



**PERIYAR  
MANIAMMAI**  
INSTITUTE OF SCIENCE & TECHNOLOGY  
(Deemed to be University)  
Established Under Sec. 3 of UGC Act, 1956 • NAAC Accredited  
think • innovate • transform

## Criterion 1 – Curricular Aspects

<b>Key Indicator</b>	1.2	<b>Academic Flexibility</b>
<b>Metric</b>	1.2.2	Percentage of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented (Data for the latest completed academic year)

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING  
STRUCTURE OF THE PROGRAM CLEARLY INDICATING  
COURSES, CREDITS/ELECTIVES**

**B.Tech. EEE Full Time****SEMESTER I**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XMA101	Calculus and Linear Algebra	3	1	0	4	4
XBE102	Electrical and Electronics Engineering Systems	3	1	0	4	4
XAC 103	Chemistry	3	1	0	4	4
XEG 104	Engineering Graphics and Design	1	0	2	3	5
XGS 105	Speech Communication	0	1	2	3	5
XUM 106	Constitution of India / Essence of Indian Traditional Knowledge	0	0	0	0	3
XBE107	Electrical and Electronics Engineering Systems Laboratory	0	0	1	1	2
XAC 108	Chemistry Laboratory	0	0	1	1	2
<b>TOTAL</b>		<b>10</b>	<b>4</b>	<b>6</b>	<b>20</b>	<b>29</b>

**SEMESTER II**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XMA 201	Calculus, Ordinary Differential Equations and Complex Variable	3	1	0	4	4
XCP 202	Programming for Problem Solving	3	0	0	3	3
XAP 203	Applied Physics for Engineers	3	1	0	4	4
XGS 204	Technical Communication	2	0	0	2	2
XWP 205	Workshop Practices	1	0	2	3	5
XEM 206	Engineering Mechanics	3	0	0	3	3
XCP 207	Programming for Problem Solving Laboratory	0	0	1	1	2
XAP 208	Applied Physics for Engineers Laboratory	0	0	1	1	2
<b>TOTAL</b>		<b>15</b>	<b>2</b>	<b>4</b>	<b>21</b>	<b>25</b>

### SEMESTER III

Code No.	Course Title	L	T	P	C	TCH
XEE 301	Electrical Circuit Analysis	3	1	1	5	6
XEE 302	Analog Electronics	3	0	1	4	5
XEE 303	Electrical Machines - I	3	1	1	5	6
XEE 304	Electromagnetic Fields	3	1	0	4	4
XEE 305	Transmission and Distribution	3	0	0	3	3
XEE 306	In-plant Training - I	0	0	0	0	0
<b>TOTAL</b>		<b>15</b>	<b>3</b>	<b>3</b>	<b>21</b>	<b>24</b>

### SEMESTER IV

Code No.	Course Title	L	T	P	C	TCH
XPS 401	Probability and Statistics	3	1	0	4	4
XEE 402	Digital Electronics	3	0	1	4	5
XEE 403	Power Electronics	3	0	1	4	5
XEE 404	Electrical Machines - II	3	1	1	5	6
XUM 405	Entrepreneurship Development	3	0	0	3	3
XEE 406	Signals and Systems	2	1	0	3	3
<b>TOTAL</b>		<b>17</b>	<b>3</b>	<b>3</b>	<b>23</b>	<b>26</b>

### SEMESTER V

Code No.	Course Title	L	T	P	C	TCH
XEE 501	Power Systems - I (Apparatus and Modelling)	3	1	1	5	6
XEE 502	Control Systems	3	0	1	4	5
XEE 503	Microprocessors and Microcontrollers	3	0	1	4	5
XEE E1*	Professional Elective - 1	3	0	0	3	3
X** OE*	Open Elective – 1	3	0	0	3	3
XUM 506	Constitution of India	3	0	0	3	3
XEE 507	In-plant Training – II	0	0	0	0	0
XEE M01	Minor Course – I	0	0	0	0	2
<b>TOTAL</b>		<b>18</b>	<b>1</b>	<b>3</b>	<b>22</b>	<b>27</b>

