

Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

# **NAAC DOCUMENTS**

**QUALITY INDICATOR FRAME WORK** 

**CRITERION – 1** 

## **CURRICULAR ASPECTS**

SUBMITTED BY

**IQAC** 

INTERNAL QUALITY ASSURANCE CELL INDRA GANESAN COLLEGE OF ENGINEERING





### DEPARTMENT OF ELECTRICAL AND ELECTRINICE ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

### 1.2 Academic Flexibility (30)

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

### AND

1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

VAC Title:	ELEC	ELECTRICAL SAFETY & MAINTENANCE										
Resource Per	Resource Person:  Mr.S.Sathiyan, Trainer, NoviTech R&D Pvt Ltd, Coimbatore, Tamilnadu.											
Date of cond	uct fro	m:	01.08.2023		To:	05.08.2023		<b>Duration:</b>	30 Hours			
Organized D	epartm	ent:	ELECTRIC	AL A	ND EI	LECTRINIC	E EN	GINEERIN	G			
Participant Y	ear:	EEE	- IV, III, II	Sem	ester:	EVEN	No.	of Students	Registered:	32		
Venue: El	EE III y	yr Cla	ssroom, IGCl	E.								

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# Indra Ganesan

Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli - 620 012 Approved by AICTE, NewDelhi & Affiliated to Arma University, Chemnal NAAC Accredited, 2(F) Status Institution by UGC



### Department of Electrical and Electronics Engineering

### Academic Year 2022-2023 - Even Semester

26.07.2023

### **DEPARTMENT CIRCULAR**

Department of Electrical and Electronics Engineering and IQAC of IGCE in association with NoviTech R&D Pvt Ltd is going to organize Value Added Course for all Second, Third and Final year students on "Electrical safety & maintenance" from 01.08.2023 to 05.08.2023. Certificates will be issued to the eligible participants at the end of the Course. This training is to be provided in our campus

Resource Person Detail	1. Mr.S.Sathiyan, Trainer,	
	NoviTech R&D Pvt Ltd Coimbatore, Tamilnadu.	verse and services and
Venue	EEE III yr Classroom, IGCE	100

Gr. Ma lathi

HOD/EEE



Cc:

- · Principal office
- IQAC Co-Ordinator
- Class In charges II, III & IV-Year
- II. III & IV-Year EEE Students
- · Office File
- Notice Board

D:

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



# Indra Ganesan

### COLLEGE OF ENGINEERING

Machirai Main Road (NH-45B), Manikandem, Tiruchirappelli - 620 012 Approved by AICTE, NewDellist & Affiliated to Anna University, Chemnal NAAC Accredited, 2(F) Status Institution by UGC



## Value Added Course

"Electrical safety & maintenance"

### **SYLLABUS**

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Elementary Electrical - Basics of Electricity	3	01.08.2023
2	Exposure to General Tools and Tackle Testing of wiring Installation	3	01.08.2023
3	Electrical Power System :Overview Quality of Electrical supply Power Distribution System — Basics Distribution Line equipment	3	02.08.2023
4	Transformers Major Substation Equipment Operation & Maintenance Practices	3	02.08.2023
5	Earthing	3	03.08.2023
6	Electrical System Protection	3	03.08.2023
7	Important Electricity Rules Related to Safety	3	04.08.2023
8	Electrical Safety	3	04.08.2023
9	Accident Prevention & Protection, First Aid	3	05.08.2023
10	Disaster Management	3	05.08.2023
1	Exam	1	05.08.2023
*, ****	Total Hours(Excluding Exam)	30	territoria de la descripción de la compositión per esta de la compositión de la comp

VAC Coordinator

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.

Gr. Ma lathi HOD/EEE



# COLLEGE OF ENGINEE

Madurai Main Road (NH-45B), Manikandam, Tiruchirappalii - 620 012 Approved by AICTE, NewDolin & Affiliated to Anna University, Classical NAAC Accredited, 24F) Status Institution by UGC



Dr. G. Balakrishnan, M.E., Ph.D.,

Value Added Course Principal

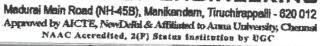
Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.

"Electrical safety & maintenance"

### STUDENTS PARTICIPATION LIST

S.N	Reg.No	Student Name	Year/ Brancl
1	811219105002	M.BARATH	IV/EEE
2	811219105003	A.MANIKANDAN	IV/EEE
3	811219105005	C.PONNALAGU	IV/EEE
4	811219105006	A.SALAMON	IV/EEE
5	811219105007	M.SARAVANAKUMAR	IV/EEE
6	811219105008	K.SOLAIMATHI	IV/EEE
7	813919105001	P.DHEVENTHIRAN	IV/EEE
8	811219105301	A. VENKATRAMAN	IV/EEE
9	811220105001	ABINESH T	IV/EEE
10	811220105002	ALEX IMMANVEL S	III/EEE
11	811220105006	BALAMURUGAN A	III/EEE
12	811220105011	DIVYA B	III/EEE
13	811220105013	GAYATHRI M	III/EEE
[4	811220105017	KARTHIK D	III/EEE
5	811220105019	LATCHIYA K	III/EEE
6	811220105022	MANIKANDAN K	III/EEE
7	811220105023	MOHANDOSS S	III/EEE
8	811220105024	NAVEEN R	III/EEE
9	811220105031	SANDURU K	III/EEE







