

B.E. ELECTRONICS AND COMMUNICATION ENGINEERING

Regulation 2023

Semester I

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
		Induction Programme	-	-	-	-	-	-
1	U23MA201	Calculus for Engineers	BS	4	3	1	0	4
2	U23CS301	Problem Solving using C	ES	3	3	0	0	3
THEORY CUM PRACTICAL								
3	U23HS181	Technical English	HS	4	2	0	2	3
4	U23CY281	Engineering Chemistry	BS	4	2	0	2	3
5	U23CS381	Application Design and Development	ES	4	2	0	2	3
PRACTICALS								
6	U23CS351	Problem solving using C Laboratory	ES	4	0	0	4	2
7	U23GE351	Engineering Practices Laboratory	ES	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
8	U23EM751	Soft Skills	EM	2	0	0	2	1
MANDATORY COURSE								
9	U23MC901	□□□□□□ □□□□ / Heritage of Tamils	HSMC	1	1	0	0	1
TOTAL				28	13	1	14	21

Semester II

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23MA205	Complex Variables and Transforms	BS	4	3	1	0	4
2	U23EC301	Circuit Analysis	ES	4	3	1	0	4
3	U23CS304	Data Structures	ES	3	3	0	0	3
	U23NCC01	NCC Credit Course Level 1 [#]	-	2	2	0	0	2
THEORY CUM PRACTICAL								
4	U23HS18X	Language Elective	HS	4	2	0	2	3
5	U23PH282	Semiconductor Physics	BS	5	3	0	2	4
6	U23CS382	Python Programming	ES	5	3	0	2	4
PRACTICAL								
7	U23CS354	Data Structures Laboratory	ES	4	0	0	4	2
8	U23EC351	Electric Circuits and Devices Laboratory	ES	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
9	U23EM752	Logical Thinking	EM	2	0	0	2	1
MANDATORY COURSE								
10	U23MC902	Tamils and Technology	HSMC	1	1	0	0	1
TOTAL				34	18	2	14	27

[#]offered to NCC opted students only

Semester III

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23MA207	Linear Algebra and Partial Differential Equations	BS	4	3	1	0	4
2	U23CS405	Java Programming	ES	3	3	0	0	3
3	U23EC401	Analog Electronic Circuits	PC	3	3	0	0	3
4	U23EC402	Digital System Design	PC	3	3	0	0	3
5	U23EC403	Electromagnetic Fields	PC	3	3	0	0	3
6	U23OXXXX	Open Elective I *	OE	3	3	0	0	3
PRACTICAL								
7	U23CS455	Java Programming Laboratory	ES	2	0	0	2	1
8	U23EC451	Analog Electronics Laboratory	PC	4	0	0	4	2
9	U23EC452	Digital System Design Laboratory	PC	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
10	U23EM753	Advanced Logical Thinking	EM	2	0	0	2	1
MANDATORY COURSE								
	U23MC903	Environmental Science	MC	1	1	-	-	-
TOTAL				30	19	1	10	24

Semester IV

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23MA209	Probability and Statistics	BS	4	3	1	0	4
2	U23CS303	Algorithmic Design Techniques	ES	3	3	0	0	3
3	U23EC404	Analog and Digital Communication	PC	3	3	0	0	3
4	U23EC405	Microprocessor and Embedded Systems	PC	3	3	0	0	3
5	U23OXXXX	Open Elective II *	OE	3	3	0	0	3
	U23NCC02	NCC Credit Course Level 2 [#]	-	3	3	0	0	3
THEORY CUM PRACTICAL								
6	U23EC481	Signals and Systems	PC	5	3	0	2	4
PRACTICAL								
7	U23EC453	Communication Systems Laboratory	PC	2	0	0	2	1
8	U23EC454	Microprocessor and Embedded System Laboratory	PC	2	0	0	2	1
9	U23CS353	Algorithmic Design Techniques Laboratory	ES	2	0	0	2	1
PROJECT WORK								
10	U23EC651	Project using Design Thinking (Product / Software Development Life Cycle)	PW	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
11	U23EM754	Summer Internship	EM	-	-	-	-	1
MANDATORY COURSE								
	U23MC904	Universal Human Values	MC	1	1	0	0	-
TOTAL				30	19	1	10	25

