P.C.I.E.T., CHHENDIPADA, DIST- ANGUL				
THEORY LESSON PLAN FOR THE SESSION 2023 - 24				
BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH SECTION : EA			NAME OF THE FACULTY : (1) BHAKTA BATSALA NAIK, (2) ANUPAMA BEHERA (LECT. IN MGMT.) (3) SUBHENDU KUMAR PANI (LECT. IN ENGLISH)	
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023 THEORY SUBJECT: ENTREPRENEURSHIP AND MANAGEMENT & SMART TECHNOLOGY (TH-1)				
CLASS ALLOTTED /WEEK : 04 PERIODS				
Sl. No.	**CHAPTERS TO BE COVERED**	**NO OF PERIODS AS PER ACADEMIC CALENDAR**	**MONTH**	**ACTUAL PROGRESS OF THE COURSES MADE**
1	**Entrepreneurship**	**10**	AUGUST	
	Meaning of Entrepreneurship	1		01.08.2023
	Need of Entrepreneurship	1		02.08.2023
	Characteristics, Qualities and Types of entrepreneur, Functions	1		04.08.2023
	Barriers in entrepreneurship	1		07.08.2023
	Entrepreneurs vrs. Manager	1		08.08.2023
	Forms of Business Ownership: Sole proprietorship, partnership forms and others	1		10.08.2023
	Types of Industries, Concept of Start-ups	1		11.08.2023
	Entrepreneurial support agencies at National, State, District Level(Sources): DIC, NSIC,OSIC, SIDBI, NABARD, Commercial Banks, KVIC etc.	2		14.08.2023 17.08.2023
	Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks	1		18.08.2023
2	**Market Survey and Opportunity Identification (Business Planning)**	**8**		
	Business Planning	1		21.08.2023
	SSI, Ancillary Units, Tiny Units, Service sector Units	1		22.08.2023
	Time schedule Plan, Agencies to be contacted for Project Implementation	1		24.08.2023
	Assessment of Demand and supply and Potential areas of Growth	2		25.08.2023, 28.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Identifying Business Opportunity	1		29.08.2023.
	Final Product selection	2	SEPTEMBER	31.08.2023, 01.09.2023
3	**Project Report Preparation**	**4**		
	Preliminary project report	1		04.09.2023
	Detailed project report, Techno economic Feasibility	2		05.09.2023, 07.09.2023
	Project Viability	1		08.09.2023,
4	**Management Principles**	**4**		
	Definitions of management	1		11.09.2023
	Principles of management	1		12.09.2023
	Functions of management (planning, organising, staffing, directing and controlling etc.)	1		14.09.2023
	Level of Management in an Organisation	1		15.09.2023
5	**Functional Areas of Management**	**10**		
	Production management	2		18.09.2023, 21.09.2023
	Functions, Activities	3		22.09.2023, 25.09.2023, 26.09.2023
	Productivity			28.09.2023, 30.09.2023.
	Quality control	2	OCTOBER	03.10.2023, 05.10.2023
	Production Planning and control	2		06.10.2023, 09.10.2023
	Inventory Management	2		10.10.2023, 12.10.2023
	Need for Inventory Management	2		13.10.2023, 16.10.2023
	Models/Techniques of Inventory Management	3		17.10.2023, 19.10.2023, 20.10.2023
	Financial Management	1		26.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Functions of Financial Management			27.10.2023
	Management of Working Capital			30.10.2023
	Costing (only concept)			31.10.2023
	Break even Analysis	1	NOVEMBER	02.11.2023
	Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book, P&L Accounts, Balance Sheets(only Concepts)	1		03.11.2023
	Marketing Management	2		06.11.2023, 07.11.2023
	Concept of Marketing and Marketing Management	1		09.11.2023
	Marketing Techniques (only concepts)	1		10.11.2023
	Concept of 4P s (Price, Place, Product, Promotion)	1		13.11.2023
	Human Resource Management	2		14.11.2023, 16.11.2023
	Functions of Personnel Management	1		17.11.2023
	Manpower Planning, Recruitment, Sources of manpower, Selection process, Method of Testing, Methods of Training & Development, Payment of Wages	1		20.11.2023
6	**Leadership and Motivation**	**6**		
	Leadership	1		21.11.2023
	Definition and Need/Importance	1		23.11.2023
	Qualities and functions of a leader	1		24.11.2023
	Manager Vs Leader	1		24.11.2023
	Style of Leadership (Autocratic, Democratic, Participative)	1		24.11.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Motivation	1		28.11.2023
	Definition and characteristics	1		28.11.2023
	Importance of motivation	1		28.11.2023
	Factors affecting motivation	1		30.11.2023
	Theories of motivation (Maslow)	1		30.11.2023
	Methods of Improving Motivation	1		30.11.2023
	Importance of Communication in Business	1		30.11.2023
	Types and Barriers of Communication	1		30.11.2023
7	**Work Culture, TQM & Safety**	**5**		
	Human relationship and Performance in Organization	1		30.11.2023
	Relations with Peers, Superiors and Subordinates	1	DECEMBER	01.12.2023
	TQM concepts: Quality Policy, Quality Management, Quality system	2		01.12.2023, 04.12.2023
	Accidents and Safety, Cause, preventive measures, General Safety Rules , Personal Protection Equipment(PPE)	1		04.12.2023
8	**Legislation**	**6**		
	Intellectual Property Rights(IPR), Patents, Trademarks, Copyrights	2		04.12.2023, 04.12.2023
	Features of Factories Act 1948 with Amendment (only salient points)	2		04.12.2023, 05.12.2023
	Features of Payment of Wages Act 1936 (only salient points)	2		05.12.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
9	**Smart Technology**	**6**		
	Concept of IOT, How IOT works	1		05.12.2023
	Components of IOT, Characteristics of IOT, Categories of IOT	2		07.12.2023
	Applications of IOT- Smart Cities, Smart Transportation, Smart Home, Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management etc.	3		07.12.2023 08.12.2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH **SECTION : EA**	**NAME OF THE FACULTY : (1) ER. RAMESH CHANDRA PRADHAN, (3) ER. BIJAYA KUMAR BEHERA, (3) ER. BIRENDRA BAI (LECT. IN ELECT. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**THEORY SUBJECT: ENERGY CONVERSION - II (TH-2)**
CLASS ALLOTTED /WEEK : 04 PERIODS	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**UNIT - 1 ALTERNATOR**	**14**	AUGUST	
	1.1. Types of alternator and their constructional features.	1		Dt - 01.08.2023
	1.2. Basic working principle of alternator and the relation between speed and frequency.	1		Dt- 02.08.2023
	1.3. Terminology in armature winding and expressions for winding factors (Pitch factor, Distribution factor).	2		Dt- 02.08.2023, Dt. 04.08.2023
	1.4. Explain harmonics, its causes and impact on winding factor.	1		Dt. 07.08.2023
	1.5. E.M.F equation of alternator. (Solve numerical problems).	1		Dt. 08.08.2023
	1.6. Explain Armature reaction and its effect on emf at different power factor of load.	1		Dt. 09.08.2023
	1.7. The vector diagram of loaded alternator. (Solve numerical problems)	1		Dt. 11.08.2023
	1.8. Testing of alternator (Solve numerical problems)	1		Dt. 14.08.2023
	1.8.1. Open circuit test.	1		Dt. 16.08.2023
	1.8.2. Short circuit test.	1		Dt. 18.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	1.9. Determination of voltage regulation of Alternator by direct loading and synchronous impedance method. (Solve numerical problems)	1		Dt. 21.08.2023
	1.10. Parallel operation of alternator using synchro-scope and dark & bright lamp method.	1		Dt. 22.08.2023
	1.11. Explain distribution of load by parallel connected alternators.	1		Dt. 23.08.2023
	UNIT - 2 SYNCHRONOUS MOTOR	**8**		
	2.1. Constructional feature of Synchronous Motor.	1		Dt. 25.08.2023
	2.2. Principles of operation, concept of load angle	1		Dt. 28.08.2023
	2.3. Derive torque, power developed.	1		Dt. 29.08.2023
	2.4. Effect of varying load with constant excitation.	1	SEPTEMBER	Dt. 01.09.2023
	2.5. Effect of varying excitation with constant load.	1		Dt. 04.09.2023
2	2.6. Power angle characteristics of cylindrical rotor motor.	1		Dt. 05.09.2023
	2.7. Explain effect of excitation on Armature current and power factor.	1		Dt. 08.09.2023
	2.8. Hunting in Synchronous Motor.	1		Dt. 11.09.2023
	2.9. Function of Damper Bars in synchronous motor and generator.	1		Dt. 12.09.2023
	2.10. Describe method of starting of Synchronous motor.	1		Dt. 13.09.2023
	2.11. State application of synchronous motor.	1		Dt. 15.09.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**UNIT- 3 THREE PHASE INDUCTION MOTOR**	**14**		
	3.1. Production of rotating magnetic field.	1		Dt. 18.09.2023
	3.2. Constructional feature of Squirrel cage and Slip ring induction motors.	1		Dt. 22.09.2023
	3.3. Working principles of operation of 3-phase Induction motor.	2		Dt. 25.09.2023
	3.4. Define slip speed, slip and establish the relation of slip with rotor quantities.	1		Dt. 26.09.2023
	3.5. Derive expression for torque during starting and running conditions and derive conditions for maximum torque. (solve numerical problems)	1		Dt. 27.09.2023
	3.6. Torque-slip characteristics.	1	OCTOBER	Dt. 03.10.2023
	3.7. Derive relation between full load torque and starting torque etc. (solve numerical problems)	2		Dt. 03.10.2023 , 04.10.2023
	3.8. Establish the relations between Rotor Copper loss, Rotor output and Gross Torque and relationship of slip with rotor copper loss. (solve numerical problems)	1		Dt. 04.10.2023
	3.9. Methods of starting and different types of starters used for three phase Induction motor.	1		Dt. 06.10.2023
	3.10. Explain speed control by Voltage Control, Rotor resistance control, Pole changing, frequency control methods.	1		Dt. 09.10.2023
	3.11. Plugging as applicable to three phase induction motor.	1		Dt. 10.10.2023
	3.12. Describe different types of motor enclosures.	1		Dt. 11.10.2023
	3.13. Explain principle of Induction Generator and state its applications.	1		Dt. 13.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**UNIT - 4 SINGLE PHASE INDUCTION MOTOR**	**8**		
	4.1. Explain Ferrari's principle.	1		Dt. 16.10.2023
	4.2. Explain double revolving field theory and Cross-field theory to analyze starting torque of 1-phase induction motor.	1		Dt. 17.10.2023
	4.3. Explain Working principle, Torque speed characteristics, performance characteristics and application of following single phase motors.	1		Dt. 18.10.2023
	4.3.1. Split phase motor.	1		Dt. 20.10.2023
	4.3.2. Capacitor Start motor.	1		Dt. 25.10.2023
