LINEAR CIRCUITS & IC APPLICATIONS LAB

Course Code: 22EC1114

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Course Outcomes: At the end of the course student will be able to

CO1: Demonstrate the Linear Applications and Non Linear Applications using IC 741.(L3)
CO2: Model Astable Multivibrator and Monostable Multivibrator using timer ICs.(L3)
CO3: Analyse the 4-bit D/A converter.(L4)
CO4: Demonstrate Combinational and Sequential Circuits using Logic Gates.(L3)
CO5: Illustrate Counter, Registers using Flip-Flops.(L3)

List of Experiments:

1. Design Non Linear Wave shaping circuits: Clipper and Clamper
2. Design an Integrator and Differentiator using IC 741 at a given frequency.
3. Design an Inverting and Non-Inverting Comparator with and without Reference Voltage.
4. Design an Oscillator using IC 741 which generates Square Wave and Triangular Wave at a given Frequency.
5. Design of Astable and Monostable multivibrators using 555 Timer at a given frequency.
6. Design a 4 bit D/A Converter and plot its analog output versus digital input.
7. Design a voltage Regulator using IC 723.
8. Construction of Arithmetic Circuits-Adder and Subtarctor.
9. Design and realization of 8x1 Multiplexer using 2x1 Multiplexer.
10. Realization of Boolean function using Multiplexer.
11. Design and realization of Code conversion circuits- BCD to Excess-3 and vice-versa.
12. Verify the Truth Tables of SR, JK, T, and D Flip Flops.
13. Design a 4 Bit Serial In Parallel Out Shift Register using D Flip-flop.
14. Design a 4 Bit Asynchronous Counter using JK Flip-Flops.

Note: Any **TWELVE** of the experiments are to be conducted

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