

Government College of Engineering, Karad
(An Autonomous Institute of Government of Maharashtra)

Programme: Electronics and Telecommunication Engineering

Proposed Structure for second year to fourth year of B. Tech
(Revised from A.Y.: 2019-20)

Government College of Engineering, Karad
 (An Autonomous Institute of Government of Maharashtra)
B. Tech. Second year - Electronics and Telecommunication Engineering
Curriculum Structure
 (Revised from A.Y.: 2017-18)
Semester - III

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME				
									CT1	CT2	TA/CA	ESE	TOTAL
1	BS	EX301	Engineering Mathematics – III	3	1	-	4	4	15	15	10	60	100
2	PC	EX302	Electronic Devices and Circuits	4	-	-	4	4	15	15	10	60	100
3	PC	EX303	Microcontroller and Interfacing	4	-	-	4	4	15	15	10	60	100
4	PC	EX304	Digital Electronics	3	1	-	4	4	15	15	10	60	100
5	PC	EX305	Transducers and Measurements	3	-	-	3	3	15	15	10	60	100
6	PC	EX306	Electronic Devices and Circuits Lab	-	-	2	2	1	-	-	25	25	50
7	PC	EX307	Microcontroller and Interfacing Lab	-	-	2	2	1	-	-	25	25	50
8	PC	EX308	Digital Electronics Lab	-	-	2	2	1	-	-	25	25	50
9	PC	EX309	Embedded C	-	1	2	3	2	-	-	50	-	50
10	MC	MC301	Environmental Studies*	3	-	-	3	-	15	15	10	60	100
Total				20	3	8	31	24	90	90	185	435	800

CT1- Class Test 1

TA/CA- Teacher Assessment/Continuous Assessment

CT2- Class Test 2

ESE- End Semester Examination (For Laboratory: End Semester Performance)

* indicates Audit Course.

Credits Distribution

Course Category	HS (Hum. And So. Sc.)	BS (Basic Sc.)	ES (Eng. Sc.)	PC (Programme Core)	PE (Programme Electives)	OE (Open Elective)	MC (Mandatory Course)
Credits		4		20			--
Cumulative Sum	3	21	28	20			--

Government College of Engineering, Karad
 (An Autonomous Institute of Government of Maharashtra)
B. Tech. Second year - Electronics and Telecommunication Engineering
Curriculum Structure
 (Revised from A.Y.: 2017-18)
Semester - IV

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME				
									CT1	CT2	TA/CA	ESE	TOTAL
1	PC	EX401	Analog Integrated Circuits	3	-	-	3	3	15	15	10	60	100
2	PC	EX402	Network Analysis	3	-	-	3	3	15	15	10	60	100
3	PC	EX403	Analog Communication	3	-	-	3	3	15	15	10	60	100
4	PC	EX404	Signals and Systems	3	-	-	3	3	15	15	10	60	100
5	PC	EX405	Electromagnetic Engineering	3	1	-	4	4	15	15	10	60	100
6	PC	EX406	Analog Integrated Circuits Lab	-	-	2	2	1	-	-	25	50	75
7	PC	EX407	HDL Lab	-	1	2	3	2	-	-	25	50	75
8	PC	EX408	Analog Communication Lab	-	-	2	2	1	-	-	25	50	75
9	PC	EX409	Signals and Systems Lab	-	-	2	2	1	-	-	25	-	25
10	HS	HS002	General Proficiency-II	2	-	2	4	3	-	-	50	-	50
			Total	17	2	10	29	24	75	75	200	450	800

CT1- Class Test 1

TA/CA- Teacher Assessment/Continuous Assessment

CT2- Class Test 2

ESE- End Semester Examination (For Laboratory: End Semester Performance)

Credits Distribution

Course Category	HS (Hum. And So. Sc.)	BS (Basic Sc.)	ES (Eng. Sc.)	PC (Programme Core)	PE (Programme Electives)	OE (Open Elective)	MC (Mandatory Course)
Credits	3			21			
Cumulative Sum	6	21	28	41			

Government College of Engineering, Karad
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B. Tech. Third year - Electronics and Telecommunication Engineering
Curriculum Structure
 (Revised from A.Y.: 2017-18)
Semester - V

