D. Y. Patil College of Engineering and Technology

Kasaba Bawada, Kolhapur

Proposed B. Tech Programme Structure (Autonomous)

(Department of Electronics & Telecommunication Engineering)

2020-21

Sr. No.	Course Code	Course Type	Name of the Course	Lecture	Tutorial	Practical	Credits	Total Marks	Type	Max. Marks	Min. for Passing	
1	201ETL201	BSC	Applied Mathematics	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
2	201ETL202	PCC	Electronics Circuits Analysis & Design - I	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
3	201ETL203	PCC	Analog & Digital Communication	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
4	201ETL204	PCC	Data structures & algorithms	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
5	201ETL205	PCC	Instrumentation & Control System	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
6	201ETP202	PCC - LC	Electronics Circuits Analysis & Design – I-Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
7	201ETP203	PCC - LC	Analog & Digital Communication Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
8	201ETP204	PCC - LC	Data structures & algorithms Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
9	201ETP211	ESC-LC	Electronics workshop practice			2	1	25	ISE	25	10	10
10	201ETL212	MC	Environment studies	2								
TOTAL				17	2	8	21	675		675		
Total Contact Hours				**27**								

Second Year (B.Tech.) Electronics & Telecommunication SEM-III

Sr. No.	Course Code	Course Type	Name of the Course	Lecture	Tutorial	Practical	Credits	Total Marks	Type	Max. Marks	Min. for Passing	
			Second Year (B.Tech.) Electronics & Telecommunication SEM-IV									
11	201ETL206	PCC	Electronics Circuits Analysis & Design - II	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
12	201ETL207	PCC	Digital System Design using Verilog	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
13	201ETL208	PCC	Signals and Systems	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
14	201ETL209	PCC	Electromagnetic waves & radiating systems	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
15	201ETL210	PCC	Power Electronics	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
16	201ETP206	PCC -LC	Electronics Circuits Analysis & Design - II - Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
17	201ETP207	PCC -LC	Digital System Design using Verilog -Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
18	201ETP210	PCC -LC	Power Electronics - Lab			2	1	25	ISE	25	10	10
19	201ETP213	PROJ	Mini-Project-I -Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
20	201ETL214	MC	Financial Management	2								
21	201ET215	SLC	Aptitude ability				1	25	ISE	25	10	10
	TOTAL			17	2	8	22	700		700		
	Total Contact Hours			**27**								

ISE: In Semester Evaluation, MSE: Mid Semester Examination, ESE: End Semester Examination
Note 1 : Tutorials and practical shall be conducted in batches with batch strength not exceeding 20 students .
Note 2 : MSE will be conducted for 30 marks
Note 3 : ESE will be conducted for 100 marks and converted to 50 marks

Sr. No.	Course Code	Course Type	Name of the Course	Lecture	Tutorial	Practical	Credits	Total Marks	Type	Max. Marks	Min. for Passing	
1	201ETL301	PCC	Microprocessor and microcontroller	3	-		3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
2	201ETL302	PCC	Linear Integrated circuit	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
3	201ETL303	PCC	Digital Signal processing	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
4	201ETL304	PEC	Professional elective-I	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
5	201ETL305	HS	Project Management and Economics	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
6	201ETP301	PCC - LC	Microprocessor and microcontroller - Lab			2	1	50	ISE	25	10	10
									ESE POE	25	10	10
7	201ETP302	PCC - LC	Linear Integrated circuit Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
8	201ETP303	PCC - LC	Digital Signal Processing -lab			2	1	25	ISE	25	10	10
9	201ETP311	ESC - LC	Programming tools & Practices	1		2	2	50	ISE	25	10	20
									ESE	25	10	
10	201ETL312	MC	Marketing Research	2								
		TOTAL		18	2	8	22	675		675		
		Total Contact Hours			**28**							

Third Year (B.Tech.) Electronics & Telecommunication SEM-V

Sr. No.	Course Code	Course Type	Name of the Course	Lecture	Tutorial	Practical	Credits	Total Marks	Type	Max. Marks	Min. for Passing	
			Third Year (B.Tech.) Electronics & Telecommunication SEM-VI									
11	201ETL306	PCC	Wired & Wireless Communication	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
12	201ETL307	PCC	Embedded Systems	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
13	201ETL308	HS	Industrial management	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
14	201ETL309	PEC	Professional Elective-II	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
15	201ETL310	OEC	Open Elective I	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
16	201ETP306	PCC -LC	Wired & Wireless Communication - Lab			2	1	50	ISE	25	10	20
									ESE OE	25	10	
17	201ETP307	PCC -LC	Embedded Systems -Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
18	201ETP313	PROJ	Mini Project-II			2	1	50	ISE	25	10	20
									ESE	25	10	
			TOTAL	15	2	6	20	650		650		
			Total Contact Hours		**23**							

