Kavitha Memorial Educational Society's
VIJAYA ENGINEERING COLLEGE
(Approved by AICTE – New Delhi & Affiliated to JNTU – Hyderabad)
WYRA ROAD, AMMAPALEM (V), KONIJERLA (M), KHAMMAM – 507 305

ELECTRONICS & COMMUNICATION ENGINEERING

LINEAR INTEGRATED CIRCUITS LAB

I. Operational Amplifier Circuits

1. Familiarize with Operational amplifier 741 and Quad opamp LM 324 and comparator LM 339 Ics
2. To Implement and test 741 OpAmp as

a) Inverting amplifier
b) Non Inverting amplifier
c) Voltage follower (Buffer),

3. To implement and test 741 Operation amplifiers as

a) Summing Amplifier
b) Difference amplifier

II. Wave shaping Circuits

4. To Realize Clipper and Clamper circuits and observe the waveforms on CRO

a) To Realize Series and Parallel diode clippers
b) To Assemble and test Positive and negative clipper circuits with and without bias
c) To implement Amplitude limiter (two diodes connected back to back) and observe the waveform on CRO.

5. To implement Wave shaping circuits using OpAmp

a) To implement &test Differentiator and Integrator circuits .
b) To implement &test a Voltage comparator Circuit
c) To implement &test Opamp Schmitt trigger and draw charactersistics

III. Opamp Oscillators &555 Timers IC

6. To implement & test Sine wave Oscillator Circuits using OpAmp CA 3011

a) RC-phase shift oscillator
b) Wien bridge oscillator

7. To Verify different modes of 555 IC.

a) To Implement Monostable multi vibrator and observe output waveforms on CRO
b) To Implement Astable multivibrator and observe output waveforms on CRO

8. To implement Opamp active filters and evaluate the performance

a) To implement active low pass filter
b). To implement Active High pass filter

9. To Practice PSpice simulation

a) Simulate the experiments3, 4, 5,6,7,8, using Pspice

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