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME				
									CT1	CT2	TA/CA	ESE	TOTAL
1	PC	EX501	Digital Communication	4	-	-	4	4	15	15	10	60	100
2	PC	EX502	Embedded Systems	3	-	-	3	3	15	15	10	60	100
3	PC	EX503	Digital Signal Processing	4	-	-	4	4	15	15	10	60	100
4	PC	EX504	Control Systems	3	-	-	3	3	15	15	10	60	100
5	PC	EX505	Mini Project using Design Tools	1	-	2	3	4	-	-	50	-	50
6	PC	EX506	Digital Communication Lab	-	-	2	2	1	-	-	25	50	75
7	PC	EX507	Embedded Systems Lab	-	-	2	2	1	-	-	50	50	100
8	PC	EX508	Digital Signal Processing Lab	-	-	2	2	1	-	-	25	50	75
9	PC	EX509	Instrumentation and Control Lab	-	-	2	2	1	-	-	50	-	50
10	HS	HS003	General Proficiency –III	2	-	2	4	3	-	-	50	-	50
Total				17	-	12	29	25	60	60	290	390	800

CT1- Class Test 1

CT2- Class Test 2

TA/CA- Teacher Assessment/Continuous Assessment

ESE- End Semester Examination (For Laboratory: End Semester Performance).

Credits Distribution

Course Category	HS (Hum. And So. Sc.)	BS(Basic Sc.)	ES(Engg. Sc.)	PC (Programme Core)	PE(Programme Electives)	OE (Open Elective)	MC (Mandatory Course)
Credits	3			22			
Cumulative Sum	9	21	28	63			

Government College of Engineering, Karad

(An Autonomous Institute of Government of Maharashtra)

B. Tech. Third year - Electronics and Telecommunication Engineering

Curriculum Structure

(Revised from A.Y.: 2017-18)

Semester - VI

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME				
									CT1	CT2	TA/CA	ESE	TOTAL
1	OE	OE651	Open Elective	2	-	2	4	3	-	-	50	50	100
2	PC	EX602	Antennas and Wave Propagation	4	-	-	4	4	15	15	10	60	100
3	PC	EX603	Power Electronics	4	-	-	4	4	15	15	10	60	100
4	PE	EX6*4	Elective – I	3	-	-	3	3	15	15	10	60	100
5	PC	EX605	Industrial and Project Management	4	-	-	4	4	15	15	10	60	100
6	PC	EX606	Antennas and Wave Propagation Lab	-	-	2	2	1	-	-	25	50	75
7	PC	EX607	Power Electronics Lab	-	-	2	2	1	-	-	25	-	25
8	PE	EX6*8	Elective – I Lab	-	-	2	2	1	-	-	25	50	75
9	PC	EX609	Minor Project	-	-	2	2	2	-	-	50	50	100
10	PC	EX610	Seminar	-	-	2	2	2	-	-	25	-	25
Total				17	-	12	27	25	60	60	240	440	800

CT1- Class Test 1

TA/CA- Teacher Assessment/Continuous Assessment

CT2- Class Test 2

ESE- End Semester Examination (For Laboratory: End Semester Performance)

Credits Distribution

Course Category	HS (Hum. And So. Sc.)	BS(Basic Sc.)	ES(Engg. Sc.)	PC (Programme Core)	PE(Programme Electives)	OE (Open Elective)	MC (Mandatory Course)
Credits		--		18	4	3	
Cumulative Sum	9	21	28	81	4	3	

Government College of Engineering, Karad

(An Autonomous Institute of Government of Maharashtra)

B. Tech. Fourth year - Electronics and Telecommunication Engineering

Curriculum Structure

(Revised from A.Y.: 2019-20)

Semester - VII

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME				
									CT1	CT2	TA/CA	ESE	TOTAL
1	PC	EX1701	Wireless and Mobile Communication	4	-	-	4	4	15	15	10	60	100
2	PC	EX1702	VLSI Technology	4	-	-	4	4	15	15	10	60	100
3	PC	EX1703	Fiber Optics	3	-	-	3	3	15	15	10	60	100
4	PC	EX1704	Computer Communication Networks	3	1	-	4	4	15	15	10	60	100
5	PE	EX17*5	Elective – II	3	1	-	4	4	15	15	10	60	100
6	PC	EX1706	VLSI Technology Lab	-	-	2	2	1	-	-	25	25	50
7	PC	EX1707	Fiber Optics Lab	-	-	2	2	1	-	-	25	25	50
8	PC	EX1708	Computer Communication Networks Lab	-	-	2	2	1	-	-	25	25	50
9	PE	EX17*9	Elective – III	4	-	-	4	4	15	15	10	60	100
10	PC	EX1710	Industrial Training/Mini Project	-	-	-	-	2	-	-	50	-	50
11	PC	EX1805	Project (to predefine project for sem-II)	-	-	-	2	-	-	-	-	-	-
Total				21	2	6	29	28	90	90	185	435	800

