



# **Experiment Number 2**

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Branch :: CSE - IoT Sec/Grp :: 1/A

Semester ::  $5^{th}$  Date ::  $21^{st}$  Sept, 2021

Subject :: DIOT Lab CODE :: CSD-337

#### 1. Aim:

1. To study DAQ system in LABVIEW AND creat a virtual simulated device DAQMX USB 6008 and create a simple labvie program for USB 6008.

2. Measurement of temperature using Thermistor temperature sensor and perform its data logging using NI USB DAQ and LabVIEW.

#### 2. Task:

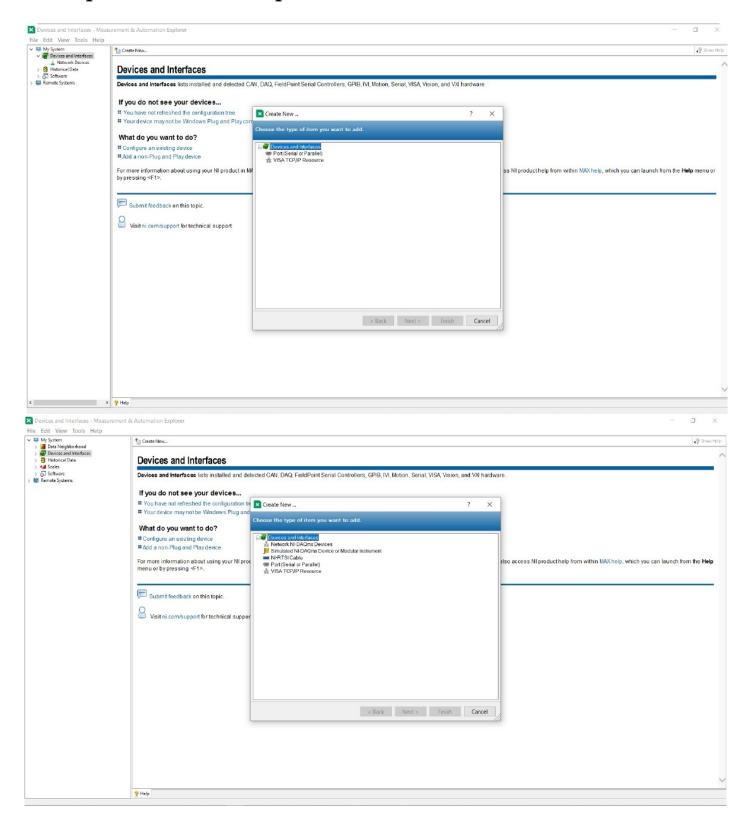
- 1. Create DAQ interface with Labview
- 2. Connect the sensor with the DAQ as per the diagram shown above.
- 3. Connect the USB cable of DAQ to one of the USB ports of the PC.
- 4. Open the LabVIEW software and create a new VI. Bring the DAQ Asst function into the block diagram by right clicking over it go to Express  $\rightarrow$  Inputs  $\rightarrow$  DAQ Asst.
- 5. Select the proper channel of the DAQ as Acquire Signals-  $\rightarrow$  Analog Input-  $\rightarrow$  Voltage  $\rightarrow$  AI0







### 3. Snapshots of Above steps:

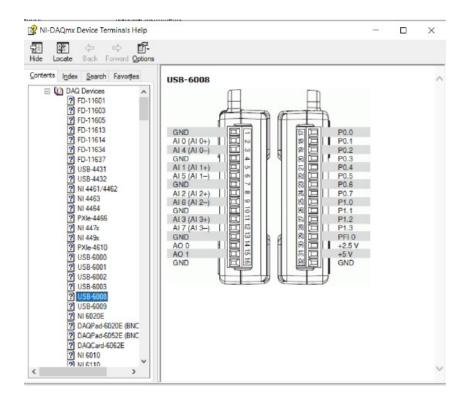








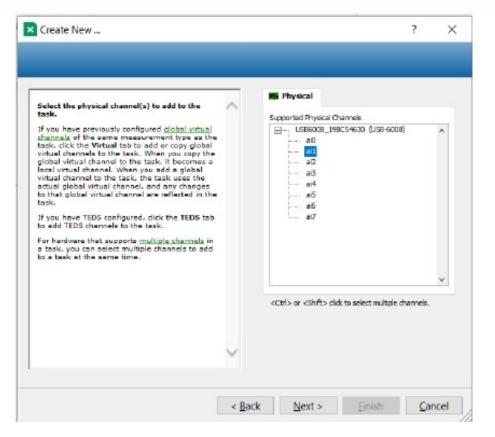
➤ Devices and Interfaces - Measurement & Automation Explorer 0 File Edit View Tools Help **Devices and Interfaces** Devices and Interfaces lists installed and detected CAN, DAQ FieldPoint Serial Controllers, SPIB, IVI, Motion, Serial, VISA, Vision, and VXI hardware If you do not see your devices... # You have not refreshed the configuration tree # Your device may not be Windows Plug and Play compatible Create Simulated NI-DAQmx Device What do you want to do? # Configure an existing device Add a non-Plug and Play device For more information about using your NI product in MAX, refer to your primenu or by pressing <F1>. Submit feedback on this topic NI US8-6003 NI US8-6009 NI US8-6009 NI US8-6501 NI US8-9201 (NU US8-9211A NI US8-9211A NI US8-9215A NI US8-9215A NI US8-9215A NI US8-9215A Visit ni.com/support for technical support. PKI Chassis PKI Slot OK Cancel