### SEMESTER VI

Code No.	Course Title	L	T	P	C	TCH
XUM 601	Economics for Engineers	3	0	0	3	3
XEE 602	Power Systems - II (Operation and Control)	3	1	1	5	6
XEE E2*	Professional Elective - 2	3	0	1	4	5
XEE E3*	Professional Elective - 3	3	0	1	4	5
X** OE*	Open Elective – 2	3	0	0	3	3
XUM 606	Disaster Management	3	0	0	P/F*	3
XEE M02	Minor Course – II	0	0	0	0	2
<b>TOTAL</b>		<b>18</b>	<b>1</b>	<b>3</b>	<b>19</b>	<b>27</b>

**\*Pass / Fail course**

**SEMESTER VII**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XEE E4*	Professional Elective – 4	3	0	0	3	3
XEE E5*	Professional Elective – 5	3	0	0	3	3
XUM 703	Human Ethics, Values, Rights and Gender Equality	3	0	0	3	3
X** OE*	Open Elective – 3	3	0	0	3	3
X** OE*	Open Elective – 4	3	0	0	3	3
XEE 706	Project Phase – I	0	0	8	4	6
XEE 707	In-plant Training – III	-	-	4	2	-
XEE M03	Minor Course – III	0	0	0	0	2
<b>TOTAL</b>		<b>15</b>	<b>0</b>	<b>12</b>	<b>21</b>	<b>23</b>

**SEMESTER VIII**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XUM 801	Cyber Security	0	0	0	P/F	3
XEE E6*	Professional Elective – 6	3	0	0	3	3
X** OE*	Open Elective -5	3	0	0	3	3
XEE 804	Project Phase – II	0	0	12	6	16
<b>TOTAL</b>		<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>25</b>

## LIST OF ELECTIVES

### ELECTIVE GROUP –1: (5th Sem)

Code No.	Course Title	L	T	P	C
E11	Protection and Switchgear	3	0	0	3
E12	Electrical Machine Design	3	0	0	3
E13	Electrical Safety, Operations and Regulations	3	0	0	3
E14	Computer Architecture	3	0	0	3

### ELECTIVE GROUP – 2: (6th Sem)

Code No.	Course Title	L	T	P	C
E21	Measurements and Instrumentation	3	0	1	4
E22	Electromagnetic Waves	3	0	0	3
E23	Computational Electromagnetics	3	0	0	3
E24	Digital Control Systems	3	0	0	3

### ELECTIVE GROUP –3: (6<sup>th</sup> Sem)

Code No.	Course Title	L	T	P	C
E31	Industrial Automation	3	0	1	4
E32	Digital Signal Processing	3	0	0	3
E33	Electrical Energy Conservation and Auditing	3	0	0	3
E34	Industrial Electrical Systems	3	0	0	3

### ELECTIVE GROUP –4: (7th Sem)

Code No.	Course Title	L	T	P	C
E41	High Voltage Engineering	3	0	0	3
E42	Embedded System	3	0	0	3
E43	Power System Restructuring	3	0	0	3
E44	Line Commutated and Active Rectifiers	3	0	0	3

### ELECTIVE GROUP –5:(7<sup>th</sup> Sem)

Code No.	Course Title	L	T	P	C
E51	Electrical Drives	3	0	0	3
E52	Power System Dynamics and Control	3	0	0	3
E53	HVDC Transmission Systems	3	0	0	3
E54	Power Quality and FACTS	3	0	0	3

**ELECTIVE GROUP - 6:(8<sup>th</sup> Sem)**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
E61	Electrical and Hybrid Vehicles	3	0	0	3
E62	Wind and Solar Systems	3	0	0	3
E63	Power System Protection	3	0	0	3
E64	Advanced Electric Drives	3	0	0	3

