

**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING  
PROGRAMME STRUCTURE**

**SCHEME AT A GLANCE**

<b>Level</b>	<b>Name of Level</b>	<b>Total Number of Courses offered</b>	<b>Number of Courses to be completed</b>	<b>TH</b>	<b>TU</b>	<b>PR</b>	<b>Total Hrs</b>	<b>Total Credits</b>	<b>Marks</b>
Level-1	Foundation Courses	09	09 Compulsory	<b>16</b>	<b>01</b>	<b>18</b>	<b>35</b>	<b>26</b>	950
Level-2	Basic Technology Courses	08	08 Compulsory	<b>21</b>	<b>01</b>	<b>14</b>	<b>36</b>	<b>29</b>	1075
Level-3	Allied courses	06	04 (03 Compulsory +01 Electives)	<b>06</b>	--	<b>06</b>	<b>12</b>	<b>09</b>	250
Level-4	Applied Technology Courses	11	11 Compulsory	<b>27</b>	--	<b>22+35</b>	<b>49+35</b>	<b>52</b>	1575
Level-5	Diversified Courses	04	01 Electives	<b>03</b>	--	<b>02</b>	<b>05</b>	<b>04</b>	150
<b>TOTAL</b>		<b>38</b>	<b>31 compulsory +02 Electives 33</b>	73	02	62+35= 97	137+35= 172	<b>120</b>	<b>4000</b>
<b>Audit courses</b>		<b>04</b>	<b>04</b>	<b>06</b>		<b>02</b>			
<b>Grand Total</b>		<b>42</b>	<b>37</b>	<b>79</b>	<b>02</b>	<b>99</b>	<b>145+ 35=180</b>	<b>120</b>	<b>4000</b>

**Abbreviations:**

TH : Theory, TU : Tutorial, PR: Practical.

**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING**  
**PROGRAMME STRUCTURE**  
**LEVEL – 1**  
**FOUNDATION COURSES**

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours per Week				Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hours		Hrs	Mark					
01	21101	Communication Skills	CMS	02	--	02	04	03	03	80	20	--	--	50	150
02	21102	Engineering Mathematics	EMT	02	01	--	03	03	03	80	20	--	--	--	100
03	21103	Applied Mathematics	AMT	03	--	--	03	03	03	80	20	--	--	--	100
04	21104	Applied Physics	PHY	03	--	02	05	04	02	80#	20#	--	--	50	150
05	21105	Applied Chemistry	CHY	03	--	02	05	04	02	80#	20#	--	--	50	150
06	21107	Engineering Graphics	EGR	--	--	04	04	02	--	--	--	--	--	50	50
07	21108	Engineering Mechanics	EMH	03	--	02	05	04	03	80	20	--	--	50	150
08	21109	Workshop Practice	WSP	--	--	04	04	02	--	--	--	--	--	50	50
09	21110	Introduction to IT System	ITS	--	--	02	02	01	--	--	--	--	--	50	50
<b>TOTAL</b>			--	<b>16</b>	<b>01</b>	<b>18</b>	<b>35</b>	<b>26</b>	--	<b>480</b>	<b>120</b>	--	--	<b>350</b>	<b>950</b>

**Level : 1**

Total Courses : 09  
Total Credits : 26  
Total Marks : 950

**Abbreviations :**

Abbr : Course Abbreviation, TH : Theory, TU : Tutorial, PR: Practical, OR : Oral, TW : Term Work

**Course code Indication:**

First two digit : Indicates last two digits of Year of Implementation of Curriculum  
Third digit : Indicates Level.  
Fourth & fifth digit : Indicates Course Number.

**Assessment of PR / OR / TW :**

- 1) All orals & practical are to be assessed by external & internal examiners.
- 2) Other TW are to be assessed by internal examiners.
- 3) #indicates Online theory Examination

**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING**  
**PROGRAMME STRUCTURE**  
**LEVEL – 2**  
**BASIC TECHNOLOGY COURSES**

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours Per Week				Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hours		Hrs	Mark					
01	21224	Elements of Electrical Engineering	EEE	03	--	02	05	04	03	80	20	25		25	150
02	21225	Electrical Network	ENW	03	01	02	06	05	03	80	20	25	--	25	150
03	21226	Electrical Measurement & Instrumentation	EMI	03	--	02	05	04	03	80	20	25	--	25	150
04	21227	DC Machines & Transformers	DCT	03	--	02	05	04	03	80	20	25	--	25	150
05	21228	Electrical Material & Workshop	EMW	--	--	02	02	01	--	--	--	--	25	50	75
06	21229	Elements of Electronics	EEL	03	--	02	05	04	03	80	20	25	--	25	150
07	21230	Electric Power Generation	EPG	03	--		03	03	03	80	20	--	--	--	100
08	21231	Analog & Digital Electronics	ADE	03	--	02	05	04	03	80	20	25	--	25	150
<b>TOTAL</b>			--	<b>21</b>	<b>01</b>	<b>14</b>	<b>36</b>	<b>29</b>	--	<b>560</b>	<b>140</b>	<b>150</b>	<b>25</b>	<b>200</b>	<b>1075</b>

**Level: 2**

Total Courses : 08  
Total Credits : 29  
Total Marks : 1075

**Assessment of PR / OR / TW :**

- 1) All orals & practicals are to be assessed by external & internal examiners.
- 2) Other TW are to be assessed by internal examiners.

