SARALA BIRLA UNIVERSITY

Established under the Sarala Birla University Act 2017 Govt. of Jharkhand as per Section 2(f) of UGC Act. 1956

CURRICULUM
FOR

B.Tech

in
Electrical & Electronics Engineering

(Based on UGC & AICTE- CBCS)

Effective from 2020-21

Definition of Credit

1 Hr. Lecture (L) Per Week	1 Credit
1 Hr. Tutorial (T) Per Week	1 Credit
1 Hr. Practical (P) Per Week	0.5 Credit
2 Hr. Practical (P) Per Week	1 Credit

Course Code Definitions

Course code	Definitions
BSC	Basic Science Course
ESC	Engineering Science Course
HSMC	Humanities and Social Sciences including Management Course
MC	Mandatory Course
PCC-EEE	Professional Core Course
PEC-EEE	Professional Electives Course
OEC	Open Electives Course
MOOC'S	Massive Open Online Course
EEE-P1	Project Stage-I
EEE-P2	Project Stage-II
EEE-P3	Project Stage-III

Breakup of Credits

Sl. No.	Category	Credits
1	Humanities and Social Sciences including Management Courses	12
2	Basic Science Courses	23
3	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc	28
4	Professional Core courses	68
5	Professional Elective courses relevant to chosen specialization/branch	29
6	Open subjects – Electives from other technical and /or emerging subjects	13
7	Project work, seminar and internship in industry or elsewhere	16
9	Mandatory Courses	2
Total Credits:		**191**

CREDITS DISTRIBUTION (SEMESTER-WISE AND COURSE-WISE)

Semester	HSMC	BSC	ESC	PCC	PEC	OEC	PROJECT	MC	Total Credit Semester-wise
1st	3	9.5	13	0	0	0	0	0	25.5
2nd	3	9.5	8	5	0	0	0	2	27.5
3rd	2	4	5	14	0	0	0	0	25
4th	4	0	0	19	0	0	0	0	23
5th	0	0	0	15	5	4	0	0	24
6th	0	0	2	10	12	0	2	0	26
7th	0	0	0	5	4	5	5	0	19
8th	0	0	0	0	8	4	9	0	21
Total Credit Course-wise	12	23	28	68	29	13	16	2	**191**
Total Credit									**191**

HUMANITIES & SOCIAL SCIENCES INCLUDING MANAGEMENT COURSE

Sl. No.	Course Code	Course Title	Hours per week			Credits	Preferred Semester
			L	T	P		
1	HSMC-101	English	3	0	0	3	I
2	HSMC-102	Technical Communication	2	0	0	2	II
3	HSMC-103	Technical Communication Lab	0	0	2	1	II
4	HSMC-104	Organisational Behaviour	2	0	0	2	IV
5	HSMC-105	French Through Communicative Approach-I	2	0	0	2	III
6	HSMC-106	French Through Communicative Approach-II	2	0	0	2	IV
					Total Credit:	**12**	

BASIC SCIENCE COURSES

Sl. No.	Course Code	Course Title	Hours Per Week			Credits	Preferred Semester
			L	T	P		
1	BSC-101	Chemistry	3	1	0	4	I
2	BSC-102	Chemistry Lab	0	0	3	1.5	I
3	BSC-103	Physics	3	1	0	4	II
4	BSC-104	Physics Lab	0	0	3	1.5	II
5	BSC-105	Mathematics-I	3	1	0	4	I
6	BSC-106	Mathematics-II	3	1	0	4	II
7	BSC-107	Mathematics-III	3	1	0	4	III
			Total Credit:			**23**	