	4.3.3. Capacitor start, capacitor run motor.	1		Dt. 27.10.2023
	4.3.4. Permanent capacitor type motor.	1		Dt. 30.10.2023
	4.3.5. Shaded pole motor.	1		Dt. 31.10.2023
	4.4. Explain the method to change the direction of rotation of above motors.	1		Dt. 31.10.2023
5	**UNIT - 5 COMMUTATOR MOTORS**	**6**	NOVEMBER	
	5.1. Construction, working principle, running characteristic and application of single phase series motor.	2		Dt. 01.11.2023, Dt. 03.11.2023
	5.2. Construction, working principle and application of Universal motors.	2		Dt. 03.11.2023 , Dt. 06.11.2023
	5.3. Working principle of Repulsion start Motor, Repulsion start Induction run motor, Repulsion Induction motor.	2		Dt. 07.11.2023, Dt. 08.11.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**UNIT - 6 SPECIAL ELECTRICAL MACHINE**	**5**		
	6.1. Principle of Stepper motor.	1		Dt. 10.11.2023
	6.2. Classification of Stepper motor.	1		Dt. 13.11.2023
	6.3. Principle of variable reluctant stepper motor.	1		Dt. 14.11.2023
	6.4. Principle of Permanent magnet stepper motor.	1		Dt. 15.11.2023
	6.5. Principle of hybrid stepper motor.	1		Dt. 17.11.2023
	6.6. Applications of Stepper motor.	1		Dt. 20.11.2023
7	**UNIT - 7 THREE PHASE TRANSFORMERS**	**5**		
	7.1. Explain Grouping of winding, Advantages.	1		Dt. 21.11.2023, 22.11.2023
	7.2. Explain parallel operation of the three phase transformers.	2		Dt. 24.11.2023, Dt. 28.11.2023, Dt. 29.11.2023
	7.3. Explain tap changer (On/Off load tap changing)	1	DECEMBER	Dt. 01.12.2023, Dt. 04.12.2023, Dt. 05.12.2023
	7.4. Maintenance Schedule of Power Transformers.	1		Dt. 06.12.2023, Dt. 08.12.2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24				
BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH SECTION : EA			NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN, (2) ER. BISWARANJAN JENA (LECT. IN ELECT. ENGG.)	
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023		THEORY SUBJECT : DIGITAL ELECTRONICS & MICROPROCESSOR (TH-3)		
CLASS ALLOTTED /WEEK : 05 PERIODS				
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	UNIT - 1 BASICS OF DIGITAL ELECTRONICS	15	AUGUST	
	1.1 Binary, Octal, Hexadecimal number systems and compare with Decimal system.			Dt. 01.08.2023 , Dt. 02.08.2023
	1.2 Binary addition, subtraction, Multiplication and Division.			Dt. 02.08.2023
	1.3 1's complement and 2's complement numbers for a binary number			Dt. 03.08.2023 , Dt. 04.08.2023
	1.4 Subtraction of binary numbers in 2's complement method.			Dt. 04.08.2023
	1.5 Use of weighted and Un-weighted codes & write Binary equivalent number			Dt. 07.08.2023 , Dt. 08.08.2023
	for a number in 8421, Excess-3 and Gray Code and vice-versa.			Dt. 08.08.2023
	1.6 Importance of parity Bit.			Dt. 09.08.2023
	1.7 Logic Gates: AND, OR, NOT, NAND, NOR and EX-OR gates with truth table.			Dt. 10.08.2023
	1.8 Realize AND, OR, NOT operations using NAND, NOR gates.			Dt. 11.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	1.9 Different postulates and De-Morgan's theorems in Boolean algebra. 1.10 Use Of Boolean Algebra For Simplification Of Logic Expression 1.11 Karnaugh Map For 2,3,4 Variable, Simplification Of SOP And POS Logic Expression Using K-Map			Dt. 14.08.2023 Dt. 16.08.2023 Dt. 18.08.2023
2	**UNIT - 2 COMBINATIONAL LOGIC CIRCUITS**	**15**		
	2.1 Give the concept of combinational logic circuits.			Dt. 21.08.2023 , Dt. 22.08.2023
	2.2 Half adder circuit and verify its functionality using truth table.			Dt. 22.08.2023
	2.3 Realize a Half-adder using NAND gates only and NOR gates only.			Dt. 23.08.2023 , Dt. 24.08.2023
	2.4 Full adder circuit and explain its operation with truth table.			Dt. 24.08.2023 , Dt. 25.08.2023
	2.5 Realize full-adder using two Half-adders and an OR – gate and write truth table			Dt. 25.08.2023 , Dt. 28.08.2023
	2.6 Full subtractor circuit and explain its operation with truth table.			Dt. 28.08.2023
	2.7 Operation of 4 X 1 Multiplexers and 1 X 4 demultiplexer			Dt. 29.08.2023, Dt. 29.08.2023
	2.8 Working of Binary-Decimal Encoder & 3 X 8 Decoder.			Dt. 31.08.2023
	2.9 Working of Two bit magnitude comparator.		SEPTEMBER	Dt. 01.09.2023 , Dt. 04.09.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	UNIT - 3 SEQUENTIAL LOGIC CIRCUITS	**15**		
	3.1 Give the idea of Sequential logic circuits.			Dt. 05.09.2023
	3.2 State the necessity of clock and give the concept of level clocking and edge triggering,			Dt. 07.09.2023
	3.3 Clocked SR flip flop with preset and clear inputs.			Dt. 08.09.2023
	3.5 Construct level clocked JK flip flop using S-R flip-flop and explain with truth table			Dt. 08.09.2023
	3.6 Concept of race around condition and study of master slave JK flip flop.			Dt. 11.09.2023
	3.7 Give the truth tables of edge triggered D and T flip flops and draw their symbols.			Dt. 12.09.2023
3	3.8 Applications of flip flops.			Dt. 13.09.2023
	3.9 Define modulus of a counter			Dt. 14.09.2023
	3.10 4-bit asynchronous counter and its timing diagram.			Dt. 15.09.2023
	3.11 Asynchronous decade counter.			Dt. 18.09.2023
	3.12 4-bit synchronous counter.			Dt. 18.09.2023, Dt. 21.09.2023
	3.13 Distinguish between synchronous and asynchronous counters.			Dt. 22.09.2023, Dt. 25.09.2023
	3.14 State the need for a Register and list the four types of registers.			Dt. 26.09.2023, Dt. 27.09.2023
	3.15 Working of SISO, SIPO, PISO, PIPO Register with truth table using flip flop.			Dt. 28.09.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**UNIT - 4 8085 MICROPROCESSOR**	**20**	OCTOBER	
	4.1 Introduction to Microprocessors, Microcomputers			Dt · 03 · 10 · 2023 , Dt · 04 · 10 · 2023
	4.2 Architecture of Intel 8085A Microprocessor and description of each block.			Dt . 05 · 10 · 2023 , Dt · 06 · 10 · 2023 , Dt · 09 · 10 · 2023
	4.3 Pin diagram and description.			Dt . 10 · 10 · 2023 , Dt · 11 · 10 · 2023 , Dt · 12 · 10 · 2023
	4.4 Stack, Stack pointer & stack top			Dt · 13 · 10 · 2023 , Dt · 16 · 10 · 2023 , Dt · 17 · 10 · 2023
	4.5 Interrupts			Dt · 18 · 10 · 2023 , Dt · 19 · 10 · 2023 , Dt · 20 · 10 · 2023
	4.6 Opcode & Operand,			Dt · 26 · 10 · 2023 , Dt · 27 · 10 · 2023 , Dt · 30 · 10 · 2023 Dt · 31 · 10 · 2023
	4.7 Differentiate between one byte, two byte & three byte instruction with example.		NOVEMBER	Dt · 01 · 11 · 2023 , Dt · 02 · 11 · 2023 , Dt · 03 · 11 · 2023
	4.8 Instruction set of 8085 example			Dt · 06 · 11 · 2023 , Dt · 07 · 11 · 2023 , Dt · 08 · 11 · 2023
	4.9 Addressing mode			Dt · 09 · 11 · 2023 , Dt · 10 · 11 · 2023 , Dt · 13 · 11 · 2023
	4 .10 Fetch Cycle, Machine Cycle, Instruction Cycle, T-State			Dt · 14 · 11 · 2023 , Dt · 15 · 11 · 2023 , Dt · 16 · 11 · 2023
	4.11 Timing Diagram for memory read, memory write, I/O read, I/O write			Dt · 17 · 11 · 2023 , Dt · 20 · 11 · 2023
	4.12 Timing Diagram for 8085 instruction			Dt · 21 · 11 · 2023 , Dt · 22 · 11 · 2023 , Dt · 23 · 11 · 2023
	4.13 Counter and time delay.			Dt · 24 · 11 · 2023 , Dt · 28 · 11 · 2023 , Dt · 29 · 11 · 2023
	4. 14 Simple assembly language programming of 8085.			Dt · 30 · 11 · 2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
5	**UNIT - 5 INTERFACING AND SUPPORT CHIPS**	**10**	DECEMBER	
	5.1 Basic Interfacing Concepts, Memory mapping & I/O mapping			Dt · 01·12·2023 , Dt · 04·12·2023
	5.2 Functional block diagram and description of each block of Programmable peripheral interface			Dt · 04·12·2023 , Dt · 05·12·2023
	Intel 8255			Dt · 05·12·2023 , Dt · 06·12·2023
	5.3 Application using 8255: Seven segment LED display, Square wave generator, Traffic light			Dt · 06·12·2023 , Dt · 07·12·2023
	Controller			Dt · 07·12·2023 , Dt · 08·12·2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24				
BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH SECTION : EA			NAME OF THE FACULTY : (1) ER. SWAGAT SAHOO, (2) ER. SAROJ KUMAR SAHU, (3) ER. SUVENDU SEKHAR BEHERA (LECT. IN ELECT. ENGG.)	
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023		THEORY SUBJECT: UTILIZATION OF ELECTRICAL ENERGY & TRACTION (TH-4)		
CLASS ALLOTTED /WEEK : 04 PERIODS				
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**UNIT - 1 ELECTROLYTIC PROCESS**	**8**	AUGUST	
	1.1. Definition and Basic principle of Electro Deposition.	1		Dt. 01.08.2023
	1.2. Important terms regarding electrolysis.	1		Dt. 03.08.2023
	1.3. Faradays Laws of Electrolysis.	1		Dt. 04.08.2023
	1.4. Definitions of current efficiency, Energy efficiency.	1		Dt. 05.08.2023
	1.5. Principle of Electro Deposition.	1		Dt. 08.08.2023
	1.6. Factors affecting the amount of Electro Deposition.	1		Dt. 10.08.2023
	1.7. Factors governing the electro deposition.	1		Dt. 11.08.2023
	1.8. State simple example of extraction of metals.	1		Dt. 17.08.2023
	1.9. Application of Electrolysis.	1		Dt. 18.08.2023
2	**UNIT - 2 ELECTRICAL HEATING**	**8**		
	2.1. Advantages of electrical heating.	1		Dt. 19.08.2023
	2.2. Mode of heat transfer and Stephen's Law.	1		Dt. 22.08.2023
	2.3. Principle of Resistance heating. (Direct resistance and indirect resistance heating.)	1		Dt. 24.08.2023
	2.4. Discuss working principle of direct arc furnace and indirect arc furnace.	1		Dt. 25.08.2023
	2.5. Principle of Induction heating.	1		Dt. 29.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	2.5.1. Working principle of direct core type, vertical core type and indirect core type Induction furnace.	1		Dt. 31.08.2023
	2.5.2. Principle of coreless induction furnace and skin effect.	1	SEPTEMBER	Dt. 01.09.2023
	2.6. Principle of dielectric heating and its application.			Dt. 02.09.2023
	2.7. Principle of Microwave heating and its application.	1		Dt. 05.09.2023
3	**UNIT - 3 PRINCIPLES OF ARC WELDING**	**8**		
	3.1. Explain principle of arc welding.	1		Dt. 07.09.2023
	3.2. Discuss D. C. & A. C. Arc phenomena.	2		Dt. 08.09.2023
	3.3. D.C. & A. C. arc welding plants of single and multi-operation type.	1		Dt. 12.09.2023
	3.4. Types of arc welding.	1		Dt. 14.09.2023
	3.5. Explain principles of resistance welding.	2		Dt. 15.09.2023
