SESSION - 2022-2023

5th SEM SUBJECTS

THEORY	SUBJECTS
TH-1	Entrepreneurship & Management & Smart tech
TH 2	Energy Conversion - II
TH 3	Digital electronics & Microprocessor
TH 4	Utilisation & electric traction
TH 5	Power electronics

PRACTICAL

SUBJECT CODE	SUBJECT NAME
PR-1	Electrical machine Lab-II
PR-2	Power electronics & PLC Lab
PR-3	Digital Electronics & MP
PR-4	Project Phase - I

EC - II
5th sem
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(EC – II)

S.No.	Lect No.	Name TOPIC	Lect Detail L. Detail	D.T.	Status
1.	1/1	3-ϕ I.M	production of rotating magnetic field.	12/9/22	Comp
2	3-ϕ	Motor	Construction of 3-ϕ I.M	18/09/22	Comp
	I	1/2			
3	N	1/2	do	14/09/22	Comp
4	D	1/4	Working principle	16/09/22	Comp
	U	1/5			
5	C		slip, slip speed & relation	19/09/22	Comp
	T				
6	I	1/6	Derive max^{n} torque under	20/09/22	Comp
	O		running & starting condition		
	N				
7		1/7	do	21/09/22	Comp
	M				
8	O	1/8	Torque slip characteristic	23/09/22	Comp
9	T	1/9	do	26/09/22	Comp
10	O				
	R	1/10	solve numerical problem	27/09/22	Comp
11					
		1/11	Rel^{n} betn Ree, Pole & slip with rotary	28/09/22	Comp
12			loop,		
		1/12			
13			Diff. type of stator	30/09/22	Comp
		1/13			
			Different speed constant.	10/10/22	Comp
		1/14			
14					
			Induction generator	11/10/22	Comp

S.No.	Lect.No.	TopicNo.	Lect. Details	D.T	study
15	2/15	A	Types & construction	12/10/22	comp.
			do		
16	2/16	L			
17	3/17		winding & principle & relation	14/10/22	comp.
		T	betn Ns & f		
18	3/18	E	pitch & distribution factor	17/10/22	comp
19	3/19	R	harmonic, its eqn & numerical	18/10/22	comp
			on winding factor.		
		AN			
20	3/20		emf eqn	19/10/22	comp
		A			
21	3/21		Armature reaction effect on	21/10/22	comp.
		T	e.m.f		
22	3/22		do	25/10/22	comp.
		O			
23	3/23		Vector diagram at load	26/10/22	comp
		R			
24	3/24		testing of alternator	28/10/22	comp
			do		
25	3/25		Determination of voltage regulation by different method.	02/11/22	comp
26	3/26				
27	3/27		parallel operation by different method.	03/11/22	comp
28	3/28		do	04/11/22	comp

S.No	Lect. NO.	Topic No.	Lect. Details	D.t.	Status
29	3/29	S	construction	24/11/22	Comp
30	3/30	Y	working principle & concept of load angle	25/11/22	Comp
31	3/31	N	do	26/11/22	Comp
32	3/32	C	Torque power eqn	28/11/22	Comp
33	3/33	H	Effect of varying load on different excitation	29/11/22	Comp
34	3/34	R	do	30/11/22	Comp
35	3/35	O	power angle characteristics	02/12/22	Comp
36	3/36	N	Effect of excitation on armature current & p.f.	5/12/22	Comp
37	3/37	O	Hunting & use of damper bar	06/12/22	Comp
38	3/38	U			
39	3/39	S M	starting method do	07/12/22	Comp
40	3/40	O T O R	appln & numerical.	09/12/22	Comp
41	39/401	1-ϕ I.M	principle of rotation do	12/12/22	Comp
42	4/42		Double field revolving theory	13/12/22	Comp
43	4/43		split phase motor		
45	4/404		capacitor start motor.	14/12/22	Comp

S.No	Lect No.	Topic No.	Lect Details.	D.t.	status
45	5/45	1-ϕ induction motor	capacitor start, capacitor run motor.	7/11/22	Comp
46	5/46		permanent capacitor run motor.	18/11/22	Comp
47	5/47		permant capacitor type motor	09/11/22	Comp
48	5/48		shaded pole motor	10/11/22	Comp
49	5/49		construction, working principle of 1-ϕ series motor	11/11/22	Comp
50	6/50	Special electro motor	Universal motor	12/11/22	Comp
51	6/51		repulsion motor,	14/11/22	Comp
52	6/52		stepper motor	15/11/22	Comp
53	6/53		classification of stepper motor	16/11/22	Comp
54	6/54		principle reluctance, stepper motor	17/11/22	Comp
55	6/55		permanent magnet stepper motor	18/11/22	Comp
56	6/56		Hybrid stepper motor	19/11/22	Comp
57	6/57		Grouping of winding	21/11/22	Comp
58	7/58	3-ϕ transformer	Parallel operation	22/11/22	Comp
59					
60	7/60		tapchanger & mitcrer	23/11/22	Comp