S.No	Reg.No	Student Name	Year/ Branch		
20	811220105032	SANTHIYA A	III/EEE		
21	811220105035	SHANMUGAM S	III/EEE		
22	811220105037	SNEKA T	III/EEE		
23	811220105038	SOPHIYA K	III/EEE		
24	811220105301	AARTHI S	III/EEE		
25 811220105303		THIRUNAVUKARASU M	IV/EEE		
26	811220105305	VENKATESHWARAN.A	III/EEE		
27	811220105306	DIVYA BHARATHI	III/EEE		
28	811220105307	SATHEESH KUMAR	III/EEE		
29	811221105012	HARIHARAN E	II/EEE		
30	811221105018	LINGESWARAN R	II/EEE		
31 811221105027		SANGILI S	II/EEE		
32 811221105039		SRIKANTH M	II/EEE		

**VAC Coordinator** 

Gr. Malathi

Dr. G. Balakrishnan, M.E., Ph.D.,

**Principal** 

**Indra Ganesan** College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.



# Indra Ganesan COLLEGE OF ENGINEERING



Madural Mein Road (NH-45B), Manikendam, Truchireppelli - 620 012 Appeaved by AlCTR, NewDelini & Affiliated to Arms University, Chennal NAAC Accredited, 2(R) Status Institution by UGC

## Department of Electrical and ElectronicsEngineering

Academic Year 2022-2023 - Even Semester

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012. STUDENTS ATTENDANCE LIST

Value Added Course

"Electrical safety & maintenance"

S.NO	Register		YEAR/	01.08	3.2023	02.08	8.2023	03.08	1.2023	04.08	.2023	05.08	3.2023	NO OF	SIGN OF
2,140	Number	NAME	BRANCH	FN	AN	FN	AN	FN	ÁN	FN	AN	FN	AN	SESSIONS ATTENDED	THE STUDENT
1	811219105002	M.BARATH	IV/EEE	1	/	1	1	V				./	./	10	M. Barata
2	811219105003	A.MANIKANDAN	IV/EEE	~	~		a	/				1	. /	9	1, 1, 1
3	811219105005	C.PONNALAGU	IV/EEE	-	_		1					7	· /	the three particular to a const	X Mah
4	811219105006	A.SALAMON	IV/EEE	~	C.		1							10	C 7-1
5	811219105007	M.SARAVANAKUMAR	IV/EEE	/		1				·		1		15	1. July -
6	811219105008	K.SOLAIMATHI	IV/EEE	~	1	1			. ^			×		10	M. Same
7	813919105001	P.DHEVENTHIRAN	IV/EEE	~	1	./	./	1	5		×		1	10	去儿子
8	811219105301	A. VENKATRAMAN	IV/EEE	~	/	<i></i>	~	, _/-	a		1	<i>y</i>		10	Phever
9	811220105001	ABINESH T	III/EEE	1	1	A	1	. 1	V		~/	1	V		Yenhara
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5.NO	Number	NAME	BRANCH	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	SESSIONS ATTENDED	THE STUDENT
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16	811220105022	MANIKANDAN K	Ш/ЕЕЕ	~		/		0	a	_	1,000			9.0	K.M. K.
17	811220105023	MOHANDOSS S	III/EEE	1	~	a	1	0	/			V		08	S. Muls
18	811220105024	NAVEEN R	III/EEE	<b>^</b>			W		1	a			/	9	001
19	811220105031	SANDURU K	ПІ/ЕЕЕ	~		<i></i>			~	,	· /	✓		- 1	W-UValle
20	811220105032	SANTHIYA A	III/EEE	1	·		V	`./	~	1	×	. ^		10	K Smru
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24	811220105301	AARTHI S	III/EEE	-		1	×				/	1		10	Kany
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27	811220105306	DIVYA BHARATHI	III/EEE		1		1		a	<i>y</i>	V	7	3/1	9	A CLEAT
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Dr. G. Balakrishnan, M.E., Ph.D.,

**Principal** Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.

Gr. Ma lathi HoD/EEE



Medurai Main Road (NH-45B), Manikandam, Tiruchirappelli - 620 012 Approved by AICTE, NewDelhil & Affiliated to Anna University, Chennai NAAC Accredited, 2(F) Status Institution by UGC



Name of the Student:

Year/Sem:

AU Register Number:

Value Added Course

Dr. G. Balakrishnan, M.E., Ph.D., Principal

ngineering Road

		van	ic Muucu		rincipal
	MU			Ind maintenance" ONS (25X1 = 25 Mar	ra Ganesan College of Enginee IG Valley, Madurai Main Road Manikandam, Trichy-620 012. rks)
t.				ng live-line tools f	
	(A) Shotgun stick	cs (B) Swit	teh sticks	(C) Hot sticks	
	(D) None of the a	above (E) a, b,	and c		
2.	A Safety Electric electrical energy	cal One Line D	iagram should	be used to	all sources of
	(A) Identify (	(B) Castigate	(C) Evaluate	(D) Modify	
3.	The minimum a deep.	Howable works	space around e	lectrical equipment i	s inches
	A) 36 B) 48 C	C) 24 D) 30			
<b>\$</b> .	OSHA requires	the testing of	a voltmeter aft	er a voltage test on v	oltage above
	A) 120v I	B) 208v	C) 277v	D) 600v	
5.	One of the three	generally reco	gnized hazard	s of electrical work is	•
	A) Arc Flash	B) Cuts	C) Fall	s D) Concussi	on
6.	Gloves used for	electrical prote	ection must be	electrically tested ev	ery month.
	A) 3 months E	B) 6 months	C) 12 months	D) Never	
7.	Which of these r	risks is associat	ed with electri	city?	
	A) Shock I	B) Fire	C) Explosion	D) All of the above	
8.	What's the first	t thing you sho	uld do if a co-v	vorker is being electr	ocuted?
	A) Pull them free C) Call 911	e of the power s	ource.	B) Turn off the power D) Alert a foreman	er source.