	3.6. Descriptive study of different resistance welding methods.	1		Dt. 16.09.2023
4	**UNIT - 4 ILLUMINATION**	**12**		
	4.1. Nature of Radiation and its spectrum.	1		Dt. 21.09.2023
	4.2. Terms used in Illuminations. [Lumen, Luminous intensity, Intensity of illumination, MHCP, MSCP, MHSCP, Solid angle, Brightness, Luminous efficiency.]	1		Dt. 22.09.2023
	4.3. Explain the inverse square law and the cosine law.	1		Dt. 26.09.2023
	4.4. Explain polar curves.	1		Dt. 28.09.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	4.5. Describe light distribution and control. Explain related definitions like maintenance factor and depreciation factors.	1		Dt. 30.09.2023
	4.6. Design simple lighting schemes and depreciation factor.	2	OCTOBER	Dt. 03.10.2023
	4.7. Constructional feature and working of Filament lamps, effect of variation of voltage	1		Dt. 05.10.2023
	4.8. Explain Discharge lamps.	1		Dt. 06.10.2023
	4.9. State Basic idea about excitation in gas discharge lamps.	1		Dt. 07.10.2023
	4.10. State constructional factures and operation of Fluorescent lamp. (PL and PLL Lamps)	1		Dt. 10.10.2023
	4.11. Sodium vapor lamps.	1		Dt. 12.10.2023
	4.12. High pressure mercury vapor lamps.	2		Dt. 13.10.2023
	4.13. Neon sign lamps.	1		Dt. 17.10.2023
	4.14. High lumen output & low consumption fluorescent lamps.	1		Dt. 19.10.2023
5	**UNIT - 5 INDUSTRIAL DRIVES**	**10**		
	5.1. State group and individual drive.	1		Dt. 20.10.2023
	5.2. Method of choice of electric drives.	1		Dt. 26.10.2023
	5.3. Explain starting and running characteristics of DC and AC motor.	1		Dt. 27.10.2023
	5.4. State Application of:	2	NOVEMBER	Dt. 02.11.2023
	5.4.1. DC motor.	1		Dt. 03.11.2023
	5.4.2. 3-phase induction motor.	1		Dt. 04.11.2023
	5.4.3. 3 phase synchronous motors.	2		Dt. 07.11.2023
	5.4.4. Single phase induction, series motor, universal motor and repulsion motor.	1		Dt. 09.11.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**UNIT- 6 ELECTRIC TRACTION**	**14**		
	6.1. Explain system of traction.	1		Dt·10·11·2023 , Dt·14·11·2023 , Dt·16·11·2023
	6.2. System of Track electrification.	1		Dt·17·11·2023
	6.3. Running Characteristics of DC and AC traction motor.	1		Dt·18·11·2023
	6.4. Explain control of motor:	2		Dt·21·11·2023 , Dt·23·11·2023
	6.4.1. Tapped field control.	1		Dt·24·11·2023 .
	6.4.2. Rheostatic control.	1		Dt·28·11·2023
	6.4.3. Series parallel control.	1		Dt·30·11·2023
	6.4.4. Multi-unit control.	2		Dt·30·11·2023
	6.4.5. Metadyne control.	1	DECEMBER	Dt·01·12·2023
	6.5. Explain Braking of the following types:	1		Dt·02·12·2023
	6.5.1. Regenerative Braking.	1		Dt·05·12·2023
	6.5.2. Braking with 1-phase series motor.	1		Dt·07·12·2023
	6.5.3. Magnetic Braking	1		Dt·08·12·2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH **SECTION : EA**	**NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG., (2) ER. SUGYANI SAHOO (LECT. IN ELECT. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**THEORY SUBJECT: POWER ELECTRONICS & PLC (TH-5)**
CLASS ALLOTTED /WEEK : 04 PERIODS	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**UNIT -1 UNDERSTAND THE CONSTRUCTION AND WORKING OF POWER ELECTRONIC DEVICES**	**18**	AUGUST	
	1.1 Construction, Operation, V-I characteristics & application of power diode, SCR,			Dt- 02 . 08. 2023
	DIAC,TRIAC, Power MOSFET,GTO & IGBT			Dt. 03 .08. 2023
	1.2 Two transistor analogy of SCR.			Dt .05 .08. 2023
	1.3 Gate characteristics of SCR.			Dt. 07 .08. 2023
	1.4 Switching characteristic of SCR during turn on and turn off.			Dt. 09 . 08. 2023
	1.5 Turn on methods of SCR.			Dt. 10 .08. 2023
	1.6 Turn off methods of SCR (Line commutation and Forced commutation)			Dt. 14 .08. 2023
	1.6.1 Load Commutation			Dt. 16 .08. 2023
	1.6.2 Resonant pulse commutation			Dt. 17 .08. 2023
	1.7 Voltage and Current ratings of SCR.			Dt. 19 .08. 2023
	1.8 Protection of SCR			Dt. 21 .08. 2023
	1.8.1 Over voltage protection			Dt .23 .08. 2023
	1.8.2 Over current protection			Dt. 24 .08. 2023
	1.8.3 Gate protection			Dt. 28 .08. 2023
	1.9 Firing Circuits			Dt. 31 .08. 2023
	1.9.1 General layout diagram of firing circuit		SEPTEMBER	Dt. 02 . 09. 2023
	1.9.2 R firing circuits			Dt. 04 . 09. 2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	1.9.3 R-C firing circuit			Dt. 07.09.2023
	1.9.4 UJT pulse trigger circuit			Dt. 11.09.2023
	1.9.5 Synchronous triggering (Ramp Triggering)			Dt. 13.09.2023
	1.10 Design of Snubber Circuits			Dt. 14.09.2023
2	**UNIT -2 UNDERSTAND THE WORKING OF CONVERTERS, AC REGULATORS AND CHOPPERS**	**12**		
	2.1 Controlled rectifiers Techniques(Phase Angle, Extinction Angle control), Single			Dt. 16.09.2023
	quadrant semi converter, two quadrant full converter and dual Converter			Dt. 18.09.2023
	2.2 Working of single-phase half wave controlled converter with Resistive and R-L loads			Dt. 21.09.2023
	2.3 Understand need of freewheeling diode.			Dt. 25.09.2023
	2.4 Working of single phase fully controlled converter with resistive and R- L loads.			Dt. 27.09.2023
	2.5 Working of three-phase half wave controlled converter with Resistive load			Dt. 28.09.2023
	2.6 Working of three phase fully controlled converter with resistive load.			Dt. 30.09.2023
	2.7 Working of single phase AC regulator.		OCTOBER	Dt. 04.10.2023
	2.8 Working principle of step up & step down chopper.			Dt. 05.10.2023
	2.9 Control modes of chopper			Dt. 07.10.2023
	2.10 Operation of chopper in all four quadrants			Dt. 09.10.2023
3	**UNIT - 3 UNDERSTAND THE INVERTERS AND CYCLO-CONVERTERS**	**8**		
	3.1 Classify inverters.			Dt. 11.10.2023
	3.2 Explain the working of series inverter.			Dt. 12.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	3.3 Explain the working of parallel inverter			Dt. 16.10.2023
	3.4 Explain the working of single-phase bridge inverter.			Dt. 18.10.2023
	3.5 Explain the basic principle of Cyclo-converter.			Dt. 19.10.2023
	3.6 Explain the working of single-phase step up & step down Cyclo-converter.			Dt. 25.10.2023
	3.7 Applications of Cyclo-converter			Dt. 26.10.2023
4	**UNIT - 4 UNDERSTAND APPLICATIONS OF POWER ELECTRONIC CIRCUITS**	**10**		
	4.1 List applications of power electronic circuits.			Dt. 30.10.2023
	4.2 List the factors affecting the speed of DC Motors.		NOVEMBER	Dt. 01.11.2023
	4.3 Speed control for DC Shunt motor using converter.			Dt. 02.11.2023
	4.4 Speed control for DC Shunt motor using chopper.			Dt. 04.11.2023
	4.5 List the factors affecting speed of the AC Motors.			Dt. 06.11.2023
	4.6 Speed control of Induction Motor by using AC voltage regulator.			Dt. 08.11.2023
	4.7 Speed control of induction motor by using converters and inverters (V/F control).			Dt. 09.11.2023
	4.8 Working of UPS with block diagram.			Dt. 13.11.2023
	4.9 Battery charger circuit using SCR with the help of a diagram.			Dt. 15.11.2023
	4.10 Basic Switched mode power supply (SMPS) - explain its working & applications			Dt. 16.11.2023
5	**UNIT - 5 PLC AND ITS APPLICATIONS**	**12**		
	5.1 Introduction of Programmable Logic Controller(PLC)			Dt. 18.11.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	5.2 Advantages of PLC			Dt. 20.11.2023
	5.3 Different parts of PLC by drawing the Block diagram and purpose of each part of PLC.			Dt. 22.11.2023
	5.4 Applications of PLC			Dt. 23.11.2023
	5.5 Ladder diagram			Dt. 29.11.2023
	5.6 Description of contacts and coils in the following states			Dt. 30.11.2023
	i)Normally open ii) Normally closed iii) Energized output iv)latched Output v) branching			Dt. 30.11.2023
	5.7 Ladder diagrams for i) AND gate ii) OR gate and iii) NOT gate.			Dt. 30.11.2023
	5.8 Ladder diagrams for combination circuits using NAND,NOR, AND, OR and NOT		DECEMBER	Dt. 0212.2023
	5.9 Timers-i)T ON ii) T OFF and iii)Retentive timer			Dt. 02.12.2023
	5.10 Counters-CTU, CTD			Dt. 04.12.2023
	5.11 Ladder diagrams using Timers and counters			Dt. 04.12.2023
	5.12 PLC Instruction set			Dt. 04.12.2023
	5.13 Ladder diagrams for following			Dt. 06.12.2023
	(i) DOL starter and STAR-DELTA starter (ii) Stair case lighting (iii) Traffic light			Dt. 06.12.2023
	Control (iv) Temperature Controller			Dt. 06.12.2023
	5.14 Special control systems- Basics DCS & SCADA systems			Dt. 07.12.2023
	5.15 Computer Control–Data Acquisition, Direct Digital Control System (Basics only)			Dt. 07.12.2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH **SECTION : EB**	**NAME OF THE FACULTY : (1) BHAKTA BATSALA NAIK, (2) ANUPAMA BEHERA (LECT. IN MGMT.) (3) SUBHENDU KUMAR PANI (LECT. IN ENGLISH)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**THEORY SUBJECT: ENTREPRENEURSHIP AND MANAGEMENT & SMART TECHNOLOGY (TH-1)**
CLASS ALLOTTED /WEEK : 04 PERIODS	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**Entrepreneurship**	**10**	AUGUST	
	Meaning of Entrepreneurship	1		Dt. 02.08.2023
	Need of Entrepreneurship	1		Dt. 03.08.2023
	Characteristics, Qualities and Types of entrepreneur, Functions	1		Dt. 04.08.2023
	Barriers in entrepreneurship	1		Dt. 07.08.2023
	Entrepreneurs vrs. Manager	1		Dt. 09.08.2023
	Forms of Business Ownership: Sole proprietorship, partnership forms and others	1		Dt. 10.08.2023
	Types of Industries, Concept of Start-ups	1		Dt. 11.08.2023
	Entrepreneurial support agencies at National, State, District Level(Sources): DIC, NSIC,OSIC, SIDBI, NABARD, Commercial Banks, KVIC etc.	2		Dt. 14.08.2023 , Dt. 16.08.2023
	Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks	1		Dt. 17.08.2023
2	**Market Survey and Opportunity Identification (Business Planning)**	**8**		
	Business Planning	1		Dt. 18.08.2023
	SSI, Ancillary Units, Tiny Units, Service sector Units	1		Dt. 21.08.2023
	Time schedule Plan, Agencies to be contacted for Project Implementation	1		Dt. 23.08.2023
	Assessment of Demand and supply and Potential areas of Growth	2		Dt. 24.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Identifying Business Opportunity	1		Dt. 25.08.2023
	Final Product selection	2		Dt. 28.08.2023, Dt. 31.08.2023