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5th sem
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DEM

SL No	Lect No	Topic No	Lect Details	D.T	Status
1	1/1	Basics of Digital electronics	Binary, octal, Hexadecimal number systems and compare with decimal system	12/9/22	completed
				13/9/22	Completed
2	1/2		do	13/9/22	Completed
3	1/3		"	"	Completed
4	1/1		Binary addition, Subtraction, Multiplication and Division	14/9/22	Completed
5	1/2		"	19/9/22	Completed
6			T's Complement and 2's complement numbers for a binary number	20/9/22	Completed
7			Subtraction of binary numbers in 2's Complement method.	21/9/22	completed
8			Use of weighted and un-weighted Codes and write binary equivalent number for a number in 8421, Excess-3 and Gray Code and vice-versa	22/9/22	Completed
9			importance of parity Bit	23/9/22	Completed
10			logic Gates AND, OR, NOT, NAND, NOR and EX-OR gates with truth table.	26/9/22	Completed

11			Realize AND, OR, NOT, operations using NAND, NOR gates	27/9/22	Completed
12			Different postulates and De-Morgan's theorems in Boolean algebra	28/9/22	Completed
13			Use of Boolean Algebra for Simplification of logic expression	29/9/22	Completed
14			Karnaugh Map for 2,3,4 Variable, Simplification of Sop and pos logic expression using K-Map	30/9/22	
15			do	30/9/22	completed
16	2	Combinational logic circuits	Give the concept of Combinational logic circuits	1/10/22	
17	2.1		"	1/10/22	Completed
18	2.2		Half adder circuits and verify it's functionality using truth table	10/10/22	
19	2.3		"	10/1/22	Completed
20	2.4		Realize a half-adder using NAND gate only and NOR gates only	11/10/22	Completed
21	2.5		Full adder circuit and explain its operation.	11/10/22	Completed

22		2/6	with truth table.	18/12/22	Completed
23		2/7	Realize full-adder using two half-adders and an OR-gate and write truth table	19/12/22	Completed
24		2/8	Full subtraction circuit and explain it's operation with truth table.	21/12/22	in Completed
25		2/9	"	22/12/22	Completed
?		2/10	Operation of 4x1 Multiplexers and 1x4 demultiplexer	23/12/22	
26		2/10	"	24/12/22	
27		2/11	"	24/12/22	Completed
28		2/12	Working of Binary-Decimal Encoder and 3x8 decoder	26/12/22	Completed
29		2/13	Working of two bit magnitude Comparator	28/12/22	
30		2/14	"	28/12/22	Completed
31	3	Sequential Logic circuits	Give the idea of Sequential logic circuits	29/12/22	Completed
32	3/1		state the necessity of clock and give the concept of level clocking and edge triggering.	30/12/22	
33	3/2		"	1/1/23	Completed
34	3/3		clocked SR flip flop with preset and clear inputs	2/1/23	Completed

35	3/4	11	3/12/22 Completed
36	3/5	Construct level clocked JK flip flop using S-R flip-flop and explain with truth table	
37	3/6	11	4/12/22 Completed
		Concept of race around condition and study of master slave JK flip flop	8/12/22
38	3/7	11	6/12/22 Completed
39	3/8	Give the truth tables of edge triggered D and T flip-flops and draw their symbols	7/12/22
40	3/9	11	8/12/22 Completed
41	3/10	Applications of flip flops	9/12/22 Completed
42	3/11	Define modules of a counter	10/12/22 Completed
43	3/12	4-bit asynchronous counter and it's timing diagram	12/12/22
44	3/13	11	13/12/22 Completed
45	3/14	Asynchronous decade counter.	14/12/22 Completed
46	3/15	4 bit Synchronous counter	15/12/22 Completed