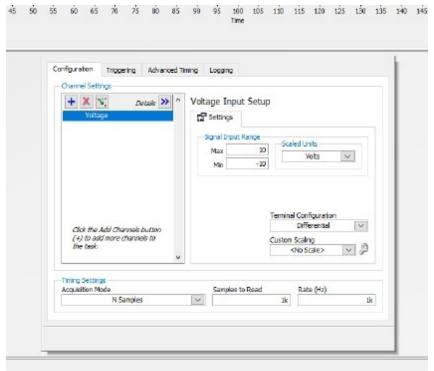








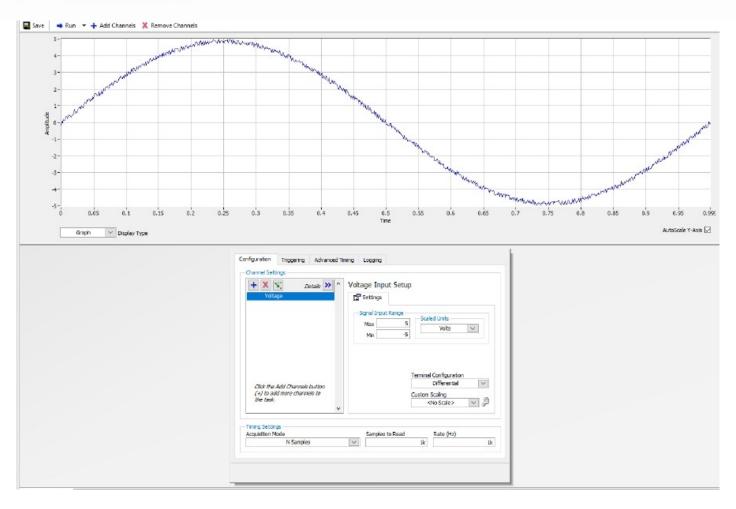


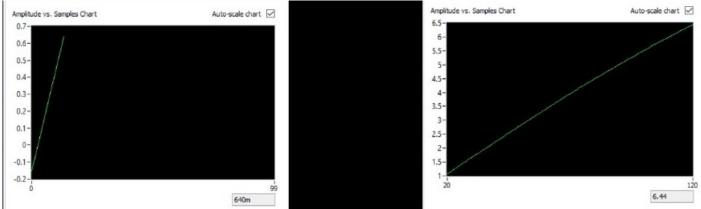






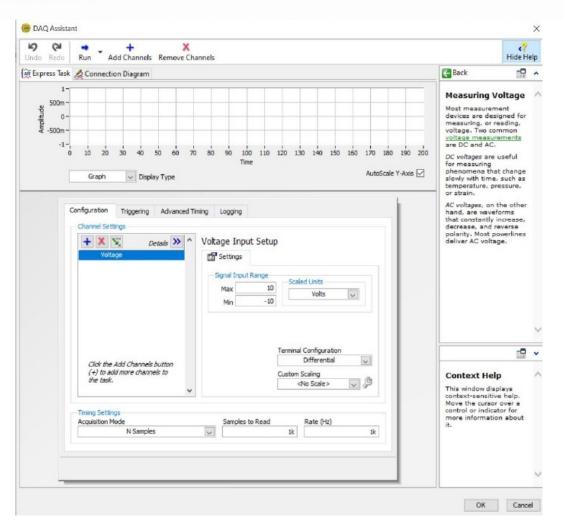












## 4. Steps:

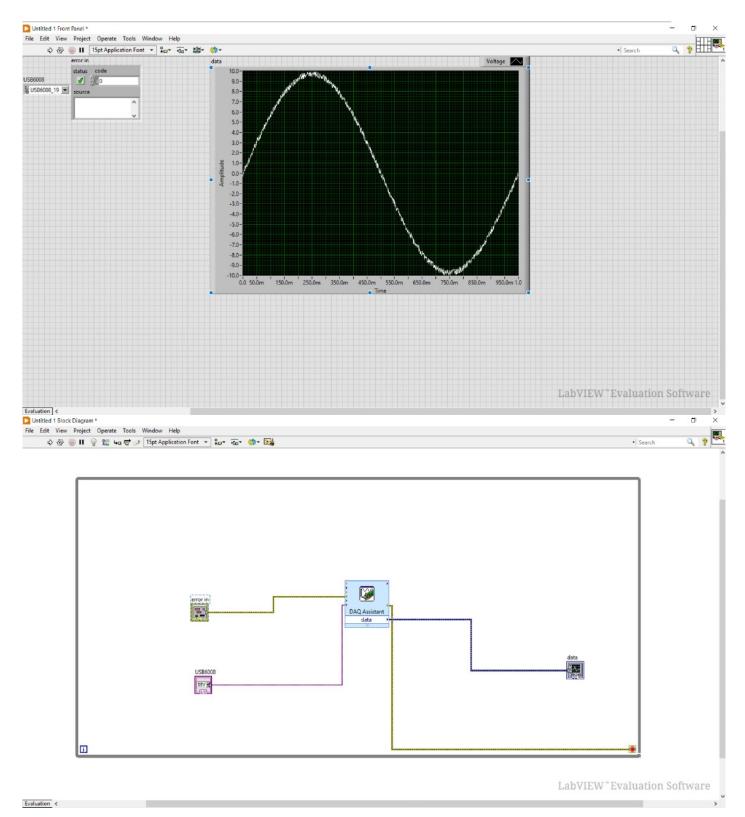
- 1. Open NI MAX.
- 2. Create virtual DAQ assistance hardware.
- 3. Open NI LABVIEW
- 4. Select DAQ assistant
- 5. Insert it inside the while loop
- 6. Run it
- 7. End







#### 5. Observations:







# **Learning Outcomes:**

- Learnt about LABVIEW.
- Learnt about NI USB 6008 multifunction
- Learnt about structures.
- Learnt about DAQ.

S. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			