Madurei Main Road (NH-45B), Manikandem, Tiruchireppelli - 620 012 Approved by AICTE, NewDelhi & Affiliated to Anna University, Cherusal NAAC Accredited, 2(F) States Institution by UGC



9.	. GFCI stands	s for ground fault circu	ut interru	ıpter.		Dr. G. Balakrishnan, M.E., Ph.D.,
	A) True.	B) False.				Principal
	ŕ	,				Indra Ganesan College of Engineering
10	0. If you're wo	rking in a damp space,	what do	you need to d	lo?	IG Valley, Madurai Main Road
	A) Mop First	B) Elevate th	e electrica	al outlets and v	wiring	Manikandam, Trichy-620 012.
		use ground fault circuit			_	eaters to dry areas.
11	l. If you're ser	vicing an appliance, wh	at's the f	irst thing you	i need	to do?
	· · · · · · · · · · · · · · · · · · ·	e battery or motor. e power lines leading into	~ 24			it's de-powered.
	C) hispect the	power mies reading mu	on.	D) Remove a	апу ог	atteries
12		ame of the practice tha			vn an	electrical device and
	labeling it so	others know who locke	ed it and v	why?		
	A) Lockout/T	agout B) Lo	ock and La	abel		
	C) Go and Sho	-	top/Gap			
13	. Ladders can electrician's l	be made from a variety	of mater	rials, but wha	t mat	erial is best for an
	Cicci ician s i	auuci :				
	A) Fiberglass	B) Wood C) Al	uminium	D) A	ll of t	he above
				•		
14.	. Which one of	these would require th	at a devi	ce is replaced	or re	paired?
	A) Frayed win	e B) Cracked i	nsulation	C) Broken	plug	D) All of the above
		•		r		
15.	Gloves should	be made of what two	materials	when dealing	g with	electricity?
	A) Cotton an	d nolymers	R) Leat	her and rubber	r	
	C) Cotton and			her and cotton		
			,			
16.	How is IPE di	fferent from PPE?				
	A) It's for high	er voltage equipment.		B) It covers ex	xnose	d live parts, not workers.
	, _	weather work only.			-	l electrical work.
				·		
17.	What should y	you assume about every	electrica e	il device when	a you	first start work?
	A) It's live.	B) Its malfunctioning.	C) It	has a short.	D):	it's wired incorrectly
		my man management with the state of the stat	0,11		الرمد	ne w transportations
18.	Why is it a goo	od idea to only work wi	th one ha	nd whenever	possi	ble?
	A) Allowe for	greater accuracy	R) Facia	r to work in co	anfina	นี้ เทอกละ
	C) Reduces sho			ot a good idea.		u spaves



# Indra Ganesa





19. What do you need	to do with a capa	icitor befor	e working nea	r one?
A) Remove it. B) (	Ground it.	C) Inspe	ect it.	D) Drain it.
20. Do you know the m electrical panel?	inimum amount	of clear w	orking space n	eeded in front of an
A) 30 inches B) 3	6 inches C) 40	inches	D) 48 inches	
21. There are three sho	ck approach bou	mdaries; d	o you know wl	nat they are?
A) 1st, 2nd, and 3 <sup>rd</sup> C) Green, Yellow and	d Red.		Secondary, Te ed, Restricted a	*
22. What's the point of	grounding?			
A) To provide an alte     B) To close a circuit     C) To break a circuit	_	ctricity to g	C	l.
23. Can you name the co	orrect classificat	ion of an el	ectrical fire?	
A) Class E	B) Class C	C) Class I	K D) Class	A
24. What shouldn't be s	tored near electr	ical panels	?	
A) Wood B) Co	mbustible liquids	e C	) PVC pipe	D) Magnets
25. Which of these would	l likely be a leth:	al current?		
A) 40 milliamperes C) 600 milliamperes	B) 175 milliam D) 10,000 mill			

pr. G. Balakrishnan, M.E., Ph.D., Principal Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.



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### Value Added Course

### "Electrical safety & maintenance"

### ANSWER KEY

1	E	6	В	11	В	16	В	21	D
2	A	7	D	12	A	17	Α	22	A
3	D	8	В	13	A	18	С	23	A
4	D	9	A	14	D	19	D	24	В
5	A	10	С	15	В	20	Α	25	D

ur. G. Balakrishnan, M.E., Ph.D., Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road

Manikandam, Trichy-620 012.



A) Shock

C) Call 911

B) Fire

A) Pull them free of the power source.

