

**B.E. COMPUTER AND COMMUNICATION ENGINEERING****Regulation 2019-Revised****Semester I**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
		Induction Program	-	-	-	-	-	-
1	R19MA101	Matrix algebra and calculus	BS	4	3	1	0	4
2	R19PH102	Semiconductor Physics	BS	3	3	0	0	3
3	R19CS101	Problem Solving using C	ES	3	3	0	0	3
4	R19CS104	Application Design and Development	ES	4	2	2	0	4
<b>THEORY CUM PRACTICAL</b>								
5	R19HS151	Technical English	HS	4	2	0	2	3
<b>PRACTICALS</b>								
6	R19PH112	Semiconductor Physics Laboratory	BS	2	0	0	2	1
7	R19GE111	Engineering Practices Laboratory	ES	4	0	0	4	2
8	R19CS111	Problem Solving using C Laboratory	ES	4	0	0	4	2
<b>PROFESSIONAL DEVELOPMENT</b>								
9	R19EM101	Soft Skills	EM	2	0	0	2	1
<b>TOTAL</b>				<b>30</b>	<b>13</b>	<b>3</b>	<b>14</b>	<b>23</b>

**Semester II**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	R19MA102	Advanced Calculus and Complex Variables	BS	4	3	1	0	4
2	R19HS11X	Language Elective	HS	3	3	0	0	3
3	R19CY101	Engineering Chemistry	BS	3	3	0	0	3
4	R19CS201	Data Structures	PC	3	3	0	0	3
<b>THEORY CUM PRACTICAL</b>								
5	R19CS151	Python Programming	ES	5	3	0	2	4
6	R19CC151	Microprocessors and Microcontrollers	PC	4	2	0	2	3
<b>PRACTICALS</b>								
7	R19CY111	Chemistry Laboratory	BS	2	0	0	2	1
8	R19CS211	Data Structures Laboratory	PC	4	0	0	4	2
<b>MANDATORY COURSE</b>								
9	R19MC101	தமிழர் மரபு /Heritage of Tamils	HSMC	2	2	0	0	1
<b>TOTAL</b>				<b>30</b>	<b>19</b>	<b>1</b>	<b>10</b>	<b>24</b>

### Semester III

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	R19MA202	Linear Algebra and Partial Differential Equations	BS	4	3	1	0	4
2	R19CS203	Object Oriented Programming using Java	PC	3	3	0	0	3
3	R19CS202	Database Management Systems	PC	3	3	0	0	3
4	R19CS205	Design and Analysis of Algorithms	PC	3	3	0	0	3
<b>THEORY CUM PRATICAL</b>								
5	R19EC252	Digital Principles and Computer Organization	ES	5	3	0	2	4
<b>PRACTICALS</b>								
6	R19CS213	Object Oriented Programming using Java Laboratory	PC	2	0	0	2	1
7	R19CS212	Database Management Systems Laboratory	PC	2	0	0	2	1
8	R19CS215	Design and Analysis of Algorithms Laboratory	PC	4	0	0	4	2
<b>PROFESSIONAL DEVELOPMENT</b>								
9	R19EM201	Logical Thinking	EM	2	0	0	2	1
<b>MANDATORY COURSE</b>								
10	R19MC102	தமிழரும் தொழில்நுட்பமும் /Tamil and Technology	HSMC	1	1	0	0	1
<b>TOTAL</b>				<b>29</b>	<b>16</b>	<b>1</b>	<b>12</b>	<b>23</b>

### Semester IV

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	R19MA206	Probability and Statistics	BS	4	3	1	0	4
2	R19CS204	Operating Systems	PC	3	3	0	0	3
3	R19CS206	Full Stack Development	PC	3	3	0	0	3
<b>THEORY CUM PRATICAL</b>								
4	R19EC253	Computer Networks	PC	5	3	0	2	4
5	R19CC251	Signals and Linear Systems	PC	5	3	0	2	4
<b>PRACTICALS</b>								
6	R19CS214	Operating Systems Laboratory	PC	2	0	0	2	1
7	R19CS216	Full Stack Development Laboratory	PC	2	0	0	2	1
<b>PROJECT WORK</b>								
8	R19CC281	Project with Design thinking (Product/Software Development Life Cycle)	PW	2	0	0	2	1
<b>PROFESSIONAL DEVELOPMENT</b>								
9	R19EM202	Advanced Logical Thinking	EM	2	0	0	2	1
	R19EM203	Summer Internship	EM	-	-	-	-	NC
<b>MANDATORY COURSE</b>								
	R19MC201	Environmental Science	MC	1	1	0	0	NC
<b>TOTAL</b>				<b>29</b>	<b>16</b>	<b>1</b>	<b>12</b>	<b>22</b>

