

CURRICULUM REVISION 2021 - PROGRAMME SCHEME

STATE BOARD OF TECHNICAL EDUCATION, KERALA

TEACHING AND EXAMINATION SCHEME FOR DIPLOMA PROGRAMME

PROGRAM NAME : Computer Engineering

PROGRAM CODE : CT

PATTERN: FULL TIME

DURATION OF PROGRAMME: 3 YEARS (6 SEMESTERS)

SEMESTER: First Semester

SCHEME: Revision 2021

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation Scheme				Evaluation Mode	Credits
				Contact Hours/ week				CA	ESA	Total Marks	Exam Type		
				L	T	P	Total						
1.	Humanities & Social Sciences	1001	Communication Skills in English	4	0	0	4	50	75	125	T	B	4
2.	Basic Science	1002	Mathematics I	5	0	0	5	50	75	125	T	B	5
3.	Basic Science	1003	Applied Physics I	3	0	0	3	50	75	125	T	B	3
4.	Basic Science	1004	Applied Chemistry	3	0	0	3	50	75	125	T	B	3
5.	Engineering Science	1005	Engineering Graphics	0	0	3	3	50	75	125	D	B	1.5
6.	Basic Science	2006	Applied Physics Lab	0	0	2	2	^	^	^	P	I	^
7.	Basic Science	1007	Applied Chemistry Lab	0	0	2	2	75	50	125	P	I	1
8.	Engineering Science	1008	Introduction to IT systems Lab	1	0	2	3	75	50	125	P	I	2
9.	Engineering Science	2009	Engineering Workshop Practice	0	0	3	3	^	^	^	P	I	^
10.	Humanities & Social Sciences	1009	Sports and Yoga	0	0	2	2	75	50	125	P	I	1
				16	0	14	30						20.5

PROGRAM NAME : Computer Engineering										PROGRAM CODE : CT			
SEMESTER: Second Semester										SCHEME: Revision 2021			
Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation Scheme				Credits	
				Contact Hours/ week				CA	ESA	Total Marks	Exam Type		Evaluation Mode
				L	T	P	Total						
1.	Basic Science	2002	Mathematics II	4	0	0	4	50	75	125	T	B	4
2.	Basic Science	2003	Applied Physics II	3	0	0	3	50	75	125	T	B	3
3.	Common Courses	2001	Environmental Science	3	0	0	3	50	75	125	T	I	0
4.	Engineering Science	2031	Fundamentals of Electrical & Electronics Engineering	3	0	0	3	50	75	125	T	B	3
5.	Engineering Science	2131	Problem Solving and Programming	3	0	0	3	50	75	125	T	B	3
6.	Humanities & Social Sciences	2008	Communication Skills in English Lab	0	0	3	3	75	50	125	P	I	1.5
7.	Basic Science	2006	Applied Physics Lab	0	0	2	2	75	50	125	P	I	1
8.	Engineering Science	2039	Fundamentals of Electrical & Electronics Engineering Lab	0	0	3	3	75	50	125	P	I	0
9.	Engineering Science	2139	Problem Solving and Programming Lab	0	0	3	3	75	50	125	P	I	0
10.	Engineering Science	2009	Engineering Workshop Practice	0	0	3	3	75	50	125	P	I	1.5
				16	0	14	30						17
Summer Internship I to be conducted after Semester 2													
1.	Common Courses	3009	Internship I	3 Weeks				0	75	75	P	I	2

PROGRAM NAME : Computer Engineering										PROGRAM CODE : CT			
SEMESTER: Third Semester										SCHEME: Revision 2021			
Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation Scheme				Credits	
				Contact Hours/ week				CA	ESA	Total Marks	Exam Type		Evaluation Mode
				L	T	P	Total						
1.	Programme core course	3131	Computer Organisation	4	0	0	4	50	75	125	T	B	4
2.	Programme core course	3132	Programming in C	3	0	0	3	50	75	125	T	B	3
3.	Programme core course	3133	Database Management Systems	3	0	0	3	50	75	125	T	B	3
4.	Programme core course	3134	Digital Computer Fundamentals	3	0	0	3	50	75	125	T	B	3
5.	Programme core course	3135	Programming in C Lab	0	0	3	3	75	50	125	P	B	1.5
6.	Programme core course	3136	Database Management System lab	0	0	3	3	75	50	125	P	B	1.5
7.	Programme core course	3137	Digital Computer Fundamentals Lab	0	0	3	3	75	50	125	P	B	1.5
8.	Programme core course	3138	Web Technology lab	1	0	3	4	75	50	125	P	B	2.5
9.	Programme core course	3139	Computer System Hardware Lab	0	0	4	4	75	50	125	P	I	0
				14	0	16	30						20

PROGRAM NAME : Computer Engineering										PROGRAM CODE : CT			
SEMESTER: Fourth Semester										SCHEME: Revision 2021			
Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation Scheme				Credits	
				Contact Hours/ week				CA	ESA	Total Marks	Exam Type		Evaluation Mode
				L	T	P	Total						
1.	Programme core course	4131	Object Oriented Programming	4	0	0	4	50	75	125	T	B	4
2.	Programme core course	4132	Computer Communication and Networks	3	0	0	3	50	75	125	T	B	3
3.	Programme core course	4133	Data Structures	4	0	0	4	50	75	125	T	B	4
4.	Common Courses	4001	Community Skills in Indian knowledge system	2	0	0	2	50	75	125	T	I	0
5.	Programme core course	4136	Object Oriented Programming Lab	0	0	3	3	75	50	125	P	B	1.5
6.	Programme core course	4137	Web Programming Lab	1	0	3	4	75	50	125	P	B	2.5
7.	Programme core course	4138	Data Structures Lab	0	0	3	3	75	50	125	P	B	1.5
8.	Programme core course	4139	Application Development Lab	0	0	3	3	75	50	125	P	I	0
9.	Minor project	4006	Minor Project	0	0	4	4	0	75	75	P	I	2
				14	0	16	30						18.5
Summer Internship II to be conducted after Semester 4													
1.	Common Courses	5009	Internship II	4 Weeks				0	75	75	P	I	3

