

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

**DEPARTMENT OF APPLIED ELECTRONICS &
INSTRUMENTATION ENGG.**

**LESSON PLAN
OF
ANALOG ELECTRONICS
(4th Semester, AE&I)**

**By
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Lecturer, AE&I**

Session:2025-26(WINTER)NoofPeriod:45(3L/week)
Subject TH:1- ANALOG ELECTRONICS

Period	Week	Date	Topic to be covered
1	1	22.01.2025	DIODE CIRCUITS 1.1 Different type of Non-linear circuits - Clipper, diode series & shunt
2		23.01.2025	positive & negative biased & unbiased and combinational clipper clippers circuit & its application.
3		24.01.2025	positive & negative biased & unbiased and combinational clipper clippers circuit & its application.
4	2	29.01.2025	1.2 Different type of Clamper circuit (positive & negative clammers) & its application.
5		30.01.2025	1.2 Different type of Clamper circuit (positive & negative clammers) & its application.
6		31.01.2025	AMPLIFIER 2.1 Amplifier models: 2.1.1 Voltage amplifier
7	3	05.01.2026	2.1.2 Current amplifier 2.1.3 Trans-conductance amplifier 2.1.4 Trans-resistance amplifier
8		06.01.2026	2.2 Small signal analysis 2.3 Low frequency transistor models
9		07.01.2026	2.4 Estimation of voltage gain, input resistance, output resistance
10	4	12.01.2026	2.5 Design procedure for particular specifications 2.6 Low frequency analysis of multistage amplifier
11		13.01.2026	2.7 High frequency transistor models
12		19.1.2026	2.8 Frequency response of single stage and multistage amplifiers, cascade amplifier.
13	5	20.01.2026	Revision of Unit-I & Unit-II
14		24.01.2026	TUNED AMPLIFIER 3.1 Defined and classify tuned amplifier
15		27.01.2026	3.2 Explain parallel Resonant circuit
16	6	28.01.2026	3.3 Resonance Curve & sharpness of Resonance
17		02.02.2026	3.3 Resonance Curve & sharpness of Resonance
18		03.02.2026	3.4 Working principle of Single tuned Voltage & Double tuned Amplifier & its limitation
19	7	04.02.2026	3.4 Working principle of Single tuned Voltage & Double tuned Amplifier & its limitation
20	8	09.02.2026	DOUBT CLEAR CLASS
21		10.02.2026	OPERATIONAL AMPLIFIER 4.1 Differential amplifier & explain its configuration with significance
22		11.02.2026	4.2 Op-Amp 4.2.1 Block diagram of Op-Amp 4.2.2 Symbol of Op-Amp
23	9	16.02.2026	4.2.3 Characteristics Op-Amp 4.2.4 Open loop and closed loop amplifier
24		17.02.2026	4.2.5 Virtual ground concept 4.2.6 IC-741 and its pin configuration
25		18.02.2026	4.3 Op-Amp parameters 4.3.1 Input offset voltage 4.3.2 Output offset voltage 4.3.3 Input offset current
26	10	23.02.2026	4.3.4 Input bias current 4.3.5 Common Mode Rejection Ratio 4.3.6 Slew rate
27		24.02.2026	4.3.7 Input and output Impedance 4.3.8 Bandwidth and gain

28		25.02.2026	bandwidth product 4.3.9 Drift parameters
29		02.03.2026	Revision of Unit-III & Unit-IV
30	11	02.03.2026	APPLICATION OF OPERATIONAL AMPLIFIER 5.1 Basic mathematical applications such as adder and subtractor
31		09.03.2026	5.2 Discuss the summing scaling using inverting and non-inverting amplifiers 5.3 DC & AC Amplifies using OP-AMP.
32	12	10.03.2026	5.4 Integrator and differentiator using op-amp. 5.5 Sample and Hold circuit
33		11.03.2026	5.6 I-V converter and V-I converter 5.7 Concept of Zero-Crossing Detector using Op-Amp (Inverting and Non Inverting type)
34		16.03.2026	5.6 I-V converter and V-I converter 5.7 Concept of Zero-Crossing Detector using Op-Amp (Inverting and Non Inverting type)
35	13	17.03.2026	5.8 Comparator 5.9 Schmitt Trigger 5.10 Peak Detector 5.11 Active filter using OP-AMP
36		18.03.2026	5.12 Voltage to Frequency Convertor using Operational Amplifier. 5.13 Frequency to Voltage Conversion using Operational Amplifier
37	14	23.03.2026	Integrated Circuit Timer 6.1 Internal block diagram and pin connection of a 555-timer chip Function of Output, Reset, Discharge, Control voltage, Trigger and Threshold terminals of a 555 timer
38		24.03.2026	6.2 555 timer used as, Astable Multi-vibrator, Monostable Multivibrator, Pulse width modulator and Pulse position modulator
39	15	25.03.2026	6.2 555 timer used as, Astable Multi-vibrator, Monostable Multivibrator, Pulse width modulator and Pulse position modulator
40		30.03.2026	Power Supply and Regulated Power Supply 7.1 Design a full wave bridge rectifier circuit by choosing the proper size of transformer, diode and capacitors
41		31.03.2026	7.2 Measure the percent regulation and percent ripple of dc power supply
42	16	06.04.2026	7.4 Design a fixed dual voltage power supply using 7800 and 7900n series of IC three terminal regulators
43		07.04.2026	7.4 Design a fixed dual voltage power supply using 7800 and 7900n series of IC three terminal regulators
44	17	08.04.2026	7.5 Design an adjustable dual voltage regulated power supply using LM317 and LM337 chips
45		13.04.2026	Revision of Unit-VI & Unit-VII
46	18	15.04.2026	QUESTIONS PRACTICE (PYQ'S)


Signature Of Faculty


Signature of HOD