**OPEN ELECTIVES:**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
OE1	Industrial Automation	3	0	0	3
OE2	Energy Management and Auditing	3	0	0	3
OE3	Renewable Energy Technology	3	0	0	3

**B.Tech. EEE Part Time****CURRICULUM****REGULATION – 2018**

(Applicable to the students admitted from the Academic year 2018-19 onwards)

**SEMESTER I**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
	Calculus and Linear Algebra	3	1	0	4	4
	Applied Physics for Engineers	3	1	0	4	4
	Chemistry	3	1	0	4	4
	Electrical Circuit Analysis	3	1	0	4	4
	Electrical Circuit Analysis Laboratory	0	0	1	1	2
<b>Total</b>		<b>12</b>	<b>4</b>	<b>1</b>	<b>17</b>	<b>18</b>

**SEMESTER II**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
	Calculus, Ordinary Differential Equations and Complex Variable	3	1	0	4	4
	Analog Electronics	3	1	0	4	4
	Electromagnetic Fields	3	1	0	4	4
	Electrical Machines – I	3	1	0	4	4
	Electrical Machines – I Laboratory	0	0	1	1	2
<b>Total</b>		<b>12</b>	<b>4</b>	<b>1</b>	<b>17</b>	<b>18</b>

**SEMESTER III**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE 301	Transmission and Distribution	3	0	0	3	3
PEE 302	Environmental Sciences	3	0	0	3	3
PEE 303	Signals and Systems	2	1	0	3	3
PEE 304	Electrical Machines-II	3	0	1	4	5
		<b>11</b>	<b>1</b>	<b>1</b>	<b>13</b>	<b>14</b>



**SEMESTER IV**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE 401	Digital Electronics	3	0	0	3	3
PEE E1*	Professional Elective-1	3	0	0	3	3
PEE E2*	Professional Elective-2	3	0	0	3	3
PEE 404	Power Electronics	3	0	1	4	5
		<b>12</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>14</b>

**SEMESTER V**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE501	Power Systems – I (Apparatus and Modeling)	3	0	0	3	3
PEE E3*	Professional Elective-3	3	0	0	3	3
	Industrial Economics and Foreign Trade	3	0	0	3	3
PEE504	Control Systems	3	0	1	4	5
		<b>12</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>14</b>

**SEMESTER VI**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE601	Power Systems –II (Operation and Control)	3	0	0	3	3
PEE602	E-Waste Management	3	0	0	3	3
PEE603	Disaster Management	3	0	0	3	3
PEE 604	Microprocessors and Microcontrollers	3	0	1	4	5
		<b>12</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>14</b>

**SEMESTER VII**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE E4*	Professional Elective-4	3	0	0	3	3
PEE E5*	Professional Elective-5	3	0	0	3	3
PEE E6*	Professional Elective-6	3	0	0	3	3
PEE 704	Main Project	0	0	16	12	16
		<b>9</b>	<b>0</b>	<b>16</b>	<b>21</b>	<b>25</b>

**OVER ALL CREDITS = 105CREDITS**

**ELECTIVE GROUP -1 :(4th Sem)**

Code No.	Course Title	L	T	P	C	TCH
PEE E11	Protection and Switchgear	3	0	0	3	3
PEE E12	Electrical Machine Design	3	0	0	3	3
PEE E13	Energy Auditing and Management	3	0	0	3	3
PEE E14	Computer Architecture	3	0	0	3	3

**ELECTIVE GROUP - 2 :(4th Sem)**

Code No.	Course Title	L	T	P	C	TCH
PEE E21	High Voltage Engineering	3	0	0	3	3
PEEE22	Electromagnetic Waves	3	0	0	3	3
PEEE23	Computational Electromagnetics	3	0	0	3	3
PEEE24	Digital Control Systems	3	0	0	3	3

