

**Sardar Patel College of Engineering Andheri (West), Mumbai 400 058**

**BVB's Sardar Patel College of Engineering, Mumbai**

**Department of Electrical Engineering**

**Credit System**

**S. Y. B.Tech in Electrical Engineering**

**Academic Year 2020-2021**

**Sardar Patel College of Engineering Andheri (West), Mumbai 400 058**

Courses Offered for Second Year B.Tech. in Electrical Engineering (Semester III)													
Academic Year 2020-21													
Sr. No	Course Name	Code	Course Plan per Week (Hrs)			Credits	In semester Evaluation (Points)		End Semester Evaluation (Points)		End semester weightage (%)	Term work	Total Points
			L	P	T		T-I	T-II	Points	Time (Hrs)			
<b>Theory Courses</b>													
1	Applied Mathematics – III	BS-BTE301	3	-	1	4	20	20	100	3	60	25	125
2	Electronics Circuits	PC-BTE301	3	-	-	3	20	20	100	3	60	-	100
3	Electrical Networks	PC-BTE302	3	-	-	3	20	20	100	3	60	-	100
4	Digital Electronics	PC-BTE303	3	-	-	3	20	20	100	3	60	-	100
5	Organizational Communication and Interpersonal Skills	HSM-BTE301	2	--	1	3	20	20	100	3	60	25	125
<b>Laboratory Courses</b>													
6	Electrical Networks Laboratory	PC-BTE304	-	2	-	1	-	-	-	-	-	25	25
7	Electronics Circuits Laboratory	PC-BTE305	-	2	-	1	-	-	-	-	-	25	25
8	Digital Electronics Laboratory	PC-BTE306	-	2	-	1	-	-	-	-	-	25	25
	Total					19							
<b>Value Added Courses</b>													
9	Soft Computing 1	VA-BTE01	-	2	-	0	20	20	100	3	60	--	100
10	Introduction to Python	VA-BTE02	-	2	-	0	20	20	100	3	60	--	100
<b>Non-technical Value Added Courses</b>													
11	Non-technical value added course	VN-BTXXX		2		0	20	20	100	3	60	--	100
<b>Value added courses by industry</b>													
12	Value added course by Industry	VA-BTIXX	Refer Course Content			0	--	--	100	3	60	40	100
<b>Online Courses</b>													
13	Online Course 1	OL-BTE301	-	-	-	0	-	-	-	-	-	-	-
	<b>TOTAL</b>		<b>14</b>	<b>6</b>	<b>2</b>	<b>19</b>							<b>625</b>

L: Lecture P: Practical T: Tutorial

## Sardar Patel College of Engineering Andheri (West), Mumbai 400 058

Value Added Course by Industry

Non-technical value Added Courses

**Note** (1) Refer (i) Academic rules and regulations and (ii) Examination rules and regulations for further details

(2) Laboratory course is considered as a separate head of passing.

(3) Assessment criteria for laboratory/Tutorial work. i.e. weightage for assessment shall be as follows: i) Attendance in Laboratory/Tutorial = 20%, (ii) Journal= 40%, (iii) Practical Examination (and/or) Mini project (and/or) Quiz (Preferably MCQs based on GATE syllabus) (and/or) Seminar (and/or) Oral (and/or) Industry visit report= 40%.

(4) Student can opt for a online course available on <https://swayam.gov.in/> or <https://onlinecourses.nptel.ac.in/> and inform department by filling up registration form. After successful completion of the course and approval from the department UG committee, the course title can appear on the grade card of student.

(5) The Mandatory courses are with Pass (P) and No Pass (NP) grades.

(6) Department will offer the Value Added courses in a semester subject to availability of resources and enrolment of minimum 20 students opting for the course. Upon Completion of the Value Added course, the course will appear in the grade card of the student.

(7) Students can optionally opt for Non-Technical Value Added courses offered by Center for Continuing Education (CCE-SPCE) or value added courses offered by industry. These courses are with zero credit and upon successful completion, the course titles will appear on student's grade card.

(8) The course contents, wherever appropriate, should include assessment based on Project Based Learning and a report of visit to an industry related to the course.

(9) The contents of core courses are aligned with the latest GATE syllabus. The mapping between GATE syllabus topics and core courses is given in Table GATE-MAP.

Table GATE MAP

Sr. No.	Topics from GATE Syllabus	Related Core Courses in Electrical Engineering. Semester
1	Section 1 Engineering Mathematics	Applied Mathematics I, II, III,IV
2	Section 2 Electric Circuits	Electrical Networks
3	Section 3 Electromagnetic Fields	Electromagnetic Fields and Waves
4	Section 4 Signals and Systems	Signals and Systems
5	Section 5 Electrical Machines	Electrical Machines I and II
6	Section 6 Power Systems	Power System I and II
7	Section 7 Control Systems	Control System
8	Section 8 Electrical and Electronic Measurements	Electrical and Electronics Measurements
9	Section 9 Analog and Digital Electronics	Electronic Circuits, Digital Electronics, Analog Circuits
10	Section 10 Power Electronics	Power Electronics

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Courses Offered for Second Year B.Tech. in Electrical Engineering (Semester IV) Academic Year 2020-21													
Sr. No.	Course Name	Code	Course Plan per Week (Hrs)			Credits	In semester Evaluation (Points)		End Semester Evaluation (Points)		End semester weightage (%)	Term work	Total Points
			L	P	T		T-I	T-II	Points	Time (Hrs)			
Theory Courses													
1	Applied Mathematics –IV	BS-BTE401	3	-	1	4	20	20	100	3	60	25	125
2	Analog Circuits	PC-BTE401	3	-	-	3	20	20	100	3	60	-	100
3	Electrical and Electronics Measurements	PC-BTE402	3	-	-	3	20	20	100	3	60	-	100
4	Signals and Systems	PC-BTE403	3	-	-	3	20	20	100	3	60	--	100
5	Microprocessor and Microcontroller	PC-BTE404	3	-	-	3	20	20	100	3	60	-	100
6	Electrical Machines I	PC-BTE405	3	-	-	3	20	20	100	3	60	-	100
Laboratory Courses													
7	Analog Circuits Laboratory	PC-BTE406	-	2	-	1	-	-	-	-	-	25	25
8	Electrical and Electronics Measurements Laboratory	PC-BTE407	-	2	-	1	-	-	-	-	-	25	25
9	Microprocessor and Microcontroller Laboratory	PC-BTE408	-	2	-	1	-	-	-	-	-	25	25
10	Electrical Machines I Laboratory	PC-BTE409	-	2	-	1	-	-	-	-	-	25	25
11	Signals and Systems Laboratory	PC-BTE410	-	2	-	1	-	-	-	-	-	25	25
	Total					24							
Value Added Courses													
10	PLC	VA-BTE03	1	2	--	2	20	20	100	3	60	-	100
11	Numerical Computations	VA-BTE04	1	2	--	2	20	20	100	3	60	-	100
Non-technical Value Added Courses													
12	Non-technical value added course	VN-BTXXX		2		0	20	20	100	3	60	--	100
Value added courses by industry													
13	Value added course by Industry	VA-BTIXX	Refer Course Content			0	--	-	100	3	60	40	100
Online Courses													
14	Online Course 1	OL-BTE401	-	-	-	0	-	-	-	-	-	-	-
Mandatory Courses													
15	Indian Traditional Knowledge	MC-BTE002	3	0	0	0	20	20	100	3	60		100
	<b>TOTAL</b>		<b>21</b>	<b>10</b>	<b>01</b>	<b>24</b>							<b>750</b>

L: Lecture P: Practical T: Tutorial

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Non-technical value Added Courses

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