ISE: In Semester Evaluation, MSE: Mid Semester Examination, ESE: End Semester Examination
Note 1 : Tutorials and practical shall be conducted in batches with batch strength not exceeding 20 students .
Note 2 : MSE will be conducted for 30 marks
Note 3 : ESE will be conducted for 100 marks and converted to 50 marks

Sr. No.	Course Code	Course Type	Name of the Course	Lecture	Tutorial	Practical	Credits	Total Marks	Type	Max. Marks	Min. for Passing	
				Teaching Scheme					**Evaluation Scheme**			
1	201ETL401	PCC	Information Theory & Coding Techniques	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
2	201ETL402	PCC	Mobile communication	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
3	201ETL403	PEC	Professional Elective –III	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
4	201ETL404	PEC	Professional Elective -IV	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
5	201ETL405	OEC	Open Elective II	3	1		4	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
6	201ETP401	PCC -LC	Information Theory & Coding Techniques - - Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
7	201ETP409	PROJ	Project Phase I			4	2	100	ISE	50	20	40
									ESE POE	50	20	
8	201ETP410	PROJ	Internship (4-6Weeks)				4	50	ISE	50	20	20
	TOTAL			15	2	6	24	700		700		
	Total Contact Hours			**23**								

Final Year (B.Tech.) Electronics & Telecommunication SEM-VII

Sr. No.	Course Code	Course Type	Name of the Course	Teaching Scheme				Total Marks	Evaluation Scheme			
				Lecture	Tutorial	Practical	Credits		Type	Max. Marks	Min. for Passing	
9	201ETL406	PCC	Data Communication & Network	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
11	201ETL407	PEC	Professional Elective-V	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
12	201ETL408	PEC	Professional Elective -VI	3			3	100	ISE	20	20	40
									MSE	30		
									ESE	50	20	
13	201ETP406	PCC -LC	Data Communication & Network-Lab			2	1	50	ISE	25	10	20
									ESE POE	25	10	
14	201ETP411	PROJ	Project Phase II			6	3	200	ISE	100	40	80
									ESE POE	100	40	
TOTAL				9	0	8	13	550		550		
Total Contact Hours				**17**								

ISE: In Semester Evaluation, MSE: Mid Semester Examination, ESE: End Semester Examination
Note 1 : Tutorials and practical shall be conducted in batches with batch strength not exceeding 20 students .
Note 2 : MSE will be conducted for 30 marks
Note 3 : ESE will be conducted for 100 marks and converted to 50 marks

Course Category	Sem-I	Sem.-II	Sem-III	Sem.-IV	Sem.V	Sem.-VI	Sem.VII	Sem.VIII	Total
BSC	8	8	4	-	-	-	-	-	20
HSC	2	2			4	3		-	11
ESC	9	9	1		2				21
PCC	-	-	16	20	12	8	8	4	68
PEC	-	-	-	-	4	4	6	6	20
OEC	-	-	-	-	-	4	4	-	8
PROJ	-	-	-	1	-	1	6	3	11
SLC				1					1
Total	19	19	21	22	22	20	24	13	160

Open Elective:-For students other than our department

Summer Internship: The students are expected to undergo 4 to 6 weeks internship in the industry and work on the relevant areas assigned by the industry. The work done should be monitored and evaluated by the concerned industry expert based on the report prepared by the student. The department has to assign one faculty mentor who has to communicate with the industry and monitor the entire internship related work periodically,

The weightage of evaluation will be as under.

Industry Expert/ Supervisor:70%

Department & Faculty Mentor : 30 % (includes presentation & Submission of report to the department at the beginning of the subsequentsemester)

TheInternshipcanbeavailedbythestudentsduringthesummervacationsaftercompletionofsemIVor VI. The credits of the internship will be considered in Sem VII.

The industry expert/ Supervisor is excepted to assign the work worth minimum 100-200 hrs for 4 to 6 weeks duration & should monitor &evaluateperiodically.

At the completion of the internship work, the student is expected to prepare a report on the work done & get certificate from the industryexpert.

Course assessment:

The course assessment is to be done on the basis of ISE (In Semester Evaluation), MSE (Mid Semester Examination) and ESE (End Semester Examination). The weightage of components are as follows.