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

Semester V

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23EC406	Internet of Things	PC	3	3	0	0	3
2	U23EC407	VLSI Design	PC	3	3	0	0	3
3	U23EC408	Control Systems Engineering	PC	4	3	1	0	4
4	U23EC5XX	Professional Elective I *	PE	3	3	0	0	3
THEORY CUM PRACTICAL								
5	U23EC482	Digital Signal Processing	PC	5	3	0	2	4
PRACTICAL								
6	U23EC456	Internet of Things Laboratory	PC	2	0	0	2	1
7	U23EC457	VLSI Design Laboratory	PC	4	0	0	4	2
8	U23IECXX	Industry Oriented Course	EM	1	1	0	0	1
TOTAL				25	16	1	8	21

Professional Elective –LTPC for Professional Electives can either be 3 0 0 3 or 2 0 2 3

Semester VI

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23EC409	Antenna and Wave Propagation	PC	3	3	0	0	3
2	U23EC410	Networks and Security	PC	3	3	0	0	3
3	U23AM405	Artificial Intelligence and Machine Learning for Electronics Engineers	PC	3	3	0	0	3
4	U23EC5XX	Professional Elective II *	PE	3	3	0	0	3
5	U23EC5XX	Professional Elective III *	PE	3	3	0	0	3
	U23NCC03	NCC Credit Course Level 3 [#]	-	3	3	0	0	3
PRACTICAL								
6	U23EC458	Networks and Security Laboratory	PC	2	0	0	2	1
7	U23AM455	Artificial Intelligence and Machine Learning for Electronics Engineers Laboratory	PC	2	0	0	2	1
PROJECT WORK								
8	U23EC652	Innovative / Multi-Disciplinary Project	PW	2	0	0	2	1
TOTAL				21	15	0	6	18

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* Professional Elective –LTPC for Professional 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
THEORY								
1	U23CB101	Principles of Management	HS	3	3	0	0	3
2	U23EC411	Wireless Communication	PC	3	3	0	0	3
3	U23EC5XX	Professional Elective IV *	PE	3	3	0	0	3
4	U23OXXXX	Open Elective III*	OE	3	3	0	0	3
5	U23CB102	Project Management and Finance	MC	1	1	0	0	1
THEORY CUM PRACTICAL								
6	U23EC483	Microwave and Optical Communication	PC	5	3	0	2	4
PROJECT WORK								
7	U23EC653	Project work – Phase I	PW	6	0	0	6	3
TOTAL				24	16	0	8	20

* Professional / Open Elective –LTPC for Electives can either be 3 0 0 3 or 2 0 2 3

Semester VIII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
PROJECT WORK								
1	U23EC654	Project Work – Phase II	PW	16	0	0	16	8
TOTAL				16	0	0	16	8

Total Number of Credits: 164

CREDIT SUMMARY

Sl. No.	Course Category	Credits per Semester								Credits	AICTE 2023	R2023 Credit %
		I	II	III	IV	V	VI	VII	VIII			
1	HS	3	3	-	-	-	-	3	-	9	15	5.5
2	BS	7	8	4	4	-	-	-	-	23	23	14.0
3	ES	9	14	4	4	-	-	-	-	31	17	18.9
4	PC	-	-	12	12	17	10	7	-	58	61	35.4
5	PE	-	-	-	-	3	6	3	-	12	12	7.3
6	OE	-	-	3	3	-	-	3	-	9	12	5.5
7	PW	-	-	-	1	-	1	3	8	13		7.9
8	EM	1	1	1	1	1	1	-	-	6	20	3.7
9	MC	1	1	-	-	-	-	-	-	2		1.2
Total		21	27	24	25	21	18	20	8	164	160	100