ENGINEERING SCIENCE COURSE

Sl. No.	Course Code	Course Title	Hours Per Week			Credits	Preferred Semester
			L	T	P		
1	ESC-101	Basic Electrical & Electronics Engineering	3	1	0	4	I
2	ESC-102	Basic Electrical & Electronics Engineering Lab	0	0	2	1	I
3	ESC-103	Introduction to Unix & C Programming	3	1	0	4	I
4	ESC-104	Introduction to Unix & C Programming Lab	0	0	2	1	I
5	ESC-105	Engineering Graphics & Design	1	0	4	3	I
6	ESC-108	Data Structure	3	1	0	4	II
7	ESC-109	Data Structure Lab	0	0	2	1	II
8	ESC-110	Workshop & Manufacturing Practices	1	0	4	3	II
9	ESC-111	Engineering Mechanics	3	1	0	4	III
10	ESC-112	Programming using MATLAB	0	0	2	1	III
11	ESC-113	Python Programming	1	0	2	2	VI
		Total Credit:				**28**	

Professional Core Courses (Sem I & II)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs. /Week L: T: P	Credits	Preferred Semester
1	PCC-EEE-101	Basic Electronics	03:01:00	4	I/II
2	PCC-EEE-102	Basic Electronics Lab	00:00:02	1	I/II
			Total Credits:	**5**	

Professional Core Courses (Sem III & IV)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs. /Week L: T: P	Credits	Preferred Semester
1	PCC-EEE-201	Electrical Circuit Analysis	03:01:00	4	III/IV
2	PCC-EEE-202	Electrical Circuit Analysis Lab	00:00:02	1	III/IV
3	PCC-EEE-203	Signals & Systems	03:01:00	4	III/IV
4	PCC-EEE-204	Measurement & Instrumentation	03:01:00	4	III/IV
5	PCC-EEE-205	Measurement & Instrumentation Lab	00:00:02	1	III/IV
6	PCC-EEE-206	Electrical Machines-I	03:01:00	4	III/IV
7	PCC-EEE-207	Electrical Machines Lab-I	00:00:02	1	III/IV
8	PCC-EEE-208	Analog Electronics	03:01:00	4	III/IV
9	PCC-EEE-209	Analog Electronics Lab	00:00:02	1	III/IV
10	PCC-EEE-210	Electromagnetic Fields	03:01:00	4	III/IV
11	PCC-EEE-211	Digital Electronic	03:01:00	4	III/IV
12	PCC-EEE-212	Digital Electronic Lab	00:00:02	1	III/IV
			Total Credits:	**33**	

Professional Core Courses (Sem V & VI)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs. /Week L: T: P	Credits	Preferred Semester
1	PCC-EEE-301	Power Systems -I	03:01:00	4	V/VI
2	PCC-EEE-302	Power Systems Lab-I	00:00:02	1	V/VI
3	PCC-EEE-303	Electrical Machines-II	03:01:00	4	V/VI
4	PCC-EEE-304	Electrical Machines Lab-II	00:00:02	1	V/VI
5	PCC-EEE-305	Renewable Energy	03:01:00	4	V/VI
6	PCC-EEE-306	Renewable Energy Lab	00:00:02	1	V/VI
7	PCC-EEE-307	Control Systems	03:01:00	4	V/VI
8	PCC-EEE-308	Control Systems Lab	00:00:02	1	V/VI
9	PCC-EEE-309	Power Systems-II	03:01:00	4	V/VI
10	PCC-EEE-310	Power Systems Lab-II	00:00:02	1	V/VI
			Total Credits:	**25**	

Professional Core Courses (Sem VII & VIII)

Branch: Electrical & Electronics Engineering (B.Tech)					
Sl. No.	**Course Code**	**Course Title**	**Hrs. /Week L: T: P**	**Credits**	**Preferred Semester**
1	PCC-EEE-401	Power Electronics	03:01:00	4	VII/VIII
2	PCC-EEE-402	Power Electronics Lab-I	00:00:02	1	VII/VIII
			Total Credits:	**5**	

