Experiment - 2.2

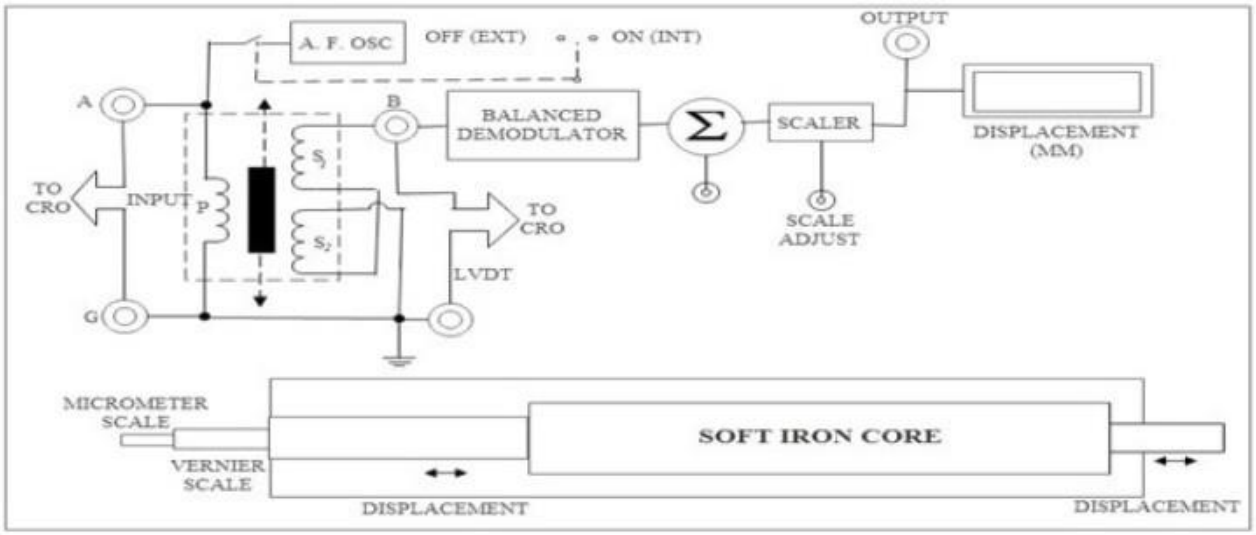
Student Name: Alasso **UID:**
Branch: **Date of Performance:**
Subject Name: BEEE **Subject-code:**

Aim: To study working of Linear Variable Differential Transformer or Linear Variable Displacement Transducer (LVDT).

Apparatus:

SR. NO.	Equipment Name	Specifications and Range	Quantity in numbers
1.	LVDT kit	0 - 230 V, ±10 mm	1
2.	CRO	0 - 230 V, 30 MHZ	1
3.	CRO Probes	------	2

Circuit Diagram:



Steps for experiment:

1. First arrange all the required components for the given experiment as permentioned in the apparatus part.
2. Then connect the components as per shown in the circuit diagram.
3. Then set the required parameters like frequency, voltage, etc on CRO or on givenwebsite (for online).
4. For the given, we must do the displacement and observe the graph and find therespective voltage at that displacement.
5. When the connections are done and parameters are set then, observe the waveformas shown on the screen and observe two or three readings on respective displacement done.
6. Thus, at the end, the readings and the graph nature are done. Therefore, exp. ends.

Calculations/Theorems /Formulas used

NIL

Observations/Discussions:

For Positive Displacement:

Sr. No.	Meter Scale Reading	Positive Displacement (mm)	Voltage Amplitude(mV)
1.	------	1	17.45
2.	------	2	34.77
3.	------	3	51.82
4.	------	4	68.48
5.	------	5	84.62

For Negative Displacement:

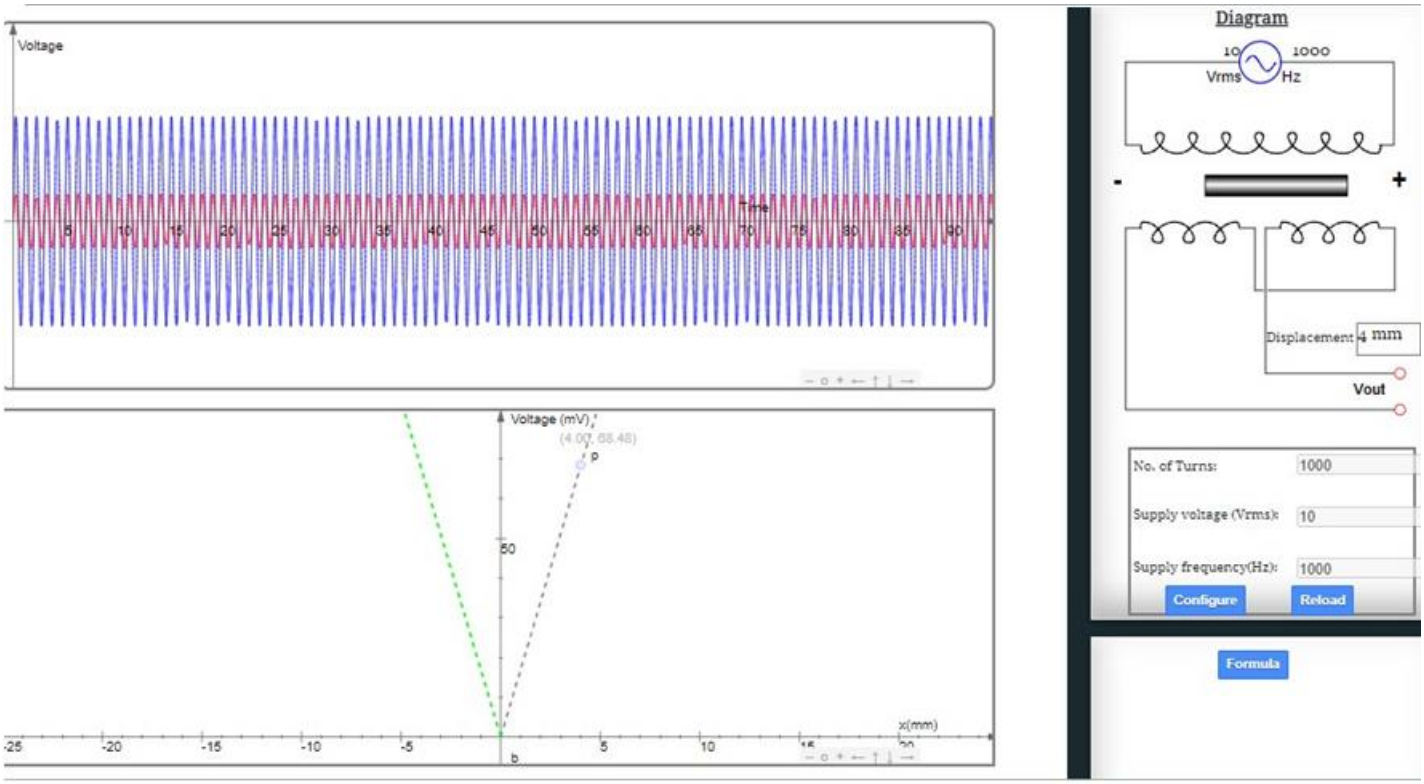
Sr. No.	Meter Scale Reading	Negative Displacement (mm)	Voltage Amplitude(mV)
1.	------	-1	17.45
2.	------	-2	34.77
3.	------	-3	51.82
4.	------	-4	68.48
5.	------	-5	84.62