Madural Main Road (NH-45B), Manikandam, Tiruchirappalli - 620 012 Approved by AICTE, NewDelin & Affiliated to Arma University, Cheunsi NAAC Accredited, 2(F) Status Institution by UGC



IG Valley, Madurai Main Road

Name of the Student: Copomalagu Year/Sem: W/VIII AU Register Number: 811219105005 Value Added Course "Electrical safety & maintenance" MULTIPLE CHOICE QUESTIONS (25X1 = 25 Marks) 1. Which of these can be used as insulating live-line tools for electrical protection? (B) Switch sticks (C) Hot sticks (A) Shotgun sticks (D) None of the above (13), b, and c 2. A Safety Electrical One Line Diagram should be used to all sources of electrical energy. (B) Castigate (C) Evaluate AT dentify (D) Modify 3. The minimum allowable workspace around electrical equipment is \_\_\_\_\_\_inches deep. A) 36 B) 48 ( ) 30 4. OSHA requires the testing of a voltmeter after a voltage test on voltage above C) 277v (D) 600v B) 208v A) 120v 5. One of the three generally recognized hazards of electrical work is C) Falls A) Arc Flash B) Cuts D) Concussion 6. Gloves used for electrical protection must be electrically tested every A) 3 months (B) months C) 12 months D) Never Dr. G. Balakrishnan, M.E., Ph.D., 7. Which of these risks is associated with electricity? **Principal** Indra Ganesan College of Engineering C) Explosion (D) Il of the above

8. What's the first thing you should do if a co-worker is being electrocuted?

Manikandam, Trichy-620 012.

By Jurn off the power source.

Alert a foreman







9.	9. GFCI stands for ground fault circuit intern	upter.	
(	A) True. B) False.	Br. G. Balakrishnan, M.E., Ph.	D.,
10.	10. If you're working in a damp space, what do	you need to do?  Indra Ganesan College of Engineeri	ng
	A) Mop First.  B) Elevate the electric control in the control of t	cal outlets and wiring.  IG Valley, Madurai Main Road	
11.	11. If you're servicing an appliance, what's the	first thing you need to do?	
	A) Expose the battery or motor. C) Inspect the power lines leading into it.	B) Test to ensure it's de-powered. D) Remove any batteries	
12.	12. What is the name of the practice that invol- labeling it so others know who locked it an		
	A) Lockout/Tagout C) Go and Show B) Lock and D) Stop/Gap		
13.	13. Ladders can be made from a variety of matelectrician's ladder?	erials, but what material is best for an	
	A) Fiberglass (B) Vood C) Aluminiu		
14.	14. Which one of these would require that a de	vice is replaced or repaired?	
	A) Frayed wire B) Cracked insulation	on C) Broken plug D) All of the above	
15.	15. Gloves should be made of what two materia	ls when dealing with electricity?	
		ather and rubber eather and cotton	
16.	16. How is IPE different from PPE?		
	A) It's for higher voltage equipment. C) it's for wet weather work only	But covers exposed live parts, not workers. D) it's for industrial electrical work.	
17.	17. What should you assume about every electr	ical device when you first start work?	
Æ	A) t's live. B) Its malfunctioning. C	) It has a short. D) it's wired incorrectly.	
18.	18. Why is it a good idea to only work with one	hand whenever possible?	
(		sier to work in confined spaces s not a good idea.	



# Indra Ganesan

### COLLEGE OF ENGINEERING





What do you r	need to do with	a capacito	r before w	orking near on	e?
A) Remove it.	B) Ground it.	C	) Inspect it		)rain it.
		mount of c	lear worki	ng space neede	ed in front of an
A) 0 inches	B) 36 inches	C) 40 incl	nes D) 4	8 inches	
There are thre	e shock approa	ch bounda	ries; do yo	u know what t	hey are?
		· Committee		* '	•
What's the poi	nt of grounding	??			
B) To close a ci	rcuit			~	
Can you name	the correct clas	sification o	of an electr	ical fire?	
) lass E	B) Clas	s C C)	Class K	D) Class A	
What shouldn't	t be stored near	electrical	panels?		
A) Wood (	Boombustible	liquids	C) PV	C pipe	D) Magnets
Which of these	would likely be	a lethal cu	rrent?		
	A) Remove it.  Do you know to electrical pane  A) 10 inches  There are three  A) 1st. 2nd. and C) Green, Yello  What's the poil  A) 10 provide a B) 10 close a ci  Can you name  Can you name  A) 1ass E  What shouldn't  A) Wood  Which of these  A) 40 milliampe	A) Remove it. B) Ground it.  Do you know the minimum at electrical panel?  A) 0 inches B) 36 inches  There are three shock approata  A) 1st. 2nd. and 3rd  C) Green, Yellow and Red.  What's the point of grounding  A) 1's provide an alternate path  B) 1's close a circuit  Can you name the correct class  A) lass E B) Class  What shouldn't be stored near  A) Wood B) combustible  Which of these would likely be  A) 40 milliamperes B) 175 re	A) Remove it. B) Ground it. Composed by the minimum amount of electrical panel?  A) 0 inches B) 36 inches C) 40 inches There are three shock approach boundated.  A) 1st. 2nd. and 3rd B C) Green, Yellow and Red.  What's the point of grounding?  A) 1's provide an alternate path for electrical B) 1's close a circuit D) To low Can you name the correct classification of Can you name the correct near electrical Can you name the c	A) Remove it. B) Ground it. C) Inspect it.  Do you know the minimum amount of clear working electrical panel?  A) 10 inches B) 36 inches C) 40 inches D) 4  There are three shock approach boundaries; do you had a standard boundaries boundaries.  A) 1 o close a circuit b) To lower the voltation of an electrical you name the correct classification of an electrical you name the correct classification of an electrical you had been stored near electrical panels?  A) Wood B) combustible liquids C) PV Which of these would likely be a lethal current?  A) 40 milliamperes B) 175 milliamperes	Do you know the minimum amount of clear working space neede electrical panel?  A) 10 inches B) 36 inches C) 40 inches D) 48 inches  There are three shock approach boundaries; do you know what t  A) 1st. 2nd. and 3rd B) Main, Secondary, Tertiar, C) Green, Yellow and Red.  What's the point of grounding?  A) 1st. provide an alternate path for electricity to get to the ground.  B) 1st. provide an alternate path for electricity to get to the ground.  B) 1st. provide an alternate path for electricity to get to the ground.  B) 1st. 2nd. and 3rd B) 1st. 2nd. Restricted and P  What's the point of grounding?  A) 1st. 2nd. and 3rd B) 1st. 2nd. Restricted and P  What's the point of grounding?  A) 1st. 2nd. and 3rd B) 1st. 2nd. Restricted and P  What's the point of grounding?  A) 1st. 2nd. and 3rd B) 1st. 2nd. Restricted and P  What's the point of grounding?  A) 1st. 2nd. and 3rd B) 1st. 2nd. Restricted and P  What's the point of grounding?  A) 1st. 2nd. and 3rd B) 1st. 2nd. Restricted and P  What's the point of grounding?  C) 1st. 2nd. Restricted and P  What's the point of grounding?  C) 1st. 2nd. Restricted and P  C) 2nd. Restricted and P  C) 3nd. Restricted and P  C) 3nd. Restricted and P  C) 3nd. Restricted and P  C) 1st. 2nd. Restricted and P  C) 2nd. Restricted and P  C) 3nd. Restricted and P  C) 3nd. Restricted and P  C) 3nd. Restricted and P  C) 4nd. Restricted and P  C) 2nd. Restricted and P  C) 3nd. Restricted and P  C) 4nd. Restricted and P  C) 4nd. Restricted and P  C) 5nd. Restricted and P  C) 6nd. Restricted and P  C) 7nd. Restricted and P  C) 8nd. Re

