



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

IV Year –I SEMESTER		L	T	P	C
		0	0	2	1
LINEAR & DIGITAL IC APPLICATIONS LAB					

Learning Objective:

- To study the characteristics of Integrated circuits – IC 741, 555, 565.
- To develop the application circuits using IC's.
- To model the digital circuits for different applications.

List of experiments:

1. Determination of parameters like input & output offset voltages and currents, Slew rate, CMRR of op amp 741.
2. Inverting & Non Inverting Amplifiers.
3. Adders & Subtractors.
4. Integrator & Differentiator.
5. Active filter circuits: LPF & HPF (First Order)
6. IC 555 – Monostable & Astable Multivibrators Circuits
7. IC 556, 565-VCO & PLL applications.
8. Multiplexers & De-multiplexers.
9. MOD counter design using D & JK Flipflop.
10. Universal Shift Register.
11. 3-8 Decoder using 74138.
12. Schmitt Trigger circuit using IC 741.
13. ADC using IC 0809 & DAC using IC 741 circuits.

Learning Outcomes:

After the completion of the course the student should be able to:

- understand the characteristics of ICs-741, 555, 565, 566.
- apply the concepts of IC 741 for different applications.
- analyse the data connection circuits.
- develop the digital circuits.
- model the counters & Registers using IC's.