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| **Course Name:** | **Virtual Instrumentation and Automation lab** | **Semester:** | **V** |
| **Date of Performance:** |  | **Batch No:** | **B1** |
| **Faculty Name:** |  | **Roll No:** | **1912052** |
| **Faculty Sign & Date:** |  | **Grade/Marks:** |  |

**Experiment No: 10**

**Title: Tank level detection using LabVIEW**

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| **Aim and Objective of the Experiment:** |
| Tank level detection using LabVIEW |

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| **COs to be achieved:** |
| CO5: Implement data acquisition using virtual instrumentation |

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| **Circuit Diagram/ Block Diagram:** |
| C:\Users\lenovo\Pictures\Screenshots\Screenshot (51).png  Working:  The block diagram for Tank level detection is shown above. In this experiment, the water level in the tank using three different conditions is shown.  There are two valves used as inlet valve and outlet valve for the tank, Output is shown as LED for the empty , level reaches above 50 litres, the level reaches above 90 litres.  For the last condition Along with LED , an alarm sound.  Output: |

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| **Post Lab Subjective/Objective type Questions:**  Q1. What does VI stand for?   1. Visible Items 2. Visible Information 3. **Virtual Instruments**   Q2. What are two panels used in labview programming?   * **There are two types of panel viz. front panel and block diagram. Block diagram is the panel where all the programming is carried out. Front panel is the one visible as user programmable interface i.e. GUI interface.**   Q3. What does LabVIEW stand for?   1. Laboratory Viewpoint 2. Learning Based Viewpoint 3. **Laboratory Virtual Instrumentation Engineering Workbench** 4. Learning Virtual Instrumentation Engineering Workbench   Q4. If you want to display an average on the front panel of the program what kind of LabView item would you use (control, indicator, Boolean stop button, etc)?    It contains a knob for selecting the number of measurements per average, a control for selecting the measurement type, a digital indicator to display the output value, and a stop button.  Q5. What is the figure as shown below?  labview interview icon editor  **The figure shown is Icon Editor.**  **Conclusion:**   * In this experiment, we studied about Water Level Indicator of a tank with the help of LabView software. * We have used 3 Level Sensors:   One for Empty Tank  One for when the tank has more than 50L of water  And the last one is for when the tank if fully filled   * The level process is one of the widely used industrial processes, indicating a need for accurate measurement. * Accuracy in measurement can be only be achieved if the process can produce results with the highest resistance to noise. Here, the noise is the additives in liquid. |

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| **Signature of faculty in-charge with Date:** |