3	**Project Report Preparation**	**4**	SEPTEMBER	
	Preliminary project report	1		Dt. 01.09.2023
	Detailed project report, Techno economic Feasibility	2		Dt. 04.09.2023, Dt. 07.09.2023
	Project Viability	1		Dt. 08.09.2023, Dt. 11.09.2023
4	**Management Principles**	**4**		
	Definitions of management	1		Dt. 13.09.2023, Dt. 14.09.2023
	Principles of management	1		Dt. 15.09.2023
	Functions of management (planning, organising, staffing, directing and controlling etc.)	1		Dt. 18.09.2023
	Level of Management in an Organisation	1		Dt. 21.09.2023
5	**Functional Areas of Management**	**10**		
	Production management	2		Dt. 22.09.2023, Dt. 25.09.2023
	Functions, Activities	1		Dt. 27.09.2023
	Productivity			Dt. 28.09.2023
	Quality control		OCTOBER	Dt. 04.10.2023
	Production Planning and control	1		Dt. 05.10.2023
	Inventory Management	2		Dt. 06.10.2023
	Need for Inventory Management	1		Dt. 09.10.2023
	Models/Techniques of Inventory Management	3		Dt. 11.10.2023, Dt. 12.10.2023
	Financial Management			Dt. 13.10.2023, Dt. 16.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Functions of Financial Management	1		Dt. 18. 10. 2023
	Management of Working Capital	2		Dt. 19. 10. 2023, Dt. 20. 10. 2023
	Costing (only concept)	2		Dt. 25. 10. 2023, Dt. 26. 10. 2023
	Break even Analysis	1		Dt. 27. 10. 2023
	Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book, P&L Accounts, Balance Sheets(only Concepts)	1		Dt. 30. 10. 23
	Marketing Management	2	NOVEMBER	Dt. 01. 11. 2023
	Concept of Marketing and Marketing Management	1		Dt. 02. 11. 2023
	Marketing Techniques (only concepts)	1		Dt. 03. 11. 2023
	Concept of 4P s (Price, Place, Product, Promotion)	1		Dt. 06. 11. 2023
	Human Resource Management	2		Dt. 08. 11. 2023
	Functions of Personnel Management	1		Dt. 09. 11. 2023
	Manpower Planning, Recruitment, Sources of manpower, Selection process, Method of Testing, Methods of Training & Development, Payment of Wages	1		Dt. 10. 11. 2023
6	**Leadership and Motivation**	6		
	Leadership	1		Dt. 13. 11. 2023
	Definition and Need/Importance	1		Dt. 15. 11. 2023
	Qualities and functions of a leader	1		Dt. 16. 11. 2023
	Manager Vs Leader	1		Dt. 17. 11. 2023
	Style of Leadership (Autocratic, Democratic, Participative)	1		Dt. 20. 11. 2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Motivation	1		Dt. 22.11.2023
	Definition and characteristics	1		Dt. 23.11.2023
	Importance of motivation	1		Dt. 24.11.2023
	Factors affecting motivation	1		Dt. 29.11.2023
	Theories of motivation (Maslow)	1	DECMBER	Dt. 01.12.2023
	Methods of Improving Motivation	1		Dt .01.12.2023
	Importance of Communication in Business	1		Dt. 01.12.2023
	Types and Barriers of Communication	1		Dt. 01-12.2023
7	**Work Culture, TQM & Safety**	**5**		
	Human relationship and Performance in Organization	1		Dt .01.12.2023
	Relations with Peers, Superiors and Subordinates	1		Dt. 04.12.2023
	TQM concepts: Quality Policy, Quality Management, Quality system	2		Dt. 04. 12. 2023
	Accidents and Safety, Cause, preventive measures, General Safety Rules , Personal Protection Equipment(PPE)	1		Dt. 04.12.2023
8	**Legislation**	**6**		
	Intellectual Property Rights(IPR), Patents, Trademarks, Copyrights	2		Dt. 06.12.2023
	Features of Factories Act 1948 with Amendment (only salient points)	2		Dt. 06.12.2023
	Features of Payment of Wages Act 1936 (only salient points)	2		Dt. 06.12.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
9	**Smart Technology**	**6**		
	Concept of IOT, How IOT works	1		Dt. 07.12.2023
	Components of IOT, Characteristics of IOT, Categories of IOT	2		Dt. 08.12.2023
	Applications of IOT- Smart Cities, Smart Transportation, Smart Home, Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management etc.	3		Dt. 08.12.2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH **SECTION : EB**	**NAME OF THE FACULTY : (1) ER. RAMESH CHANDRA PRADHAN, (2) ER. BIJAYA KUMAR BEHERA, (3) ER. BIRENDRA BAI (LECT. IN ELECT. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**THEORY SUBJECT: ENERGY CONVERSION - II (TH-2)**
CLASS ALLOTTED /WEEK : 04 PERIODS	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**UNIT - 1 ALTERNATOR**	**14**	AUGUST	
	1.1. Types of alternator and their constructional features.	1		Dt. 01.08.2023
	1.2. Basic working principle of alternator and the relation between speed and frequency.	1		Dt. 02.08.2023
	1.3. Terminology in armature winding and expressions for winding factors (Pitch factor, Distribution factor).	2		Dt. 04.08.2023
	1.4. Explain harmonics, its causes and impact on winding factor.	1		Dt. 07.08.2023
	1.5. E.M.F equation of alternator. (Solve numerical problems).	1		Dt. 08.08.2023
	1.6. Explain Armature reaction and its effect on emf at different power factor of load.	1		Dt. 09.08.2023
	1.7. The vector diagram of loaded alternator. (Solve numerical problems)	1		Dt. 11.08.2023
	1.8. Testing of alternator (Solve numerical problems)	1		Dt. 14.08.2023
	1.8.1. Open circuit test.	1		Dt. 16.08.2023
	1.8.2. Short circuit test.	1		Dt. 18.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	1.9. Determination of voltage regulation of Alternator by direct loading and synchronous impedance method. (Solve numerical problems)	1		Dt. 21.08.2023
	1.10. Parallel operation of alternator using synchro-scope and dark & bright lamp method.	1		Dt. 22.08.2023
	1.11. Explain distribution of load by parallel connected alternators.	1		Dt. 23.08.2023
	UNIT - 2 SYNCHRONOUS MOTOR	**8**		
	2.1. Constructional feature of Synchronous Motor.	1		Dt. 25.08.2023, Dt. 28.08.2023
	2.2. Principles of operation, concept of load angle	1		Dt. 29.08.2023,
	2.3. Derive torque, power developed.	1	SEPT	Dt. 01.09.2023, Dt. 04.09.2023
	2.4. Effect of varying load with constant excitation.	1		Dt. 05.09.2023,
	2.5. Effect of varying excitation with constant load.	1		Dt. 08.09.2023
2	2.6. Power angle characteristics of cylindrical rotor motor.	1		Dt. 11.09.2023
	2.7. Explain effect of excitation on Armature current and power factor.	1		Dt. 12.09.2023
	2.8. Hunting in Synchronous Motor.	1		Dt. 13.09.2023
	2.9. Function of Damper Bars in synchronous motor and generator.	1		Dt. 15.09.2023
	2.10. Describe method of starting of Synchronous motor.	1		Dt. 18.09.2023
	2.11. State application of synchronous motor.	1		Dt. 22.09.2023, Dt. 25.09.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**UNIT- 3 THREE PHASE INDUCTION MOTOR**	**14**		
	3.1. Production of rotating magnetic field.	1		Dt. 26.09.2023
	3.2. Constructional feature of Squirrel cage and Slip ring induction motors.	1		Dt. 27.09.2023
	3.3. Working principles of operation of 3-phase Induction motor.	2	OCT	Dt. 03.10.2023
	3.4. Define slip speed, slip and establish the relation of slip with rotor quantities.	1		Dt. 04.10.2023
	3.5. Derive expression for torque during starting and running conditions and derive conditions for maximum torque. (solve numerical problems)	1		Dt. 06.10.2023, Dt. 09.10.2023
	3.6. Torque-slip characteristics.	1		Dt. 10.10.2023, Dt. 11.10.2023
	3.7. Derive relation between full load torque and starting torque etc. (solve numerical problems)	2		Dt. 13.10.2023
	3.8. Establish the relations between Rotor Copper loss, Rotor output and Gross Torque and relationship of slip with rotor copper loss. (solve numerical problems)	1		Dt. 16.10.2023, Dt. 17.10.2023
	3.9. Methods of starting and different types of starters used for three phase Induction motor.	1		Dt. 18.10.2023
	3.10. Explain speed control by Voltage Control, Rotor resistance control, Pole changing, frequency control methods.	1		Dt. 20.10.2023
	3.11. Plugging as applicable to three phase induction motor.	1		Dt. 25.10.2023
	3.12. Describe different types of motor enclosures.	1		Dt. 27.10.2023
	3.13. Explain principle of Induction Generator and state its applications.	1		Dt. 30.10.2023 Dt. 31.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**UNIT - 4 SINGLE PHASE INDUCTION MOTOR**	**8**	NOV	
	4.1. Explain Ferrari's principle.	1		Dt. 01.11.2023, Dt. 03.11.2023
	4.2. Explain double revolving field theory and Cross-field theory to analyze starting torque of 1-phase induction motor.	1		Dt. 06.11.2023
	4.3. Explain Working principle, Torque speed characteristics, performance characteristics and application of following single phase motors.	1		Dt. 07.11.2023, Dt. 08.11.2023
	4.3.1. Split phase motor.	1		Dt. 10.11.2023
	4.3.2. Capacitor Start motor.	1		Dt. 13.11.2023
	4.3.3. Capacitor start, capacitor run motor.	1		Dt. 14.11.2023
	4.3.4. Permanent capacitor type motor.	1		Dt. 15.11.2023
	4.3.5. Shaded pole motor.	1		Dt. 17.11.2023
	4.4. Explain the method to change the direction of rotation of above motors.	1		Dt. 20.11.2023
5	**UNIT - 5 COMMUTATOR MOTORS**	**6**		
	5.1. Construction, working principle, running characteristic and application of single phase series motor.	2		Dt. 21.11.2023
	5.2. Construction, working principle and application of Universal motors.	2		Dt. 22.11.2023
	5.3. Working principle of Repulsion start Motor, Repulsion start Induction run motor, Repulsion Induction motor.	2		Dt. 24.11.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**UNIT - 6 SPECIAL ELECTRICAL MACHINE**	**5**		
	6.1. Principle of Stepper motor.	1		Dt. 28. 11. 2023
	6.2. Classification of Stepper motor.	1		Dt. 29. 11. 2023
	6.3. Principle of variable reluctant stepper motor.	1	DEC	Dt. 01. 12. 2023
	6.4. Principle of Permanent magnet stepper motor.	1		Dt. 01. 12. 2023
	6.5. Principle of hybrid stepper motor.	1		Dt. 04. 12. 2023
	6.6. Applications of Stepper motor.	1		Dt. 04. 12. 2023
7	**UNIT - 7 THREE PHASE TRANSFORMERS**	**5**		
	7.1. Explain Grouping of winding, Advantages.	1		Dt. 05. 12. 2023
	7.2. Explain parallel operation of the three phase transformers.	2		Dt. 06. 12. 2023
	7.3. Explain tap changer (On/Off load tap changing)	1		Dt. 08. 12. 2023
	7.4. Maintenance Schedule of Power Transformers.	1		Dt. 08. 12. 2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH
SECTION : EB