**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING**  
**PROGRAMME STRUCTURE**  
**LEVEL – 3**  
**ALLIED COURSES**

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours Per Week				Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hours		Hrs	Mark					
01	21301	Entrepreneurship and Start-ups	EPS	01	--	02	03	02	--	--	--	--	--	50	50
02	21303	Programming and Problem Solving	PPS	01	--	02	03	02	--	--	--	--	--	50	50
03	21308	Industrial Organization & Management	IOM	03	--	--	03	03	03	80	20	--	--	--	100
<b>Elective I : Any ONE of the following</b>															
04	21305	Artificial Intelligence	AIC	01	--	02	03	02	--	--	--	--	--	50	50
	21306	Internet of Things	IOT	01	--	02	03	02	--	--	--	--	--	50	50
	21311	Computer Aided Electrical Drawing	CED	01	--	02	03	02	--	--	--	--	--	50	50
<b>TOTAL</b>			--	<b>06</b>	--	<b>06</b>	<b>12</b>	<b>09</b>	--	<b>80</b>	<b>20</b>	--	--	<b>150</b>	<b>250</b>

**Level: 3**

Total Courses : 04  
Total Credits : 09  
Total Marks : 250

**Assessment of PR / OR / TW:**

- 1) All orals & practicals are to be assessed by external & internal examiners.
- 2) Other TW are to be assessed by internal examiners.

**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING**  
**PROGRAMME STRUCTURE**  
**LEVEL – 4**  
**APPLIED TECHNOLOGY COURSES**

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours Per Week				Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hours		Hrs	Mark					
01	21410	Industrial Training	INT	--	--	--	35	14	--	--	--	--	100	100	200
02	21411	Project	PRO	--	--	04	04	02	--	--	--	--	50	50	100
03	21424	Electrical Installation Systems	EIS	03	--	02	05	04	03	80	20	--	--	25	125
04	21425	A.C. Machines	ACM	03	--	02	05	04	03	80	20	25	--	25	150
05	21426	Transmission & Distribution of Electrical Power	TDE	03	--	02	05	04	03	80	20	--	--	25	125
06	21427	Switchgear & Protection	SGP	03	--	02	05	04	03	80	20	--	25	25	150
07	21428	Testing & Maintenance of Electrical Machines	TME	03	--	02	05	04	03	80	20	--	25	25	150
08	21429	Utilization of Electrical Energy	UEE	03	--	02	05	04	03	80	20	--	--	25	125
09	21430	Electrical Energy Management	EEM	03	--	02	05	04	03	80	20	--	25	25	150
10	21431	Power Electronics & Applications	PEX	03	--	02	05	04	03	80	20	--	25	25	150
11	21432	Microcontroller & Applications	MCA	03	--	02	05	04	03	80	20	--	25	25	150
<b>TOTAL</b>			--	<b>27</b>	--	<b>57</b>	<b>84</b>	<b>52</b>	--	<b>720</b>	<b>180</b>	<b>25</b>	<b>275</b>	<b>375</b>	<b>1575</b>

**Level: 4**

Total Courses : 11  
Total Credits : 52  
Total Marks : 1575

**Assessment of PR / OR / TW :**

- 1) All orals & practicals are to be assessed by external & internal examiners.
- 2) Other TW are to be assessed by internal examiners.

**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING**  
**PROGRAMME STRUCTURE**  
**LEVEL – 5**  
**DIVERSIFIED COURSES**

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours Per Week				Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hours		Hrs	Mark					
<b>Elective III : Any ONE of the following</b>															
01	21522	Traction Engineering	TRE	03	--	02	05	04	03	80	20	--	25	25	150
	21523	Industrial Automation & Control	IAC	03		02	05	04	03	80	20	--	25	25	150
	21524	Electric Vehicles	EVH	03		02	05	04	03	80	20	--	25	25	150
	21525	Illumination Engineering	ILE	03	--	02	05	04	03	80	20	--	25	25	150
<b>TOTAL</b>			--	<b>03</b>	--	<b>02</b>	<b>05</b>	<b>04</b>	--	<b>80</b>	<b>20</b>	--	<b>25</b>	<b>25</b>	<b>150</b>

**Level: 5**

Total Courses : 01  
Total Credits : 04  
Total Marks : 150

**Assessment of PR / OR / TW :**

- 1) All orals & practicals are to be assessed by external & internal examiners.
- 2) Other TW are to be assessed by internal examiners.