ISE	MSE	ESE
20%	30%	50%

1) ISE (Theory) 20 marks

ISE-1 and ISE-2 can be done by using following modes

1) Online test (onmoodle)
2) Surprisetest
3) Openbookexam
4) Active learning method as perOBErequirement
5) Selflearningtopic

6) Case study
7) Demonstrations
8) Seminars
9) Assignments
10) Self Study

ISE (Lab) 20 marks: Lab assessment is tobe done using continuous assessment method in which faculty has to Evaluate student's performance based upon definbed rubrics only and shown to the students

2) MSE will be conducted for 30 marks.

3) ESE (End Semester Examinations) 50 marks :-ESE will be conducted on entire syllabus for 100 marks for 3 hours duration and converted to 50 marks

Note: Student Induction Program of 3 weeks at the start of First Semester

* **Engg. Graphics** course examination will be of 4 hours duration.

** Democracy, Elections and Good Governance course (Non-Credit Mandatory Course) :

 1. Self study course

 2. Course will be assessed by conducting objective type examination for

  50 marks for which criteria for passing is 40% (20marks).

 3. Result of student will be declared only if student passes thiscourse.

LIST OF ELECTIVES AS PER PROPOSED STRUCTURE

Professional Elective I	Professional Elective II	Professional Elective III	Professional Elective IV	Professional Elective V	Professional Elective VI	Open Elective I	Open Elective II
Image Processing	Advance Image Processing	Computer Vision & Pattern Recognition	Speech and Audio Processing	artificial neural network	AI & Machine learning	Mobile technology	Biomedical Instrumentation
Fiber optic communication	Satellite communication	wireless sensor network	Micro-wave theory	Cyber security	IOT	Renewable & Sustainable Energy Systems	Consumer Electronics
VLSI design	ASIC Design	System on chip	MEMS technology	Nano electronics	Consumer electronics		

Course Code and Definition	
Course Cod	**Definition**
BSC	Basic Science Courses
ESC	Engineering Science Courses
HSMC	Humanities and Social Sciences including Management courses
PCC	Professional core courses
PEC	Professional Elective courses
OEC	Open Elective courses
LC	Laboratory course
MC	Mandatory courses

D. Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY, KOLHAPUR.

Curriculum Comparison for AICTE and DYPCET Departement of E & T C

Course Code	Category	AICTE Breakup of Credits	Department of E & T C Breakup of Credits
HSMC	Humanities and Social Sciences including Management courses	12	4 (FY) + 7 = 11
BSC	Basic Science Courses	25	16 (FY) + 4 = 20
ESC	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc.	24	18 (FY) + 3 = 21
PCC	Professional core courses	48	68
PEC	Professional Elective courses relevant to chosen specialization/branch	18	20
OEC	Open subjects–Electives from other technical and/or emerging subjects	18	8
PROJ	Project work, seminar and internship in industry or appropriate work place/ academic and research institutions in India/abroad	15	11
MC	Mandatory Courses [Environmental Sciences, Induction program, Indian Constitution, Essence of Indian Knowledge Tradition]	(Non-Credit)	(Non-Credit)
SLC	Aptitude ability	0	1
Total Credits 122+38 (First Year)		**160**	**160**

D. Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY, KOLHAPUR.

Department of E &T C

Subject wise Distribution of Credits

Course Code	Subjects	Credits
HSC	Industrial Management (VI-3) & Project Management and Economics (VII-3), FY (4)	4 (FY) + 6 = 10
BSC	Engineering Mathematics– III (III-4), FY (16)	16 (FY) + 4 = 20
ESC	Circuit Simulation (III-1), Programming Lab II (V-1), FY (18)	18 (FY) + 2 = 20
PCC	ECAD-I (III-4), ADC (III-4), DSA (III-4), ICS(III-4)ECAD-II (IV-4), DSDV (IV-4), SS (IV-4), EWRS (IV-4),PE(IV-4), M&M(V-4), LIC (IV-4), DSP (V-4), WWC (VI-4), ES (VI-4), ITCT (VII-4), MC (VII-4), DCN (VIII-4)	68
PEC	Professional Elective-I (V-4), Professional Elective-II (VI-4), Professional Elective-III (VII-3), Professional Elective-IV (VIII-3), Professional Elective-V (VIII-3), Professional Elective-VI (VIII-3)	20
OEC	Open Elective-I (VI-4), Open Elective-II (VII-4)	8
PROJ	Mini Project-I (IV-1),Mini Project-II (VI-1), Project Phase-I (VII-2), Internship (VII-4), Project Phase-II (VIII-3)	11
SLC	Aptitude ability	1
MC	Environmental Studies (III-0), Financial Management (IV-0),Marketing Research (V-0)	(Non-Credit)
Total		**160**
Total Credits 122+38 (First Year)		