Lesson Plan

Name of Faculty : **Dr. Suman Rani, Guest Faculty of ECE**
Discipline : **Computer Science Engg.**
Semester : **3rd (odd)**
Subject : **Analog Electronics Circuits (ESC/5-T)**

Week	Lecture Day	Theory — Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1st	1	**Semi-Conductors and Diodes:** Introduction, Insulators, semiconductors and metals			
	2	Mobility and conductivity,			
	3	Intrinsic and extrinsic semiconductors, Charge density			
2nd	4	PN junction diode- Characteristics and analysis			
	5	Rectifiers: Half wave rectifier,			
	6	Full wave rectifier, bridge rectifier and their analysis,			
3rd	7	Types of diodes- Zener Diode,			
	8	LED, varactor diode.			
	9	Revision of Unit 1			
4th	10	**Transistors:** Construction and characteristics of BJT, Transistor configuration: CB, CE, CC configuration,			
	11	Transistor biasing and bias stabilization: Operating point, Stability factor,			
	12	Analysis of fixed bias			
5th	13	collector to base bias, Emitter resistance bias circuit			
	14	self-bias circuit.			
	15	Numerical on Biasing			
6th	16	**Oscillators:** Introduction, Types of Oscillators, Barkhausen criterion			
	17	Hartley oscillator,			
	18	RC-phase shift oscillator, Wein bridge oscillator.			
7th	19	Regulated Power Supplies: Series and shunt voltage regulators,			
	20	three terminal fixed IC voltage regulator (78xx/79xx)			
	21	adjustable voltage regulator (LM 317), SMPS.			
8th	22	Colpitt oscillator,			
	23	Numerical on Oscilators			
	24	**Op-Amp:** Block diagram			
9th	25	Op-Amp equivalent circuit and its analysis			
	26	Non-Inverting			
	27	Inverting op-amp			
10th	28	OP-AMP characteristics,			
	29	integrator			
	30	Op-amp as differentiator			
11th	31	Op-amp as summing amplifier.			
	32	Numerical on OP -Amp			
	33	Op-Amp Detailed aplications			
12th	34	Revision on unit -4			
	35	MCQ based on unit 1 & 2			
	36	MCQ based on unit 3 & 4			
13th	37	Revision of unit 2			
	38	Revision of unit 3			
	39	Revision of unit 4			