

**MRSPTU B.TECH WITH MINOR DEGREE IN ELECTRICAL ENGG SYLLABUS
2018 BATCH ONWARDS**

Table No. 1: List of Core Subjects for Minor Engineering in Electrical Engg.

Sr. No.	Course Code (MRSPTU)	Course Title	Hours per week			Marks			Total Contact hrs.	Credits
			Lect ures	Tuto rials	Practi cals	Int.	Ext.	Total		
CORE COURSES										
Machine Group - A student must select at least one theory subject from this group.										
1.	BELEM1-001	Electrical Machines – I	3	1	0	40	60	100	4	4
2.	BELEM1-002	Electrical Machines – II	3	1	0	40	60	100	4	4
3.	BELEM1-003	Electrical Drives	3	0	0	60	40	100	3	3
4.	BELEM1-051	Electrical Machines Laboratory – I	0	0	2	60	40	100	2	1
5.	BELEM1-052	Electrical Machines– II Laboratory	0	0	2	60	40	100	2	1
Power System Group – A student must select at least one theory subject from this group										
6.	BELEM1-004	Power Systems – I (Transmission & Distribution)	3	1	0	40	60	100	4	4
7.	BELEM1-005	Power Systems – II (Protection)	3	0	0	40	60	100	3	3
8.	BELEM1-006	Generation and Economics of Electrical Power	3	0	0	40	60	100	3	3
9.	BELEM1-053	Power Systems Laboratory - I	0	0	2	60	40	100	2	1
10.	BELEM1-054	Power Systems Laboratory - II	0	0	2	60	40	100	2	1

**MRSPTU B.TECH WITH MINOR DEGREE IN ELECTRICAL ENGG SYLLABUS
2018 BATCH ONWARDS**

Table No. 2: List of Elective Subjects for Minor Engineering in Electrical Engg.

Sr. No.	Course Code (MRSPTU)	Course Title	Hours per week			Marks			Total Contact hrs.	Credits
			Lectures	Tutorials	Practicals	Int.	Ext.	Total		
ELECTIVE COURSES			Lectures	Tutorials	Practicals	Int.	Ext.	Total		
Power Electronics & Control Group – A student can select only one theory subject from this group										
1.	BELEM1-007	Power Electronics	3	0	0	40	60	100	3	3
2.	BELEM1-008	Control Systems	3	1	0	40	60	100	4	4
3.	BELEM1-009	Microcontrollers & PLC	3	0	0	40	60	100	3	3
4.	BELEM1-055	Power Electronics Lab	0	0	2	60	40	100	2	1
5.	BELEM1-056	Control Systems Lab	0	0	2	60	40	100	2	1
6.	BELEM1-057	Microcontrollers & PLC Laboratory	0	0	2	60	40	100	2	1
High Voltage Group – A student can select only one theory subject from this group										
7.	BELEM1-010	HVDC Transmission Systems	3	0	0	40	60	100	3	3
8.	BELEM1-011	EHVAC Transmission Systems	3	0	0	40	60	100	3	3
9.	BELEM1-012	FACTS Devices in Transmission & Distribution Networks	3	0	0	40	60	100	3	3
10.	BELEM1-013	High Voltage Engineering	3	0	0	40	60	100	3	3
Industrial Application Group – A student can select only one theory subject from this group										
11.	BELEM1-014	Industrial Electrical Systems	3	0	0	40	60	100	3	3
12.	BELEM1-015	Wind and Solar Energy Systems	3	0	0	40	60	100	3	3
13.	BELEM1-016	Introduction to Industry 4.0	2	0	0	40	60	100	2	2
14.	BELEM1-017	Electrical and Hybrid Vehicles	3	0	0	40	60	100	3	3
15.	BELEM1-018	Electrical Energy Conservation and Auditing	3	0	0	40	60	100	3	3