

## **Sardar Patel Institute of Technology** Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned				
		L	Т	Р	L	Т	Р	Total	
ELL41	Analog Electronics Lab-II			2			1	1	
		Examination Scheme							
		ISE			ESE			Total	
					Pract	tical	Oral		
		40		10		10	60		

Pre-requisi	te Cou	rse Codes EL41 (Analog Electronics -II)				
After successful completion of the course, student will be able to						
Course Outcomes	CO1	Observe the frequency response of single stage amplifier circuits by hardware implementation				
	CO2	Observe the frequency response of multistage amplifier circuits by hardware implementation				
	CO3	Implement and observe the working of low frequency and high frequency oscillators.				
	CO4	Analyze the given differential amplifier circuit				
	CO5	Realize the effect of negative feedback on circuit parameters.				
	CO6	Examine the given circuit for the possible faults.				

Exp. No.	Experiment Details		Marks
1	Obtain bandwidth and gain for the given single stage CS amplifier		5
2	Obtain frequency response of cascode amplifier		5
3	Design RC phase shift oscillator for 1KHz frequency.		5
4	Obtain frequency of oscillation for Colpitt's and Hartley oscillator.		5
5	Analyze effect of negative feedback on gain and bandwidth for current		5
	series negative feedback amplifier.		
6	Compare theoretical and observed differential gain, common mode gain		5
	and CMRR for the given differential amplifier circuit.		
7	Identify the circuit and possible faults in it for the desired output for	1,2	5
	given hardware		
8	Simulate Class A, Class B and Class AB power amplifier circuits using	1,2	5
	given simulation tool.		
Total Marks			

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## **References:**

- [1] Datasheets of components
- [2] Donald A. Neamen, "Electronic Circuit Analysis and Design", TATA McGraw Hill, Second

Edition.