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.





INSTITUTIONS	Madurai Main Road (NH-45B), Manikandern, Tiruchirappalli - 620 0 Appared by AICTE, NewDelhi & Affiliated to Ama University, Chen NAAC Accredited, 2(F) Status Institution by UGC
	AND MANAGEMENT TO PE MAN AND M

Name of the Student: S. SANGILI

Year/Sem: // [V

AU Register Number: 811221105027



## Value Added Course

"Electrical safety & maintenance"

			2224						
		M	ULTIPLI	Е СНО	ICE QUESTI	ONS (2:	5X1 = 25 Marks	)	
	1.	Which of the protection?	ese can b	e used	l as insulati	ng live	-line tools for	electri	cal
		(A) Shotgun sti	icks (	B) Swit	ch sticks	(C) Ho	t sticks		
		(D) None of the	e above (	Ē) a, b,	and c				
34	2.	A Safety Elect electrical ener	rical One	Line D	iagram shoule	d be use	d to	all	sources of
		(A) Identify	(B) Cast	tigate	(C) Evaluate	(D) M	odify		
	3.	The minimum deep.	allowable	e works	pace around	electrica	d equipment is	ugunn (gegendere)	inches
		A) 36 B) 48	C) 24 (	30					
	4.	OSHA requir	es the test	ting of a	voltmeter af	ter a vol	ltage test on vol	tage abov	ve•
		A) 120v	B) 208v	G	77v	D) 600	ν		
	5.	One of the thr	ee genera	lly reco	gnized hazar	ds of ele	ctrical work is_	•	
		Arc Flash	kelbad.	B) Cuts	C) Fal	ls	D) Concussion	i	
	6.	Gloves used for	or electric	al prote	ection must be	e electric	cally tested ever	y m	onth.
		A) 3 months	B) 6 moi	nths	C) 12 months	D) Ne	ver		
	7.	Which of thes	e risks is a	associat	ted with electr	icity?			
		A) Shock	B) Fire		C) Explosion	(D) All	of the above		
	8.	What's the fi	rst thing y	you sho	uld do if a co-	worker	is being electro	euted?	~ /
		A) Pull them f C) Call 911	ree of the	power s	ource.		rn off the power ert a foreman	source.	(D)

Dr. G. Balakrishnan, M.E., Ph.D., Principal Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.



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9. GFCI stands for ground fault circuit interrupter.

10. If you're working in a damp space, wha	Dr. G. Balakrishnan, M.E., Ph.D.,
	at do you need to do? Indra Ganesan College of Engineering
A) Mop First.  B) Elevate the electric of the control of the contr	ectrical outlets and wiring.
11. If you're servicing an appliance, what's	the first thing you need to do?
<ul><li>A) Expose the battery or motor.</li><li>C) Inspect the power lines leading into it.</li></ul>	(B) Test to ensure it's de-powered. D) Remove any batteries
12. What is the name of the practice that im- labeling it so others know who locked it	volves locking down an electrical device and and why?
(A) Lockout/Tagout B) Lock a (C) Go and Show D) Stop/o	
13. Ladders can be made from a variety of n electrician's ladder?	naterials, but what material is best for an
WFiberglass B) Wood (C)Alumin	ium D) All of the above
14. Which one of these would require that a	.,
	*
A) Frayed wire B) Cracked insula	ation C) Broken plug
A) Frayed wire B) Cracked insula 15. Gloves should be made of what two mate	, , , , , , , , , , , , , , , , , , , ,
15. Gloves should be made of what two mate.  A) Cotton and polymers	, , , , , , , , , , , , , , , , , , , ,
15. Gloves should be made of what two mate.  A) Cotton and polymers	rials when dealing with electricity?
A) Cotton and polymers C) Cotton and rubber  B) C)	rials when dealing with electricity?
<ul> <li>15. Gloves should be made of what two mate</li> <li>A) Cotton and polymers</li> <li>C) Cotton and rubber</li> <li>B)</li> <li>D)</li> <li>16. How is IPE different from PPE?</li> <li>A) It's for higher voltage equipment.</li> </ul>	rials when dealing with electricity?  Leather and rubber Leather and cotton  (B) It covers exposed live parts, not workers.  D) it's for industrial electrical work.
A) Cotton and polymers C) Cotton and rubber  16. How is IPE different from PPE?  A) It's for higher voltage equipment. C) it's for wet weather work only.  17. What should you assume about every electors.	rials when dealing with electricity?  Leather and rubber Leather and cotton  (B) It covers exposed live parts, not workers.  D) it's for industrial electrical work.
A) Cotton and polymers C) Cotton and rubber  16. How is IPE different from PPE?  A) It's for higher voltage equipment. C) it's for wet weather work only.  17. What should you assume about every electors.	Leather and rubber Leather and cotton  B It covers exposed live parts, not workers. D) it's for industrial electrical work.  trical device when you first start work?  C) It has a short. D) it's wired incorrectly