**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING**  
**PROGRAMME STRUCTURE**  
**AUDIT COURSES**

<b>Sr. No.</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Contact Hours Per Week (TH)</b>	<b>Contact Hours Per Week (PR)</b>	<b>Total Contact Hours Per Week</b>
1	21001	Environmental science (EVS)	2		2
2	21002	Sports and Yoga(SPY)	--	2	2
3	21003	Essence of Indian Knowledge and Tradition (IKT)	2	--	2
4	21004	Indian Constitution (ICT)	2	-	2

Total Courses : 04  
Total Credits : Nil  
Total Marks : --

## PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING

### Courses for Award of Class

Sr.No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours Per Week				Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hours		Hrs	Mark					
01	21308	Industrial Organization & Management	IOM	03	--	--	03	03	03	80	20	--	--	--	100
02	21410	Industrial Training	INT	--	--	35	35	14	--	--	--	--	100	100	200
03	21411	Project	PRO	--	--	04	04	02	--	--	--	--	50	50	100
04	21424	Electrical Installation Systems	EIS	03	--	02	05	04	03	80	20	--	--	25	125
05	21425	A.C. Machines	ACM	04	--	02	06	05	03	80	20	25	--	25	150
06	21427	Switchgear & Protection	SGP	03	--	02	05	04	03	80	20	--	25	25	150
07	21428	Testing & Maintenance of Electrical Machines	TME	03	--	02	05	04	03	80	20	--	25	25	150
08	21429	Utilization of Electrical Energy	UEE	03	--	02	05	04	03	80	20	--	--	25	125
09	21430	Electrical Energy Management	EEM	03	--	02	05	04	03	80	20	--	25	25	150
10	21431	Power Electronics and Applications	PEX	03	--	02	05	04	03	80	20	--	25	25	150
11	21432	Microcontroller & Applications	MCA	03	--	02	05	04	03	80	20	--	25	25	150
<b>Elective III : Any ONE of the following</b>															
12	21522	Traction Engineering	TRE	03	--	02	05	04	03	80	20	--	25	25	150
	21523	Industrial Automation & Control	IAC	03	--	02	05	04	03	80	20	--	25	25	150
	21524	Electric Vehicles	EVH	03	-	02	05	04	03	80	20	--	25	25	150
	21525	Illumination Engineering	ILE	03	--	02	05	04	03	80	20	--	25	25	150
<b>TOTAL</b>				<b>31</b>	<b>--</b>	<b>57</b>	<b>88</b>	<b>56</b>	<b>--</b>	<b>800</b>	<b>200</b>	<b>25</b>	<b>300</b>	<b>375</b>	<b>1700</b>

Total Courses : 12

Total Credits : 56

Total Marks : 1700

#### Assessment of PR / OR / TW :

- 1) All orals & practicals are to be assessed by external & internal examiners.
- 2) Other TW are to be assessed by internal examiners.



**PROGRAMME - DIPLOMA IN ELECTRICAL ENGINEERING  
SAMPLE PATH  
ENTRY LEVEL- 10+**

Nature of Course	First Year		Second Year		Third Year		Total
	Odd Term	Even Term	Odd Term	Even Term	Odd Term	Even Term	
<b>Compulsory</b>	21102 EMT(03)	21101 CMS(03)	21225 ENW(05)	21301 EDP(02)	21411 PRO(02)	21410 INT(14)	
	21104 PHY(04)	21103 AMT(03)	21226 EMI(04)	21308 IOM(03)	21427 SGP(04)		
	21107 EGR(02)	21105 CHY(04)	21227 DCT(04)	21424 EIS(04)	21428 TME(04)		
	21108 EMH(04)	21109 WSP(02)	21228 EMW(01)	21425 ACM(04)	21430 EEM(04)		
	21110 ITS(01)	21224 EEE(04)	21231 ADE (04)	21429 UEE(04)	21432 MCA(04)		
		21229 EEL(04)	21303 PPS(02)	21431 PETX(04)			
		21230 EPG(03)	21426 TDE(04)				
<b>Total credits (Compulsory)</b>	<b>14</b>	<b>23</b>	<b>24</b>	<b>21</b>	<b>18</b>	<b>14</b>	<b>114</b>
<b>Elective</b>				<b>Elective I</b> 21305 AIC(02), 21306 IOT(02), 21311 CED(02)	<b>Elective III</b> 21522 TRE(04) 21523 IAC(04) 21524 EVH(04) 21525 ILE(04)		
<b>Total Credits (Elective)</b>	--	--	--	<b>02</b>	<b>04</b>	--	<b>06</b>
<b>Total Courses</b>							
<b>Audit Courses</b>	<b>21002 SPY(00)</b>	<b>21001 EVS(00)</b>	<b>21003 IKT(00)</b>	<b>21004 ICT(00)</b>			
<b>Total Credits (Compulsory + Elective)</b>							
<b>Grand Total of Credits</b>							<b>120</b>

**Note: Figures in bracket indicates total credits.**