Power Electronics Laboratory (EE3P004)

EXPERIMENT-6

To study the operation of cyclo converter with R-L Load

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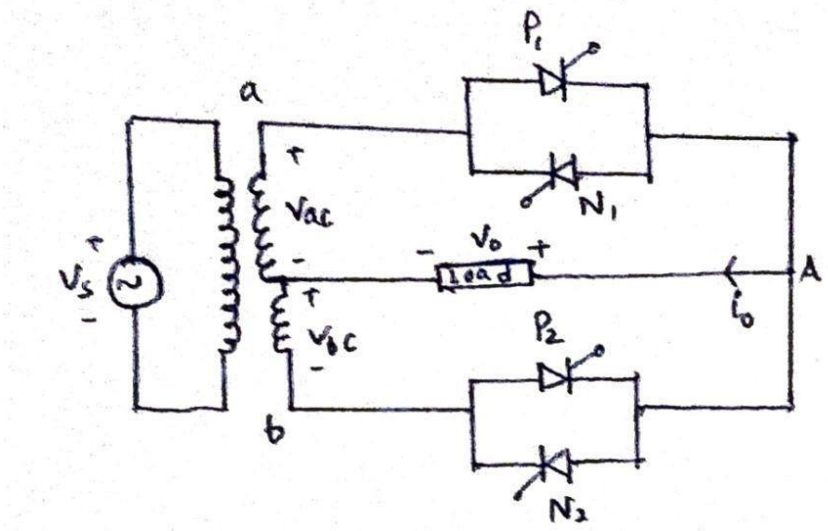
AIM OF THE EXPERIMENT:

To study the operation of cyclo converter with R-L Load

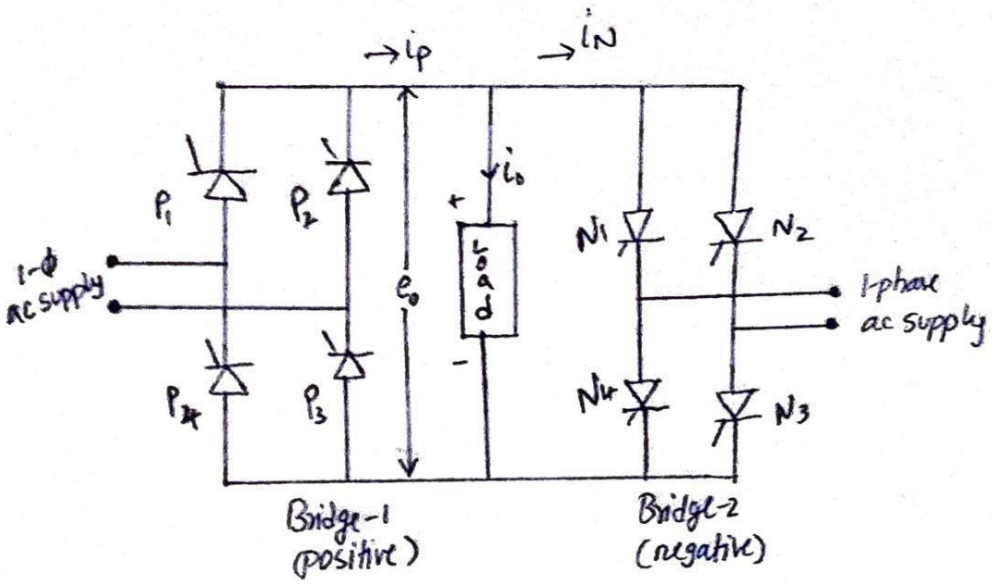
APPARATUS REQUIRED:

- Cyclo Converter module (PEC14M14CY)
- Oscilloscope
- Patch Chord

CIRCUIT DIAGRAM:



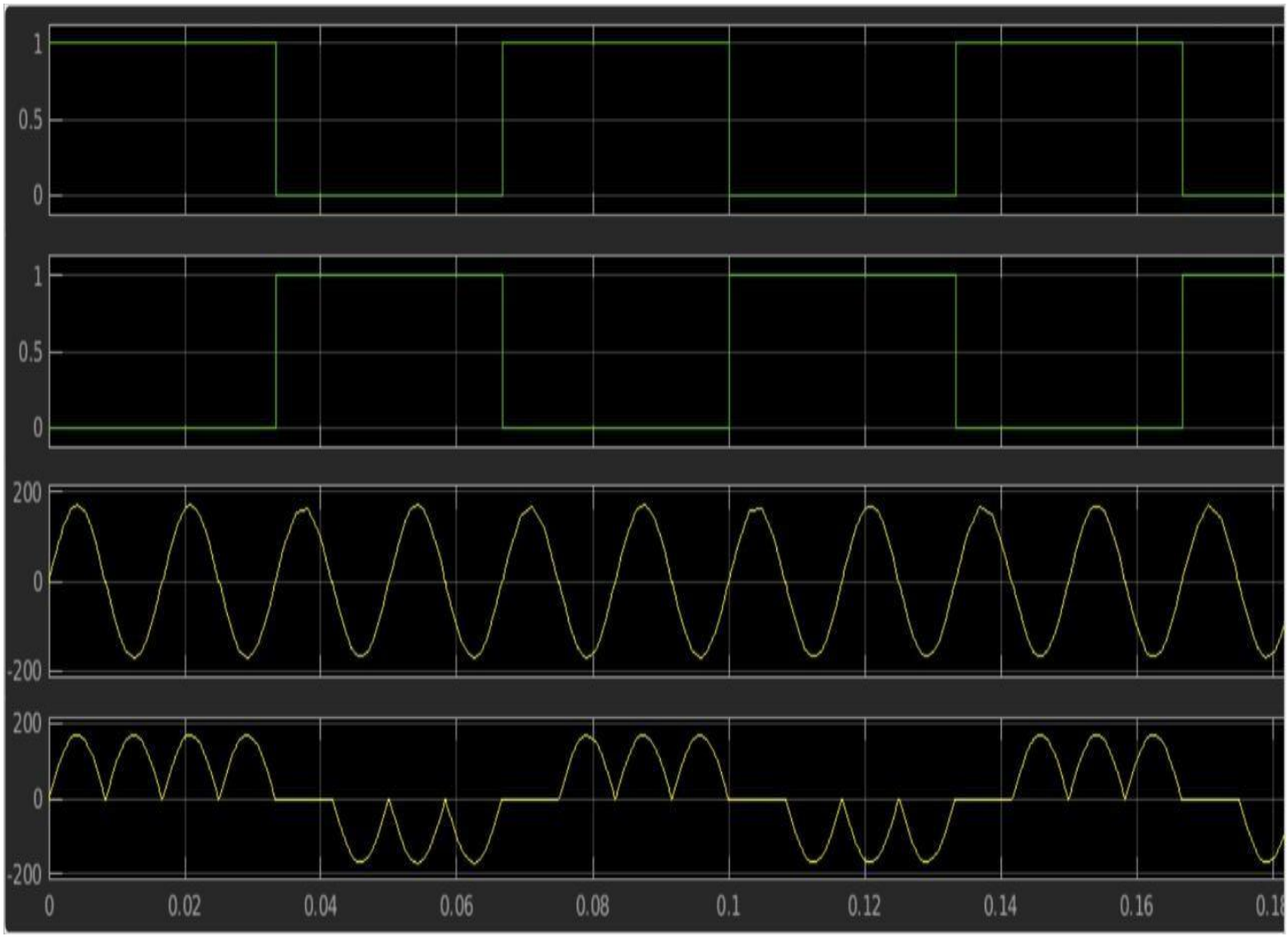
CIRCUIT SCHEMATIC:



OBSERVATION:

Frequency Division	Firing angle (α)	V_{p_p} (V)	V_{rms} (V)
1	0	69.2	22.4
	45	68.4	21.8
	90	68.8	15.4
2	0	69.2	24.4
	45	61.6	21.9
	90	56.8	16.4
3	0	69.2	25.6
	45	57.2	21.9
	90	51.6	15.5
4	0	69.6	24.5
	45	69.2	22.9
	90	52.8	16.1

Waveform:



CONCLUSION

We have noted the readings of voltage across the load at different frequency divisions and firing angles appropriately. We have also measured the voltage V_{p_p} accordingly. Hence our aim to study the operation of cyclo converter with R-L Load is accomplished successfully.