GOVERNMENT POLYTECHNIC, BALASORE

Government of Odisha

ସରକାରୀ ବହୁବୃତ୍ତି ଅନୁଷ୍ଠାନ, ବାଲେଶ୍ୱର

LESSON PLAN (WINTER-2025)		
Discipline: COMPUTER ENGINEERING & IOT (GROUP-A4)	**Semester: 1ST**	**Name of the Teaching Faculty: PRAKASH CHANDRA DAS**
Subject: Fundamentals of Electrical & Electronics Engineering Lab(Course Code- PR 4(a)	**No of Days /per week class allotted: 2**	**Semester From date:** 6TH August, 2025 **No of Weeks:** 15

Week	Class Day	Practical Topics
1st	1st	1. Introduction, Identify different types of tools and essential equipments in Electronics Laboratory. 2. Introduction to the students about maintenance of practical records. 3. Complete demonstration of Digital and Analog Multimeters and how they are used to measure various quantities like Voltage, Current etc.
	2nd	
2nd	1st	1. Introduction about Passive and Active electronics components. 2. Identification of various passive and Active Electronics Components
	2nd	
3rd	1st	1. Introduction of Resistors, its unit & different types. 2. Resistance Colour Coding method and related theory. 3. Theory about Resistors connected in series and parallel. 4. Connect resistors in Series and Parallel combination and measure its value using Digital Multimeter.
	2nd	
4th	1st	1. Introduction of Capacitor and different types. 2. Connect Capacitors in Series and Parallel Combination and measure its value using multimeter.
	2nd	
5th	1st	Use and determine Multimeter the tovalue measure to confirm the value with of given Colour Resistor Cod
	2nd	
6th	1st	1. Identification of PN junction Diode & Light emitting diode (LED) 2. Test the PN junction Diode and LED using Digital Multimeter
	2nd	
7th	1st	1. Test the performance of PN Junction Diode. 2. VI Characteristic of a PN junction Diode 3. Forward Biasing & reverse biasing
	2nd	

8th	1st	1. Zener Diode and its characteristics. 2. Test the performance of Zener Diode (Regulating effect).
	2nd	
9th	1st	1. Transistor brief theory. 2. Identify three terminals of a Transistor using Digital Multimeter. 3. Test the performance of NPN Transistor.
	2nd	
10th	1st	Determine plotting its the B-Hpermeability curve.
	2nd	
11th	1st	Measure with resistive Voltage, Load. Current and Power in 1 Phase circuit
	2nd	
12th	1st	Measure Circuit. Voltage, Current and Power in R-L series
	2nd	
13th	1st	Determine the transformation ratio (K) of 1-Phase transformer.
	2nd	
14th	1st	Connect Single phase Transformer and measure input and output quantities.
	2nd	
15th	1st	Make Induction StarMeter and Delta connection in starter to run
	2nd	Make Induction StarMeter and Delta connection in starter to run

Faculty 9/9/2025

09/09/25
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