**ELECTIVE GROUP - 3 :(5th Sem)**

Code No.	Course Title	L	T	P	C	TCH
PEEE31	Bio Medical Instrumentation	3	0	0	3	3
PEEE32	Digital Signal Processing	3	0	0	3	3
PEE E33	Industrial Electrical Systems	3	0	0	3	3

**ELECTIVE GROUP - 4 :(7th Sem)**

Code No.	Course Title	L	T	P	C	TCH
PEEE41	Power Plant Engineering	3	0	0	3	3
PEEE42	Embedded System	3	0	0	3	3
PEEE43	Eco Power Generation	3	0	0	3	3

**ELECTIVE GROUP - 5 :(7th Sem)**

Code No.	Course Title	L	T	P	C	TCH
PEEE51	Electrical Drives	3	0	0	3	3
PEEE52	Power System Dynamics and Control	3	0	0	3	3
PEEE53	Line Commutated and Active Rectifiers	3	0	0	3	3

**ELECTIVE GROUP - 6 :(7th Sem)**

Code No.	Course Title	L	T	P	C	TCH
PEE E61	HVDC Transmission Systems	3	0	0	3	3

PEE E62	Wind and Solar Energy Systems	3	0	0	3	3
PEE E63	Electrical Energy Conservation and Auditing	3	0	0	3	3

**B.Tech. EEE Full Time**

Regulation-2021

**SEMESTER I**

Code No.	Course Title	L	T	P	C	TCH
XMA101	Calculus and Linear Algebra	3	1	0	4	4
XBE102	Electrical and Electronics Engineering Systems	3	1	0	4	4
XAC 103	Chemistry	3	1	0	4	4
XEG 104	Engineering Graphics and Design	1	0	2	3	5
XGS 105	Speech Communication	0	1	2	3	5
XUM 106	Constitution of India / Essence of Indian Traditional Knowledge	0	0	0	0	3
XBE107	Electrical and Electronics Engineering Systems Laboratory	0	0	1	1	2
XAC 108	Chemistry Laboratory	0	0	1	1	2
<b>TOTAL</b>		<b>10</b>	<b>4</b>	<b>6</b>	<b>20</b>	<b>29</b>

**SEMESTER II**

Code No.	Course Title	L	T	P	C	TCH
XMA 201	Calculus, Ordinary Differential Equations and Complex Variable	3	1	0	4	4
XCP 202	Programming for Problem Solving	3	0	0	3	3
XAP 203	Applied Physics for Engineers	3	1	0	4	4
XGS 204	Technical Communication	2	0	0	2	2
XWP 205	Workshop Practices	1	0	2	3	5
XEM 206	Engineering Mechanics	3	0	0	3	3
XCP 207	Programming for Problem Solving Laboratory	0	0	1	1	2
XAP 208	Applied Physics for Engineers Laboratory	0	0	1	1	2
<b>TOTAL</b>		<b>15</b>	<b>2</b>	<b>4</b>	<b>21</b>	<b>25</b>

**SEMESTER III**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XMA301	Transforms and Partial Differential Equations	3	0	0	3	3
XEE302	Electromagnetic Fields	3	1	0	4	4
XEE303	Digital Logic Circuits	3	0	0	3	3
XEE304	Electrical Circuit Analysis	3	1	0	4	4
XEE305	Electrical Machines – I	3	1	0	4	4
XUM306	Entrepreneurship Development	2	0	0	2	2
XUM307	Universal Human Values 2: Understanding Harmony	2	1	0	3	3
XEE 308	Electrical Circuit Analysis Laboratory	0	0	1	1	2
XEE 309	Electrical Machines - I Laboratory	0	0	1	1	2
	In-plant Training – I	-	-	-	1	-
<b>TOTAL</b>		<b>19</b>	<b>4</b>	<b>2</b>	<b>26</b>	<b>27</b>