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN, (2) ER. BISWARANJAN JENA (LECT. IN ELECT. ENGG.)

SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023 **THEORY SUBJECT : DIGITAL ELECTRONICS & MICROPROCESSOR (TH-3)**

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**UNIT - 1 BASICS OF DIGITAL ELECTRONICS**	**15**	AUG	
	1.1 Binary, Octal, Hexadecimal number systems and compare with Decimal system.	1		Dt. 01.08.2023
	1.2 Binary addition, subtraction, Multiplication and Division.	2		Dt. 02.08.2023, Dt. 03.08.2023
	1.3 1's complement and 2's complement numbers for a binary number	1		Dt. 04.08.2023
	1.4 Subtraction of binary numbers in 2's complement method.	2		Dt. 07.08.2023, Dt. 08.08.2023
	1.5 Use of weighted and Un-weighted codes & write Binary equivalent number	2		Dt. 09.08.2023, Dt. 10.08.2023
	for a number in 8421, Excess-3 and Gray Code and vice-versa.	2		Dt. 11.08.2023, Dt. 14.08.2023
	1.6 Importance of parity Bit.	2		Dt. 16.08.2023, Dt. 17.08.2023
	1.7 Logic Gates: AND, OR, NOT, NAND, NOR and EX-OR gates with truth table.	2		Dt. 18.08.2023, Dt. 21.08.2023
	1.8 Realize AND, OR, NOT operations using NAND, NOR gates.	2		Dt. 22.08.2023, Dt. 23.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	1.9 Different postulates and De-Morgan's theorems in Boolean algebra. 1.10 Use Of Boolean Algebra For Simplification Of Logic Expression 1.11 Karnaugh Map For 2,3,4 Variable, Simplification Of SOP And POS Logic Expression Using K-Map	3		Dt. 24.08.2023, Dt. 25.08.2023 Dt. 28.08.2023
2	**UNIT - 2 COMBINATIONAL LOGIC CIRCUITS**	**15**		
	2.1 Give the concept of combinational logic circuits.	1		Dt. 29.08.2023
	2.2 Half adder circuit and verify its functionality using truth table.	1		Dt. 31.08.2023
	2.3 Realize a Half-adder using NAND gates only and NOR gates only.	2	SEPT	Dt. 01.09.2023, Dt. 04.09.2023
	2.4 Full adder circuit and explain its operation with truth table.	2		Dt. 05.09.2023, Dt. 07.09.2023
	2.5 Realize full-adder using two Half-adders and an OR – gate and write truth table	1		Dt. 08.09.2023
	2.6 Full subtractor circuit and explain its operation with truth table.	2		Dt. 11.09.2023, Dt. 12.09.2023
	2.7 Operation of 4 X 1 Multiplexers and 1 X 4 demultiplexer	2		Dt. 13.09.2023, Dt. 14.09.2023
	2.8 Working of Binary-Decimal Encoder & 3 X 8 Decoder.	2		Dt. 15.09.2023, Dt. 18.09.2023
	2.9 Working of Two bit magnitude comparator.	2		Dt. 21.09.2023, Dt. 22.09.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**UNIT - 3 SEQUENTIAL LOGIC CIRCUITS**	**15**		
	3.1 Give the idea of Sequential logic circuits.	2		Dt. 25.09.2023, Dt. 26.09.2023
	3.2 State the necessity of clock and give the concept of level clocking and edge triggering,	1		Dt. 27.09.2023
	3.3 Clocked SR flip flop with preset and clear inputs.	1		Dt. 28.09.2023
	3.5 Construct level clocked JK flip flop using S-R flip-flop and explain with truth table	1	OCT	Dt. 03.10.2023
	3.6 Concept of race around condition and study of master slave JK flip flop.	2		Dt. 04.10.2023, Dt. 05.10.2023
	3.7 Give the truth tables of edge triggered D and T flip flops and draw their symbols.	2		Dt. 06.10.2023, Dt. 09.10.2023
	3.8 Applications of flip flops.	1		Dt. 10.10.2023
	3.9 Define modulus of a counter	1		Dt. 11.10.2023
	3.10 4-bit asynchronous counter and its timing diagram.	1		Dt. 12.10.2023
	3.11 Asynchronous decade counter.	2		Dt. 13.10.2023, Dt. 16.10.2023
	3.12 4-bit synchronous counter.	2		Dt. 17.10.2023, Dt. 18.10.2023
	3.13 Distinguish between synchronous and asynchronous counters.	2		Dt. 19.10.2023, Dt. 20.10.2023
	3.14 State the need for a Register and list the four types of registers.	1		Dt. 25.10.2023
	3.15 Working of SISO, SIPO, PISO, PIPO Register with truth table using flip flop.	2		Dt. 26.10.2023, Dt. 27.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**UNIT - 4 8085 MICROPROCESSOR**	**20**		
	4.1 Introduction to Microprocessors, Microcomputers	2		Dt·30·10·2023, Dt·31·10·2023
	4.2 Architecture of Intel 8085A Microprocessor and description of each block.	1	NOV	Dt·01·11·2023, Dt·02·11·2023
	4.3 Pin diagram and description.	2		Dt·03·11·2023, Dt·06·11·2023
	4.4 Stack, Stack pointer & stack top	2		Dt.07·11·2023, Dt.08·11·2023
	4.5 Interrupts	2		Dt.09·11·2023, Dt·10·11·2023
	4.6 Opcode & Operand,	2		Dt·13·11·2023, Dt·14·11·2023
	4.7 Differentiate between one byte, two byte & three byte instruction with example.	2		Dt.15·11·2023, Dt·16·11·2023
	4.8 Instruction set of 8085 example	2		Dt.17·11·2023, Dt·20·11·2023
	4.9 Addressing mode	4		Dt·21·11·2023 Dt·22·11·2023 Dt·23·11·2023 Dt·24·11·2023
	4 .10 Fetch Cycle, Machine Cycle, Instruction Cycle, T-State	1		Dt·28·11·2023
	4.11 Timing Diagram for memory read, memory write, I/O read, I/O write	1		Dt·29·11·2023
	4.12 Timing Diagram for 8085 instruction	1		Dt·30·11·2023
	4.13 Counter and time delay.	1	DEC	Dt·01·12·2023
	4. 14 Simple assembly language programming of 8085.	1		Dt·04·12·2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
5	**UNIT - 5 INTERFACING AND SUPPORT CHIPS**	**10**		
	5.1 Basic Interfacing Concepts, Memory mapping & I/O mapping	1		Dt. 05.12.2023
	5.2 Functional block diagram and description of each block of Programmable peripheral interface	1		Dt. 06.12.2023
	Intel 8255	1		Dt. 07.12.2023
	5.3 Application using 8255: Seven segment LED display, Square wave generator, Traffic light	1		Dt. 08.12.2023
	Controller	1		Dt. 08.12.2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH **SECTION : EB**	**NAME OF THE FACULTY : (1) ER. SWAGAT SAHOO,** **(2) ER. SAROJ KUMAR SAHU, (3) ER. SUVENDU SEKHAR BEHERA** **(LECT. IN ELECT. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**THEORY SUBJECT: UTILIZATION OF ELECTRICAL ENERGY & TRACTION (TH-4)**
CLASS ALLOTTED /WEEK : 04 PERIODS	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**UNIT - 1 ELECTROLYTIC PROCESS**	**8**	SEPT	
	1.1. Definition and Basic principle of Electro Deposition.	1		Dt. 01.08.2023
	1.2. Important terms regarding electrolysis.	1		Dt. 02.08.2023
	1.3. Faradays Laws of Electrolysis.	1		Dt. 03.08.2023
	1.4. Definitions of current efficiency, Energy efficiency.	1		Dt. 04.08.2023
	1.5. Principle of Electro Deposition.	1		Dt. 08.08.2023
	1.6. Factors affecting the amount of Electro Deposition.	1		Dt. 09.08.2023
	1.7. Factors governing the electro deposition.	1		Dt. 10.08.2023
	1.8. State simple example of extraction of metals.	1		Dt. 11.08.2023
	1.9. Application of Electrolysis.	1		Dt. 16.08.2023
2	**UNIT - 2 ELECTRICAL HEATING**	**8**		
	2.1. Advantages of electrical heating.	1		Dt. 17.08.2023
	2.2. Mode of heat transfer and Stephen's Law.	1		Dt. 18.08.2023
	2.3. Principle of Resistance heating. (Direct resistance and indirect resistance heating.)	1		Dt. 22.08.2023
	2.4. Discuss working principle of direct arc furnace and indirect arc furnace.	1		Dt. 23.08.2023
	2.5. Principle of Induction heating.	1		Dt. 24.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	2.5.1. Working principle of direct core type, vertical core type and indirect core type Induction furnace.	1		Dt. 25.08.2023
	2.5.2. Principle of coreless induction furnace and skin effect.	1		Dt. 29.08.2023
	2.6. Principle of dielectric heating and its application.	1		Dt. 31.08.2023
	2.7. Principle of Microwave heating and its application.	1	SEPT	Dt. 01.09.2023
3	**UNIT - 3 PRINCIPLES OF ARC WELDING**	**8**		
	3.1. Explain principle of arc welding.	1		Dt. 05.09.2023
	3.2. Discuss D. C. & A. C. Arc phenomena.	2		Dt. 07.09.2023, Dt. 08.09.2023
	3.3. D.C. & A. C. arc welding plants of single and multi-operation type.	1		Dt. 12.09.2023, Dt. 13, 09.2023
	3.4. Types of arc welding.	1		Dt. 14.09.2023
	3.5. Explain principles of resistance welding.	2		Dt. 15.09.2023. Dt. 21.09.2023
	3.6. Descriptive study of different resistance welding methods.	1		Dt. 22.09.2023
4	**UNIT - 4 ILLUMINATION**	**12**		
	4.1. Nature of Radiation and its spectrum.	1		Dt. 26.09.2023
	4.2. Terms used in Illuminations. [Lumen, Luminous intensity, Intensity of illumination, MHCP, MSCP, MHSCP, Solid angle, Brightness, Luminous efficiency.]	1		Dt. 27.09.2023
	4.3. Explain the inverse square law and the cosine law.	1		Dt. 28.09.2023
	4.4. Explain polar curves.	1	OCT	Dt. 03.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	4.5. Describe light distribution and control. Explain related definitions like maintenance factor and depreciation factors.	1		Dt.04.10.2023
	4.6. Design simple lighting schemes and depreciation factor.	2		Dt.05.10.2023, Dt.06.10.2023
	4.7. Constructional feature and working of Filament lamps, effect of variation of voltage	1		Dt.10.10.2023, Dt.11.10.2023
	4.8. Explain Discharge lamps.	1		Dt.12.10.2023
	4.9. State Basic idea about excitation in gas discharge lamps.	1		Dt.13.10.2023
	4.10. State constructional factures and operation of Fluorescent lamp. (PL and PLL Lamps)	1		Dt.17.10.2023
	4.11. Sodium vapor lamps.	1		Dt.18.10.2023
	4.12. High pressure mercury vapor lamps.	2		Dt.19.10.2023, Dt.20.10.2023
	4.13. Neon sign lamps.	1		Dt.25.10.2023
	4.14. High lumen output & low consumption fluorescent lamps.	1		Dt.26.10.2023
5	**UNIT - 5 INDUSTRIAL DRIVES**	**10**		
	5.1. State group and individual drive.	1		Dt.27.10.2023
	5.2. Method of choice of electric drives.	1		Dt.31.10.2023
	5.3. Explain starting and running characteristics of DC and AC motor.	1	NOD	Dt.01.11.2023
	5.4. State Application of:	2		Dt.02.11.2023
	5.4.1. DC motor.	1		Dt.03.11.2023
	5.4.2. 3-phase induction motor.	1		Dt.07.11.2023
	5.4.3. 3 phase synchronous motors.	2		Dt.08.11.2023, Dt.09.11.2023
	5.4.4. Single phase induction, series motor, universal motor and repulsion motor.	1		Dt.10.11.2023, Dt.14.11.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**UNIT- 6 ELECTRIC TRACTION**	**14**		
	6.1. Explain system of traction.	1		Dt. 15.11.2023, Dt. 16.11.2023
	6.2. System of Track electrification.	1		Dt. 17.11.2023, Dt. 21.11.2023
	6.3. Running Characteristics of DC and AC traction motor.	1		Dt. 22.11.2023
	6.4. Explain control of motor:	2		Dt. 23.11.2023, Dt. 24.11.2023
	6.4.1. Tapped field control.	1		Dt. 28.11.2023. Dt. 29.11.2023
	6.4.2. Rheostatic control.	1		Dt. 29.11.2023
	6.4.3. Series parallel control.	1		Dt. 30.11.2023
	6.4.4. Multi-unit control.	2	DEC	Dt. 01.12.2023
	6.4.5. Metadyne control.	1		Dt. 05.12.2023
	6.5. Explain Braking of the following types:	1		Dt. 06.12.2023
	6.5.1. Regenerative Braking.	1		Dt. 07.12.2023
	6.5.2. Braking with 1-phase series motor.	1		Dt. 08.12.2023
	6.5.3. Magnetic Braking	1		Dt. 08.12.2023