47	3/16		Distinguish between Synchronous and asynchronous Counters	16/12/22	Completed
48	3/17		State the need for a register and list the four types of registers	19/12/22	Completed
49	3/18		Working of SISO, SIPO, PISO, PIPO, Register with truth table using flip-flop	20/12/22	Completed
50	4	8085 Microprocessor	Introduction to Microprocessor, Microcomputer	21/12/22	Completed
51	4/2		"	22/12/22	Completed
			Architecture of Intel 8085A microprocessor and description of each block	23/12/22	
52	4/3		"	24/12/22	Completed
53	4/4		Pin diagrams and description.	26/12/22	Completed
54	4/5		Stack, stack pointer and stack top	27/12/22	
55	4/6		"	28/12/22	
56	4/7		"	29/12/22	Completed
57	4/8		Interrupts opcode and operand	30/12/22	
58	4/9		Different between one byte, two byte, three byte instruction with example	31/12/22	Completed

59			Instruction set of 8085 example	5/1/23	
60			"	5/1/23	Completed
61			Addressing mode	6/1/23	
62			"	6/1/23	Completed
63			Fetch cycle, Machine cycle, instruction cycle, T-state	16/11/23	Completed
64			Timing Diagram for memory read, memory write, I/O read, I/O write	11/11/23	Completed
65			"		
66			"	12/1/23	Completed
67			"	12/1/23	Completed
68			Timing Diagram for 8085 instruction		
69			"	16/11/23	Completed
70			Counter and time delay	17/1/23	
71			"	17/1/23	Completed
72			Simple assembly language programming of 8085	18/1/23	Completed
73	5	Interfacing and Support chips	Basic interfacing concepts, Memory mapping and I/O mapping	19/1/23	Completed
74					

74	5/7	function block diagram and description of each block of programmable peripheral interface Intel 8255.	21/4/23	Completed
75	5/8	Application using 8255, Seven Segment LED display, Square wave generation, traffic light controller	21/4/23	Completed

UET
5th sem

UTILISATION AND ELECTRIC TRACTION

Sl.No.	Lec-No.	Lecture Details	Date	Status
01.	1/1	Definition and basic principle of Electro deposition.	12/09/22	Completed
02.	1/2	Important terms regarding electrolysis	13/09/22	Completed
03.	1/3.	Faraday's law of Electrolysis.	14/09/22	Complete
04.	1/4	Definition of current efficiency, Energy efficiency.	15/09/22	Completed
05.	1/5	Principle of Electro deposition.	16/09/22	Complete
06.	1/6	Factors affecting the amount of Electro deposition.	19/09/22	Continu
07.	1/7	Factors governing the electro deposition.	20/09/22	Completed
08.	1/8	state simple example of extraction of Metals	21/09/22.	Complete
09.	1/9	Application of Electrolysis.	22/09/22	Complete
10.	1/10	Advantages of Electrical heating.	23/09/22	Complete

11.	2/1		Doubt cleaning class on Electro deposition.	24/09/22	Completed
12.	2/2.		Revision on faradays laws of Electrolysis.	27/09/22	Comp
13.	2/3.		Mode of heat transfer and stephens law.	28/09/22	Comp
14.	2/4		Pinciple of Resistence heating (Direct resistance and Indirect resistance heating).	1/10/22	Comp
15.	2/5		Discuss working principle of direct arc furnace and Indirect arc furnace.	2/10/22	Comp
16.	2/6		Principle of Induction heating.	3/10/22	Comp
17.	2/7		Working principle of direct core type vertical core type and Indirect core type induction furnace.	4/10/22	Comp

18.	2/8		Principle of Coreless induction furnace and skin effect.	09/10/22	Comp
19.	2/9		Principle of dielectric heating and it's application	10/10/22	Comp
20.	2/10.		Principle of Microwave heating and it's application	11/10/22	Comp
21.	3/1		Explain principle of arc welding.	15/10/22	Comp
22.	3/2		Discuss DC & AC Arc phenomena.	16/10/22	Comp
23.	3/3		D.C & AC arc welding plants of single and multi-operation type.	17/10/22	Comp
24.	3/4		Types of Arc welding	18/10/22	Comp
25.	3/5		Explain principles of resistance welding.	22/10/22	Comp
26.	3/6.		Descriptive study of Different resistance welding Methods.	23/10/22	Comp

27.	3/7		Illumination.	24/10/22	Comp
28.	3/8		Terms used in Illumination [Lumen, Luminous intensity, Intensity of illumination.	28/10/22	Comp
29.	3/9		MHCP, MSCP, MHSCP, solid angle, Brightness, Luminous efficiency	29/10/22	Comp
30.	3/10		Explain the inverse square law and the Cosine law.	30/10/22	Comp
31.	3/11		Explain polar curves.	6/12/22	Comp
32.	3/12		Describe light distribution and control.	7/12/22	Comp
33.	3/13		Explain related definitions like maintenance factor and depreciation factors.	8/12/22	Comp
34.	3/14.		Design simple lighting schemes and depreciation factor.	9/12/22	Comp
35.	3/15		Constructional features and working of filament lamps effect of variation of voltage.	14/12/22	Comp

