Time	Topics
9:00-10:00	INTRODUCTION to Graphical System Design (GSD) • What is GSD? • Why working on GSD platform? • Benefits of GSD • Text based programming Vs. LABVIEW Hardware Interfacing Techniques Introduce LABVIEW Environment • Front Panel, • Block Diagram • Tool Bar, Menu Bar • Shortcut Keys • What is VI? Parts of VI: Function & Control Pallete, Icon & Connector pane
10:00-11:00	**DATA TYPES:** • **NUMERIC:** • NUMERIC CONTROL & INDICATORS • Arrow on RIGHT/ LEFT for Control/ Indicator • Color For Numeric Data Types • COERION DOT • NUMERIC CONVERSTION FUNCTIONS • UNDEFINED & UNEXPECTED DATA (NaN, infinity) DEBUGGING TECHNIQUES
	BOOLEAN: i. Introduction to Digital Electronics ii. Color For Boolean Data Types iii. Boolean Operations (AND, OR, NOT, XOR, NAND, NOR) iv. Practical Examples- Car Door Open Indicator, Washing machine
11:00-11:15	Break

11:15-12:30	➢ **STRINGS:** i. Definition of String ii. Color For String Data Types **LOOPS:** • Introduction for LOOPS • Why LOOPS are essential in programming? iii. Two kinds of loops- FOR & WHILE **FOR LOOP:** • Flowchart/ pseudo code • LABVIEW FOR LOOP • Iteration & Count Terminal **WHILE LOOP:** • Flowchart/ pseudo code • LABVIEW WHILE LOOP • Iteration & Stop Terminal
12:30-1:30	Lunch
1:30-3:00	**OVERVIEW OF TRANSDUCERS,SIGNALS AND SIGNAL CONDITIONING** i. DAQ System Overview ii. Sensors and Transducers • Temperature • Light • Sound • Force and Pressure • Fluid Flow • pH **Exercise 1. Simple Generating and Acquiring data using DAQ assistant(N samples and Continuous Samples)**
3:00-3:15	**Break**
3:15-4:00	**Exercise 2. Acquiring Data on analog sensor value and giving alert using buzzer** **Exercise 3.Traffic Light** **Exercise 4.Performing Digital Input and Digital Output with Switch**