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 5TH **SECTION : EB**	**NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG., (2) ER. SUGYANI SAHOO (LECT. IN ELECT. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**THEORY SUBJECT: POWER ELECTRONICS & PLC (TH-5)**
CLASS ALLOTTED /WEEK : 04 PERIODS	

S. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	**UNIT -1 UNDERSTAND THE CONSTRUCTION AND WORKING OF POWER ELECTRONIC DEVICES**	**18**	AUG	
	1.1 Construction, Operation, V-I characteristics & application of power diode, SCR,	1		Dt. 01.08.2023
	DIAC,TRIAC, Power MOSFET,GTO & IGBT	1		Dt. 02.08.2023
	1.2 Two transistor analogy of SCR.	1		Dt. 03.08.2023
	1.3 Gate characteristics of SCR.	1		Dt. 07.08.2023
	1.4 Switching characteristic of SCR during turn on and turn off.	1		Dt. 08.08.2023
	1.5 Turn on methods of SCR.	1		Dt. 09.08.2023
	1.6 Turn off methods of SCR (Line commutation and Forced commutation)	1		Dt. 10.08.2023
	1.6.1 Load Commutation	1		Dt. 14.08.2023
	1.6.2 Resonant pulse commutation	1		Dt. 16.08.2023
	1.7 Voltage and Current ratings of SCR.	1		Dt. 17.08.2023
	1.8 Protection of SCR	1		Dt. 21.08.2023
	1.8.1 Over voltage protection	1		Dt. 22.08.2023
	1.8.2 Over current protection	1		Dt. 23.08.2023
	1.8.3 Gate protection	1		Dt. 24.08.2023
	1.9 Firing Circuits	1		Dt. 26.08.2023
	1.9.1 General layout diagram of firing circuit	1		Dt. 29.08.2023
	1.9.2 R firing circuits	1		Dt. 31.08.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	1.9.3 R-C firing circuit	1	SEPT	Dt. 04.09.2023
	1.9.4 UJT pulse trigger circuit	1		Dt. 05.09.2023
	1.9.5 Synchronous triggering (Ramp Triggering)	1		Dt. 06.09.2023
	1.10 Design of Snubber Circuits	1		Dt. 07.09.2023
2	**UNIT -2 UNDERSTAND THE WORKING OF CONVERTERS, AC REGULATORS AND CHOPPERS**	**12**		
	2.1 Controlled rectifiers Techniques(Phase Angle, Extinction Angle control), Single	1		Dt. 11.09.2023
	quadrant semi converter, two quadrant full converter and dual Converter	1		Dt. 12.09.2023
	2.2 Working of single-phase half wave controlled converter with Resistive and R-L loads	1		Dt. 13.09.2023
	2.3 Understand need of freewheeling diode.	1		Dt. 14.09.2023
	2.4 Working of single phase fully controlled converter with resistive and R- L loads.	1		Dt. 18.09.2023
	2.5 Working of three-phase half wave controlled converter with Resistive load	1		Dt. 21.09.2023
	2.6 Working of three phase fully controlled converter with resistive load.	1		Dt. 25.09.2023
	2.7 Working of single phase AC regulator.	1		Dt. 26.09.2023
	2.8 Working principle of step up & step down chopper.	1		Dt. 27.09.2023
	2.9 Control modes of chopper	1		Dt. 28.09.2023
	2.10 Operation of chopper in all four quadrants	1	OCT	Dt. 03.10.2023
3	**UNIT - 3 UNDERSTAND THE INVERTERS AND CYCLO-CONVERTERS**	**8**		Dt. 04.10.2023
	3.1 Classify inverters.	1		Dt. 05.10.2023
	3.2 Explain the working of series inverter.	1		Dt. 09.10.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	3.3 Explain the working of parallel inverter	1		Dt. 10.10.2023
	3.4 Explain the working of single-phase bridge inverter.	2		Dt. 11.10.2023, Dt. 12.10.2023
	3.5 Explain the basic principle of Cyclo-converter.	2		Dt. 16.10.2023, Dt. 17.10.2023
	3.6 Explain the working of single-phase step up & step down Cyclo-converter.	1		Dt. 18.10.2023
	3.7 Applications of Cyclo-converter	1		Dt. 19.10.2023
	UNIT - 4 UNDERSTAND APPLICATIONS OF POWER ELECTRONIC CIRCUITS	**10**		
	4.1 List applications of power electronic circuits.	1		Dt. 25.10.2023
	4.2 List the factors affecting the speed of DC Motors.	1		Dt. 26.10.2023
	4.3 Speed control for DC Shunt motor using converter.	1		Dt. 30.10.2023
	4.4 Speed control for DC Shunt motor using chopper.	1		Dt. 31.10.2023
4	4.5 List the factors affecting speed of the AC Motors.	1	NOD	Dt. 01.11.2023
	4.6 Speed control of Induction Motor by using AC voltage regulator.	1		Dt. 02.11.2023
	4.7 Speed control of induction motor by using converters and inverters (V/F control).	1		Dt. 06.11.2023, Dt. 07.11.2023
	4.8 Working of UPS with block diagram.	2		Dt. 08.11.2023, Dt. 09.11.2023
	4.9 Battery charger circuit using SCR with the help of a diagram.	2		Dt. 13.11.2023, Dt. 14.11.2023
	4.10 Basic Switched mode power supply (SMPS) - explain its working & applications	2		Dt. 15.11.2023, Dt. 16.11.2023
	UNIT - 5 PLC AND ITS APPLICATIONS	**12**		
5	5.1 Introduction of Programmable Logic Controller(PLC)	2		Dt. 20.11.2023, Dt. 21.12.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	5.2 Advantages of PLC	1	.	Dt. 22.11.2023
	5.3 Different parts of PLC by drawing the Block diagram and purpose of each part of PLC.	1		Dt. 23.11.2023
	5.4 Applications of PLC	1		Dt. 28.11.2023
	5.5 Ladder diagram	1		Dt. 29.11.2023
	5.6 Description of contacts and coils in the following states	1		Dt. 30.11.2023
	i)Normally open ii) Normally closed iii) Energized output iv)latched Output v) branching	1	DEC	Dt. 04.12.2023
	5.7 Ladder diagrams for i) AND gate ii) OR gate and iii) NOT gate.	1		Dt. 05.12.2023
	5.8 Ladder diagrams for combination circuits using NAND,NOR, AND, OR and NOT	1		Dt. 06.12.2023
	5.9 Timers-i)T ON ii) T OFF and iii)Retentive timer	1		Dt. 06.12.2023
	5.10 Counters-CTU, CTD	1		Dt. 07.12.2023
	5.11 Ladder diagrams using Timers and counters	1		Dt. 07.12.2023
	5.12 PLC Instruction set	1		Dt. 07.12.2023
	5.13 Ladder diagrams for following	1		Dt. 08.12.2023
	(i) DOL starter and STAR-DELTA starter (ii) Stair case lighting (iii) Traffic light	1		Dt. 08.12.2023
	Control (iv) Temperature Controller	1		Dt. 08.12.2023
	5.14 Special control systems- Basics DCS & SCADA systems	1		Dt. 08.12.2023
	5.15 Computer Control–Data Acquisition, Direct Digital Control System (Basics only)	1		Dt. 08.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA1**

NAME OF THE FACULTY : (1) ER. ER. RAMESH CHANDRA PRADHAN, (LECT. IN ELECT. ENGG.),
(2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: ELECTRICAL MACHINE LAB-II (PR-1)**

CLASS ALLOTTED /WEEK : 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Study of DOL ,star-delta,starter,connection and running of Induction motor and measurment of starting current.	AUGUST	4	Dt.04.08.2023, Dt.07.08.2023 Dt.11.08.2023, Dt.21.08.2023
2	Study of auto-transformer starter and router resistance starter connection and running a 3-phase Induction motor and measure starting current.		3	Dt.21.08.2023, Dt.25.08.2023 Dt.28.08.2023
3	Study and practice connection and reverse the direction of rotation of 3-phase Induction motor.	SEPTEMBER	2	Dt.01.09.2023 Dt.04.09.2023
4	Study and practice connection and reverse the direction of rotation of single phase Induction motor.		3	Dt.08.09.2023 Dt.11.09.2023 Dt.15.09.2023
5	Heat and run test of 3-phase transformer.		3	Dt.18.09.2023 Dt.22.09.2023 Dt.25.09.2023
6	OC and SC test of alternator and determination of regulation by synchronous impedance method.	OCTOBER	2	Dt.07.10.2023 Dt.09.10.2023
7	Determination of regulation of alternator by direct loading.		2	Dt.13.10.2023 Dt.16.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
8	Parallel operation of two alternators & study load sharing.		3	Dt. 20.10.2023 Dt. 27.10.2023 Dt. 30.10.2023
9	Measurment of power of 3-phase load using two wattmeter method and verification of the result using one 3-phase wattmeter.	NOVEMBER	2	Dt. 03.11.2023 Dt. 06.11.2023
10	Connection of 3-phase energy meter to be 3-phase load.		3	Dt. 10.11.2023 Dt. 13.11.2023 Dt. 17.11.2023
11	Study of an OCB.		2	Dt. 20.11.2023 Dt. 24.11.2023
12	Study of induction type over current relay.	DECEMBER	1	Dt. 01.12.2023
13	Study of Buchhers relay.		1	Dt. 04.12.2023
14	Study of an earth fault relay.		1	Dt. 8.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA1**

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN, (2) ER. SUGYANI SAHOO (LECT. IN ELECT.ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: POWER ELECTRONICS & PLC LAB (PR-2)**

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(I)	POWER ELECTRONICS	AUGUST		
1	Study of switching characterstics of a power transistor.		1	Dt. 01.08.2023
2	Study of V-I characterstics of SCR.		1	Dt. 08.08.2023
3	Study of V-I characterstics of TRIAC.		1	Dt. 22.08.2023
4	Study of V-I characterstics of DIAC.		1	Dt. 29.08.2023
5	Study of drive circuit for SCR & TRIAC using DIAC.	SEPTEMBER	1	Dt. 05.09.2023
6	Study of drive circuit for SCR & TRIAC using UJT.		1	Dt. 12.09.2023
7	To study phase controlled bridge rectifier using resistive load.		1	Dt. 26.09.2023
8	To study series Inverter.	OCTOBER	1	Dt. 03.10.2023
9	Study of voltage source Inverter.		1	Dt. 10.10.2023
10	To perform the speed control of DC motor using chopper.		1	Dt. 17.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
11	To study single phase cyclo-converter.		1	Dt. 31.10.2023
(II)	**PLC PROGRAMMING**	NOVEMBER		
12	Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O		1	Dt. 07.11.2023
13	Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters		3	Dt. 14.11.2023 Dt. 21.11.2023 Dt. 28.11.2023
14	Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter	DECEMBER	1	Dt. 05.12.2023
15	Execute Ladder diagrams with model applications (i) Stair case lighting, (ii) Traffic light controller		1	Dt. 05.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA1**

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG.), (2) ER. SUGYANI SAHOO (LECT. IN ELECT. ENGG.),

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: DIGITAL ELECTRONICS & MICROPROCESSOR LAB(PR.3)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(I)	**DIGITAL ELECTRONICS**	AUGUST		
1	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.		1	Dt. 03.08.2023
2	Implement various gates by using universal properties of NAND & NOR gates and verify truth table.		1	Dt. 10.08.2023
3	Implement half adder and Full adder using logic gates.		1	Dt. 17.08.2023
4	Implement half subtractor and Full subtractor using logic gates.		1	Dt. 24.08.2023
5	Implement a 4-bit Binary to Gray code converter.		1	Dt. 31.08.2023
6	Implement a Single bit digital comparator.	SEPTEMBER	1	Dt. 07.09.2023
7	Study Multiplexer and demultiplexer.		1	Dt. 14.09.2023
8	Study of flip-flops.i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop		1	Dt. 21.09.2023
9	Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting.		1	Dt. 28.09.2023
10	Realize a 4-bit synchronous UP/Down counter with a control for up/down counting.	OCTOBER	1	Dt. 05.10.2023
11	Implement Mode-10 asynchronous counters.		1	Dt. 12.10.2023
12	Study shift registers		1	Dt. 19.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(II)	**MICROPROCESSOR (A) GENERAL PROGRAMMING USING 8085A DEVELOPMENT BOARD**			
1	1'S Complement. b. 2'S Complement.		1	Dt. 26.10.2023
2	Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number.	NOVEMBER	1	Dt. 02.11.2023
3	Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number		1	Dt. 09.11.2023
4	Compare between two numbers. b. Find the largest in an Array		1	Dt. 16.11.2023
5	Block Transfer.		1	Dt. 23.11.2023
(III)	**INTERFACING USING 8085**			
1	Traffic light control using 8255		1	Dt. 30.11.2023
2	Generation of square wave using 8255	DECEMBER	1	Dt. 07.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA1**