1	9. What do you	need to do with a ca	pacitor before w	orking near o	ne?
	A) Remove it.	B) Ground it.	C) Inspect i	t. O	Drain it.
2	0. Do you know the electrical pane	the minimum amous el?	nt of clear work	ing space need	ed in front of an
	(A) 30 inches	B) 36 inches C)	40 inches D) 4	8 inches	
2	l. There are thre	e shock approach b	oundaries; do ye	ou know what	they are?
	A) 1st, 2nd, and C) Green, Yello	13 <sup>rd</sup> ow and Red.		condary, Tertian Restricted and	
22	. What's the poi	nt of grounding?			
	B) To close a ci	m alternate path for e reuit ircuit D) T		-	
23	. Can you name	the correct classifica	ation of an electr	rical fire?	
	Class E	(B) Class C	C) Class K	D) Class A	
24.	. What shouldn't	t be stored near elec	trical panels?		
	A) Wood	B Combustible liqui	ds C) PV	/C pipe	D) Magnets
25.	Which of these	would likely be a let	hal current?		
	A) 40 milliampe C) 600 milliampe				

Dr. G. Balakrishnan, M.E., Ph.D., Principal Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.







Name of the Student: Navcen . 2

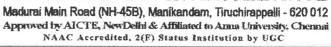
Year/Sem: III/VI

AU Register Number: 8/122-0105024

## Value Added Course

		"Elec	etrical safety	& maint	tenance"	
	<u> </u>	MULTIPLE	CHOICE QUE	STIONS (2	25X1 = 25 M	arks)
1.	Which of th protection?		e used as insul	lating live	e-line tools	for electrical Dr. G. Balakrishnan, M.E., Ph.D.,
	(A) Shotgun st	ticks (B	) Switch sticks	(C) H	ot sticks	Principal Indra Ganesan College of Engineering
	(D) None of th	ne above 🌘	e, b, and c			IG Valley, Madurai Main Road
2.		trical One I	ine Diagram sh	ould be use	ed to	Manikandam, Trichy-620 012 all sources of
1	(A) dentify	(B) Casti	gate (C) Evalua	te (D) M	lodify	
3.	The minimum deep.	allowable	workspace arou	nd electric	al equipment	isinches
	A) 36 B) 48	C) 24 (B)	)30			
4.	OSHA requir	res the testii	ng of a voltmeter	r after a vo	ltage test on	voltage above
	A) 120v	B) 208v	C) 277v	D)60	0v	
5.	One of the thr	ree generally	y recognized haz	zards of ele	ctrical work	is
	A) Arc Flash	B)	Cuts C)	Falls	D) Concuss	sion
6.	Gloves used for	or electrical	protection mus	t be electri	cally tested e	very month.
	A) 3 months	B)6 mont	hs C) 12 mont	ths D) Ne	ever	
7.	Which of thes	se risks is as	sociated with ele	ectricity?		
	A) Shock	B) Fire	C) Explosi	on D)Al	of the above	
8.	What's the fi	rst thing yo	u should do if a	co-worker	is being elect	trocuted?
	A) Pull them fi	ree of the po	wer source.		rn off the powert a foreman	ver source.





9. GFCI stands for ground fault circuit interrupter.



	Of et stands for ground must enter	i micri upici.	Dr. G. Balakrishnan, M.E., Ph.D.,
	A) True. alse.	•	Principal
10	If you're working in a damp space,	what do you need to do?	Indra Ganesan College of Engineering IG Valley, Madurai Main Road
10.	if you it working in a damp space,	what do you need to do:	Manikandam, Trichy-620 012.
(	A) Mop First. B) Elevate the C) Install and use ground fault circuit is	e electrical outlets and wiri interrupter. D) Use	_
11.	If you're servicing an appliance, who	at's the first thing you ne	ed to do?
	A) Expose the battery or motor. C) Inspect the power lines leading into		re it's de-powered. batteries
12.	What is the name of the practice tha labeling it so others know who locked		n electrical device and
ı	A) Lockout/Tagout B) Lo	ck and Label	
2		op/Gap	
13.	Ladders can be made from a variety electrician's ladder?  A) Fiberglass (B) Wood (C) Alu		
	A) Floeiglass (b) wood (c) Alt	milinum D) An o	f the above
14.	Which one of these would require the	at a device is replaced or	repaired?
	A) Frayed wire B) Cracked in	nsulation C) Broken plu	g D) All of the above
15.	Gloves should be made of what two n	materials when dealing w	ith electricity?
	A) Cotton and polymers C) Cotton and rubber	B) Leather and rubber D) Leather and cotton	
16.	How is IPE different from PPE?		
	A) It's for higher voltage equipment.  S for wet weather work only.	The state of the s	osed live parts, not workers. rial electrical work.
17.	What should you assume about every	electrical device when ye	ou first start work?
h	A) It's live. B) Its malfunctioning.	C) It has a short.	D) it's wired incorrectly.
18.	Why is it a good idea to only work wi	th one hand whenever po	ssible?
1	A) Allows for greater accuracy  (2) Reduces shock risk	B) Easier to work in conf D) it's not a good idea.	ined spaces