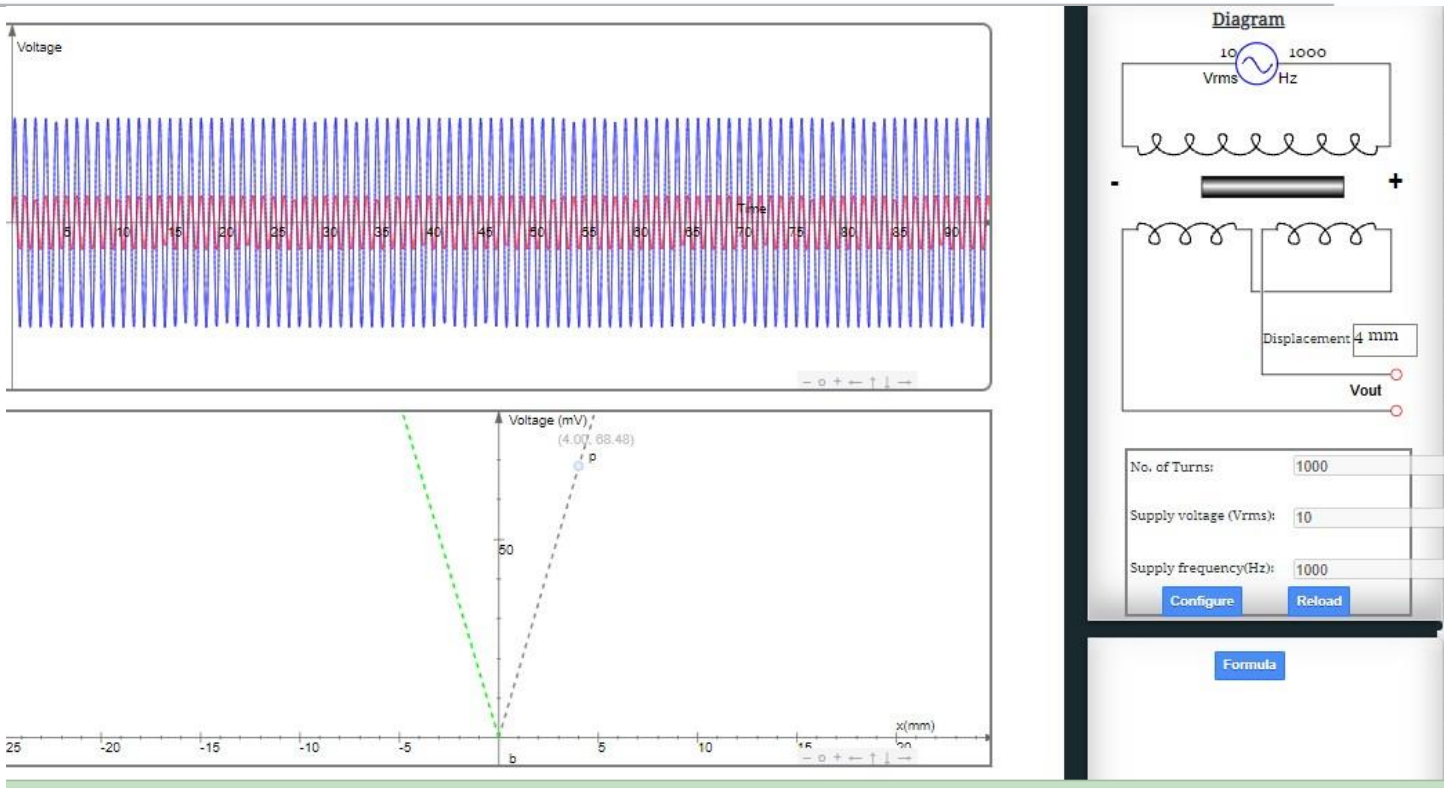
Percentage error (if any or applicable):

NIL

Result/Output/Writing Summary:

The difference in comparison of voltage amplitude values at positive and negative displacement Should be analyzed and resulting difference if any.





Learning outcomes (What I have learnt):

1. Connection of the components through circuit diagram.
2. Working of the LVDT.
3. Practically learnt the working of LVDT.

Evaluation Grid:

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Worksheet completion including writing learning objectives/Outcomes. (To be submitted at the end of the day).		10
2.	Post Lab Quiz Result.		5
3.	Student Engagement in Simulation/Demonstration/Performance and Controls/Pre-Lab Questions.		5
	Signature of Faculty (with Date):	Total Marks Obtained:	