Lesson Plan 2024(S)

Subject :-EMI(Code) TH-3Name of faculty:- BIKRAM KESHARI PARIDA

Semester :-4thClass allotted4p/w Branch :- Electrical engg

Discipline	Semester:-4th	From date:-16/01/24 To date:26/04/24	Teaching Aid
Subject:	No. of days/ per week p/w: 4	Theory/ Practical –Topics/Lesson	
Week	Date/Period		

1	16/01/24 – 20/01/24	MEASURING INSTRUMENTS 1.1 Define Accuracy, precision, Errors, Resolutions Sensitivity and tolerance. 1.2 Classification of measuring instruments.	White board & marker
2	22/01/24 to 27/01/24	1.3 Explain Deflecting, controlling and damping arrangements in indicating type of instruments. 1.4 Calibration of instruments.	White board & marker
3	29/01/24 To 03/02/24	ANALOG AMMETERS AND VOLTMETERS 2.1. Describe Construction, principle of operation, errors, ranges merits and demerits of: 2.1.1 Moving iron type instruments. 2.1.2 Permanent Magnet Moving coil type instruments. 2.1.3 Dynamometer type instruments	White board & marker
4	5/2/24 To 10/2/24	2.1.4 Rectifier type instruments 2.1.5 Induction type instruments 2.2 Extend the range of instruments by use of shunts and Multipliers. 2.3 Solve Numerical	White board & marker
5	12/2/24 To 17/02/24	WATTMETERS AND MEASUREMENT OF POWER 3.1 Describe Construction, principle of working of Dynamometer type wattmeter. (LPF and UPF type) 3.2 The Errors in Dynamometer type wattmeter and methods of their correction. 3.3 Discuss Induction type watt meters.	White board & marker
6	19/02/24 To 24/2/24	ENERGYMETERS AND MEASUREMENT OF ENERGY 4.1 Introduction 4.2 Single Phase Induction type Energy meters – construction, working principle and their compensation & adjustments. 4.3 Testing of Energy Meters.	White board & marker
7	26/2/24 To 2/3/24	MEASUREMENT OF SPEED, FREQUENCY AND POWER FACTOR 5.1 Tachometers, types and working principles 5.2 Principle of operation and construction of Mechanical and Electrical resonance Type frequency meters	White board & marker
8	4/3/24 To 9/3/24	5.3 Principle of operation and working of Dynamometer type single phase and three phase power factor meters.	White board & marker
9	11/3/24 To 16/3/24	MEASUREMENT OF RESISTANCE, INDUCTANCE& CAPACITANCE 6.1 Classification of resistance 6.1..1. Measurement of low resistance by potentiometer method. . 6.1..2. Measurement of medium resistance by wheat Stone bridge method. 6.1..3. Measurement of high resistance by loss of charge method.	White board & marker

10	18/3/24 To 23/3/24	6.2 Construction, principle of operations of Megger & Earth tester for insulation resistance and earth resistance measurement respectively. 6.3 Construction and principles of Multimeter. (Analog and Digital) 6.4 Measurement of inductance by Maxewell's Bridge method. 6.5 Measurement of capacitance by Schering Bridge method	White board & marker
11	277/3/24 To 30/3/24	SENSORS AND TRANSDUCER 7.1. Define Transducer, sensing element or detector element and transduction elements. 7.2. Classify transducer. Give examples of various class of transducer. 7.3. Resistive transducer 7.3.1 Linear and angular motion potentiometer	White board & marker
12	2/4/24 To 6/4/24	7.3.2 Thermistor and Resistance thermometers. 7.3.3 Wire Resistance Strain Gauges 7.4. Inductive Transducer 7.4.1 Principle of linear variable differential Transformer (LVDT) 4 TH SEMESTER ELECTRICAL 12 7.4.2 Uses of LVDT	White board & marker & smart board
13	8/4/24 To 13/4/24	7.5. Capacitive Transducer. 7.5.1 General principle of capacitive transducer. 7.5.2 Variable area capacitive transducer. 7.5.3 Change in distance between plate capacitive transducer. 7.6. Piezo electric Transducer and Hall Effect Transducer with their applications.	White board & marker
14	15/4/24 To 20/4/24	OSCILLOSCOPE 8.1. Principle of operation of Cathode Ray Tube. 8.2. Principle of operation of Oscilloscope (with help of block diagram). 8.3. Measurement of DC Voltage & current. 8.4. Measurement of AC Voltage, current, phase & frequency.	White board & marker
15	22/4/24 To 26/4/24	REVISION	White board & marker & smart board

Bikram Keshori Parida

Signature of HOD

Signature of faculty