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG.), (2) ER. SWAGAT SAHOO (LECT. IN ELECT. ENGG), (3) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: PROJECT WORK (Phase-I) (PR-4)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Selection of project assignment	AUGUST	2	Dt·2·08·2023, Dt·09·08·2023
2	Planning and execution of considerations		2	Dt·16·08·2023, Dt·23-08·2023
3	Quality of performance	SEPTEMBER	2	Dt·13·09-2023, Dt·27·09·2023
4	Providing solution of the problems or production of final product	OCTOBER	2	Dt·4·10·2023, Dt·11·10·2023
5	Sense of responsibility		2	Dt·18·10·2023, Dt·25·10·2023
6	Self-expression/ communication/ Presentation skills	NOVEMBER	2	Dt·01·11·2023, Dt·08·11·2023
7	Interpersonal skills/human relations		2	Dt·15·11·2023, Dt·22·11·2023
8	Report writing skills		1	Dt·29·11·2023
9	Viva voce	DECEMBER	1	Dt·06·12·2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION:- EA1**

NAME OF THE FACULTY : (1) ER. PRADYUMNA GARNAIK (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT.01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES**

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1.	Stage Presentations	AUGUST	2	Dt.05.08.2023 Dt.19.08.2023
2.	Gamiby learning	SEPTEMBER	2	Dt.02.09.2023 Dt.16.09.2023
3.	Active learning		1	Dt.30.09.2023
4.	Debate	OCTOBER	1	Dt.07.10.2023
5.	Brain storming	NOVEMBER	2	Dt.04.11.2023 Dt.18.11.2023
6.	Presentations	DECEMBER	1	Dt.02.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA2**

NAME OF THE FACULTY : (1) ER. ER. RAMESH CHANDRA PRADHAN, (2) ER. SUSHIL SAHOO (LECT. IN ELECT. ENGG.),

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: ELECTRICAL MACHINE LAB-II (PR-1)**

CLASS ALLOTTED /WEEK : 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Study of DOL ,star-delta,starter,connection and running of Induction motor and measurment of starting current.	AUGUST	3	Dt. 01.08.2023, Dt.03.08.2023 Dt.08.08.2023
2	Study of auto-transformer starter and router resistance starter connection and running a 3-phase Induction motor and measure starting current.		3	Dt.10.08.2023, Dt.17.08.2023 Dt. 22.08.2023
3	Study and practice connection and reverse the direction of rotation of 3-phase Induction motor.		3	Dt.24.08.2023, Dt.29.08.2023 Dt.31.08.2023
4	Study and practice connection and reverse the direction of rotation of single phase Induction motor.	SEPTEMBER	4	Dt.05.09.2023, Dt.07.09.2023 Dt.12.09.2023, Dt. 14.09.2023
5	Heat and run test of 3-phase transformer.		3	Dt.21.09.2023, Dt.26.09.2023 Dt.28.09.2023
6	OC and SC test of alternator and determination of regulation by synchronous impedance method.	OCTOBER	2	Dt.03.10.2023 Dt.05.10.2023
7	Determination of regulation of alternator by direct loading.		4	Dt. 10.10.2023, Dt. 12.10.2023 Dt. 17.10.2023, Dt.19.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
8	Parallel operation of two alternators & study load sharing.		2	Dt. 26.10.2023 Dt. 31.10.2023
9	Measurment of power of 3-phase load using two wattmeter method and verification of the result using one 3-phase wattmeter.	NOVEMBER	4	Dt. 02.11.2023, Dt. 07.11.2023 Dt. 09.11.2023, Dt. 14.11.2023
10	Connection of 3-phase energy meter to be 3-phase load.		2	Dt. 16.11.2023, Dt. 21.11.2023
11	Study of an OCB.		1	Dt. 23.11.2023
12	Study of induction type over current relay.		1	Dt. 28.11.2023
13	Study of Buchhers relay.		1	Dt. 30.11.2023
14	Study of an earth fault relay.	DECEMBER	2	Dt. 05.12.2023 Dt. 07.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA2**

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: POWER ELECTRONICS & PLC LAB (PR-2)**

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(I)	**POWER ELECTRONICS**	AUGUST		
1	Study of switching characterstics of a power transistor.		1	Dt. 07. 08. 2023
2	Study of V-I characterstics of SCR.		1	Dt. 14. 08. 2023
3	Study of V-I characterstics of TRIAC.		1	Dt. 21. 08. 2023
4	Study of V-I characterstics of DIAC.		1	Dt. 28. 08. 2023
5	Study of drive circuit for SCR & TRIAC using DIAC.	SEPTEMBER	1	Dt. 04. 09. 2023
6	Study of drive circuit for SCR & TRIAC using UJT.		1	Dt. 11. 09. 2023
7	To study phase controlled bridge rectifier using resistive load.		1	Dt. 18. 09. 2023
8	To study series Inverter.		1	Dt. 25. 09. 2023
9	Study of voltage source Inverter.	OCTOBER	1	Dt. 09. 10. 2023
10	To perform the speed control of DC motor using chopper.		1	Dt. 16. 10. 2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
11	To study single phase cyclo-converter.		1	Dt. 30.10.2023
(II)	**PLC PROGRAMMING**	NOVEMBER		
12	Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (c) Determine the No. of digital I/O & Analog I/O		1	Dt. 06.11.2023
13	Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters		1	Dt. 13.11.2023
14	Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter		1	Dt. 20.11.2023
15	Execute Ladder diagrams with model applications (i) Stair case lighting, (ii) Traffic light controller	DECEMBER	1	Dt. 04.11.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA2**

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG.), (2) ER. SUGYANI SAHOO (LECT. IN ELECT. ENGG.),

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: DIGITAL ELECTRONICS & MICROPROCESSOR LAB(PR.3)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(I)	**DIGITAL ELECTRONICS**	AUGUST		
1	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.		1	Dt. 04. 08. 2023
2	Implement various gates by using universal properties of NAND & NOR gates and verify truth table.		1	Dt. 11. 08. 2023
3	Implement half adder and Full adder using logic gates.		1	Dt. 18. 08. 2023
4	Implement half subtractor and Full subtractor using logic gates.		1	Dt. 25. 08. 2023
5	Implement a 4-bit Binary to Gray code converter.	SEPTEMBER	1	Dt. 01. 09. 2023
6	Implement a Single bit digital comparator.		1	Dt. 08. 09. 2023
7	Study Multiplexer and demultiplexer.		1	Dt. 15. 09. 2023
8	Study of flip-flops.i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop		1	Dt. 22. 09. 2023
9	Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting.	OCTOBER	1	Dt. 07. 10. 2023
10	Realize a 4-bit synchronous UP/Down counter with a control for up/down counting.		1	Dt. 13. 10. 2023
11	Implement Mode-10 asynchronous counters.		1	Dt. 20. 10. 2023
12	Study shift registers		1	Dt. 27. 10. 2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(II)	**MICROPROCESSOR (A) GENERAL PROGRAMMING USING 8085A DEVELOPMENT BOARD**	NOVEMBER		
1	1'S Complement. b. 2'S Complement.		1	Dt. 03.11.2023
2	Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number.		1	Dt. 10.11.2023
3	Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number		1	Dt. 17.11.2023
4	Compare between two numbers. b. Find the largest in an Array		1	Dt. 24.11.2023
5	Block Transfer.		1	Dt. 24.11.2023
(III)	**INTERFACING USING 8085**			
1	Traffic light control using 8255	DECEMBER	1	Dt. 01.12.2023
2	Generation of square wave using 8255		1	Dt. 08.12.2023

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CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH :-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EA2**

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG.), (2) ER. SWAGAT SAHOO (LECT. IN ELECT. ENGG), (3) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: PROJECT WORK (Phase-I) (PR-4)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Selection of project assignment	AUGUST	2	Dt.02.08.2023, Dt.09.08.2023
2	Planning and execution of considerations		2	Dt.16.08.2023, Dt.23.08.2023
3	Quality of performance	SEPTEMBER	2	Dt.13.09.2023, Dt.27.09.2023
4	Providing solution of the problems or production of final product	OCTOBER	2	Dt.04.10.2023, Dt.11.10.2023
5	Sense of responsibility		2	Dt.18.10.2023, Dt.25.10.2023
6	Self-expression/ communication/ Presentation skills	NOVEMBER	2	Dt.01.11.2023 Dt.08.11.2023
7	Inter-personal skills/human relations		1	Dt.15.11.2023
8	Report writing skills		2	Dt.22.11.2023, Dt.29.11.2023
9	Viva voce	DECEMBER	1	Dt.06.11.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- ELECTRICAL ENGG. SEMESTER: 5TH SECTION:- EA2

NAME OF THE FACULTY : (1) ER. PRADYUMNA GARNAIK (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1.	Stage Presentations	AUGUST	2	Dt. 5.08.2023 Dt. 19.08.2023
2.	Gamefy learning	SEPTEMBER	2	Dt. 02.09.2023 Dt. 16.09.2023
3.	Active learning		1	Dt. 30.09.2023
4.	Debate	OCTOBER	1	Dt. 07.10.2023
5.	Brain Storming	NOVEMBER	2	Dt. 04.11.2023 Dt. 18.11.2023
6.	Presentations	DECEMBER	1	Dt. 02.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB1**

NAME OF THE FACULTY : (1) ER. BIBHUTI BHUSAN SAHU (LECT. IN ELECT. ENGG.), (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: ELECTRICAL MACHINE LAB-II (PR-1)**

CLASS ALLOTTED /WEEK : 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Study of DOL ,star-delta,starter,connection and running of Induction motor and measurment of starting current.	AUGUST	4	Dt. 02.08.2023, Dt. 07.08.2023 Dt. 09.08.2023, Dt. 14.08.2023
2	Study of auto-transformer starter and router resistance starter connection and running a 3-phase Induction motor and measure starting current.		2	Dt. 16.08.2023 Dt. 21.08.2023
3	Study and practice connection and reverse the direction of rotation of 3-phase Induction motor.		2	Dt. 23.08.2023 Dt. 28.08.2023
4	Study and practice connection and reverse the direction of rotation of single phase Induction motor.	SEPTEMBER	2	Dt. 04.09.2023 Dt. 11.09.2023
5	Heat and run test of 3-phase transformer.		2	Dt. 13.09.2023 Dt. 18.09.2023
6	OC and SC test of alternator and determination of regulation by synchronous impedance method.		2	Dt. 25.09.2023 Dt. 27.09.2023
7	Determination of regulation of alternator by direct loading.	OCTOBER	2	Dt. 04.10.2023 Dt. 09.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
8	Parallel operation of two alternators & study load sharing.		2	Dt-11 · 10 · 2023 Dt-16 · 10 · 2023
9	Measurment of power of 3-phase load using two wattmeter method and verification of the result using one 3-phase wattmeter.		2	Dt · 18 · 10 · 2023 Dt · 25 · 10 · 2023
10	Connection of 3-phase energy meter to be 3-phase load.		1	Dt · 30 · 10 · 2023
11	Study of an OCB.	NOVEMBER	4	Dt · 01 · 11 · 2023, Dt · 06 · 11 · 2023 Dt · 08 · 11 · 2023, Dt · 13 · 11 · 2023
12	Study of induction type over current relay.		4	Dt · 15 · 11 · 2023, Dt · 20 · 11 · 2023 Dt · 22 · 11 · 2023, Dt · 29 · 11 · 2023
13	Study of Buchhers relay.	DECEMBER	1	Dt · 04 · 12 · 2023
14	Study of an earth fault relay.		1	Dt · 05 · 12 · 2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB1**

NAME OF THE FACULTY : (1) ER. BIBHUTI BHUSAN SAHU (LECT. IN ELECT. ENGG.), (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: POWER ELECTRONICS & PLC LAB (PR-2)**

