

B.E. in Electronics and Communication Engineering

I Semester – Chemistry Cycle										
Sl. No.	Course Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Examination			Credits
				L	T	P	CIE Marks	SEE Marks	Final Marks	
				1	22MATEE101	Mathematics I for Electrical Engineering Stream	Maths	2	2	
2	22CHEEE202	Chemistry for Electrical Engineering Stream	Chemistry	2	2	2	100	100	100	4
3	22CED201	Computer-Aided Engineering Drawing	Mechanical	2	0	2	100	100	100	3
4	22ESC102	Introduction to Electrical Engineering	EEE	3	0	0	100	100	100	3
2	22PLC102	Introduction to Python Programming	ECE	2	0	2	100	100	100	3
6	22ENG102	Professional Writing Skills in English	Humanities	1	0	0	50	-	50	1
7	22ICO102	Indian Constitution	Humanities	1	0	0	50	-	50	1
8	22SFH101	Scientific Foundations of Health	ME	1	0	0	50	-	50	1
TOTAL										20

II Semester - Physics Cycle										
Sl. No.	Course Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Examination			Credits
				L	T	P	CIE Marks	SEE Marks	Final Marks	
				1	22MATEE201	Mathematics -II for Electrical Engineering Stream	Maths	2	2	
2	22PHYEE202	Physics for Electrical Engineering Stream	Physics	2	2	2	100	100	100	4
3	22ESCEC201	Basic Electronics	ECE	2	0	2	100	100	100	3
4	22ESC205	Introduction to C Program	ESC	2	0	2	100	100	100	3
5	22ETC204	Introduction to robotics, electric vehicle system and 3D printing	ESC	3	0	0	100	100	100	3
6	22ENG201	Communicative English	Humanities	1	0	0	50	-	50	1
7	22KSK101/ 22KBK102	Sanskrutika Kannada/Balake Kannada	Humanities	1	0	0	50	-	50	1
8	22IDTME201	Innovation and Design Thinking	ME	1	0	0	50	-	50	1
TOTAL										20

III Semester											
Sl. No	Course Code	Course Title	Category	Teaching Hours / Week				Examination			Credits
				Theory Lecture	Tutorial	Practical/ Drawing	Self-study Component	CIE Marks	SEE Marks	Total Marks	
				L	T	P	S				
1	21MA3C02	Transforms and Partial Differential Equations	BSC	3	0	0	0	50	50	100	3
2	21EC3C01	Network Analysis	PC	2	2	0	0	50	50	100	3
3	21EC3C02	Digital Electronics	PC	3	0	2	0	50	50	100	4
4	21EC3C03	Analog Electronics	PC	3	0	0	0	50	50	100	3
5	21EC3C04	Signals and Systems	PC	2	2	0	0	50	50	100	3
6	21EC3C05	Electromagnetic field theory	PC	2	0	0	0	50	50	100	2
7	21EC3L01	AEC Lab	PC	0	0	2	0	50	50	100	1
8	21BG3C03	Biology for Engineers	PI	2	0	0	0	50	50	100	2
9	21KA3H01/ 21CI3H01	Kannada/CIPE	HSC	1	0	0	0	50	-	50	0

10	21EC3A01	(AEC3) UNIX / SHELL Scripting	AEC	0	0	2	0	50	-	50	1
11	21EC3U01	Social Connect & Responsibility	UHV	1	0	0	0	50	-	50	0
TOTAL											20
Lateral Entry Students 21MA3N01		Additional Maths 1	BSC	2	2	0	0	100	0	100	0

IV Semester											
Sl. No	Course Code	Course Title	Category	Teaching Hours / Week				Examination			Credits
				Theory Lecture	Tutorial	Practical/ Drawing	Self-study Component	CIE Marks	SEE Marks	Total Marks	
				L	T	P	S				
1	21MA4C02	Statistics, Probability & Z-Transforms	BSC	3	0	0	0	50	50	100	3
2	21EC4C01	Digital Signal Processing	PC	2	0	2	0	50	50	100	3
3	21EC4C02	Hardware Descriptive and Verification Language	PC	3	0	0	0	50	50	100	3
4	21EC4C03	Linear Integrated Circuits	PC	3	0	2	0	50	50	100	4

5	21EC4C04	ARM Microcontrollers	PC	3	0	0	0	50	50	100	3
6	21EC4L01	ARM Microcontrollers Lab	PC	0	0	2	0	25	25	50	1
7	21EC4L02	HDVL Lab	PC	0	0	2	0	25	25	50	1
8	21KA4H01/ 21CI4HO01	Kannada/CIPE	HSC	1	0	0	0	50	-	50	0
9	21EC4A01	(AEC4) E-Waste management	AEC	1	0	0	0	50	0	50	1
10	21EC4U01	Universal Human Values & Prof. Ethics	UHV	1	0	0	0	50	0	50	1
11	21EC4I01	Summer Internship I	PI	To be completed during II/III Sem Vacation				50	50	100	2
TOTAL											20
Lateral Entry Students 21MA4N01		Additional Maths 2	BSC	2	2	0	0	100	0	100	0

