

# Bhoj Reddy Engineering College for Women: Hyderabad

Department of Electronics and Communication Engineering

Lesson plan of faculty member for the academic year 2018–19

Class: II B Tech

Branch-Section: EEE

Semester: I

Subject: Electronics Circuits (EC)

Lectures per week: 3

Lecture Number	Topics to be covered	Date (s)
<b>UNIT – I: Single Stage Amplifiers</b>		
1	Introduction to Single Stage Amplifier, Classification of Amplifiers	09 July 2018
2	Distortion in Amplifiers , Analysis of CE Amplifiers	11 July 2018
3	Analysis of CB Amplifiers	12 July 2018
4	Illustrative Problems	16 July 2018
5	Comparison of CE, CB, CC Amplifiers Low frequency Analysis	18 July 2018
6	Low frequency response of BJT Amplifiers	19 July 2018
7	Low frequency response of FET Amplifiers	23 July 2018
8	Illustrative Problems	25 July 2018
9	High Frequency response of BJT amplifiers,	26 July 2018
10	Square Wave Testing, Miller Effect Capacitance	30 July 2018
<b>UNIT-II: Feedback Amplifiers</b>		
11	Concept of feedback Amplifiers, Effect of Feedback on Amplifier characteristics	1 August 2018
12	General Characteristics of Negative Feedback Amplifier Illustrative Problems	2 August 2018
13	Voltage series Feedback Configurations, Current series Feedback Configurations	8 August 2018
14	Voltage shunt Feedback Configurations	9 August 2018
15	Illustrative Problems	13 August 2018
16	Current Shunt Feedback Configurations	16 August 2018
17	Oscillators: Conditions for Oscillations, Generalized analysis of LC Oscillators	20 August 2018
18	Frequency and Amplitude Stability of Oscillators	23 August 2018
19	Hartley Oscillators, Colpitt's Oscillators	27 August 2018
20	Quartz Oscillators, Wein Bridge Oscillators	29 August 2018
21	RC –Phase Shift Oscillators	30 August 2018
<b>UNIT-III: Large Signal Amplifiers</b>		
22	Introduction to Large Signal Amplifiers, Illustrative Problems	10 September 2018
23	Maximum Efficiency of Class –A Amplifier	12 September 2018
24	Transformer Coupled Amplifier, Push Pull Class-B Power Amplifier	17 September 2018
25	Illustrative Problems	19 September 2018
26	Complimentary Symmetry Class-B Power Amplifier	20 September 2018
27	Phase Inverters Transistor Power Dissipation, Thermal Runway, Heat Sinks	24 September 2018
<b>UNIT- IV: Wave Shaping</b>		
28	High Pass RC Circuits, Response for Sinusoidal, Step, Pulse and Ramp Inputs	26 September 2018
29	Low Pass RC Circuits, Response for Sinusoidal, Step, Pulse and Ramp Inputs	27 September 2018
30	Illustrative Problems, Diode Clippers, Clipping at Two Independent Levels	1 October 2018
31	Transistor Clippers, Transfer Characteristics of Clippers	3 October 2018
32	Comparators, Clamping Operation	4 October 2018
33	Illustrative Problems, Clamping Circuits using Diode with different inputs	8 October 2018

34	Clamping Circuit Theorem	10 October 2018
35	Practical Clamping Circuits	11 October 2018
<b>UNIT- V: Switching Characteristics of Devices</b>		
36	Diode as a Switch, Piecewise Linear Diode Characteristics	22 October 2018
37	Transistor as a Switch, Breakdown Voltage Consideration of Transistor	24 October 2018
38	Design of Transistor Switch	25 October 2018
39	Transistor Switching Times	29 October 2018
40	Multivibrators Analysis and Design of Bistable Multivibrators	31 October 2018
41	Monostable Multivibrators	1 November 2018
42	Astable Multivibrators, Schmitt Trigger using Transistors	5 November 2018
43	Discussion of Previous Question Papers	8 November 2018

**Text books:**

1. Robert L Boylestead and Louis Nashelsky, "Electronic Devices and circuit theory", Pearson, Tenth edition 2009
2. S. Salivahanan, N. Suresh Kumar and A. Vallava Raj, "Electronic Devices and circuits", TMH, 2nd Edition 2008.
3. David A. Bell, "Solid state Pulse Circuits", PHI ,4th Edition 2007.

Name and signature of the faculty: Ms Radhika Ravikrindi ----

Name and signature of Head of the Department: Ms N Shribala ----