CT1- Class Test 1

CT2- Class Test 2

TA/CA- Teacher Assessment/Continuous Assessment

ESE- End Semester Examination (For Laboratory: End Semester Performance)

Credits Distribution

Course Category	HS (Hum. And So. Sc.)	BS (Basic Sc.)	ES (Engg. Sc.)	PC (Programme Core)	PE (Programme Electives)	OE (Open Elective)	MC (Mandatory Course)
Credits		--		26	8		
Cumulative Sum	9	21	28	107	12	3	

Government College of Engineering, Karad
 (An Autonomous Institute of Government of Maharashtra)
B. Tech. Fourth year - Electronics and Telecommunication Engineering
Curriculum Structure (Regular Students)
 (Revised from A.Y.: 2019-20)
Semester – VIII

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME				
									CT1	CT2	TA/CA	ESE	TOTAL
1	PC	EX1801	Advanced Networking	3	-	-	3	3	15	15	10	60	100
2	PC	EX1802	Microwave Engineering	3	-	-	3	3	15	15	10	60	100
3	PE	EX18*4	Elective – IV	3	-	-	3	3	15	15	10	60	100
4	PC	EX1806	Microwave Engineering Lab	-	-	2	2	1	-	-	50	50	100
5	PC	EX1805	Project	-	-	08	08	14	-	-	100	100	200
			Total	9	-	10	19	24	45	45	180	330	600

***NOTE: Student undergoing Industry Project will report to respective Guide and department for evaluation in every month.**

CT1- Class Test 1

TA/CA- Teacher Assessment/Continuous Assessment

CT2- Class Test 2

ESE- End Semester Examination (For Laboratory: End Semester Performance)

Credits Distribution

Course Category	HS (Hum. And So. Sc.)	BS (Basic Sc.)	ES (Engg. Sc.)	PC (Programme Core)	PE (Programme Electives)	OE (Open Elective)	MC (Mandatory Course)
Credits				18	3		
Cumulative Sum	9	21	28	125	15	3	

Government College of Engineering, Karad
 (An Autonomous Institute of Government of Maharashtra)
B. Tech. Fourth year - Electronics and Telecommunication Engineering
Curriculum Structure (Industry Projects)
 (Revised from A.Y.: 2019-20)
Semester – VIII

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME				
									CT1	CT2	TA/CA	ESE	TOTAL
1	PC	EX18*3	MOOCS 1	-	-	-	-	3	-	-	-	-	100
2	PC	EX18*8	MOOCS 2	-	-	-	-	3	-	-	-	-	100
3	PE	EX18*9	MOOCS 3	-	-	-	-	3	-	-	-	-	100
4	PC	EX1807	Project	-	-	-	-	15	-	-	150	150	300
			Total	-	-	-	-	24	-	-	150	150	600

- *NOTE:** 1. Department will be offer MOOCS courses as per availability & cache.
 2. At least three MOOCS courses will be offered against PE –EX18*9
 3. Student undergoing Industry Project will report to respective Guide and department for evaluation in every month.

CT1- Class Test 1
 CT2- Class Test 2

TA/CA- Teacher Assessment/Continuous Assessment
 ESE- End Semester Examination (For Laboratory: End Semester Performance)

Credits Distribution

Course Category	HS (Hum. And So. Sc.)	BS (Basic Sc.)	ES (Engg. Sc.)	PC (Programme Core)	PE (Programme Electives)	OE (Open Elective)	MC (Mandatory Course)
Credits				18	3		
Cumulative Sum	9	21	28	125	15	3	

Government College of Engineering, Karad
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Programme: Electronics and Telecommunication Engineering

List of Electives offered by E&TC Department

Open Elective	Elective I	Elective II	Elective III	Elective IV
(Open)	(Core)	(Core)	(Core)	(SSM)
6	6	7	7	8
OE1651 Open Source Embedded Platform	EX1614 Random Signal Processing	EX1715 Mechatronics	EX1719 Speech Processing	EX1814 Broadband Communication
	EX1624 Computer Organization	EX1725 Real Time Operating Systems	EX1729 Embedded Linux	EX1824 Satellite Communication
	EX1634 Image Processing	EX1735 Industrial Drives	EX1739 PLC SCADA	EX1834 Audio & Video Engineering
	EX1644 Information Theory and Coding	EX1745 Linear Algebra	EX1749 Robotics	EX1844 Digital Signal Compression

Note: Final Year structure contains the same course syllabus as like previous syllabus