Professional Elective Courses (Sem V & VI)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs. /Week L: T: P	Credits	Preferred Semester
7	PEC-EEE-301	Microprocessors & Microcontroller	03:01:00	4	V/VI
8	PEC-EEE-302	Microprocessors & Microcontroller Lab	00:00:02	1	V/VI
1	PEC-EEE-303	Electrical Energy Conservation & Auditing	03:01:00	4	V/VI
2	PEC-EEE-304	Power Quality & FACTS	03:01:00	4	VII/VIII
3	PEC-EEE-305	High Voltage Engineering	03:01:00	4	V/VI
4	PEC-EEE-306	Line Commutated & Active Rectifiers	03:01:00	4	V/VI
5	PEC-EEE-307	Computational Electromagnetics	03:01:00	4	V/VI
6	PEC-EEE-308	Computer Architecture	03:01:00	4	V/VI

Professional Elective Courses (Sem VII & VIII)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs. /Week L: T: P	Credits	Preferred Semester
1	PEC-EEE-401	Power System Protection	03:01:00	4	VII/VIII
2	PEC-EEE-402	Control System Design	03:01:00	4	VII/VIII
3	PEC-EEE-403	Industrial Electrical Systems	03:01:00	4	VII/VIII
4	PEC-EEE-404	Digital Control Systems	03:01:00	4	VII/VIII
5	PEC-EEE-405	Digital Signal Processing	03:01:00	4	VII/VIII
6	PEC-EEE-406	Electrical Drives	03:01:00	4	VII/VIII
7	PEC-EEE-407	HVDC Transmission Systems	03:01:00	4	VII/VIII
8	PEC-EEE-408	Advanced Electric Drives	03:01:00	4	VII/VIII
9	PEC-EEE-409	Electrical & Hybrid Vehicles	03:01:00	4	VII/VIII
10	PEC-EEE-410	Operation Research	03:01:00	4	VII/VIII

Open Elective Course

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs./ Week L: T: P	Credits
1	OEC-CSE-301	Machine Learning for Real-World Applications	03:01:00	4
2	OEC-CSE-412	Digital Image Processing	03:01:00	4
3	OEC-CSE-413	Digital Image Processing Lab	00:00:02	1
4	OEC-ECE-404	Embedded Systems	03:01:00	4

Massive Open Online Courses

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs./ Week L: T: P	Credits
1	MOOCs -101	Artificial Intelligence for Real-World Application	03:01:01	4
2	MOOCs -112	Applications of Deep Learning and Neural Networks	03:01:01	4
3	MOOCs -103	Usability Design of Software Applications	03:01:01	4
4	MOOCs -104	Applied Cloud Computing	03:01:01	4
5	MOOCs -105	Information Security - Practitioner's perspective	03:01:01	4
6	MOOCs -106	Innovation and Entrepreneurship	03:01:01	4
7	MOOCs -107	Practical Approach to Data Mining and Analytics	03:01:01	4
8	MOOCs -108	IoT and its Applications	03:01:01	4
9	MOOCs -109	Intelligent Game Design and its Applications	03:01:01	4
10	MOOCs -110	Industrial Mechatronic Systems	03:01:01	4
11	MOOCs -111	Solar Energy Technology and its Applications	03:01:01	4

Mandatory Courses

Sl. No.	Course Code	Course Title	Hours per week			Credits	Preferred Semester
			L	T	P		
1	MC-101	Induction Program	0	0	0	0	I
2	MC-102	Environmental Science	2	0	0	2	IV
3	MC-103	Values & Ethics	2	0	0	0	IV
4	MC-104	PDP-I	2	0	0	0	I
5	MC-105	PDP-II	2	0	0	0	II
6	MC-106	PDP-III	2	0	0	0	III
7	MC-107	PDP-IV	2	0	0	0	IV
8	MC-108	PDP-V	2	0	0	0	V
9	MC-109	PDP-VI	2	0	0	0	VI
10	MC-110	PDP-VII	0	0	2	0	VII
11	MC-111	PDP-VIII	0	0	2	0	VIII
12	MC-112	PT & Games/NSS/NCC-I	0	0	2	0	I
13	MC-113	PT & Games/NSS/NCC-II	0	0	2	0	II
					Total Credit:	**2**	