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
I)	**POWER ELECTRONICS**	AUGUST		
1	Study of switching characterstics of a power transistor.		1	Dt. 01.08.2023
2	Study of V-I characterstics of SCR.		1	Dt-08.08.2023
3	Study of V-I characterstics of TRIAC.		1	Dt.22.08.2023
4	Study of V-I characterstics of DIAC.		1	Dt. 29.08.2023
5	Study of drive circuit for SCR & TRIAC using DIAC.	SEPTEMBER	1	Dt. 05.09.2023
6	Study of drive circuit for SCR & TRIAC using UJT.		1	Dt. 12.09.2023
7	To study phase controlled bridge rectifier using resistive load.		1	Dt. 26.09.2023
8	To study series Inverter.	OCTOBER	1	Dt. 03.10.2023
9	Study of voltage source Inverter.		1	Dt. 10.10.2023
10	To perform the speed control of DC motor using chopper.		1	Dt-17.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
11	To study single phase cyclo-converter.		1	Dt. 31. 10. 2023
(II)	**PLC PROGRAMMING**	NOVEMBER		
12	Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O		2	Dt. 07. 11. 2023 Dt. 14. 11. 2023
13	Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters		1	Dt. 21. 11. 2023
14	Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter		1	Dt. 28. 11. 2023
15	Execute Ladder diagrams with model applications (i) Stair case lighting, (ii) Traffic light controller	DECEMBER	1	Dt. 05. 12. 2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB1**

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG.) (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: DIGITAL ELECTRONICS & MICROPROCESSOR LAB(PR.3)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(I)	**DIGITAL ELECTRONICS**	AUGUST		
1	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.		1	Dt. 03.08.2023
2	Implement various gates by using universal properties of NAND & NOR gates and verify truth table.		1	Dt. 10.08.2023
3	Implement half adder and Full adder using logic gates.		1	Dt. 17.08.2023
4	Implement half subtractor and Full subtractor using logic gates.		1	Dt. 24.08.2023
5	Implement a 4-bit Binary to Gray code converter.		1	Dt. 31.08.2023
6	Implement a Single bit digital comparator.	SEPTEMBER	1	Dt. 07.09.2023
7	Study Multiplexer and demultiplexer.		1	Dt. 14.09.2023
8	Study of flip-flops.i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop		1	Dt. 21.09.2023
9	Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting.		1	Dt. 28.09.2023
10	Realize a 4-bit synchronous UP/Down counter with a control for up/down counting.	OCTOBER	1	Dt. 05.10.2023
11	Implement Mode-10 asynchronous counters.		1	Dt. 12.10.2023
12	Study shift registers		1	Dt. 19.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(II)	**MICROPROCESSOR (A) GENERAL PROGRAMMING USING 8085A DEVELOPMENT BOARD**		1	Dt. 26.10.2023
1	1'S Complement. b. 2'S Complement.	NOVEMBER	1	Dt. 02. 11. 2023
2	Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number.		1	Dt. 02.11.2023
3	Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number		1	Dt. 09.11-2023
4	Compare between two numbers. b. Find the largest in an Array		1	Dt. 16.11-2023
5	Block Transfer.		1	Dt. 23.11.2023
(III)	**INTERFACING USING 8085**		1	Dt. 30.11.2023
1	Traffic light control using 8255		1	Dt. 30.11.2023
2	Generation of square wave using 8255	DECEMBER	1	Dt. 07.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB1**

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN (LECT. IN ELECT. ENGG.) (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: PROJECT WORK (Phase-I) (PR-4)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Selection of project assignment	AUGUST	2	Dt. 04.08.2023, Dt. 11.08.2023
2	Planning and execution of considerations		2	Dt. 18.08.2023, Dt. 25.08.2023
3	Quality of performance	SEPTEMBER	2	Dt. 01.09.2023, Dt. 08.09.2023
4	Providing solution of the problems or production of final product		2	Dt. 15.09.2023, Dt. 22.09.2023
5	Sense of responsibility	OCTOBER	2	Dt. 06.10.2023, Dt. 13.10.2023
6	Self-expression/ communication/ Presentation skills		2	Dt. 20.10.2023, Dt. 27.10.2023
7	Interpersonal skills/human relations	NOVEMBER	2	Dt. 03.11.2023, Dt. 10.11.2023
8	Report writing skills		2	Dt. 17.11.2023, Dt. 24.11.2023
9	Viva voce	DECEMBER	1	Dt. 06.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- ELECTRICAL ENGG. SEMESTER: 5TH SECTION:- EB1

NAME OF THE FACULTY : (1) ER. SUSHIL KUMAR MAJHI (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1.	Stage Presentations	AUGUST		Dt. 05.08.2023
2.	Gamicky learning			Dt. 19.08.2023
3.	Active learning	SEPTEMBER		Dt-02.09.2023, Dt.16.09.2023 Dt. 30.09.2023
4.	Debate	OCTOBER		Dt- 07.10.2023
5.	Brain storming	NOVEMBER		Dt.04.11.2023 Dt.18.11.2023
6.	Presentations	DECEMBER		Dt. 02.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB2**

NAME OF THE FACULTY : (1) ER. RAMESH CHANDRA PRADHAN, (2) ER. SUSHIL SAHOO (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: ELECTRICAL MACHINE LAB-II (PR-1)**

CLASS ALLOTTED /WEEK : 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Study of DOL ,star-delta,starter,connection and running of Induction motor and measurment of starting current.	AUG	2	Dt. 01.08.2023 Dt. 03.08.2023
2	Study of auto-transformer starter and router resistance starter connection and running a 3-phase Induction motor and measure starting current.		2	Dt. 03.08.2023 Dt. 08.08.2023
3	Study and practice connection and reverse the direction of rotation of 3-phase Induction motor.		2	Dt. 10.08.2023 Dt. 17.08.2023
4	Study and practice connection and reverse the direction of rotation of single phase Induction motor.		2	Dt. 22.08.2023 Dt. 24.08.2023
5	Heat and run test of 3-phase transformer.		2	Dt. 29.08.2023 Dt. 31.08.2023
6	OC and SC test of alternator and determination of regulation by synchronous impedance method.	SEPT	2	Dt. 05.09.2023 Dt. 07.09.2023
7	Determination of regulation of alternator by direct loading.		2	Dt. 12.09.2023 Dt. 14.09.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
8	Parallel operation of two alternators & study load sharing.		3	Dt. 21.09.2023 Dt. 26.09.2023 Dt. 28.09.2023
9	Measurment of power of 3-phase load using two wattmeter method and verification of the result using one 3-phase wattmeter.	OCT	3	Dt. 03.10.2023 Dt. 05.10.2023 Dt. 10.10.2023
10	Connection of 3-phase energy meter to be 3-phase load.		3	Dt. 12.10.2023 Dt. 17.10.2023 Dt. 19.10.2023
11	Study of an OCB.		2	Dt. 26.10.2023 Dt. 31.10.2023
12	Study of induction type over current relay.	NOD	3	Dt. 02.11.2023 Dt. 07.11.2023 Dt. 09.11.2023
13	Study of Buchhers relay.		6	Dt. 14.11.2023 Dt. 16.11.2023 Dt. 21.11.2023 Dt. 23.11.2023 Dt. 28.11.2023 Dt. 30.11.2023
14	Study of an earth fault relay.	DEC	2	Dt. 05.12.2023 Dt. 07.12.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB2**

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D. IN ELECT. ENGG.) (2) ER. SUGYANI SAHOO (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: POWER ELECTRONICS & PLC LAB (PR-2)**

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(I)	**POWER ELECTRONICS**	AUG	1	Dt. 07.08.2023
1	Study of switching characterstics of a power transistor.		1	Dt. 14.08.2023
2	Study of V-I characterstics of SCR.		1	Dt. 21.08.2023
3	Study of V-I characterstics of TRIAC.		1	Dt. 28.08.2023
4	Study of V-I characterstics of DIAC.	SEPT	1	Dt. 04.09.2023
5	Study of drive circuit for SCR & TRIAC using DIAC.		1	Dt. 11.09.2023
6	Study of drive circuit for SCR & TRIAC using UJT.		1	Dt. 18.09.2023
7	To study phase controlled bridge rectifier using resistive load.		1	Dt. 25.09.2023
8	To study series Inverter.	OCT	1	Dt. 09.10.2023
9	Study of voltage source Inverter.		1	Dt. 16.10.2023
10	To perform the speed control of DC motor using chopper.		1	Dt. 30.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
11	To study single phase cyclo-converter.	NOV	1	Dt. 06. 12. 2023
(II)	**PLC PROGRAMMING**			
12	Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O		1	Dt. 13. 11. 2023
13	Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters		1	Dt. 20. 11. 2023
14	Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter	DEC	1	Dt. 04. 12. 2023
15	Execute Ladder diagrams with model applications (i) Stair case lighting, (ii) Traffic light controller		1	Dt. 04. 12. 2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB2**

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN, (2) ER. BISWARANJAN JENA (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: DIGITAL ELECTRONICS & MICROPROCESSOR LAB(PR.3)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(I)	**DIGITAL ELECTRONICS**	AUG	1	Dt. 02.08.2023
1	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.		1	Dt. 09.08.2023
2	Implement various gates by using universal properties of NAND & NOR gates and verify truth table.		1	Dt. 09.08.2023
3	Implement half adder and Full adder using logic gates.		1	Dt. 09.08.2023
4	Implement half subtractor and Full subtractor using logic gates.		1	Dt. 16.08.2023
5	Implement a 4-bit Binary to Gray code converter.		1	Dt. 16.08.2023
6	Implement a Single bit digital comparator.		1	Dt. 16.08.2023
7	Study Multiplexer and demultiplexer.		1	Dt. 23.08.2023
8	Study of flip-flops.i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop		1	Dt. 23.08.2023
9	Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting.	SEPT	1	Dt. 13.09.2023
10	Realize a 4-bit synchronous UP/Down counter with a control for up/down counting.		1	Dt. 27.9.2023
11	Implement Mode-10 asynchronous counters.	OCT	1	Dt. 04.10.2023
12	Study shift registers		1	Dt. 11.10.2023

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
(II)	**MICROPROCESSOR (A) GENERAL PROGRAMMING USING 8085A DEVELOPMENT BOARD**			
1	1'S Complement. b. 2'S Complement.		1	Dt. 18.10.2023
2	Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number.		1	Dt. 25.10.2023
3	Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number	NOV	1	Dt. 01.11.2023
4	Compare between two numbers. b. Find the largest in an Array		1	Dt. 08.11.2023
5	Block Transfer.		1	Dt. 15.11.2023
(III)	**INTERFACING USING 8085**		1	Dt. 22.11.2023
1	Traffic light control using 8255		1	Dt. 29.11.2023
2	Generation of square wave using 8255		1	Dt. 06.12.2023

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S. Pradhan

SIGNATURE OF THE H.O.D.

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION : EB2**

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN (LECT. IN ELECT. ENGG.) (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: PROJECT WORK (Phase-I) (PR-4)**

CLASS ALLOTTED /WEEK : 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Selection of project assignment	AUG	1	Dt. 01.08.2023
2	Planning and execution of considerations		3	Dt. 11.08.2023 Dt. 25.08.2023 Dt. 18.08.2023
3	Quality of performance	SEPT	4	Dt. 01.09.2023, Dt. 08.09.2023 Dt. 15.09.2023, Dt. 22.09.2023
4	Providing solution of the problems or production of final product	OCT	3	Dt. 06.10.2023, Dt. 13.10.2023 Dt. 20.10.2023
5	Sense of responsibility		1	Dt. 27.10.2023
6	Self-expression/ communication/ Presentation skills	NOV	3	Dt. 03.11.2023, Dt. 10.11.2023 Dt. 17.11.2023
7	Interpersonal skills/human relations		1	Dt. 24.11.2023
8	Report writing skills	DEC	1	Dt. 06.12.2023
9	Viva voce		1	Dt. 06.12.2023.

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- ELECTRICAL ENGG. **SEMESTER: 5TH** **SECTION:- EB2**

NAME OF THE FACULTY : (1) ER. SUSHIL KUMAR MAJHI (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES**

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
	Stage Presentations	AUG	1	Dt. 05.08.2023
	Gamsty learning		1	Dt. 09.08.2023
	Aetive learning	SEPT	3	Dt. 02.09.2023. Dt. 30.09.2023 Dt. 16.09.2023
	Debate	OCT	1	Dt. 07.10.2023
	Brain stroming	NOD	2	Dt. 04.11.2023 Dt. 18.11.2023
	Presentations	DEC	1	Dt. 02.12.2023

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