

**CURRICULUM STRUCTURE**

**I Semester Scheme of Studies - Diploma in Electronics & Communications Engineering [C-20]**

S. N	Course Category / Teaching Department	Course Code	Course Title	Hours per week			Total contact hrs /week	Credits	CIE Marks		SEE Marks		Total Marks	Min Marks for Passing (including CIE)	Assigned Grade	Grade Point	SGPA and CGPA
				L	T	P			Max	Min	Max	Min					
<b>THEORY COURSES</b>																	
1	ES/EC	20EC11T	Digital Electronics	4	0	0	4	4	50	20	50	20	100	40			<b>Only SGPA for 1<sup>st</sup> Semester</b>
<b>PRACTICAL COURSES</b>																	
2	BS/SC	20SC02P	Statistics and Analytics	2	0	4	6	4	60	24	40	16	100	40			
3	ES/ME	20ME02P	Computer Aided Engineering Graphics	2	0	4	6	4	60	24	40	16	100	40			
4	ES/EE/EC	20EC01P	Fundamentals of Electrical & Electronics Engineering.	2	0	4	6	4	60	24	40	16	100	40			
<b>AUDIT COURSES</b>																	
5	AU/SC	20AU01T	Environmental Sustainability	2	0	0	2	2	50	20	-	-	50	20			
6	AU Physical Activity		Sports/NCC/NSS/Youth Red Cross/Yoga/ Technical club.	Student shall enrol in any one of these activities in 1 <sup>st</sup> semester and shall participate actively. The student shall obtain 'Participation Certificate' in the activity to get eligible for the award of Diploma.													
<b>Total</b>				<b>14</b>	<b>0</b>	<b>12</b>	<b>24</b>	<b>18</b>	<b>270</b>	<b>108</b>	<b>180</b>	<b>72</b>	<b>450</b>	<b>180</b>			

T:- Theory P:- Practical D:- Drawing E:- Elective BS- Basic Science:: ES-Engineering Science:: HS-Humanities & Social Science:: AU-Audit Course:: EG: English ::SC: Science

**Note:**

- Assigned Grade, Grade Point, SGPA and CGPA to be recorded in the Grade/Marks card.
- AU- Physical Activity- Student participation in the selected physical activity shall be monitored and the participation record shall be maintained by the respective Programme Coordinator (Head of Section).
- Theory course Semester End Examination (SEE) is conducted for 100 marks ( 3 Hours duration)
- Practical course CIE and SEE is conducted for 100 marks (3 Hours duration)

**II Semester Scheme of Studies - Diploma in Electronics & Communications Engineering [C-20]**

Sl. No	Course Category / Teaching Department	Course Code	Course Title	Hours per week			Total contact hrs/week	Credits	CIE Marks		SEE Marks		Total Marks	Min Marks for Passing	Assigned Grade	Grade Point	SGPA and
				L	T	P			Max	Min	Max	Min					
<b>THEORY COURSES</b>																	
1	SC/EC	20PM01T	Project Management Skills	2	0	4	6	4	50	20	50	20	100	40			SGPA & CGPA of 2 <sup>nd</sup> Semester
2	BS/SC	20SC01T	Engineering Mathematics	4	0	0	4	4	50	20	50	20	100	40			
<b>PRACTICAL COURSES</b>																	
3	EG/SC /EC	20EG01P	Communication Skills	2	0	4	6	4	60	24	40	16	100	40			
4	ES/CS	20CS01P	IT Skills	2	0	4	6	4	60	24	40	16	100	40			
5	ES/EC	20EC21P	Electronic Components & Devices	2	0	4	6	4	60	24	40	16	100	40			
<b>AUDIT COURSES</b>																	
6	AU/KA	20KA21T	Kannada-I/ಸಾಹಿತ್ಯ ಸಿಂಚನ I /ಬಳಕೆಕನ್ನಡ - I	2	0	0	2	2	50	20	-	-	50	20			
<b>Total</b>				<b>12</b>	<b>0</b>	<b>20</b>	<b>32</b>	<b>22</b>	<b>340</b>	<b>136</b>	<b>210</b>	<b>84</b>	<b>550</b>	<b>220</b>			

T:- Theory P:- Practical D:- Drawing E:- Elective BS- Basic Science:: ES-Engineering Science:: HS-Humanities & Social Science:: AU-Audit Course:: EG: English ::SC: Science

**Note:**

1. Assigned Grade, Grade Point, SGPA and CGPA to be recorded in the Grade/Marks card.
2. Theory course Semester End Examination (SEE) is conducted for 100 marks ( 3 Hours duration)
3. Practical course CIE and SEE is conducted for 100 marks (3 Hours duration)



Government of Karnataka  
DEPARTMENT OF COLLEGIATE AND TECHNICAL EDUCATION  
Curriculum Structure

**III Semester Scheme of Studies- Diploma in Electronics and Communications Engineering**

Sl. No.	Course Category / Teaching Department	Course Code	Course Name	Hours per week			Total contact hrs /week	Credits	CIE Marks		SEE Marks		Total Marks	Min Marks for Passing (including CIE marks)	Assigned Grade	Grade Point	SGPA and CGPA
				L	T	P			Max	Min	Max	Min					
<b>Integrated Courses</b>																	
1	PC/EC	20EC31P	Analog Electronics	3	1	4	8	6	60	24	40	16	100	40			Both SGPA & CGPA
2	PC/EC	20EC32P	Logic Design using Verilog	3	1	4	8	6	60	24	40	16	100	40			
3	PC/EC	20EC33P	Communication Systems	3	1	4	8	6	60	24	40	16	100	40			
4	PC/EC	20EC34P	Electronic Measurements and Testing Techniques	3	1	4	8	6	60	24	40	16	100	40			
<b>Audit Course</b>																	
5	AU/KA	20KA31T	ಸಾಹಿತ್ಯ ಸಿಂಚನ-II/ ಬಳಕೆ ಕನ್ನಡ-II	2	0	0	2	2	50	20	-	-	50	20			
<b>Total</b>				<b>14</b>	<b>4</b>	<b>16</b>	<b>34</b>	<b>26</b>	<b>290</b>	<b>116</b>	<b>160</b>	<b>64</b>	<b>450</b>	<b>180</b>			

