

STUDY & EVALUATION SCHEME
B.TECH: ELECTRICAL ENGINEERING (LATERAL)
SPECIALIZATION: ELECTRIC VEHICLE ENGINEERING
II YEAR: III SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BEE3005	Electrical Circuit Analysis	3	1	0	40	60	100	4
2	BEE3502	Networks Lab	0	0	2	80	20	100	1
3	BEE3006	Electrical Machines-I	3	0	0	40	60	100	3
4	BEE3504	Electrical Machines-I Lab	0	0	2	80	20	100	1
5	BEE3007	Engineering Material	3	0	0	40	60	100	3
6	BMA3010-EE	Mathematics-III	3	1	0	40	60	100	4
7	-	Open Elective-I	3	0	0	40	60	100	3
TOTAL			15	02	04	360	340	700	19
8	BEE3009	Fundamentals of EV & HEV	3	0	0	40	60	100	2
9	BEE3505	EV Fundamental Lab	0	0	2	20	80	100	1

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II YEAR: IV SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BEE4005	Electrical Machines-II	3	0	0	40	60	100	3
2	BEE4505	Electrical Machines-II Lab	0	0	2	80	20	100	1
3	BEE4006	Signal and System	2	1	0	40	60	100	3
4	BEE4007	Analog and Digital Electronics	3	1	0	40	60	100	4
5	BEE4506	Electronics Lab	0	0	2	80	20	100	1
6	BEE4008	Electromagnetic Fields	3	1	0	40	60	100	4
7	BME4005	Engineering Mechanics	3	1	0	40	60	100	4
8	BBT4023	Biology	2	0	0	40	60	100	2
9	BSS4001	Soft Skills and Inter Traditional Knowledge	2	0	0	100	00	100	2
10	XHUX602	Essence of Indian Traditional Knowledge	2	0	0	Satisfactory/ Unsatisfactory			0
TOTAL (IV SEM)			20	04	04	500	400	900	24
11	BEE4012	Powertrain & Modes	3	0	0	40	60	100	2
12	BEE4509	EV Powertrain Lab	0	0	2	20	80	100	1

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III YEAR: V SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BEE5009	Power System I	3	1	0	40	60	100	4
2	BEE5506	Power System I Lab	0	0	2	80	20	100	1
3	BEE5010	Control System	3	0	0	40	60	100	3
4	BEE5502	Control Lab	0	0	2	80	20	100	1
5	BEE5006	Micro- Processor and Micro- Controller	3	0	0	40	60	100	3
6	BEE5505	Micro- Processor Lab	0	0	2	80	20	100	1
7	BEE5011	EMMI	3	0	0	40	60	100	3
8	---	Open Elective-II	3	0	0	40	60	100	3
9	---	Open Elective-III	3	0	0	40	60	100	3
10	BAP5501	Aptitude and Reasoning and Online Test	0	0	2	100	-	100	0
11	XLAX601	Constitution of India	2	0	0	Satisfactory/ Unsatisfactory			0
TOTAL			20	01	08	580	420	1000	22
12	BEE5014	Battery, BMS & BTMS	3	0	0	40	60	100	3
13	BEE5508	Battery, BMS & BTMS Lab	0	0	2	20	80	100	1

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III YEAR: VI SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BEE6006	Power System II	3	1	0	40	60	100	4
2	BEE6507	Power System II Lab	0	0	2	80	20	100	1
3	BEE6007	Power System Operation and Control	3	0	0	40	60	100	3
4	BEE6008	Measurement and Instrumentation	3	0	0	40	60	100	3
5	BEE6508	Measurement and Instrumentation Lab	0	0	2	80	20	100	1
6	BEE6001	Power Electronics	3	1	0	40	60	100	4
7	BEE6501	Power Electronics Lab	0	0	2	80	20	100	1
8	---	Department Elective-I	3	0	0	40	60	100	3
9	---	Open Elective-IV	3	0	0	40	60	100	3
10	BEE6502	Seminar	0	0	2	100	-	100	1
11	XEEX601	Industrial Visit	0	0	0	Satisfactory / Unsatisfactory			0
12	BAP6501	Aptitude and Reasoning and Online Test	0	0	2	100	-	100	0
TOTAL			18	02	10	680	420	1100	24
13	BEE6011	EV Charging Infra	3	0	0	40	60	100	3
14	BEE6510	EV Charging Infra Lab	0	0	2	20	80	100	1

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IV YEAR: VII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BEE7002	Switch Gear and Protection	3	0	0	40	60	100	3
2	--	Department Elective II	3	0	0	40	60	100	3
3	---	Department Elective III	3	0	0	40	60	100	3
4	---	Open Elective - V	3	0	0	40	60	100	3
5	BEE7508	Project Stage - I	0	0	6	100	00	100	3
6	BEE4503	Summer Training (During Summer Vacation)	0	0	2	100	00	100	1
TOTAL			12	00	08	360	240	600	16
7	BEE7007	Intelligent Transport System	3	0	0	40	60	100	3
8	BEE7008	Automotive Diagnosis	3	0	0	40	60	100	3

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IV YEAR: VIII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	---	Department Elective IV	3	0	0	40	60	100	3
2	---	Department Elective V	3	0	0	40	60	100	3
3	---	Open Elective ---VI	3	0	0	40	60	100	3
4	----	Live Project/Internship Based on their area of Expertise/ Project stage II	0	0	16	80	20	100	6
TOTAL			09	00	16	200	200	400	15

GRAND TOTAL (III SEM – VIII SEM)	112	09	58	3000	2700	5700	140
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LIST OF ELECTIVES

Open Elective List

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPARTMENT TO OFFER	SEMESTER	O.E
1	BHU3301	Organizational Psychology	HU	III	OR-I
	BHU3302	Organization Sociology			
2	BEC5301	Electronics Engineering	EC	V	OE-II
	BMA5301	Operational Research	MA		
	BCS5301	Computer Network	CS		
3	BMG5301	Economics	Management	V	OE-III
	BMG5302	Principal of Management			
4	BEC6301	Electronic Devices	EC	VI	OE-IV
	BME6301	Project Management	ME		
	BCS6301	Web Technologies	CS		
5	BEC7303	Analog and Digital communication	EC	VII	OE-V
	BME7304	Total Quality Management	ME		
	BCS7303	Database System	CS		
6	BEC8304	Mobile Communication and Network	EC	VIII	OE-VI
	BME8304	Thermal and Fluid Engineering	ME		
	BCS8303	Enterprise Resource Planning	CS		

List of Department Electives

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPARTMENT TO OFFER	SEMESTER	O.E
1	BEE6104	Smart Grid	EE	VI	D.E.-I
	BEE6105	Electrical Drives			
	BEE6105	High Voltage Engineering			
2	BEE7105	Line Commutated and Active Rectifiers	EE	VII	D.E.-II
	BEE7106	Electrical and Hybrid Vehicles			
	BEE7107	Electrical Machine Design			
3	BEE7201	Advanced Control System	EE	VII	D.E.-III
	BEE7202	Power Generation System			
	BEE7203	Power Electronics Applications to Power Systems			
4	BEE8103	HVDC Transmission Systems	EE	VIII	D.E.-IV
	BEE8104	Power Quality and FACTS			
	BEE8105	Industrial Electrical Systems			
5	BEE8204	Distributed Generation and Micro Grid	EE	VIII	D.E.-V
	BEE8205	Energy Efficiency and Conservation			
	BEE8206	MOOC: Computer Aided Power System Analysis			