# Indra Ganesan

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19. What do you need to do with a capacitor before working near one?	
A) Remove it. B) Ground it. C) Inspect it. D) Drain it.	
20. Do you know the minimum amount of clear working space needed in front of electrical panel?	ın
(A) 30 inches B) 36 inches C) 40 inches D) 48 inches	
21. There are three shock approach boundaries; do you know what they are?	
A) 1st, 2nd, and 3 <sup>rd</sup> B) Main, Secondary, Tertiary. C) Green, Yellow and Red.  B) Main, Secondary, Tertiary. imited, Restricted and Prohibited	
22. What's the point of grounding?	
A) To provide an alternate path for electricity to get to the ground.  o close a circuit  D) To lower the voltage	
23. Can you name the correct classification of an electrical fire?	
(A) Class E B) Class C C) Class K D) Class A	
24. What shouldn't be stored near electrical panels?	
A) Wood B)Combustible liquids C) PVC pipe D) Magnet	3
25. Which of these would likely be a lethal current?	
A) 40 milliamperes C) 600 milliamperes D)10,000 milliamperes	

Dr. G. Balakrishnan, M.E., Ph.D.,
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IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



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Madural Main Road (NH-45B), Manikandem, Tiruchirappalli - 620 012 Approved by AICTE, NewDelful & Affiliated to Anna University: Chemial NAAC Accordited, IN Status lastitution by ECC

# **Department of Electrical and Electronics Engineering**

Academic Year 2022-2023 - Even Semester

VALUE ADDED COURSE ASSESMENT SHEET

"Electrical safety & maintenance"

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road

ly-620 012.

S.NO		A		J & maintenance"				
	Register Number Name	YEAR/ BRANCH	YEAR/		VAC-MCQ TEST		OVERALL MARK (100)	
PP+ Madeinandy		BRA	BRANCH	No. of Hours	Attendance Mark(100)	No of Correct	MCQ Mark(100)	(50% of A
1	811219105002	M.BARATH	The same of the sa	Attended	(A)	Answers	(B)	+ 50% of B)
2	811219105003	THE PARTY OF THE P	IV/EEE	30	100	20		10)
3	811219105005	MANIKANDAN	IV/EEE	27	90	20	80	90
4	811219105006	CIONNALAGU	IV/EEE	30	and they make the	_21_	84	87
5	811219105007	A.SALAMON	IV/EEE	27	100	21	84	92
6	811219105008	M.SARAVANAKUMAR	IV/EEE		90	20	80	85
	Manage on had one spine up	K.SOLAIMATHI	IV/EEE	30	100	21	84	92
	813919105001	P.DHEVENTHIRAN	IV/EEE	30	100	22	88	94
- 1	611219105301	A. VENKATRAMAN	IV/EEE	30	100	20	80	A JANES
	811220105001	ABINESH T	The same of the same of the same of	27	90	21	84	90
10	011000	ALEX IMMANVEL S	III/EEE	27	90	19	Torquesta Hom . see a factor	87
	7/00 V/A	WHATHA ACT 2	III/EEE	27	90	-	76	83
				NOW MANAGEMENT		19	76	83



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## Pr. G. Balakrishnan, M.E., Ph.D., Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy 620 012.

S.NO	Register Number	Name	YEAR/ BRANCH	Attenda	nce Details	VAC-MCQ TEST		OVERALL MARK (100)	
				No. of Hours Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	(50% of A + 50% of B)	
11	811220105006	BALAMURUGAN A	III/EEE	30	100	21	84	92	
12	811220105011	DIVYA B	III/EEE	27	90	20	80	85	
13	811220105013	GAYATHRI M	III/EEE	30	100	21	84	92	
14	811220105017	KARTHIK D	III/EEE	30	100	22	88	94	
15	811220105019	LATCHIYA K	III/EEE	27	90	19	76		
16	811220105022	MANIKANDAN K	III/EEE	24	80	20	80	83	
17	811220105023	MOHANDOSS S	III/EEE	24	80	21	84	80	
18	811220105024	NAVEEN R	III/EEE	27	90	22	88	82	
19	811220105031	SANDURU K	III/EEE	30	100	20	80	89	
20	811220105032	SANTHIYA A	III/EEE	27	90	21	84	90	
21	811220105035	SHANMUGAM S	III/EEE	24	80	20		87	
22	811220105037	SNEKA T	III/EEE	27	90	21	80	80	
23	811220105038	SOPHIYA K	III/EEE	30	100	775	84	87	
24	811220105301	AARTHI S	IIVEEE	30	100	20	80	90	
25	811220105303	THIRUNAVUKARASU M	III/EEE	30	100	20	80	90	



