

COURSE STRUCTURE AND DETAILED SYLLABUS

R-16

ELECTRONICS AND COMMUNICATION ENGINEERING

For

B.TECH. FOUR YEAR DEGREE COURSE

(Applicable for the batches admitted for the Academic Year 2016-17)

(I-IV Year Syllabus)



RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES

Basar, Nirmal, Telangana State – 504107, India.

COURSE STRUCTURE: ELECTORNICS AND COMMUNICATION ENGINEERING

I YEAR

I SEMISTER

Code	Subject	L-T	P	C
EC1101	Network Analysis	4	-	4
PH1001	Engineering Physics	4	-	4
MA1101	Mathematics-1	4	-	4
CS1101	Programming in C	4	-	4
HS1001	English	4	-	3
EC1701	Network Analysis Lab	-	3	2
PH1601	Engineering Physics Lab	-	3	2
CS1701	Programming in C Lab	-	3	2
HS1101	Communication Skills-I	2	-	1
	Total	22	9	26

I YEAR

II SEMISTER

Subject Code	Subject Name	L-T	P	C
EE1201	Electrical technology	4	-	4
CY1001	Chemistry	4	-	4
MA1201	Mathematics-II	4	-	4
CS1201	Scripting languages	4	-	4
HS1201	Communication Skills-II	2	-	1
CE1601	Engineering drawing	4	-	4
EE1801	Electrical technology Lab	-	3	2
HS1601	English Lab	-	2	2
CY1601	Chemistry Lab	-	3	2
	TOTAL	22	8	27

**II YEAR
I SEMISTER**

Code	Subject	L-T	P	C
EC2101	Electronic Circuits	4	-	4
EC2102	Semiconductor Devices	4	-	4
EC2103	Signals and Systems	4	-	4
EC2104	Electromagnetic theory	4	-	4
BSBE 2001/3001	Environmental science	4	-	3
HS2101	Soft Skills-I	2	-	1
EC2701	Electronic Circuits Lab	-	3	2
EC2702	Semiconductor Devices Lab	-	3	2
EC2901	Seminar-1	1	-	1
	Total	23	6	25

**II YEAR
II SEMISTER**

Code	Subject	L-T	P	C
EC2201	Analog electronic Circuits	4	-	4
EC2202	Digital Electronics Circuits	4	-	4
EE2202	Linear Control System Engineering	4	-	4
MA2203	Probability Theory and stochastic process	4	-	4
CS2201	Computer Organization and Architecture	4	-	4
BM2201	Personality Development-I	2	-	1
EC2801	Analog electronic Circuits Lab	-	3	2
EC2802	Digital Electronics Circuits Lab	-	3	2
CS2801	Computer Organization and Architecture Lab	-	3	2
EC2902	Seminar-II	1	-	1
	Total	23	9	28

**III YEAR
I SEMISTER**

Code	Subject	L-T	P	C
EC3101	Analog communications	4	-	4
EC3102	RF and Microwave Engineering	4	-	4
EC3103	Digital Signal Processing	4	-	4
EC3104	VLSI Engineering	4	-	4
BM3001/4001	Managerial Economics and Financial Analysis	4	-	3
BM3101	Personality Development-II	2	-	1
EC3701	Analog communications Lab	-	3	2
EC3702	RF and Microwave Engineering Lab	-	3	2
EC3703	Digital Signal Processing Lab	-	3	2
EC3901	Seminar-II	1	-	1
	Total	23	9	27

**III YEAR
II SEMISTER**

Code	Subject	L-T	P	C
EC3201	Digital communications	4	-	4
EC3202	Digital System design	4	-	4
EC3203	Microprocessors and Interfacing	4	-	4
CS3001	Object Oriented Programming	4	-	4
CS3204	Computer Networks	4	-	4
HS3201	Soft Skills-II	2	-	1
EC3801	Digital communications Lab	-	3	2
EC3802	Digital System design Lab	-	3	2
CS3601	Object Oriented Programming Lab	-	3	2
EC3000	Comprehensive Viva-I	1	-	1
EC3902	Seminar-III	1	-	1
	Total	22	9	28

**IV YEAR
I SEMISTER**

Code	Subject	L-T	P	C
EC3900	Internship			6
EC44XX	Elective-I	4	-	3
EC44XX	Elective-II	4	-	3
EC44XX	Elective-III	4	-	3
EC44XX	Elective-IV	4	-	3
	Free Elective-I	4	-	3
EC4701	Microprocessor and microcontroller Lab	-	3	2
EC4702	VLSI Lab	-	3	2
	Total	20	6	25

List of Free Electives:

Elective-I	EC4401	Wireless Communications
Elective-I	EC4402	Coding Theory
Elective-I	EC4403	Satellite Communications
Elective-I	EC4404	Optical Communications
Elective-I	EC4405	Radar Systems
Elective-II	EC4411	Real Time Operating Systems
Elective-II	EC4412	IoT and Applications
Elective-II	EC4413	Embedded Systems
Elective-II	EC4414	Detection and estimation theory
Elective-III	EC4421	Analog VLSI and Mixed Signal Design
Elective-III	EC4422	Analog IC Design
Elective-III	EC4423	CAD of VLSI circuits
Elective-III	EC4424	RF Integrated Circuits
Elective-III	EC4425	Adhoc Wireless Sensor Networks
Elective-IV	EC4431	Digital Image Processing
Elective-IV	EC4432	Multimedia Communication
Elective-IV	EC4433	DSP Processors Architecture
Elective-IV	EC4434	Antennas and Wave Propagation

List of Free-electives :

SUBJECT CODE	SUBJECT NAME	L-T	P	C
BM4402	Production and Project Management	4	0	3
BSBE4401	BIOINFORMATICS	4	0	3
BSBE4402	INDUSTRIAL BIOTECHNOLOGY	4	0	3
BSBE4403	BIOMEDICAL ENGINEERING	4	0	3

**IV YEAR
II SEMISTER**

Subject Type	Subject Code	Subject Name	L-T	P	C
Free Elective-II			4	-	3
Compulsory	EC4000	Comprehensive Viva			1
Compulsory	EC4800	Project			16
TOTAL					

List of Free-electives:

BM4501	FOUNDATIONS OF MANAGEMENT
BM4502	ENTREPRENEURSHIP AND NEW VENTURES
BM4503	INTELLECTUAL PROPERTY RIGHTS
BSBE4501	SUSTAINABLE TECHNOLOGY
BSBE4502	PHARMACEUTICAL TECHNOLOGY
BSBE4503	BIO MATERIALS
CH4504	Computational Fluid Dynamics