Project Work

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Course Code	Course Title	Hrs. /Week L: T: P	Credits	Preferred Semester
1	EEE-P-I	Project Stage-I (Mini Project/ Industrial Training)	00:00:04	2	VI
2	EEE-P-II	Project Stage-II (Minor Project Work) (To be continued in next semester	00:00:10	5	VII
3	EEE-P-III	Project Stage-III (Major Project Work & Dissertation)	00:00:18	9	VIII
		Total Credits:		**16**	

COURSE STRUCTURE

SEMESTER-I (1st YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Basic Science Course	BSC-101	Chemistry	3	1	0	4	30	70	100
2	Basic Science Course	BSC-105	Mathematics-I	3	1	0	4	30	70	100
3	Engineering Science Course	ESC-101	Basic Electrical	3	1	0	4	30	70	100
4	Engineering Science Course	ESC-103	Introduction to Unix & C Programming	3	1	0	4	30	70	100
5	Humanities and Social Sciences including Management Course	HSMC-101	English	3	0	0	3	30	70	100
						Total(A)	**19**	**150**	**350**	**500**
Practical/Drawing/Design										
1	Engineering Science Course	ESC-105	Engineering Graphics & Design	1	0	4	3	30	20	50
2	Basic Science Course	BSC-102	Chemistry Lab	0	0	3	1.5	30	20	50
3	Engineering Science Course	ESC-102	Basic Electrical & Electronics Engineering Lab	0	0	2	1	30	20	50
4	Engineering Science Course	ESC-104	Introduction to Unix & C Programming Lab	0	0	2	1	30	20	50
						Total(B)	**6.5**	**120**	**80**	**200**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-101	Induction Program	0	0	0	0	0	0	0
2	Mandatory Course	MC-110	PT & Games/NSS/NCC-I	0	0	2	0	0	0	0
3	Mandatory Course	MC-104	PDP-I	2	0	0	0	0	0	0
						Total(C)	**0**	**0**	**0**	**0**
Grand Total (A+B+C)							**25.5**	**270**	**430**	**700**

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER-II (1st YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Basic Science Course	BSC-106	Mathematics-II	3	1	0	4	30	70	100
2	Humanities and Social Sciences including Management Course	HSMC-102	Technical Communication	2	0	0	2	30	70	100
3	Professional Core Course	PCC-ECE-101	Basic Electronics	3	1	0	4	30	70	100
4	Basic Science Course	BSC-103	Physics	3	1	0	4	30	70	100
5	Engineering Science Course	ESC-108	Data Structure	3	1	0	4	30	70	100
			Total(A)				**18**	**150**	**350**	**500**
Practical/Drawing/Design										
1	Engineering Science Course	ESC-110	Workshop & Manufacturing Practices	1	0	4	3	30	20	50
2	Professional Core Course	PCC-EEE-101	Basic Electronics	3	1	0	4	30	70	100
3	Basic Science Course	BSC-104	Physics Lab	0	0	3	1.5	30	20	50
4	Humanities and Social Sciences including Management Course	HSMC-103	Technical Communication Lab	0	0	2	1	30	20	50
5	Engineering Science Course	ESC-109	Data Structure Lab	0	0	2	1	30	20	50
			Total(B)	**4**	**1**	**11**	**10.5**	**150**	**150**	**300**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-102	Environmental Science	2	0	0	2	30	70	100
2	Mandatory Course	MC-111	PT & Games/NSS/NCC-II	0	0	2	0	0	0	0
3	Mandatory Course	MC-105	PDP-II	2	0	0	0	0	0	0
			Total(C)				**2**	**30**	**70**	**100**
Grand Total (A+B+C)							**30.5**	**330**	**570**	**900**

