


Lesson Plan

	Discipline: ETC	Semester-4th Summer-2026	Name of the Teaching Faculty: Sri Rabindra kumar satapathy(Guest Faculty ETC Engg.)
Sl. No.	Subject-Th.1. (Analog Circuits) (ETCPC202)	No. Of Days/Week class allotted:03	Semester From date:-22.12.2025 To date: 18.04.2026 (No of weeks: 15)
	Weeks/Months	Class Day	Topic
1	4Th week 22nd dec To 31th dec	1st	DIODE CIRCUITS 1.1 Half Wave & Full Wave Rectifiers with Concept of Filter Circuit
		2nd	1.2 Different type of Non-linear circuits - Clipper
		3rd	1.2 diode series & shunt, positive & negative biased & unbiased and combinational, clipper clippers circuit & its application.
2	1st week 1st jan To 09th jan	1st	1.3 Different type of Clamper circuit
		2nd	1.3 (positive & negative clampers) & its application
		3rd	AMPLIFIER 2.1 Amplifier models: 2.1.1 Voltage amplifier, 2.1.2 Current amplifier
3	2nd week 12th jan To 17th jan	1st	2.1.3 Trans-conductance amplifier 2.1.4 Trans-resistance amplifier
		2nd	2.2 Small signal analysis 2.3 Low frequency transistor models, 2.4 Estimation of voltage gain,
		3rd	2.5 Design procedure for particular specifications 2.6 Low frequency analysis of multistage amplifiers
4	3rd week 19th jan To 22th jan	1st	2.7 High frequency transistor models
		2nd	2.8 Frequency response of single stage and multistage amplifiers, cascade amplifier.
		3rd	TUNED AMPLIFIER 3.1 Defined and classify Tuned amplifier 3.2 Explain parallel Resonant circuit
5	4th week 27th jan To 31th jan	1st	3.3 Resonance Curve & sharpness of Resonance.
		2nd	Amplifier & its OPERATIONAL AMPLIFIER 4.1 Differential amplifier & explain its configuration with significance
		3rd	4.2 Op-Amp 4.2.1 Block diagram of Op-Amp, 4.2.2 Symbol of Op-Amp, 4.2.3
6	1st week 2nd feb To 07th feb	1st	4.2.4 Open loop and closed loop amplifier 4.2.5 Virtual ground concept
		2nd	4.2.6 IC-741 and its pin configuration, 4.3 Op-Amp parameters
		3rd	4.3.1 Input offset voltage, 4.3.2 Output offset voltage, 4.3.3 Input offset current, 4.3.4 Input bias current
7	2nd week 9th feb To 13th feb	1st	4.3.5 Common Mode Rejection Ratio 4.3.6 Slew rate
		2nd	4.3.8 Bandwidth and gain bandwidth product 4.3.9 Drift parameters
		3rd	4.4 Discuss the types of integrated circuits, manufacturer's designations of ICs, 4.4 Package types, pin identification and temperature and ordering information
8	3rd week 16th feb To 21th feb	1st	4.5 Draw and explain the Open Loop configuration (inverting, non-inverting Amplifier)
		2nd	4.6 Draw and explain the Closed loop configurations: inverting and noninverting.
		3rd	APPLICATION OF OPERATIONAL AMPLIFIER, 5.1 Basic mathematical applications such as adder and subtractor
9	4th week 23th feb To 27th feb	1st	5.2 Discuss the summing scaling using inverting and non-inverting amplifiers
		2nd	5.3 DC & AC Amplifies using OP-AMP. 5.4 Integrator and differentiator using op-amp
		3rd	5.5 Sample and Hold circuit 5.6 I-V converter and V-I converter, 5.7 Concept of Zero-Crossing Detector using Op-Amp (Inverting and Non Inverting type) 5.8 Compa

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10	1st week 2nd march To 07th march	1st	5.8 Comparator 5.9 Schmitt Trigger 5.10 Peak Detector 5.11 Active filter using OP-AMP
		2nd	5.12 Voltage to Frequency Convertor using Operational Amplifier
		3rd	5.13 Frequency to Voltage Conversion using Operational Amplifier
11	2nd week 9th march To 13th march	1st	6.1 Internal block diagram and pin connection of a 555 timer chip 6.2 Function of Output, Reset, Discharge, Control voltage
		2nd	6.2 Trigger and Threshold terminals of a 555 timer.
		3rd	6.3 555 timer used as, Astable Multi-vibrator, 6.3 Monostable Multi-vibrator, Pulse width modulator and Pulse position modulator
12	3rd week 16th march To 20th march	1st	Power Supply and Regulated Power Supply
		2nd	7.1 Design a full wave bridge rectifier circuit by choosing the proper size of transformer, diode and capacitors
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13	4th week 23th march To 31st march	1st	7.2 Measure the percent regulation and percent ripple of dc power supply
		2nd	7.3 Design a bipolar unregulated power supply
		3rd	7.1 Design a full wave bridge rectifier circuit by choosing the proper size of transformer, diode and capacitors
14	1st week 2nd april To 10th april	1st	7.2 Measure the percent regulation and percent ripple of dc power supply
		2nd	7.2 Measure the percent regulation and percent ripple of dc power supply
		3rd	7.4 Design a fixed dual voltage power supply using 7800
15	2nd week 13th april To 18th april	1st	7.4 Design a fixed dual voltage power supply using 7900n series of IC three terminal regulator.
		2nd	7.4 Design a fixed dual voltage power supply using 7900n series of IC three terminal regulator.
		3rd	7.5 Design an adjustable dual voltage regulated power supply using LM317 and LM337 chips


 Signature of the Teacher


 22/12/2025