2304202-ELECTRONIC DEVICES & CIRCUITS LAB												
Programme &Branch		B. Tech - ECE	Sem Category		L	L T		Credits				
Prerequisites		BEEE	3	Professional Core	0	0	3	1.5				
Preamble		The objective of this course is to study various electronic components and design of various electronic circuits like power supply, audio and power amplifiers. This course is considered as foundation course for electronics engineers. The subjects to be studied in higher semesters require thorough knowledge on electronic devices and circuits.										
List of Experiments: Any 10 Experiments to be completed												
1	LED characteristics											
2	Transisto	Transistor as a Switch										
3	FET Characteristics Part A: Drain Characteristics Part B: Transfer Characteristics											
4	Common Collector Amplifier											
5	Common	ommon Source FET Amplifier										
6	Determination of f_T of a given transistor											
7	Voltage Shunt Feedback Amplifier											
8	Current Series Feedback Amplifier											
9	RC Phase Shift Oscillator											
10	Colpitts Oscillator											
11	UJT Characteristics											
12	Heartly Oscillator											
13	Wein Bridge Oscillator											
							Т	otal: 30hrs				
Refe	rences/Mar	nuals/Software:										
1	Text Book:											
2 3	Virtual Labs link: http://wlabs.iitkgp.ac.in/be/#											
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COURSE OUTCOMES:

BT Mapped

On comp	pletion of the course, the student will be able to	(Highest Level)		
CO 1	Understand the characteristics of LED, BJT, FET and UJT and	12		
	obtain their parameters.			
CO 2	Plot the switching action of a BJT.	L3		
CO 2	Observe the frequency responses of various amplifiers like CC and			
003	CS amplifiers by implementing them using both hardware and	L2		
	software.			
CO 4	Analyse the mechanism of Feedback amplifiers.	L4		
CO 5	Design and implement both LC and RC oscillators.	L6		

Mapping of COs with POs and PSOs:

COs/	PO	PO	PO	PSO	PSO									
POs	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-1	-2
CO 1	2	2	-	-	2	-	-	-	3	-	-	-	2	1
CO 2	1	2	2	-	3	-	-	-	3	-	-	-	2	2
CO 3	2	2	2	-	3	-	-	-	3	-	-	-	3	3
CO 4	2	2	2	1	3	-	-	-	3	-	-	-	3	3
CO 5	3	3	2	2	3	-	-	-	3	-	-	-	3	3
1 – Slight, 2 – Moderate, 3 – Substantial														