**SEMESTER IV**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XMA401	Probability and Statistics	3	0	0	3	3
XEE402	Analog Electronics	3	0	0	3	3
XEE403	Control Systems	3	1	0	4	4
XEE404	Electrical Machines - II	3	1	0	4	4
XUM405	Economics for Engineers	3	0	0	3	3
XUM406	Disaster Management	0	0	0	0	3
XEE407	Analog Electronics Laboratory	0	0	1	1	2
XEE408	Control Systems Laboratory	0	0	1	1	2
XEE409	Electrical Machines – II Laboratory	0	0	1	1	2
<b>TOTAL</b>		<b>15</b>	<b>2</b>	<b>3</b>	<b>20</b>	<b>26</b>

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**SEMESTER V**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XEE 501	Power Systems - I (Apparatus and Modelling)	3	1	1	5	6
XEE 502	Control Systems	3	0	1	4	5
XEE 503	Microprocessors and Microcontrollers	3	0	1	4	5
XEE E1*	Professional Elective – 1	3	0	0	3	3
X** OE*	Open Elective – 1	3	0	0	3	3
XUM 506	Constitution of India	3	0	0	3	3
XEE 507	In-plant Training – II	0	0	0	0	0
XEE M01	Minor Course – I	0	0	0	0	2
<b>TOTAL</b>		<b>18</b>	<b>1</b>	<b>3</b>	<b>22</b>	<b>27</b>

**SEMESTER VI**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
XUM 601	Economics for Engineers	3	0	0	3	3
XEE 602	Power Systems - II (Operation and Control)	3	1	1	5	6
XEE E2*	Professional Elective – 2	3	0	1	4	5
XEE E3*	Professional Elective – 3	3	0	1	4	5
X** OE*	Open Elective – 2	3	0	0	3	3
XUM 606	Disaster Management	3	0	0	P/F*	3
XEE M02	Minor Course – II	0	0	0	0	2
<b>TOTAL</b>		<b>18</b>	<b>1</b>	<b>3</b>	<b>19</b>	<b>27</b>

**\*Pass / Fail course**

### SEMESTER VII

Code No.	Course Title	L	T	P	C	TCH
XEE E4*	Professional Elective – 4	3	0	0	3	3
XEE E5*	Professional Elective – 5	3	0	0	3	3
XUM 703	Human Ethics, Values, Rights and Gender Equality	3	0	0	3	3
X** OE*	Open Elective – 3	3	0	0	3	3
X** OE*	Open Elective – 4	3	0	0	3	3
XEE 706	Project Phase – I	0	0	8	4	6
XEE 707	In-plant Training – III	-	-	4	2	-
XEE M03	Minor Course – III	0	0	0	0	2
<b>TOTAL</b>		<b>15</b>	<b>0</b>	<b>12</b>	<b>21</b>	<b>23</b>

### SEMESTER VIII

Code No.	Course Title	L	T	P	C	TCH
XUM 801	Cyber Security	0	0	0	P/F	3
XEE E6*	Professional Elective – 6	3	0	0	3	3
X** OE*	Open Elective -5	3	0	0	3	3
XEE 804	Project Phase – II	0	0	12	6	16
<b>TOTAL</b>		<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>25</b>

### LIST OF ELECTIVES

#### ELECTIVE GROUP –1: (5th Sem)

Code No.	Course Title	L	T	P	C
E11	Protection and Switchgear	3	0	0	3
E12	Electrical Machine Design	3	0	0	3
E13	Electrical Safety, Operations and Regulations	3	0	0	3
E14	Computer Architecture	3	0	0	3

#### ELECTIVE GROUP – 2: (6th Sem)

Code No.	Course Title	L	T	P	C
E21	Measurements and Instrumentation	3	0	1	4
E22	Electromagnetic Waves	3	0	0	3
E23	Computational Electromagnetics	3	0	0	3
E24	Digital Control Systems	3	0	0	3