**\*PC: Programme Core:: AU-Audit Course:: KA: Kannada:: L: Lecture:: T: Tutorial:: P: Practice**



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**IV Semester Scheme of Studies- Diploma in Electronics and Communications Engineering**

Sl. No.	Course Category / Teaching Department	Course Code	Course Name	Hours per week			Total contact hrs /week	Credits	CIE Marks		SEE Marks		Total Marks	Min Marks for Passing (including CIE marks)	Assigned Grade	Grade Point	SGPA and CGPA
				L	T	P			Max	Min	Max	Min					
<b>Integrated Courses</b>																	
1	PC/EC	20EC41P	PCB Design & Fabrication	3	1	4	8	6	60	24	40	16	100	40			<b>Both SGPA &amp; CGPA</b>
2	PC/EC	20EC42P	Wireless Communication	3	1	4	8	6	60	24	40	16	100	40			
3	PC/EC	20EC43P	Embedded C Programming	3	1	4	8	6	60	24	40	16	100	40			
4	PC/EC	20EC44P	Industrial Automation	3	1	4	8	6	60	24	40	16	100	40			
<b>Audit Course</b>																	
5	AU/EC	20EC45T	Indian Constitution	2	0	0	2	2	50	20	-	-	50	20			
<b>Total</b>				<b>14</b>	<b>4</b>	<b>16</b>	<b>34</b>	<b>26</b>	<b>290</b>	<b>116</b>	<b>160</b>	<b>64</b>	<b>450</b>	<b>180</b>			

**\*PC: Programme Core:: AU-Audit Course:: L: Lecture:: T: Tutorial:: P: Practice**

**CURRICULUM STRUCTURE**

**V Semester Scheme of Studies - Diploma in Electronics & Communication Engineering [C-20]**

Pathway	Course Category / Teaching Department	Course Code	Pathway Title	Hours per Semester			Total contact hrs /Semester	Credits	CIE Marks		SEE-1 Marks (Theory)		SEE-2 Mark (Practical)		Total Marks	Min Marks for Passing (including CIE marks)	Assigned Grade	Grade Point	SGPA and CGPA
				L	T	P			Max	Min	Max	Min	Max	Min					
<b>Programme Specialization Pathway</b>																			
1	EC Specialization pathways in emerging areas Student may select any one of the specializations	20EC51I	1. Drone Technologies	104	52	312	468	24	240	96	60	24	100	40	400	160			
		20EC52I	2. Industrial Internet of Things (IIoT)	104	52	312	468	24	240	96	60	24	100	40	400	160			
		20EC53I	3. Automation & Robotics	104	52	312	468	24	240	96	60	24	100	40	400	160			
		20EC54I	4. E - Mobility	104	52	312	468	24	240	96	60	24	100	40	400	160			
<b>Science and Research Pathway</b>				L	T	P	Total	Credits	CIE Marks		SEE Marks								
									Max	Min	Max	Min							
2	BS/SC/EC Specialization pathway in Science and Research (Student need to take all four papers in this pathway)	20SC51T	Paper 1-Applied Mathematics	52	26	0	78	6	50	20	50	20	100	40					
		20SC52T	Paper 2 – Applied Science	52	0	52	104	6	50	20	50	20	100	40					
		20RM53T	Paper 3 – Research Methodology	52	0	52	104	6	50	20	50	20	100	40					
		20TW54P	Paper 4 – Technical Writing	39	13	52	104	6	60	24	40	16	100	40					
			Total	195	39	156	390	24	210	84	190	76	400	160					
<b>Entrepreneurship Pathway</b>																			
3	ES/EC	20ET51I	Entrepreneurship and Start up	104	52	312	468	24	240	96	160	64	400	160					

L:- Lecture T:- Tutorial P:- Practical BS- Basic Science:: ES-Engineering Science:: SC: Science

**Note: In 5th Semester student need to select any one of the pathways consisting of 24 credits**

**Students can continue their higher education irrespective of the Pathway selected**

**CURRICULUM STRUCTURE**

***VI Semester Scheme of Studies - Diploma in Electronics & Communication Engineering [C-20]***

Pathway	Course Category / Teaching Department	Course Code	Pathway	Course		Total contact	Credits	CIE Marks		SEE Marks		Total Marks	Min Marks for Passing	Assigned Grade	Grade	SGPA and CGPA
								Max	Min	Max	Min					
Internship	ES/EC	20EC61S	Specialisation pathway	Internship/ project	40 Hours / week Total 16 Weeks	640	16	240	96	160	64	400	160			
		20EC61R	Science and Research Pathway	Research project	40 Hours / week Total 16 Weeks	640	16	240	96	160	64	400	160			
		20EC61E	Entrepreneurs hip and Start up pathway	Minimum Viable Product - MVP/ Incubation/ Startup proposal	40 Hours / week Total 16 Weeks	640	16	240	96	160	64	400	160			

**Note: Student shall undergo Internship/Project/research project/MVP/Incubation/Startup proposal in the same area as opted**

**in 5th semester pathway.**