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER-III (2nd YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Professional Core Course	PCC-EEE-201	Electrical Circuit Analysis	3	1	0	4	30	70	100
3	Professional Core Course	PCC-EEE-203	Signals & Systems	3	1	0	4	30	70	100
4	Professional Core Course	PCC-EEE-204	Measurement & Instrumentation	3	1	0	4	30	70	100
2	Basic Science Course	BSC-107	Mathematics-III	3	1	0	4	30	70	100
3	Engineering Science Course	ESC-111	Engineering Mechanics	3	1	0	4	30	70	100
5	Humanities and Social Sciences including Management Course	HSMC-105	French Through Communicative Approach-I	2	0	0	2	30	70	100
						Total(A)	**22**	**180**	**420**	**600**
Practical/Drawing/Design										
1	Professional Core Course	PCC-EEE-202	Electrical Circuit Analysis Lab	0	0	2	1	30	20	50
2	Professional Core Course	PCC-EEE-205	Measurement & Instrumentation Lab	0	0	2	1	30	20	50
3	Engineering Science Course	ESC-112	Programming using MATLAB	0	0	2	1	30	20	50
						Total(B)	**3**	**90**	**60**	**150**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-103	Values & Ethics	2	0	0	0	0	0	0
2	Mandatory Course	MC-106	PDP-III	2	0	0	0	0	0	0
						Total(C)	**0**	**0**	**0**	**0**
Grand Total (A+B+C)							**25**	**270**	**480**	**750**

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER-IV (2nd YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Professional Core Course	PCC-EEE-206	Electrical Machine-I	3	1	0	4	30	70	100
4	Professional Core Course	PCC-EEE-208	Analog Electronics	3	1	0	4	30	70	100
5	Professional Core Course	PCC-EEE-210	Electromagnetic Fields	3	1	0	4	30	70	100
2	Professional Core Course	PCC-EEE-211	Digital Electronic	3	1	0	4	30	70	100
6	Humanities & Social Sciences including Management Course	HSMC-104	Organisational Behaviour	2	0	0	2	30	70	100
7	Humanities & Social Sciences including Management Course	HSMC-106	French Through Communicative Approach-II	2	0	0	2	30	70	100
						Total(A)	**20**	**180**	**420**	**600**
Practical/Drawing/Design										
3	Professional Core Course	PCC-EEE-207	Electrical Machine Lab-I	0	0	2	1	30	20	50
1	Professional Core Course	PCC-EEE-209	Analog Electronics Lab	0	0	2	1	30	20	50
2	Professional Core Course	PCC-EEE-212	Digital Electronic Lab	0	0	2	1	30	20	50
						Total(B)	**3**	**90**	**60**	**150**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-107	PDP-IV	2	0	0	0	0	0	0
						Total(C)	**0**	**0**	**0**	**0**
Grand Total (A+B+C)							**23**	**270**	**480**	**750**

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER-V (3rd YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Professional Core Course	PCC-EEE-301	Power System-I	3	1	0	4	30	70	100
2	Professional Core Course	PCC-EEE-303	Electrical Machine-II	3	1	0	4	30	70	100
3	Professional Core Course	PCC-EEE-305	Renewable Energy	3	1	0	4	30	70	100
4	Professional Core Course	PEC-EEE-301	Microprocessors & Microcontroller	3	1	0	4	30	70	100
5	Professional Elective Course	OEC-CSE-301	Machine Learning for Real-World Application	3	1	0	4	30	70	100
						Total(A)	**20**	**150**	**350**	**500**
Practical/Drawing/Design										
1	Professional Core Course	PCC-EEE-302	Power System Lab-I	0	0	2	1	30	20	50
2	Professional Core Course	PCC-EEE-304	Electrical Machine Lab-II	0	0	2	1	30	20	50
3	Professional Core Course	PCC-EEE-306	Renewable Energy Lab	0	0	2	1	30	20	50
4	Professional Core Course	PEC-EEE-302	Microprocessors & Microcontroller Lab	0	0	2	1	30	20	50
						Total(B)	**4**	**120**	**80**	**200**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-108	PDP-V	2	0	0	0	0	0	0
						Total(C)	**0**	**0**	**0**	**0**
Grand Total (A+B+C)							**24**	**270**	**430**	**700**