36.	4/1		effect of variation of voltage on working of filament lamps.	15/12/22	Completed
37.	4/2		Explain discharge lamps.	16/12/22	Completed
38.	4/3		state basic idea about excitation in gas discharge lamps.	17/12/22	Completed
39.	4/4		state Constractional factors and operation of fluorescent lamp, (PL and PLL Lamps).	20/12/22	Completed
40.	4/5		Sodium vapor lamps	21/12/22	Completed
41.	4/6		High pressure Mercury vapor lamps	22/12/22	Completed
42.	4/7		Neon Sign lamps	23/12/22	Completed
43.	4/8		High lumen output & low consumption fluorescent lamps.	27/12/22	Completed
44.	5/1		Industrial Drives.	28/12/22	Completed
45.	5/2		state group and individual drive.	30/12/22	completed
46.	5/3		Method of choice of electric drives.	03/01/23	Completed

47.	5/4		Explain starting and running characteristics of DC and AC Motor	04/01/23	Completed
48.	5/5		State application of DC Motor.	05/01/23	Completed
49.	5/6		3-ϕ induction Motor.	06/01/23	Completed
50.	5/7		3-ϕ Synchronous Motors.	10/01/23	Completed
51.	5/8		Single phase induction, servomotor, universal motor and repulsive Motor.	11/01/23	Completed
52.	5/9		Electric system of traction.	12/01/23	Completed
53.	6/1		System of track electrification.	13/01/23	Completed
54.	6/2		Running characteristics of DC and AC traction Motor.	17/01/23	Completed
55.	6/3		Explain Control of Motor.	18/01/23	Completed
56.	6/4		Tapped field Control	19/01/23	Completed
57.	6/5		Rheostatic Control.	20/01/23	Completed

58.	6/6	Series-parallel control	-do-	
59.	6/7	Multi-unit control	21/01/23	Completed
60.	6/8	Metadyne control.	-do-	
61.	6/9	Explain Braking of the following types.	22/01/23	Complete
62.	6/10	Regenerative Braking.	-do-	
63.	6/11	Braking with D-C Series motor.	23/01/23	Complete
64.	6/12	Magnetic Braking	24/01/23	Complete

ENTREPRENEURSHIP AND MANAGEMENT & SMART TECHNOLOGY

Sl NO.	Lect. No.	Topic Name	Lecture Details	Date	Status
1	1/1	ENTREPRENEURSHIP	Concept of Entrepreneurship	12.9.2022	Completed
2	1/2		Need of Entrepreneurship	13.9.2022	Completed
3	1/3		Characteristics, Qualities & Types of entrepreneur, functions	14.9.2022	Continue
4	1/4		-do-	21.9.2022	Completed
5	1/5		Barriers	26.9.2022	Completed
6	1/6		Entrepreneurs Vs Manager	27.9.2022	Completed
7	1/7		Forms of business Ownership	28.9.2022	Completed
8	1/8		Types of Industries, Start-ups	29.9.2022	Completed
9	1/9		Entrepreneural support agencies.	10.10.2022	completed
10	1/10		TBI & Sc. and Technology & Entrepreneur. Parks.	11.10.2022	completed
11	2/11	Market Survey	Business Planning	12.10.2022	completed
12	2/12		SSI Ancillary Units, Tiny units	13.10.2022	completed
13	2/13		Time Schedule Plan	17.10.2022	completed
14	2/14		Assessment of Demand and Supply & potential areas of growth.	18.10.2022	Continue
15	2/15	Opportunity	-do-	19.10.2022	completed
16	2/16	Identification	Identifying Business Opportunity	20.10.2022	completed

Sl No.	Lect No.	Topic Name	Lecture Details	Date	Status
17	2/17		Final Product Selection	25.10.2022	Continue
18	2/18		- do -	26.10.2022	completed
19	3/19	Project report Preparation	Preliminary Project report	27.10.2022	Continue
20	3/20		- do -	31.10.2022	completed
21	3/21		Detailed Project report.	1.11.2022	completed
22	3/22		Project Viability	2.11.2022	completed
23	4/23	Management	Defination of Management.	3.11.2022	completed
24	4/24	Principle	Principle of Management.	7.11.2022	Completed
25	4/25		Function of Management	9.11.2022	Continue
26	4/26		- do -	10.11.2022	Completed
27	4/27		Level of Management in an organization.	15.11.2022	Completed
28	5/28	Functional Areas of Management	Production Management	16.11.2022	Completed
29	5/29		- do -	17.11.2022	completed
30	5/30		Inventory Management.	21.11.2022	Continue
31	5/31		- do -	22.11.2022	completed
32	5/32		Financial Management	23.11.2022	Completed
33	5/33		- do -	24.11.2022	Continue
34	5/34		Marketing Management	28.11.2022	completed
35	5/35		- do -	29.11.2022	Completed
36	5/36		Human resource Management	30.11.2022	Continue
37	5/37		- do -	1.12.2022	completed