SCHEME OF TEACHING AND EXAMINATION V SEMESTER							
Sl. No.	Subject Code	Subject	Category	L	T	P	Cr.
1	EC5C01	Digital Signal Processing	Department core	3	2	0	4
2	EC5C02	Digital Design using Verilog	Department core	3	0	2	4
3	EC5C03	Analog and Digital Communication	Department core	4	0	0	4
4	EC5C04	Control Systems	Department core	3	0	0	3
5	EC5MXX	MOOC Elective	MOOC Elective	3	0	0	3
6	EC5C06	Engineering Management	Management	3	0	0	3
7	EC5L01	Communication Laboratory	Laboratory	0	0	3	1.5
8	EC5L02	Digital Signal Processing Laboratory	Laboratory	0	0	3	1.5
Total Credits							24
Total Contact Hrs							29
9	EC5M01	Joy of Computing with python	MOOC Elective	3	0	0	3

SCHEME OF TEACHING AND EXAMINATION VI SEMESTER							
Sl. No.	Subject Code	Subject	Category	L	T	P	Cr.
1	EC6C01	CMOS VLSI Design	Department core	3	0	0	3
2	EC6C02	Communication systems and coding theory	Department core	3	0	0	3
3	EC6C03	Communication Networks	Department core	3	0	0	3
4	EC6C04	Embedded Systems	Department core	3	2	0	4
5	EC6C05	Engineering Economics	Economics	3	0	0	3
6	EC6E1XX	Department Elective - 1	Department Elective	3	0	0	3
7	EC6L01	Communication Networks Laboratory	Laboratory	0	0	3	1.5
8	EC6L02	CMOS VLSI Laboratory	Laboratory	0	0	3	1.5

9	EC6C06	Minor Project	Project	0	0	-	2
Total Credits							24
Total Contact Hrs							26
1	EC6E101	Bioinformatics	Department Elective - 1	3	0	0	3
2	EC6E102	Digital Image Processing		3	0	0	3
3	EC6E103	Neural Networks		3	0	0	3
4	EC6E104	Internet of Things		2	0	2	3

SCHEME OF TEACHING AND EXAMINATION							
VII SEMESTER							
Sl. No.	Subject Code	Subject	Category	L	T	P	Cr .
1	EC7C01	Antenna and Microwave	Department core	3	2	0	4
2	EC7C02	Wireless Communications	Department core	3	2	0	4
3	EC7E2XX	Department Elective - 2	Department Elective	3	0	0	3
4	EC7E3XX	Department Elective - 3	Department Elective	3	0	0	3
5	EC7IXX	Industry driven Elective	Industry driven Elective	2	0	0	2
6	EC7OXX	Open Elective	Open Elective	2	0	0	2
7	EC7L01	Mixed mode VLSI design Laboratory	Laboratory	0	0	2	1
8	EC7L02	Advance Communication Laboratory	Laboratory	0	0	2	1
9	EC7C03	Seminar/ paper presentation	Seminar	0	0	2	1
10	EC7C04	Project Phase - 1	Project	0	0	1	1
11	EC7C05	Competency Training		0	0	0	0
Total Credits							23
Total Contact Hrs							26
1	EC7E201	Optical Communication System	Department Elective (Elective - 2)	3	0	0	3
2	EC7E202	Multimedia Communication		3	0	0	3
3	EC7E203	Network Security		3	0	0	3
4	EC7E204	System Verilog		3	0	0	3
5	EC7E303	Mixed Signal Design		3	0	0	3
6	EC7I03	IDE – 1: Docker	Industry driven Elective	2	0	0	2
7	EC7I04	IDE – 2: VLSI Layout Design		2	0	0	2
8	EC7O01	Internet of Things	Open Elective	2	0	0	2

SCHEME OF TEACHING AND EXAMINATION							
VIII SEMESTER							
Sl. No	Subject Code	Subject	Category	L	T	P	Cr .
1	EC8E4XX	Department Elective - 4	Department Elective	3	0	0	3
2	EC8E5XX	Department Elective - 5	Department Elective	3	0	0	3
3	EC8E6XX	Department Elective - 6	Department Elective	3	0	0	3
4	EC8C01	Internship	Internship	0	0	-	3
5	EC8C02	Major Project	Major Project	0	0	8	4
Total Credits							16
Total Contact Hrs.							17
Sl. No	Subject Code	Subject	Category				
1	EC8E401	Artificial Intelligence	Department Elective (Elective - 4)	3	0	0	3
2	EC8E402	Speech Processing		3	0	0	3
3	EC8E403	Signal Processing and Machine Learning		3	0	0	3
4	EC8E501	Satellite Communication	Department Elective (Elective - 5)	3	0	0	3
5	EC8E502	Mobile Computing		3	0	0	3
6	EC8E503	Wireless Networks		3	0	0	3
7	EC8E601	Low Power VLSI	Department Elective (Elective - 6)	3	0	0	3
8	EC8E602	Automotive Electronics		3	0	0	3
9	EC8E603	Nano Electronics		3	0	0	3
10	EC860X	Reconfigurable Computing		3	0	0	3

* Course integrated with Laboratory