

Lesson Plan

Subject Analog Electronics & OP-Amp (Code) Th.2 Name of faculty KONARK PATRA

Semester 4th Class allotted 4 period/week Branch: ELECTRICAL ENGINEERING

Discipline	Semester	From date: <u>14/02/2023</u> To date: <u>23/05/2023</u>	Teaching Aids
Subject:	No. of days/ per week	Theory Practical - Topics/Lesson	
Week	Date/Period		
1	14/02/2023 to 17/02/2023	P-N Junction diode, working of diode V-I characteristics of P-N Junction diode. DC load line, Zener breakdown, Avalanche breakdown, clipping ckt. clipping ckt. of P-N diode.	Whiteboard Marker
	20/02/2023 to 25/02/2023	Thermistor, sensor and varistors Zener diode, tunnel diode, PIN diode Classification of rectifier, Analysis of half wave, full wave rectifier DC - output current and voltage, RMS output voltage current and volty	Whiteboard Marker
3	27/02/2023 to 04/03/2023	Rectifier efficiency Ripple factor. Regulation. Transformer Utilization factor, PIV filter chd.	Whiteboard Marker
	06/03/2023 to 11/03/2023	Shunt capacitor filter, Choke input filter, π filter. Principle of BJT, Different mode of Transistor.	Whiteboard Marker
5	13/03/2023 to 18/03/2023	Transistor as an amplifier. CB configuration, CE configuration, CC configuration. Transistor biasing, Stabilization, Stability factor, Transistor different biasing, Base resistor method collector base bias, Self bias.	Whiteboard Marker
	20/03/2023 to 25/03/2023	Practical construct of transistor amplifier, DC load line and DC equivalent ckt., AC Load line and ac eq. ckt.	Whiteboard Marker
7	27/03/2023 to 31/03/2023	Calculation of gain. Phase reversal, H Parameter of Transistor Simplified H Parameter of transistor Generalize approx. model. CB, CE, CC amplifier approx. model.	Whiteboard Marker

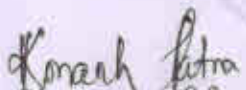
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Week	Date Period	Theory Practical - Topics/Lesson	Teaching Aid
8	03/04/2023 to	Multi stage transistor amplifier, RC coupled amplifier	White board &
	08/04/2023	Transformer coupled amplifier, Feedback in amplifier, General theory of feedback,	Marker
9	10/04/2023 to	Negative feedback circuit Advantages of -ve feedback circuit.	White board &
	15/04/2023	Potter amplifier and its classification, Difference bet ⁿ voltage amplifier and potter amplifier.	Marker
10	17/04/2023 to	Class - A push-pull amplifier, Class B push-pull amplifier, Oscillator.	Whiteboard &
	21/04/2023	Types of oscillators Essentials of transistor oscillator	Marker
11	24/04/2023 to	Tuned collector, Hartley, Colpitts Phase shift oscillator.	Whiteboard &
	29/04/2023	Classification of FET. Advantages of FET over BJT Principle of operation of BJT	Marker
12	01/05/2023 to	FET Parameters DC drain resistance	Whiteboard &
	06/05/2023	AC drain resistance Trans-conductance, Biasing of FET.	Marker
13	08/05/2023 to	General circuit symbol of OP-Amp IC - CA-741 OP-Amp.	Whiteboard &
	13/05/2023	Operational amplifier stages Equivalent circuit of operational amplifier.	Marker
14	15/05/2023 to	Open-loop OP-amp configuration, OPAMP with feedback,	White board &
	20/05/2023	Inverting OP-Amp Non-Inverting OP-Amp. Voltage follower and buffer.	Marker
15	22/05/2023 to	Adder and summing amplifier Subtractor	Whiteboard &
	23/05/2023	Integrator Differentiator Comparator	Marker


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