PROGRAM NAME : Computer Engineering										PROGRAM CODE : CT			
SEMESTER: Fifth Semester										SCHEME: Revision 2021			
Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation Scheme				Credits	
				Contact Hours/ week				CA	ESA	Total Marks	Exam Type		Evaluation Mode
				L	T	P	Total						
1.	Common Courses	5002	Project Management and Software Engineering	4	0	0	4	50	75	125	T	I	0
2.	Programme core course	5131	Embedded System and Real time Operating System	4	0	0	4	50	75	125	T	B	4
3.	Programme core course	5132	Operating System	4	0	0	4	50	75	125	T	B	4
4.	Program Elective course	5133A	Virtualisation Technology and Cloud Computing	4	0	0	4	50	75	125	T	B	4
	Program Elective course	5133B	Ethical Hacking	4	0	0	4	50	75	125	T	B	4
	Program Elective course	5133C	Fundamentals of Artificial Intelligence and Machine Learning	4	0	0	4	50	75	125	T	B	4
5.	Programme core course	5137	Embedded Systems and Real Time Operating System Lab	0	0	3	3	75	50	125	P	B	1.5
6.	Programme core course	5138	System Administration Lab	0	0	3	3	75	50	125	P	B	1.5
7.	Program Elective course	5139A	Virtualisation Technology and cloud computing Lab	0	0	3	3	75	50	125	P	B	1.5
	Program Elective course	5139B	Ethical Hacking Lab	0	0	3	3	75	50	125	P	B	1.5
	Program Elective course	5139C	Fundamentals of Artificial Intelligence and Machine Learning Lab	0	0	3	3	75	50	125	P	B	1.5
8.	Seminar	5008	Seminar	0	0	2	2	0	75	75	P	I	1
9.	Major Project	6009	Major Project	0	0	3	3	0	0	0	P	I	0
				16	0	14	30						17.5

The Student has two options to complete the sixth semester and he/she shall select any one: 1. NORMAL PATHWAY 2. INTERNSHIP PATHWAY

1. NORMAL PATHWAY

PROGRAM NAME : Computer Engineering PROGRAM CODE : CT

SEMESTER: Sixth Semester SCHEME: Revision 2021

Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation Scheme				Credits	
				Contact Hours/ week				CA	ESA	Total Marks	Exam Type		Evaluation Mode
				L	T	P	Total						
1.	Humanities & Social Sciences	6001	Entrepreneurship and Startup	3	1	0	4	50	75	125	T	I	4
2.	Program Elective course	6131A	Internet of Things	4	0	0	4	50	75	125	T	B	4
	Program Elective course	6131B	Server Administration	4	0	0	4	50	75	125	T	B	4
	Program Elective course	6131C	Software Testing	4	0	0	4	50	75	125	T	B	4
	Program Elective course	6131D	Introduction to 5G	4	0	0	4	50	75	125	T	B	4
3.	Open Elective course	6132A	Introduction to IoT	4	0	0	4	50	75	125	T	I	4
	Open Elective course	6132B	Fundamentals of Web Technology	4	0	0	4	50	75	125	T	I	4
	Open Elective course	6132C	Multimedia	4	0	0	4	50	75	125	T	I	4
	Open Elective course	6132D	Cloud Computing	4	0	0	4	50	75	125	T	I	4
4.	Common Courses	6002	Indian Constitution	2	0	0	2	50	75	125	T	I	0
5.	Programme core course	6137	Computer Network Engineering Lab	0	1	3	4	75	50	125	P	I	2.5
6.	Programme core course	6138	Smart Device Programming Lab	0	0	3	3	75	50	125	P	I	1.5
7.	Program Elective course	6139A	Internet of Things Lab	0	0	3	3	75	50	125	P	B	1.5
	Program Elective course	6139B	Server Administration Lab	0	0	3	3	75	50	125	P	B	1.5
	Program Elective course	6139C	Software Testing Lab	0	0	3	3	75	50	125	P	B	1.5

8.	Major Project	6009	Major Project	0	0	6	6	75	50	125	P	I	4
				13	2	15	30						21.5
													120

2. INTERNSHIP PATHWAY

PROGRAM NAME : Computer Engineering									PROGRAM CODE : CT				
SEMESTER: Sixth Semester									SCHEME: Revision 2021				
Sl. No.	Course Category	Course Code	Course Name	Teaching Scheme				Evaluation Scheme				Credits	
				Contact Hours/ week				CA	ESA	Total Marks	Exam Type		Evaluation Mode
				L	T	P	Total						
1.	Humanities & Social Sciences	6001	Entrepreneurship and Startup	3	1	0	4	50	75	125	T	I	4
2.	Common Courses	6002	Indian Constitution	2	0	0	2	50	75	125	T	I	0
3.	Programme core course	6137	Computer Network Engineering Lab	0	1	3	4	75	50	125	P	I	2.5
4.	Programme core course	6138	Smart Device Programming Lab	0	0	3	3	75	50	125	P	I	1.5
5.	Internship	6007	Internship	4 - 6 months per semester				250	250	500	P	I	13.5
				5	2	6	13						21.5
Teaching Scheme : L-Lecture, T-Tutorial, P- Practical Examination Type : T-Theory, P-Practical, D-Drawing Examination Mode : B-Board Level, I-Institution Level ^ Carried over to next semester													