Sl No.	Lect No.	Topic Name	Lecture Details	Date	Status
38	6/38	LEADERSHIP & MOTIVATION	Leadership	5.12.2022	completed
39	6/39		-do-	6.12.2022	Continue
40	6/40		-do-	7.12.2022	Completed
41	6/41		Motivation	8.12.2022	Continue
42	6/42		-do-	12.12.2022	Continue
43	6/43		-do-	13.12.2022	completed
44	7/44	WORK CULTURE	Human relationship & performance in Organization.	14.12.2022	completed
45	7/45	TQM & Safety	Relations with Peers, Superiors, and subordinates.	15.12.2022	Completed
46	7/46		TQM Concept	19.12.2022	completed
47	7/47		Accident and Safety, Cause, preventive measures	20.12.2022	Continue
48	7/48		-do-	22.12.2022	completed
49	7/49		General Safety rules & PPE	26.12.2022	Completed
50	8/50	Legislation	IPR, Patents, Trademarks	27.12.2022	Completed
51	8/51		Features of Factories Act	28.12.2022	Completed
52	8/52		-do-	29.12.2022	completed

Sl No.	Lect No.	Topic Name	Lecture Details	Date	Status
53	8/53	↑	Features of Payment wages Act	2.1.2023	Continue
54	8/54	do	-do-	4.1.2023	Completed
		↓			
55	9/55	Smart	Concept of IOT	9.1.2023	Continue
56	9/56	Tech-	-do-	10.1.2023	Completed
57	9/57	nology	Components of IOT, Characteristics of IOT.	12.1.2023	Completed
58	9/58		-do-	16.1.2023	Completed
59	9/59		Application of IOT	18.1.2023	Completed
60	9/60	↓	-do-	19.1.2023	Completed

* Power Electronics & PLC *

* 5th Sem *

POWER ELECTRONICS & PLC

SL.NO	LECT.NO	TOPIC	DETAILS	DATE	STATUS
1	1/1	Understand the construction & working of power electronic devices	Construction, operation V-I ch^c & application of power diodes, SCR, DIAC, TRIAC, POWER MOSFET, GTO & IGBT	14/9/22	Completed
2	1/2		Two transistor analogy of SCR	15/9/22	Completed
3	1/3		Gate characteristics of SCR during turn ON & turn-off.	16/9/22	Completed
4	1/4		Switching ch^r of SCR delay during turn ON & turn off.	19/9/22	Completed
5	1/5		Turn-ON methods of SCR	23/9/22	Completed
6	1/6		Turn-off methods of SCR	24/9/22	Completed
7	1/7		Voltage & current rating of SCR.	26/9/22	Completed
8	1/8		Protection of SCR	29/9/22	Completed
9	1/9		Firing circuit	30/9/22	Completed
10	1/10		Design of Snubber circuit.	1/10/22	Completed
11	2/1		Controlled rectifier technique, Single quadrant Semi converter, two quadrant full converter with Resistive & R-L loads.	10/10/22	Completed
12	2/2		working of 1-ϕ half wave controlled converter	13/10/22	Completed

13	2/3		Understand need of free-wheeling diode working of 1-ϕ fully controlled with R-L loads.	14/10/22	Completed
14	2/4	understand	Explanation of F.D	15/10/22	Completed
15	2/5	the working of converters, AC Regulators & choppers.	working of 3-ϕ half wave controlled converter R load	17/10/22	Completed
16	2/6		working of 3-ϕ fully controlled converter with R-resistive load.	20/10/22	Completed
17	2/7		working of 1-ϕ AC Regulators	21/10/22	Completed
18	2/8		working of step-down & step-up choppers.	22/10/22	Completed
19	2/9		Control modes of Choppers	27/10/22	Completed
20	2/10		operation of choppers in all four quadrant.	28/10/22	Completed
21	3/1		Classify Inverters.	29/10/22	Completed
22	3/2		Explain the working of series Inverter.	31/10/22	Completed
23	3/3	Understand the working The Inverter and cyclo-converters	Explain the working of parallel Inverter.	3/11/22	Completed
24	3/4		Explain the working of single phase bridge Inverter.	4/11/22	Completed
25	3/5		Explain the basic Principle of cyclo converter.	7/11/22	Completed
26	3/6		Explain the working of 1-ϕ step-up & step-down cyclo-converter.	10/11/22	Completed
27	3/7		Application of cyclo-converter.	11/4/22	Completed

