



NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY  
SERGARH-756060, BALASORE (ODISHA)  
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



## LESSON PLAN

**SUBJECT: Th-4(B)(BASIC ELECTRONICS)**

**Name Of The Faculty :-** Er. NIRANJAN SAHU

**Branch :-**EE/EEE

**Session :-** 2023-24

**Semester :-** 2ND

**Examination :-** 2024 (S)

### CHAPTER WISE DISTRIBUTION OF PERIODS

Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	Electronic Device	8	8
2	Electronic Circuit	9	9
3	Communication system	3	3
4	Transducers & Measuring instruments	10	10
Total Period:		30	30

Discipline: EE/EEE	Semester: 2ND	Name of the Teaching Faculty: Er. NIRANJAN SAHU	
		SESSION : 2023-24	EXAMINATION : 2023 (W)
Week	Class Day	Topics to be Covered	
1 <sup>st</sup>	1 <sup>st</sup>	1. ELECTRONIC DEVICES 1.1 Basic Concept of Electronics and its application.	
	2 <sup>nd</sup>	1.2 Basic Concept of Electron Emission & its types.	
2 <sup>nd</sup>	1 <sup>st</sup>	1.3 Classification of material according to electrical conductivity (Conductor, Semiconductor & Insulator) with respect to energy band diagram only.	
	2 <sup>nd</sup>	1.4 Difference between Intrinsic & Extrinsic Semiconductor.	
3 <sup>rd</sup>	1 <sup>st</sup>	1.5 Difference between vacuum tube & semiconductor.	
	2 <sup>nd</sup>	1.6 Principle of working and use of PN junction diode,	
4 <sup>th</sup>	1 <sup>st</sup>	1.6 Principle of working and use of Zener diode and Light Emitting Diode (LED)	
	2 <sup>nd</sup>	1.7 Integrated circuits (I.C) & its advantages.	
5 <sup>th</sup>	1 <sup>st</sup>	2. ELECTRONIC CIRCUITS 2.1 Rectifier & its uses	
	2 <sup>nd</sup>	2.2 Principles of working of different types of Rectifiers with their merits and demerits	
6 <sup>th</sup>	1 <sup>st</sup>	2.3 Functions of filters and classification of simple Filter circuit (Capacitor, choke input and $\pi$ )	
	2 <sup>nd</sup>	2.4 Working of D.C power supply system (unregulated) with help of block diagrams only	
7 <sup>th</sup>	1 <sup>st</sup>	2.5 Transistor, Different types of Transistor Configuration and state output and input	
	2 <sup>nd</sup>	2.6 Need of biasing and explain different types of biasing with circuit diagram.( only CE configuration)	
8 <sup>th</sup>	1 <sup>st</sup>	2.7 Amplifiers(concept) , working principles of single phase CE amplifier	
	2 <sup>nd</sup>	2.8 Electronic Oscillator and its classification	
9 <sup>th</sup>	1 <sup>st</sup>	2.9 Working of Basic Oscillator with different elements through simple Block Diagram	
	2 <sup>nd</sup>	3. COMMUNICATION SYSTEM 3.1 Basic communication system (concept & explanation with help of Block diagram)	
10 <sup>th</sup>	1 <sup>st</sup>	3.2 Concept of Modulation and Demodulation, Difference between them	
	2 <sup>nd</sup>	3.3 Different types of Modulation (AM, FM & PM) based on signal, carrier wave and modulated wave (only concept, No mathematical Derivation)	

<b>11<sup>th</sup></b>	<b>1<sup>st</sup></b>	TRANSDUCERS AND MEASURING INSTRUMENTS 4.1 Concept of Transducer and sensor with their differences
	<b>2<sup>nd</sup></b>	4.2 Different type of Transducers .
<b>12<sup>th</sup></b>	<b>1<sup>st</sup></b>	4.2 concept of active and passive transducer.
	<b>2<sup>nd</sup></b>	4.3 Working principle of photo emissive and its application
<b>13<sup>th</sup></b>	<b>1<sup>st</sup></b>	4.3 Working principle of photoconductive and its application
	<b>2<sup>nd</sup></b>	4.3 Working principle of photovoltaic transducer and its application
<b>14<sup>th</sup></b>	<b>1<sup>st</sup></b>	4.4 Multimeter and its applications
	<b>2<sup>nd</sup></b>	4.5 Analog and Digital Multimeter and their differences
<b>15<sup>th</sup></b>	<b>1<sup>st</sup></b>	4.6 Working principle of Multimeter with Basic Block diagram
	<b>2<sup>nd</sup></b>	4.6 Working principle of Multimeter with Basic Block diagram
<b>16<sup>th</sup></b>	<b>1<sup>st</sup></b>	4.6 Working principle of Multimeter with Basic Block diagram
	<b>2<sup>nd</sup></b>	4.7 CRO, working principle of CRO with simple Block diagram
<b>17<sup>th</sup></b>	<b>1<sup>st</sup></b>	REVISION
	<b>2<sup>nd</sup></b>	REVISION