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S.NO	Register Number		YEAR/	Attenda	Attendance Details		VAC-MCQ TEST	
			BRANCH	No. of Hours Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	(50% of A + 50% of B)
26	811220105305	VENKATESHWARAN.A	III/EEE	30	100	21		*
27	811220105306	DIVYA BHARATHI	III/EEE	1		21	84	92
28	811220105307	SATHEESH KUMAR	**************************************	27	90	_21	84	87
20			III/EEE	30	100	22	88	94
29	811221105012	HARIHARAN E	II/EEE	27	90	20	80	The second second
30	811221105018	LINGESWARAN R	II/EEE		***************************************	era aya mengapatan		85
31	811221105027	SANGILI S	5- 190000 x 11 + 44 ;	27	90	21	84	87
nere Bussuay		TRANSMISSION DE L'ENGLISSION D	II/EEE	30	100	22	88	94
32	811221105039	SRIKANTH M	II/EEE	27	90	20	80	85

Dr. G. Balakrishnan, M.E., Ph.D., Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.







Principal

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Title: "Electrical safety & maintenance"											
Resource Person:		No Coi Tan	Mr.S.Sathiyan, Trainer, NoviTech R&D Pvt Ltd, Coimbatore, Tamilnadu.								
Date of conduct from		om:	01.08.2023	To:	05.08.2	023	Duration:	30 Hours			
Organize	ed Departn	nent:	Electrical and	Electroni	cs Engine	ering	7,20		Marie		
Participa	nt Year:	2,3,4	2,3,4			No. of Students Registered: 32					
Venue: Out	EEE III come of V	alue /	ssroom  Added Course (\) ne workplace.	AC); At	the end o	f the C	ourse, Student	ts can able t	0		
			hazards and risks	š.							
<ul><li>Ana</li></ul>	yze the St	andaro	ls and regulations	S.							
Find	Qualified	and u	nqualified worke	r.							
<ul><li>Find</li></ul>	Effects of	electr	icity on human b	ody.							
<ul><li>Appr</li></ul>	eciate the	need t	o isolate equipm	ent and the	e techniqu	es of sa	ife isolation				
enfande for 1) * (Deduced techniques of	and beginned to the parameter of		A	sessment	Process		The state of the s	######################################	***************************************		
attenda	nce is elig score = (0.	gible to	puring more that preceive the certicendance in VAC	ficate for to out of 100	the VAC	course of ge + 0.5	conducted				

Dr. G. Balakrishnan, M.E., Ph.D.,

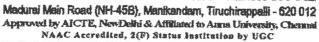
Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.



# Indra Ganesan

### COLLEGE OF ENGINEERING





Title:	" Electrical safety & maintenance "									
Resource Person:	Mr.S.Sathiyan, Trainer, NoviTech R&D Pvt Ltd, Coimbatore, Tamilnadu.									
Date of conduct from:	01.08.202	To:	05.08.2023	Duration:	30 Hours					
Organized Department:	Electrical	Electrical and Electronics Engineering								
Participant Year:	2,3,4		No. of Stud	No. of Students Registered: 32						

Sample Photo

GPS Map Camera

Mahikandam, Tamii Nadu, India
PJRQ+H4F, Trichy - Melur Rd, Manikandam, Panjappur, Tamii Nadu 620012, India
Lat 10.741399\*
Long 78.637826\*
61/88/23 11:52 AN CMT +05:30

VAC Coordinator

HoD/EEE

Principal

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012





This is to certify that Mr.M.BARATH, IV Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

Micro win Automation

Mr.N.Anand

Manager.

Dr. G. Balakrishnan, M.E., Ph.D.;
Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Rose Manikandam, Trichy-620 012. looky.

Principal

IGCE





This is to certify that Mr.A.MANIKANDAN, IV Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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Mr.N.Anand

Manager.

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012. PERV.





This is to certify that Ms.C.PONNALAGU, IV Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

Micro win Automation

Mr.N.Anand

Manager.

Dr. G. Balakrishnan, M.E., Ph.D.
Principal

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This is to certify that Mr.A.SALAMON, IV Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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Mr.N.Anand

Manager.

Dr. G. Balakrishnan, M.E., Ph.

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This is to certify that Mr.M.SARAVANAKUMAR, IV Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Ms.K.SOLAIMATHI, IV Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Mr.ABINESH T, III Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Ms.GAYATHRI M, III Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Mr.MANIKANDAN K, III Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1<sup>st</sup> August 2023 to 5<sup>th</sup> August 2023 (5days) during the Academic year 2022-2023.

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looks.





This is to certify that Mr.MOHANDOSS S, III Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Mr.SANDURU K, III Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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Manager.

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
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IG Valley, Madural Main Road
Manikandam, Trichy-620 012.





This is to certify that Ms.M.SOPHIYA K, III Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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Principal

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This is to certify that Mr. VENKATESHWARAN.A, II Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Mr. SATHEESH KUMAR.S, II Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Mr. HARIHARAN E, II Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Mr. LINGESWARAN R, II Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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Principal

**IGCE** 





This is to certify that Mr. SANGILI S, II Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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This is to certify that Mr. SRIKANTH M, II Year, EEE has successfully completed the Value Added Course on "Electrical safety & maintenance" organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with NoviTech R&D Pvt Ltd from 1st August 2023 to 5th August 2023 (5days) during the Academic year 2022-2023.

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