### Semester V

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	R19CC302	Discrete Time Signal Processing	PC	4	3	1	0	4
2	R19EC204	Analog and Digital Communication	PC	3	3	0	0	3
3	R19XXXXX	Professional Elective I*	PE	3	3	0	0	3
4	R19AM303	Artificial Intelligence and Machine Learning	PC	3	3	0	0	3
<b>THEORY CUM PRATICAL</b>								
5	R19AD251	Data Science	ES	5	3	0	2	4
6	R19CC351	Information Theory and Coding	PC	4	2	0	2	3
<b>PRACTICALS</b>								
7	R19CC311	Discrete Time Signal Processing Laboratory	PC	2	0	0	2	1
8	R19EC213	Communication Systems Laboratory	PC	2	0	0	2	1
9	R19AM312	Artificial Intelligence and Machine Learning Laboratory	PC	2	0	0	2	1
<b>MANDATORY COURSES</b>								
	R19MC202	Indian Constitution and Tradition	MC	1	1	0	0	NC
<b>TOTAL</b>				<b>29</b>	<b>18</b>	<b>1</b>	<b>10</b>	<b>23</b>

### Semester VI

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	R19IT302	Cloud Computing	PC	3	3	0	0	3
3	R19XXXXX	Open Elective I*	OE	3	3	0	0	3
4	R19CS304	Cryptography and Cybersecurity	PC	3	3	0	0	3
5	R19XXXXX	Professional Elective II*	PE	3	3	0	0	3
<b>THEORY CUM PRACTICAL</b>								
6	R19EC352	Embedded Systems and IOT	ES	5	3	0	2	4
7	R19CC352	Wireless Mobile Communication	PC	4	2	0	2	3
<b>PRACTICALS</b>								
8	R19IT311	Cloud Computing Laboratory	PC	2	0	0	2	1
9	R19CS312	Cyber Security Laboratory	PC	2	0	0	2	1
<b>PROJECT WORK</b>								
10	R19CC381	Innovative / Multi-Disciplinary Project	PW	2	0	0	2	1
<b>TOTAL</b>				<b>27</b>	<b>17</b>	<b>0</b>	<b>10</b>	<b>22</b>

\* Open Elective and PE - LTP C for Open Electives can either be 3 0 0 3 or 2 0 2 3

### Semester VII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	R19HS401	Principles of Management and Professional Ethics	HS	3	3	0	0	3
2	R19XXXXX	Professional Elective III*	PE	3	3	0	0	3
3	R19XXXXX	Professional Elective IV*	PE	3	3	0	0	3
4	R19XXXXX	Open Elective II*	OE	3	3	0	0	3
<b>PROJECT WORK</b>								
5	R19CC481	Project Work - Phase I	PW	6	0	0	6	3
<b>TOTAL</b>				<b>18</b>	<b>12</b>	<b>0</b>	<b>6</b>	<b>15</b>

### Semester VIII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	R19XXXXX	Open Elective III*	OE	3	3	0	0	3
<b>PROJECT WORK</b>								
2	R19CC482	Project Work - Phase II	PW	16	0	0	16	8
<b>TOTAL</b>				<b>19</b>	<b>3</b>	<b>0</b>	<b>16</b>	<b>11</b>

\* Open Elective and PE - LTPC for Open Electives can either be 3 0 0 3 or 2 0 2 3

**Total Number of Credits: 163**

### SUMMARY

Sl. No.	Course Category	Credits per Semester								Credits	Credit %
		I	II	III	IV	V	VI	VII	VIII		
1	<b>HS</b>	3	3	-	-	-	-	3	-	9	5.52
2	<b>BS</b>	8	8	4	4	-	-	-	-	24	14.72
3	<b>ES</b>	11	4	4	-	4	4	-	-	27	16.56
4	<b>PC</b>	-	8	13	16	16	11	-	-	64	39.26
5	<b>PE</b>	-	-	-	-	3	3	6	-	12	7.36
6	<b>OE</b>	-	-	-	-	-	3	3	3	9	5.52
7	<b>PW</b>	-	-	-	1	-	1	3	8	13	7.97
8	<b>EM</b>	1	-	1	1	-	-	-	-	3	1.84
9	<b>NC</b>	-	-	✓	✓	✓	-	-	-	-	-
10	<b>MC</b>	-	1	1	✓	✓	-	-	-	2	1.22
<b>Total</b>		<b>23</b>	<b>24</b>	<b>23</b>	<b>22</b>	<b>23</b>	<b>22</b>	<b>15</b>	<b>11</b>	<b>163</b>	<b>100</b>