**ELECTIVE GROUP –3: (6<sup>th</sup> Sem)**

Code No.	Course Title	L	T	P	C
E31	Industrial Automation	3	0	1	4
E32	Digital Signal Processing	3	0	0	3
E33	Electrical Energy Conservation and Auditing	3	0	0	3
E34	Industrial Electrical Systems	3	0	0	3

**ELECTIVE GROUP –4: (7<sup>th</sup> Sem)**

Code No.	Course Title	L	T	P	C
E41	High Voltage Engineering	3	0	0	3
E42	Embedded System	3	0	0	3
E43	Power System Restructuring	3	0	0	3
E44	Line Commutated and Active Rectifiers	3	0	0	3

**ELECTIVE GROUP –5:(7<sup>th</sup> Sem)**

Code No.	Course Title	L	T	P	C
E51	Electrical Drives	3	0	0	3
E52	Power System Dynamics and Control	3	0	0	3
E53	HVDC Transmission Systems	3	0	0	3
E54	Power Quality and FACTS	3	0	0	3

**ELECTIVE GROUP - 6:(8<sup>th</sup> Sem)**

Code No.	Course Title	L	T	P	C
E61	Electrical and Hybrid Vehicles	3	0	0	3
E62	Wind and Solar Systems	3	0	0	3
E63	Power System Protection	3	0	0	3
E64	Advanced Electric Drives	3	0	0	3

**OPEN ELECTIVES:**

Code No.	Course Title	L	T	P	C
OE1	Industrial Automation	3	0	0	3
OE2	Energy Management and Auditing	3	0	0	3
OE3	Renewable Energy Technology	3	0	0	3

**B.Tech. EEE Part Time**

## **CURRICULUM**

**REGULATION – 2021**

### **SEMESTER III**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE301	Transmission and Distribution	3	1	0	4	4
PEE302	Entrepreneurship Development	3	0	0	3	3
PEE303	Digital Electronics	3	1	0	4	4
PEE304	Electrical Machines-II	3	1	0	4	4
PEE305	Electrical Machines-II Laboratory	0	0	1	1	2
<b>Total</b>		<b>12</b>	<b>3</b>	<b>1</b>	<b>16</b>	<b>17</b>

### **SEMESTER IV**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE 401	Microprocessors and Microcontrollers	3	0	0	3	3
PEE 402	Economics for Engineers	3	0	0	3	3
PEE E11	Professional Elective - 1	3	0	0	3	3
PEE 404	Control Systems	3	1	0	4	4
PEE 405	Microprocessors & Control Systems Laboratory	0	0	1	1	2
<b>Total</b>		<b>12</b>	<b>1</b>	<b>1</b>	<b>14</b>	<b>15</b>

### **ELECTIVE GROUP - 1 : (4<sup>th</sup> Semester)**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
E11	Solid State Drives	3	0	0	3	3
E12	Digital Logic Circuits	3	0	0	3	3
E13	Pollution Performance of Power Apparatus and Systems	3	0	0	3	3
E14	Electrical Power Quality	3	0	0	3	3



**REGULATION – 2018****SEMESTER V**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE501	Power Systems – I (Apparatus and Modeling)	3	0	0	3	3
PEE E3*	Professional Elective-3	3	0	0	3	3
PEE 503	Industrial Economics and Foreign Trade	3	0	0	3	3
PEE504	Control Systems	3	0	1	4	5
		<b>12</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>14</b>

**SEMESTER VI**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE601	Power Systems –II (Operation and Control)	3	0	0	3	3
PEE602	E-Waste Management	3	0	0	3	3
PEE603	Disaster Management	3	0	0	3	3
PEE 604	Microprocessors and Microcontrollers	3	0	1	4	5
		<b>12</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>14</b>

**SEMESTER VII**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE E4*	Professional Elective-4	3	0	0	3	3
PEE E5*	Professional Elective-5	3	0	0	3	3
PEE E6*	Professional Elective-6	3	0	0	3	3
PEE 704	Main Project	0	0	16	12	16
		<b>9</b>	<b>0</b>	<b>16</b>	<b>21</b>	<b>25</b>

