

# BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

**SIVARAM VIHAR, GHATAKESWAR HILLS  
MOHADA, BERHAMPUR (GM.)**



## REGISTER FOR PROGRESS COURSE

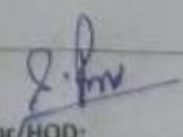
Time		9:45 to 10:45	10:45 to 11:35	11:35 to 12:25	12:25 to 1:15
Day					
Mon		✓			
Tue			✓		
Wed				✓	
Thu					
Fri				✓	
Sat					

Year/ Session : 2023 (winter)	2022-2023 (winter), 2 <sup>nd</sup> year
Semester & Branch	3 <sup>rd</sup> sem & Electrical
Subject with Code	TH-2. CNT
Name of the Faculty Member	ER. Sathibasa Panda
No of Weeks:	4

## B.I.E.T., COURSE PLAN

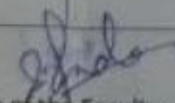
Month	Week	Class Day	Theory/Practical Topic
Sept		15/9/22	1. magnetic circuit
		19/9/22	1.1 Introduction
		20/9/22	1.2 magnetizing force, Intensity, mmf, flux, & their relation.
		21/9/22	1.3 permeability, reluctance & permeance
		22/9/22	1.4 Analogy bet <sup>n</sup> electric & magnetic circ.
		26/9/22	1.5 BH curve.
		27/9/22	1.6 Series & Parallel magnetic circ.
		28/9/22	1.7 Hysteresis loop
			<u>Coupled circuit</u>
		29/9/22	2.1 Self inductance & mutual Inductance.
Oct		1/10/22	2.2 Conductively coupled circ & mutual impedance.
		12/10/22	2.3 Dot Convention.

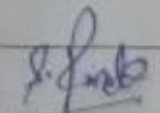
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## B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
		13/10/22	2.4 Coefficients of coupling
		14/10/22	2.5 Series & Parallel Connection of coupled inductor
		17/10/22	2.6 Solve numerical problem
			<u>3 Circuit Elements &amp; Analysis</u>
		18/10/22	3.1 Active, passive, unilateral
		19/10/22	& Bilateral, linear, non linear elements.
		20/10/22	3.2 mesh analysis, mesh eqn.
		21/10/22	3.3 Super mesh analysis.
		22/10/22	3.4 nodal analysis, nodal eqn by inspection
		26/10/22	3.5 Super node analysis.
		27/10/22	3.6 Source transformation.
		28/10/22	3.7 problems.

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## B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
NOV			4. <u>Star &amp; Mesh Theorem</u>
		31/10/22	4.1 Star to Delta & Delta to Star
		1/11/22	4.2 Super Position Theorem.
		2/11/22	4.3 Thevenin's Theorem.
		3/11/22	4.4 Norton's Theorem.
		7/11/22	4.5 maximum Power Transfer Theorem.
		9/11/22	4.6 Problems.
			5 <u>AC circuit &amp; Resonance</u>
		10/11/22	5.1 AC through R-L, R-C & R-L-C circuit
		12/11/22	5.2 Same & Problems of AC through R-L, R-C, & R-L-C.
	14/11/22	Series circuit by complex algebraic method	
	15/11/22	5.3 Solution of problem of AC through R-L R-C &	
	16/11/22	R-L C Parallel & Composite Ckt.	

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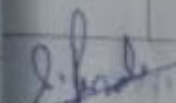
Month	Week	Class Day	Theory/Practical Topic
		17/11/22	5.4 Power factor & Power triangle.
		18/11/22	5.5 reduce Expression for Active, reactive, Apparent Power.
		19/11/22	5.6 Resonant frequency Series & Parallel Resonance.
		21/11/22	5.7 Define Band width, Selectivity & a factor in Series.
		22/11/22	5.8 Problem. <u>Poly phase circuit</u>
		23/11/22	6.1 Concept of poly-phase system & phase sequence.
		26/11/22	6.2 Relation bet <sup>n</sup> phase & line quantities in star & delta connection.
		28/11/22	6.3 Power eq <sup>n</sup> of 3 $\phi$ balanced circuit

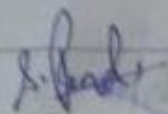
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Month	Week	Class Day	Theory/Practical Topic
DEC		29/11/22	6.4 problem.
		30/11/22	6.5 measurement of $\phi$ Pows. by two watt meter method. 6.6 problem
			<u>Transients</u>
		1/12/22	7.1 Steady state & transient state response.
		5/12/22	7.2 Response to R-L, R-C & R-L-C circuit under DC cond <sup>n</sup> .
		6/12/22	7.3 solve numerical problem.
			<u>Two-Port Network</u>
		7/12/22	8.1 open circuit impedance & Parameters
		8/12/22	8.2 short circuit Admittance (Y) Parameters.
		9/12/22	8.3 ABCD Parameters.
		10/12/22	8.4 H-Parameters
		12/12/22	8.5 inter relationship of different parameters.

  
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Month	Week	Class Day	Theory/Practical Topic
		13/12/22	8.6 7 9 & representation
		14/12/22	8.7 problems.
			<u>Filters</u>
		15/12/22	9.1 Define filter
		16/12/22	9.2 classification of Pass and stop band & cut off frequency
		17/12/22	9.3 classification of filters.
		19/12/22	9.4 constant K low Pass filter.
		20/12/22	9.5 constant K, high Pass filter.
		21/12/22	9.6 constant K Band Pass filter.
		22/12/22	9.7 constant K Band Elimination filter.
		23/12/22	9.8 solve numerical problems

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