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER-VI (3rd YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Professional Core Course	PCC-EEE-307	Control System	3	1	0	4	30	70	100
2	Professional Core Course	PCC-EEE-309	Power Systems-II	3	1	0	4	30	70	100
3	Professional Elective Course	PEC-EEE-303	Electrical Energy Conservation & Auditing	3	1	0	4	30	70	100
4	Professional Elective Course	PEC-EEE-304	Power Quality & FACTS	3	1	0	4	30	70	100
5	Professional Elective Course	PEC-EEE-305	High Voltage Engineering	3	1	0	4	30	70	100
						Total(A)	**20**	**150**	**350**	**500**
Practical/Drawing/Design										
1	Professional Core Course	PCC-EEE-308	Control System Lab	0	0	2	1	30	20	50
	Professional Core Course	PCC-EEE-310	Power Systems Lab-II	0	0	2	1	30	20	50
2	Engineering Science Course	ESC-113	Python Programming	1	0	2	2	30	20	50
3	Project Work	EEE-P-I	Project Stage-I (Mini Project/ Industrial Training)	0	0	4	2	75	25	100
						Total(B)	**6**	**165**	**85**	**250**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-109	PDP-VI	2	0	0	0	0	0	0
						Total(C)	**0**	**0**	**0**	**0**
Grand Total (A+B+C)							**26**	**315**	**435**	**750**

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER-VII (4th YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Professional Elective Course	PCC-EEE-401	Power Electronics	3	1	0	4	30	70	100
2	Professional Elective Course	PEC-EEE-401	Power System Protection	3	1	0	4	30	70	100
3	Open Elective Course	OEC-CSE-412	Digital Image Processing	3	1	0	4	30	70	100
						Total(A)	**12**	**90**	**210**	**300**
Practical/Drawing/Design										
1	Professional Core Course	PCC-EEE-402	Power Electronics Lab	0	0	2	1	30	20	50
	Open Elective Course	OEC-CSE-413	Digital Image Processing Lab	0	0	2	1	30	20	50
2	Project Work	EEE-P-II	Project Stage-II (Minor Project Work)	0	0	10	5	75	25	100
						Total(B)	**7**	**135**	**65**	**200**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-110	PDP-VII	2	0	0	0	0	0	0
						Total(C)	**0**	**0**	**0**	**0**
Grand Total (A+B+C)							**19**	**225**	**275**	**500**

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER-VIII (4th YEAR)

Branch: Electrical & Electronics Engineering (B.Tech)

Sl. No.	Category	Course Code	Course Title	Hours			Credit	Marks		
				L	T	P		IA	ESE	Total
Theory										
1	Professional Elective Course	PEC-EEE-407	HVDC Transmission Systems	3	1	0	4	30	70	100
2	Professional Elective Course	PEC-EEE-409	Electrical & Hybrid Vehicles	3	1	0	4	30	70	100
3	Open Elective Course	OEC-ECE-404	Embedded Systems	3	1	0	4	30	70	100
						Total(A)	**12**	**90**	**210**	**300**
Practical/Drawing/Design										
1	Project Work	EEE-P-III	Project Stage-III (Major Project Work & Dissertation)	0	0	18	9	75	25	100
						Total(B)	**9**	**75**	**25**	**100**
Mandatory Courses/MOOC'S										
1	Mandatory Course	MC-111	PDP-VIII	2	0	0	0	0	0	0
						Total(C)	**0**	**0**	**0**	**0**
Grand Total (A+B+C)							**21**	**165**	**235**	**400**

L-Lecture, T-Tutorial, P-Practical

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