COURSE STRUCTURE

R-21

ELECTRONICS AND COMMUNICATION ENGINEERING

For

B.TECH. FOUR YEAR DEGREE COURSE

(Applicable for the batches admitted for the Academic Year 2021-22)

(I-IV Year Syllabus)

RAJIV GANDHI UNIVERSITYR OF KNOWLEDGE TECHNOLOGIES

Basar, Nirmal, Telangana State – 504107, India.

COURSE STRUCTURE: ELECTRONICS AND COMMUNICATION ENGINEERING

I SEMESTER

Sl. No.	Course Code	Course Title	Course Category	Hours per week			Total contact hours	Credits
				L	T	P		
1	MA1101	Linear Algebra	BSC	3	0	0	3	3
2	MA1102	Calculus	BSC	2	0	0	2	2
3	EC1101	Digital Electronic Circuits	PCC	3	0	0	3	3
4	EC1701	Digital Electronic Circuits Lab	BSC	0	0	3	3	1.5
5	ME1102	Engineering workshop	ESC	2	0	2	4	3
6	HS1101	Communication Skills-I	HSMC	2	0	0	2	0
7	CS1101	Programming for Problem Solving	ESC	3	0	0	3	3
8	CS1701	Programming for Problem Solving Lab	ESC	0	0	4	4	2
9	BM0005	Constitution of India	MC	2	0	0	2	0
10	EC1901	Elements of Electronics and Communications Engineering	PJT	0	0	2	2	1
		Total		**17**	**0**	**11**	**28**	**18.5**
		Induction Program (Non-credit)- Syllabus as per AICTE guide lines						

II SEMESTER

Sl. No.	Course Code	Course Title	Course Category	Hours per week			Total contact hours	Credits
				L	T	P		
1	EE1203	Basic Electrical Engineering	ESC	4	0	0	4	4
2	EE1803	Basic Electrical Engineering lab	ESC	0	0	3	3	1.5
3	MA1201	Differential equations and Vector Calculus	BSC	3	1	0	4	4
4	PH1202	Physics	BSC	3	1	0	4	4
5	PH1802	Physics Lab	BSC	0	0	3	3	1.5
6	CE1801	Engineering Graphics	ESC	1	0	4	5	3
7	HS1201	English	HSMC	2	0	0	2	2
8	HS1801	English Language Lab	HSMC	0	0	2	2	1
9	HS1202	Communication Skills – II	HSMC	2	0	0	2	0
		Total		**15**	**2**	**12**	**29**	**21**

III SEMESTER

Sl. No.	Course Code	Course Title	Course Category	Hours per week			Total contact hours	Credits
				L	T	P		
1	CY2102	Chemistry	BSC	3	0	0	3	3
2	CY2701	Chemistry Lab	BSC	0	0	2	2	1
3	EC2102	Electronic Devices and Circuits	PCC	3	1	0	4	4
4	EC2702	Electronic Devices and Circuits lab	PCC	0	0	3	3	1.5
5	EC2103	Signals and Systems	PCC	3	1	0	4	4
6	EC2901	Electronics mini project-I	PJT	0	0	2	2	1
7	MA2104	Transform Calculus and Complex Analysis	BSC	3	1	0	4	4
8	BS2101	Environmental Science	MC	2	0	0	2	0
		Total		**14**	**3**	**7**	**24**	**18.5**

IV SEMESTER

Sl. No.	Course Code	Course Title	Course Category	L	T	P	Total contact hours	Credits
				Hours per week				
1	EC2201	Analog Circuits	PCC	3	0	0	3	3
2	EC2801	Analog Circuits lab	PCC	0	0	2	2	1
3	EC2202	Control systems	PCC	3	0	0	3	3
4	EC2203	Electromagnetic Waves	PCC	3	0	0	3	3
5	EC2204	Probability Theory and Stochastic Processes	PCC	3	1	0	4	4
6	CS2205	Object Oriented Programming	ESC	3	0	0	3	3
7	CS2804	Object Oriented Programming lab	ESC	0	0	2	2	1
8	EC2902	Technical seminar	PJT	0	0	2	2	1
9	BM0007	Managerial Economics and Financial analysis	HSMC	3	0	0	3	3
10	HS2101	Essence of Indian Traditional Knowledge	MC	2	0	0	2	0
11	MAXXX	Numerical analysis	OEC	3	0	0	3	3
		Total		**23**	**1**	**6**	**30**	**25**

V SEMESTER

Sl. No.	Course Code	Course Title	Course Category	Hours per week			Total contact hours	Credits
				L	T	P		
1	EC3101	Analog and Digital Communications	PCC	3	0	0	3	3
2	EC3701	Analog and Digital Communications lab	PCC	0	0	2	2	1
3	EC3102	Computer Architecture	PCC	3	0	0	3	3
4	EC3103	Digital Signal Processing	PCC	3	0	0	3	3
5	EC3702	Digital Signal Processing lab	PCC	0	0	2	2	1
6	EC3104	RF and Microwave Engineering	PCC	3	0	0	3	3
7	EC3703	RF and Microwave Eng. Lab	PCC	0	0	2	2	1
8	EC3105	VLSI Engineering	PCC	3	0	0	3	3
9	ECXXX	Pattern recognition	OEC	3	0	0	3	3
10	EC3901	Mini project-II	PJT	0	0	2	2	1
		Total		18	0	8	26	22

VI SEMESTER

Sl. No.	Course Code	Course Title	Course Category	Hours per week L	T	P	Total contact hours	Credits
1	EC3201	Micro-Controllers and Interfacing	PCC	3	0	0	3	3
2	EC3801	Micro-Controllers lab	PCC	0	0	2	2	1
3	EC3202	Digital System Design	PEC	3	0	0	3	3
4	EC3802	Digital Systems Design and VLSI Lab	PCC	0	0	2	2	1
5	EC_	Open elective III	OEC	3	0	0	3	3
6	CS3203	Operating Systems	ESC	3	0	0	3	3
7	BM0003	Operations Research	HSMC	3	0	0	3	3
8	ECP01	Mini Project-III	PJT	0	0	2	2	1
9	ECXXX	Open elective IV	OEC	3	0	0	3	3
10	ECCV-I	Comprehensive Viva-I	PJT					0
11	ECP02	Summer Internship	PJT					1
Total				**18**	**0**	**6**	**24**	**22**

VII SEMESTER

Sl. No.	Course Code	Course Title	Course Category	Hours per week			Total contact hours	Credits
				L	T	P		
1	EC_	Signal Processing stream elective	PEC	3	0	0	3	3
2	EC_	Communications stream elective	PEC	3	0	0	3	3
3	EC_	Embedded systems stream elective	PEC	3	0	0	3	3
4	ECP03	Project Stage-I	PJT	0	0	6	6	3
6	CS4101	Computer Networks	ESC	3	0	0	3	3
7	CS4701	Computer Networks lab	ESC	0	0	2	2	1
8	EC_	Program Elective-4 (Preferably course on Antennas)	PEC	3	0	0	3	3
		Total		**15**	**0**	**8**	**23**	**19**
5days training program on Soft skills with Group discussions and mock interviews								

VIII SEMESTER

Sl. No.	Course Code	Course Title	Course Category	Hours per week			Total contact hours	Credits
				L	T	P		
1		Open Elective-5	OEC	3	0	0	3	3
2	BM0010	Professional Law and Ethics	HSMC	3	0	0	3	3
3	ECP04	Project Stage-II	PJT	0	0	16	16	8
4	ECCV-II	Comprehensive viva-II	PJT					0
		Total		**6**	**0**	**16**	**22**	**14**