28	4/1		List of applications of power electronic circuits.	17/11/22	Completed
29	1/2		List of the factor affecting the speed of D.C Motor.	18/11/22	Completed
30	4/3	Understand and application of power electronic circuits	Speed control of D.C Shunt motor using converter.	21/11/22	Completed
31	4/4		Speed control of D.C Shunt motor using chopper.	24/11/22	Completed
32	4/5		List the factors affecting Speed of A.C motors.	25/11/22	Completed
33	4/6		Speed control of induction motor by using A.C voltage Regulator.	28/11/22	Completed
34	4/7		Speed control of I.M by using converters & Inverters.	1/12/22	Completed
35	4/8		working of UPS with block diagram.	2/12/22	Completed
36	4/9		Battery charger ckt using SCR with the help of a diagram.	5/12/22	Completed
37	4/10		Basic switched mode power supply working & applications.	8/12/22	Completed
38	5/1	P L C	Introduction of Programmable logic controller.	9/12/22	Completed
39	5/2		Advantage of PLC	10/12/22	Completed

28	4/1		List of applications of Power electronic circuits.	17/11/22	Completed
29	4/2		List of the factor affecting the speed of D.C motor.	18/11/22	Completed
30	4/3	understand and application of power electronic circuits	Speed control of D.C Shunt motor using converter.	21/11/22	Completed
31	4/4		Speed control of D.C Shunt motor using chopper.	24/11/22	Completed
32	4/5		List the factors effecting Speed of A.C motors.	25/11/22	Completed
33	4/6		Speed control of induction motor by using A.C voltage Regulator.	28/11/22	Completed
34	4/7		Speed control of I.M by using converters & Inverters.	1/12/22	Completed
35	4/8		working of UPS with block diagram.	2/12/22	Completed
36	4/9		Battery charger ckt using SCR with the help of a diagram.	5/12/22	Completed
37	4/10		Basic switched mode Power supply working & applications.	8/12/22	Completed
38	5/1	P L C	Introduction of Programmable logic controller.	9/12/22	Completed
39	5/2		Advantage of PLC	10/12/22	Completed

28	4/1		List of applications of Power electronic circuits.	17/11/22	Completed
29	4/2		List of the factor affecting the speed of D.C Motor.	18/11/22	Completed
30	4/3	understand and application of power electronic circuits	Speed control for D.C Shunt motor using converter.	21/11/22	Completed
31	4/4		Speed control of D.C Shunt motor using chopper.	24/11/22	Completed
32	4/5		List the factors affecting Speed of A.C motors.	25/11/22	Completed
33	4/6		Speed control of induction Motor by using A.C voltage Regulator.	28/11/22	Completed
34	4/7		Speed control of I.M by using converters & Inverters.	1/12/22	Completed
35	4/8		working of UPS with block diagram.	2/12/22	Completed
36	4/9		Battery charger ckt using SCR with the help of a diagram.	5/12/22	Completed
37	4/10		Basic switched mode Power Supply working & applications.	8/12/22	Completed
38	5/1	P L C	Introduction of Programmable logic controller.	9/12/22	Completed
39	5/2		Advantage of PLC	10/12/22	Completed

40	5/3	A N D	Different parts of PLC by drawing the block diagram and Purpose of each Part of PLC.	12/12/22	Completed
41	5/4		Application of PLC	15/12/22	Completed
42	5/5		Laddee diagram.	16/12/22	Completed
43	5/6	I T	Description of contracts and coil NO & NC & energized, Latched output.	17/12/22	Completed
44	5/7	S	Ladder diagram for AND gate, OR gate, NOT gate	19/12/22	Completed
45	5/8		Ladder diagram for Combination circuits. using NAND, NOR & OR & NOT.	22/12/22	Completed
46	5/9	A P	Timer - i) ON ii) OFF iii) Reflective timer.	23/12/22	Completed
47	5/10	P	Counters - CTU, CTD	24/12/22	Completed
48	5/11	L I	Ladder diagram using timers and counters.	26/12/22	Completed
49	5/12	C	PLC Instructing set.	27/12/22	Completed
50	5/13	A T I O	Ladder diagrams for following (1) DOL (2) Y-Δ (3) Stair case (4) traffic control (5) Temp. control.	30/12/22	Completed
51	5/14	N S	Special control System Basic DCS & SCADA Systems.	2/1/23	Completed
52	5/15		Computer control data Acquisition, direct digital control system.	5/1/23	Completed

