswanth.
6	BHIMA ABHILASH	160040090	12	B. ABHILASH
7	B.V.N.Lokesh	160040100	14	B.V.N. Lokesh.
8	Ramkiran Devireddy	160040195	11	Ramkiran Devireddy.
9	D.jaya Chandra reddy	160040207	11	D. jaya chandra reddy.
10	JEELAKARRA DHEERAJ	160040323	10	J. Dheeraj.
11	Junutula Harish	160040329	5	J. Harish.
12	KARTHEEK KANDALAM	160040357	11	K. Kartheek.
13	M AJAY KUMAR	160040490	12	M. Ajay Kumar.
14	M. Jasmine Sindhura Rebekah	160040548	13	M. Jasmine Sindhura Rebekah
15	Suma.K	160041036	8	K. Suma.
16	D.Jagadeesh Sai	160070409	11	D. Jagadeesh Sai.
17	PAVANI ARAVETI	160040042	13	A. Pavani.
18	babburi sai vardhan	160040057	6	B. Sai vardhan.
19	D.chandrika sowmini	160040190	6	Chandrika Sowmini
20	G Sai Sri ram	160040239	10	Sai Sri ram
21	K. Rohit Prathyush	160040436	9	Rohit Prathyush.
22	pasupuleti sumanth	160040682	11	P. Sumanth.
23	BASE SHANKAAR	160041052	14	B. Shankaar.
24	BANDI SRI KEERTHANA REDDY	160040062	6	B. Sri Keerthana Reddy
25	K.Chandra Shekharam	160040440	14	K. Chandra Shekharam
26	NADENDLA BHARGAVA SAI	160040595	14	Bhargava Sai.
27	Naseema Yasdhani.Pathan	160040621	13	Pathan.
28	Pathan Imran khan	160040685	14	Imran Khan.
29	vellanki venkata prudhvi	160040947	13	Prudhvi.
30	P.Revanth	160040726	11	Revanth.
31	velpuri nagasai	160040949	14	Naga Sai.
32	A.ROHIT SAI	160041044	14	Rohit Sai.
33	B.V. RAVINDRA	160040058	1	Ravindra.
34	B.SHIVAGOPI	160040104	S10	Shiva Gopi.
35	D.vazad vardhan	160040217	10	Vardhan.
36	K d m Vikash pani	160040346	11	Vikash Pani.
37	K.R.K.PRASANNA KUMAR	160040376	1	Kumar.
38	N.Sravan kumar	160040606	1	Sravan Kumar.
39	P.SRINIVAS	160040676	10	Srinivas.
40	Itha Girish Venkat	160040309	12	Venkat.
41	Srilekha	Research Scholar(Full Time) Supervisor: Dr.M.Sujatha		Srilekha.

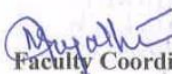
**BATCH-2**


S.NO	NAME OF THE STUDENT	ID NUMBER	SECTION	Signature
1	Vellaturi Venkata Praveen	160040948	11	Praveen
2	Sainath Poluri	160040719	4	Sainath
3	Rachakunta Rajesh	160040751	4	Rajesh
4	VAYILATI SAI NARASIMHA	160040937	S14	Narasimha
5	V.Surya Atchyuth	160040942	13	Atchyuth
6	Venkata Sai Manoj Pogadadanda	160040956	14	Sai Manoj
7	Kadamanti Bhaskar	160041007	6	Bhaskar
8	K. SAI SREE ROHINI	160041010	9	Rohini
9	karthik.m	160041053	14	Karthik
10	kishore bevara	160040083	6	kishore
11	Bezawadanaga mano sai naveen	160040084	6	naveen
12	CH RAHULKRISHNA	160040155	6	Rahul Krishna
13	K. Seetharam	160040359	9	Seetharam
14	Kasturi Naga venkatesh	160040383	5	Venkatesh
15	Rajani Lankireddy	160040467	14	Rajani
16	Vinay Naga pavan Kumar.L	160040471	14	Pavan Kumar.L
17	Matta Uday Venkata Mahesh	160040536	11	Mahesh
18	N.AKHIL CHOWDARY	160040605	14	AKHIL
19	N.Swathi Kiran	160040625	12	Swathi
20	P. SATYA DURGA LALITHA RAO SARMA	160040717	14	Satya Durga
21	puvvada venkata satya sai kumar	160040748	10	Saikumar
22	Y.Vijay kumar	160040993	11	Vijay Kumar
23	A.V AJAY KUMAR	160040036	1	Ajay Kumar
24	ARANI SREEKAR PRANEETH	160040039	13	Praneeth
25	BATTINI RAMESH REDDY	160040074	6	Ramesh
26	NIKHIL SAI	160040433	14	Nikhil Sai
27	V. Mohan Krishna	160040562	5	Mohan Krishna
28	SAI PAVAN MUPPIDI	160040583	14	Sai Pavan
29	B. Naga Vardhan	160040098	S2	Naga Vardhan
30	Kanchustambham Pallav	160040356	11	Pallav
31	M Pavan Kumar	160040581	10	Pavan Kumar
32	N.Naga Bhanu Maitreyee	160040639	7	Maitreyee
33	Venkata abhiram	160040757	2	abhiram
34	Madhu Bhargavi	160040936	7	Bhargavi
35	Itha Ram Sai Manoj	160040995	14	Sai Manoj
36	N.V.PRADEEP	160041020	1	Pradeep
37	B N V V S spandan Krishna	160040056	13	Spandan Krishna
38	M.lakshmi yamini	160040508	7	Yamini
39	K.Kranthi Mahesh	160040377	12	Mahesh
40	Neti theertha bhaskara sri sai	160040631	5	Bhaskara
41	S.PRANAV	160040846	11	Pranav
42	Ankit Das	160041061	8	Ankit Das
43	Y.Sukruthi	160040852	9	Sukruthi
44	k.Naga Phaneendra	160040363	5	Phaneendra
45	YADAVALLI SUNDAR SAI KUMAR	160040976	9	Sai Kumar



**Event outcome:**

Students were able to explore the functions and working of myRIO and myDAQ in building Engineering applications. They were able to interface PIR sensor, Temperature sensor, LED, DC and stepper motors with myRIO and program using NILabVIEW.

  
Faculty Coordinator  
**Dr.M.Sujatha**

  
**HOD-ECE**  
Professor  
Department of ECE  
**K L E F**  
VADESWARAM,  
Guntur Dt., A.P., India