Department of Electronics and Instrumentation

KIET Group of Institutions, Ghaziabad

Summary Report

Academic research and development usually encompasses discovery, innovation, experimentation, and creation; however, in today's highly competitive and global economy, it also involves patents, licensing, technology transfer, and partnerships with industry. Virtual instrumentation is the combination of user-defined software and modular hardware that implements custom systems ("virtual instruments") with components for acquisition, processing/analysis and presentation. The **Department of Electronics and Instrumentation** organizes Summer School on "Basics of LabVIEW and Digital Electronics". National Instruments introduced the concept of virtual instrumentation more than 25 years ago and now offers an extensive platform of hardware and software for creating virtual instruments.

COURSE OBJECTIVE

1. Define dataflow and what is meant by 'Graphical Programming Language'.
2. Work with and manipulate SubVIs, along with their icons and connectors.
3. Demonstrate good LabVIEW project management techniques.
4. Describe what is meant by 'data acquisition'.
5. Input algebraic formulas via 'Formula Nodes' and 'Expression Nodes'.
6. Utilize Error Clusters and Error Handling functions.
7. Implement both single and multiple plot waveform graphs.
8. Troubleshoot broken VIs.
9. To understand the basic concepts of Virtual Instrumentation and application of LabVIEW for measurement and control applications.
10. Data Acquisition using Arduino.

COURSE OUTCOME

1. Understand the basics of virtual instrumentation concept and dataflow programming.
2. Understand various functions available in LabVIEW for engineering applications.
3. Understand various functions of Arduino for engineering applications.
4. Design projects using the functions available in LabVIEW.
5. Understand the interfacing of DAQ devices and customized user designed hardware with LabVIEW
6. Write the Certified LabVIEW Associate Developer (CLAD) exam, administered by National Instruments, for the certification and leading to placements in core companies

HoD Sign

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Summer School on "Basics of LabVIEW and Digital Electronics

S.NO	UNIVERSITY ROLL NO	STUDENT NAME	5/18/2019	5/19/2019	5/20/2019	5/21/2019	5/22/2019	5/23/2019	5/24/2019
1	1802932001	AFRAZ KHAN	P	P	P	P	P	P	P
2	1802932002	ANNANYA RAJ PAL	P	P	P	P	P	P	P
3	1802932003	BHUWAN CHUTANI	P	P	P	P	P	P	P
4	1802932004	EKANSH AGARWAL	P	P	P	P	P	P	P
5	1802932005	HARSH	P	P	P	P	P	P	P
6	1802932006	HARSH TYAGI	P	P	P	P	P	P	P
7	1802932007	JATIN GOEL	P	P	P	P	P	P	P
8	1802932008	JAYA DUBEY	P	P	P	P	P	P	P
9	1802932009	KANISHK KHURANA	P	P	P	P	P	P	P
10	1802932010	KASHISH KARNWAL	P	P	P	P	P	P	P
11	1802932011	KRISHNA KANT GAUR	P	P	P	P	P	P	P
12	1802932012	KRITIKA SINGH	P	P	P	P	P	P	P
13	1802932013	LAVISH CHANDANI	P	P	P	P	P	P	P
14	1802932014	MANSI KUSHWAHA	P	P	P	P	P	P	P
15	1802932015	MEGHA JAIN	P	P	P	P	P	P	P
16	1802932016	MOHMAD ASIF LONE	P	P	P	P	P	P	P
17	1802932018	NIKHIL PARASHAR	P	P	P	P		P	P
18	1802932019	NIKITA RAY	P	P	P	P		P	P
19	1802932020	PIYUSH GUPTA	P	P	P	P		P	P
20	1802932021	PRAVESH POONIA	P	P	P	P		P	P
21	1802932022	PUSHPENDRA SINGH	P	P	P	P		P	P
22	1802932023	RUCHI KUSHWAHA	P	P	P	P	P	P	P
23	1802932024	SANDESH SINGH RAJPUT	P	P	P			P	P
24	1802932025	SHUBHAM SACHAN	P	P	P		P	P	P
25	1802932026	SUBOOR AZHAR	P	P	P		P	P	P
26	1802932027	TANYA GUPTA	P	P		P	P	P	P
27	1802932028	UTKARSH SRIVASTAVA	P	P		P	P	P	P
28	1802932029	UTKARSH VERMA	P	P		P	P	P	P
29	1802932030	VISHAL RATHI	P	P		P	P	P	P
30	1802932031	VISHWAS GARG	P	P	P	P	P	P	P
31	1802932032	YASH SAINI	P	P	P	P	P	P	P
32	1802932033	YOGESH KUMAR	P	P	P	P	P	P	P

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HoD Sign

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LabVIEW CORE-1 Developing Projects using Arduino

S.NO	UNIVERSITY ROLL NO	STUDENT NAME	6/10/2019	6/11/2019	6/12/2019	6/13/2019	6/14/2019	6/15/2019
1	1802932006	HARSH TYAGI	P	P	P	P	P	P
2	1802932007	JATIN GOEL	P	P	P	P	P	P
3	1802932008	JAYA DUBEY	P	P	P	P	P	P
4	1802932009	KANISHK KHURANA	P	P	P	P	P	P
5	1802932010	KASHISH KARNWAL	P		P		P	P
6	1802932011	KRISHNA KANT GAUR	P	P	P	P	P	P
7	1802932027	TANYA GUPTA	P	P	P		P	P
8	1802932028	UTKARSH SRIVASTAVA	P	P	P		P	P
9	1802932029	UTKARSH VERMA	P	P	P	P	P	P
10	1802932030	VISHAL RATHI	P		P		P	P
11	1802932031	VISHWAS GARG	P	P	P	P	P	P
12	1802932032	YASH SAINI	P	P	P	P	P	P
13	1802932033	YOGESH KUMAR	P		P	P	P	P
14	1802932020	PIYUSH GUPTA	P	P	P	P	P	P

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Summary Report

PLC Training is also designed to help delegates keep abreast of the latest PLC technologies and techniques available in this area, this tutorial offers an excellent opportunity for delegates to ask specific questions and exchange ideas relating to their own applications. The Programmable Logic Controller has evolved over the years and this course will provide the information required to make knowledgeable decisions about PLC applications in their individual manufacturing environments and allow for students to make well-informed decisions about existing control applications and to determine what is required for future applications. The **Department of Electronics and Instrumentation** organizes in house Summer School on Mechatronics.

COURSE OBJECTIVE

1. Developing a study programme in integrated engineering, in order to offer the graduates the knowledge and competences required by the industrial companies.
2. Providing advanced analytical and experimental knowledge, abilities for calculating, modelling and simulating in the domain of mechanics, electronics, automated control, automations and robotics and of computer science.
3. Providing knowledge and abilities for analyzing, designing, programming, realizing and maintaining integrated technical systems.

COURSE OUTCOME

1. Assist in design and rebuilding projects.
2. Follow, develop, and troubleshoot manufacturing processes and procedures.
3. Organize, interpret, and use technical information and documentation.
4. Promote energy efficiency and industrial sustainability.
5. Demonstrate the ability to adhere to personal and industry safety standards.
6. Demonstrate life-long learning towards professional growth.

HoD Sign

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Summer School on Mechatronics

S.NO	UNIVERSITY ROLL NO	STUDENT NAME	6/10/2019	6/11/2019	6/12/2019	6/13/2019	6/14/2019
1	1802932012	KRITIKA SINGH	P	P	P	P	P
2	1802932013	LAVISH CHANDANI	P	P	P	P	P