**ELECTIVE GROUP - 3 :(5th Sem)**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEEE31	Bio Medical Instrumentation	3	0	0	3	3
PEEE32	Digital Signal Processing	3	0	0	3	3
PEE E33	Industrial Electrical Systems	3	0	0	3	3

**ELECTIVE GROUP - 4 :(7th Sem)**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEEE41	Power Plant Engineering	3	0	0	3	3
PEEE42	Embedded System	3	0	0	3	3
PEEE43	Eco Power Generation	3	0	0	3	3

**ELECTIVE GROUP - 5 :(7th Sem)**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEEE51	Electrical Drives	3	0	0	3	3
PEEE52	Power System Dynamics and Control	3	0	0	3	3
PEEE53	Line Commutated and Active Rectifiers	3	0	0	3	3

**ELECTIVE GROUP - 6 :(7th Sem)**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>TCH</b>
PEE E61	HVDC Transmission Systems	3	0	0	3	3
PEE E62	Wind and Solar Energy Systems	3	0	0	3	3
PEE E63	Electrical Energy Conservation and Auditing	3	0	0	3	3

**CURRICULUM****REGULATION – 2022**

(Applicable to the students admitted from the Academic year 2022-23 onwards)

**SEMESTER I**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>HRS</b>
YPE101	Analysis of Electrical Machines	3	1	0	4	4
YPE102	Analysis of Power Converters	3	1	0	4	4
YPE103	Modeling and Design of SMPS	3	0	0	3	3
YPEE1*	Elective - I	3	0	0	3	3
YPEE2*	Elective - II	3	0	0	3	3
YEGOE1	English for Research Paper Writing	2	0	0	0	2
YRM107	Research Methodology and IPR	2	0	0	2	2
YPE108	Design and Simulation of Power Electronic Circuits Laboratory	0	0	1	1	2
YPE109	Modeling of Electrical Machines Laboratory	0	0	1	1	2
<b>Total</b>		<b>19</b>	<b>0</b>	<b>2</b>	<b>21</b>	<b>25</b>

**SEMESTER II**

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>HRS</b>
YPE201	Analysis of Electrical Drives	3	1	0	4	4
YPE202	Special Electrical Machines	3	0	0	3	3
YPE203	Electric Vehicles and Power Management	3	0	0	3	3
YPEE3*	Elective - III	3	0	0	3	3
YPEE4*	Elective - IV	3	0	0	3	3
YPE206	Power Electronics and Drives Laboratory	0	0	1	1	2
YPE207	Mini Project	0	0	2	2	4
YPSOE1	Constitution of India	2	0	0	0	2
<b>Total</b>		<b>17</b>	<b>1</b>	<b>3</b>	<b>19</b>	<b>24</b>

<b>Code No.</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Elective – I</b>					
E11	Power Semiconductor Devices	3	0	0	3
E12	Soft Computing Techniques	3	0	0	3
E13	System Theory	3	0	0	3
E14	IoT for Smart Systems	3	0	0	3
<b>Elective – II</b>					
E21	Power Electronics for Renewable Energy Systems	3	0	0	3
E22	Modern Rectifiers and Resonant Converters	3	0	0	3
E23	Advanced Power Converters	3	0	0	3
E24	Battery Management Systems	3	0	0	3
<b>Elective – III</b>					
E31	Energy Storage Technologies	3	0	0	3
E32	Power Quality	3	0	0	3
E33	Machine Learning	3	0	0	3
E34	Electrical Energy Conservation and Management	3	0	0	3
<b>Elective – IV</b>					
E41	Optimization Techniques	3	0	0	3
E42	Smart Grid	3	0	0	3
E43	HVDC and FACTS	3	0	0	3
E44	Renewable Energy Technology	3	0	0	3