53	1/8/1		over voltage Protection.	6/1/23	Completed
54	1/8/2		over current Protection.	7/1/23	Completed
55	1/8/3		Gate Protection.	9/1/23	Completed
56	1/9/1		General layout diagram of firing ckt.	12/1/23	Completed
57	1/9/2		R- firing circuit.	13/1/23	Completed
58	1/9/3		R-C firing circuit.	16/1/23	Completed
59	1/9/4		UJT pulse triggers ckt.	19/1/23	Completed
60	1/9/5		Synchronous triggering.	20/1/23	Completed

POWER ELECTRONICS & PLC LAB

5TH SEM

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POWER ELECTRONICS & PLC LAB

SL.NO	LECT NO	EXPERIMENT	DETAILS	DATE	STATUS
1	1/1	EXP-1	Demostration & Practical & observation of switching chc of a power transistor.	15.9.2022	Completed
2	1/2	EXP-2	Demonstration on V-I chc of SCR	22.9.2022	Completed
	1/3		Practical		
	1/4		Observation.		
3	3/1	EXP-3	Demonstration on V-I chc of TRIAC	29.9.2022	Completed
	3/2		Practical		
	3/3		observation.		
4	4/1	EXP-4	Demostration on V-I chc of DIAC	13.10.2022	Completed
	4/2		Practical		
	4/3		Observation.		
5	5/1	EXP-5	Demostration on drive circuit for SCR & TRIAC using DIAC	20.10.2022	Completed
	5/2		Practical		
	5/3		observation.		
6	6/1	EXP-6	Demonstration on drive circuit for SCR & TRIAC using UJT.	27.10.2022	Completed
	6/2		Practical		
	6/3		observation.		

7	7/1	EXP-7	Demostration on phase controlled bridge rectifier using resistive load	3.11.2022 Completed
	7/2		Practical	
	7/3		observation.	
8	8/1	EXP-8	Demostration of series inverter.	10.11.2022 Completed
	8/2		Practical	
	8/3		observation.	
9	9/1	EXP-9	Learn the basics & hardware components of PLC	17.11.2022 Completed
	9/2		Practical	
	9/3		observation.	
10	10/1	EXP-10	Study various building blocks of PLC	24.11.2022 Completed
	10/2		Practical	
	10/3		observation.	
11	11/1	EXP-11	Determine the no. of digital I/O & Analog I/O	1.12.2022 Completed
	11/2		Practical	
	11/3		observation.	
12	12/1	EXP-12	Execute different Ladder diagram	8.12.2022 Completed
	12/2		Practical	
	12/3		observation.	

13	13/1		Practical & practice of Exp-1, Exp-2 Exp-3, Exp-4 & Viva	15.12.2022	Completed
14	14/1		Practical & practice & observation of Exp-5 Exp-6, Exp-7, Exp-8 & viva	22.12.2022	Completed
15	15/1		Practical, practice & observation of Exp-9 Exp-10, Exp 11, Exp-12 & viva.	29.12.2022	Completed

DIGITAL ELECTRONICS & MTP LAB

5TH SEM

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DIGITAL ELECTRONICS & MP LAB

SL NO	Lect NO	Experiment	Details	Date	Status
1	1/1	Exp-1	Demostration on truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates	6.9.22	completed
	1/2		Practical	13.9.22	completed
	1/3		observation	20.9.22	completed
2	2/1	Exp-2	Demostration on implement various gate by using universal properties of NAND and NOR gates and Verify truth table	27.9.22	completed
	2/2		Practical	11.10.22	completed
	2/3		observation	18.10.22	completed
3	3/1	Exp-3	Demostration on implement half adder and full adder using logic gates	25.10.22	completed
	3/2		Practical	1.11.22	completed
	3/3		observation	15.11.22	completed
4	4/1	Exp-4	Demostration on implement half subtractor and full subtractor using logic gates	22.11.22	completed
	4/2		practical	29.11.22	completed
	4/3		observation	6.12.22	completed

S.No	Lect No	Experiment	Details	Date	Status
5	5/1	Exp-5	Demostration on Implement a 4-bit Binary to Gray code converter	13.12.22	completed
	5/2		Pratical	20.12.22	completed
	5/3		observation	27.12.22	completed
6	6/1	Exp-6	Demostration on implement a single bit digital Comparator	3.1.23	completed
	6/2		Pratical	10.1.23	completed
	6/3		observation	17.1.23	completed
7	7/1	Exp-7	Demostration on study Multiplexer and demultiplexer		
	7/2		Pratical		
	7/3		observation		
8	8/1	Exp-8	Demostration on study of flip-flops		
			(i) S-R flip flop (ii) J-K flip flop (iii) flip flop (iv) flip flop		

S.LNO	Lab-No	Experiment	Details	Date	status
8	8/2	Exp-8	Practical		
8	8/3		observation		
9	9/1	Exp-9	Demonstration on 1's complement, & 2's complement		
	9/2		Practical		
	9/3		observation		
10	10/1	Exp-10	Demonstration on (a) addition of 8 bit number		
	10/2		(b) Subtraction of 8 bit number resulting resulting 8/16 bit number		
	10/2		Practical		
	10/3		observation		
11	11/1	Exp-11	Demonstration on (1) Traffic light control using 8255		
	11/2		Practical		
	11/3		observation		

12	12/1	Exp-12	Demonstration on Generation of square wave using 8255		
	12/2		Practical		
	12/3		observation		
13	13/1		Practical and Practice of Exp-1, Exp-2, Exp-3		
	13/2		Practical		
	13/3		observation		
14	14/1		Practical and Practice of Exp-4, Exp-5, Exp-6		
	14/2		Practical		
	14/3		observation		
15	15/1		practical and Practice of Exp-7, Exp-8, Exp-9		
	15/2		Practical		
	15/3		observation		

ELECTRICAL MACHINE LAB-II

5TH SEM

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ELECTRICAL MACHINE LAB-II

Sl No	Lect No	Experiment	Details	Date	Status
1	1.1		Study of (Manual and Semi Automatic) direct on line starter, Star-Delta starter, Connection & running a 3-ϕ Induct^{n} motor & measurement of starting current.	12.9.22	
2	1.2		Study of direct on line starter, Star-Delta starter, Connection & running a 3-ϕ Induction motor & measurement of starting current.	14.9.22	
3	1.3		Study of direct on line starter, Star-Delta starter, Connection & running a 3-ϕ I.M. & measurement of starting current.	19.9.22	
4	2.1		Study of Autotransformer starter.	21.9.22	
5	2.2		Study of Autotransformer starter.	26.9.22	
6	2.3		Study of Autotransformer starter.	28.9.22	

7	3.1.	Study in practice of connection & reverse the direction of rotation of 3-ϕ I.M.	1.10.22
8	3.2	Study in practice of connection & reverse of direct^{n} of rotation of 3-ϕ I.M.	10.10.22
9	3.3	Study in practice of connection & reverse of direct^{n} of rotation of 3-ϕ I.M.	12.10.22
10	4.1	Study in practical of connect^{n} in reverse the direct^{n} of 1-ϕ I.M.	17.10.22
11	4.2	Study in practical of connect^{n} in reverse the direct^{n} of 1-ϕ I.M.	19.10.22
12	4.3	Study in practical of connect^{n} in reverse the direct^{n} of 1-ϕ I.M.	2.1122
13	5.1	Heat run test of 3-ϕ T/F.	7.11.22
14	5.2	Heat run test of 3-ϕ T/F.	9.11.22
15	5.3	Heat run test of 3-ϕ T/F.	14.11.22

16	6.1	OC & SC test of Alternator.	16.11.22
17	6.2.	OC & SC test of Alternator	21.11.22
18	6.3.	OC & SC test of Alternator	23.11.22
19	7.1.	Determination of regulation of alternator by direct loading.	28.11.22
20	7.2	Determination of regulation of alternator by direct loading.	30.11.22
21	7.3	Determination of regulation of alternator by direct loading.	5.12.22
22	8.1	Parallel connection of 2 Alternator and study load sharing.	7.12.22
23	8.2	Parallel connection of 2 alternator and study load sharing.	12.12.22
24	8.3	Parallel connection of 2 alternator and study load sharing.	14.12.22
25	9.1	Study of Buchholz's Relay	19.12.22
26	9.2	Study of Buchholz's Relay	21.12.22
27	9.3	Study of Buchholz's Relay	26.12.22

28	10.1	Study of induction type over current / Reverse power relay.	28.12.22
29	10.2	Study of induction type over current / Reverse power relay.	2.1.23
30	10.3	Study of induction type over current / Reverse power relay.	4.1.23