

Department of Electronics and Communication Engineering

Approved Course Structure

Program: B.Tech.-ELECTRONICS AND COMMUNICATION ENGINEERING

Regulations: SVEC-20

Mandatory Induction Program	03 weeks duration
Induction program offered before commencement of the I-Semester coursework	Physical activity
	Creative Arts
	Universal Human Values
	Literary
	Proficiency Modules
	Lectures by Eminent People
	Visits to local Areas
	Familiarization to Department/Branch and Innovations

I B.Tech. – I Semester

Sl. No.	Subject Code	Course Title	Contact Periods per week				C	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT1BS01	Differential Equations and Multivariable Calculus	3	-	-	3	3	30	70	100
2.	20BT1BS03	Engineering Physics	3	-	-	3	3	30	70	100
3.	20BT10201	Basic Electrical and Electronics Engineering	3	-	-	3	3	30	70	100
4.	20BT10341	Basic Civil and Mechanical Engineering	3	-	-	3	3	30	70	100
5.	20BT1BS32	Engineering Physics Lab	-	-	3	3	1.5	30	70	100
6.	20BT10231	Basic Electrical and Electronics Engineering Lab	-	-	3	3	1.5	30	70	100
7.	20BT10331	Computer Aided Engineering Drawing	-	1	4	5	3	30	70	100
8.	20BT10332	Engineering Workshop	-	-	3	3	1.5	30	70	100
9.	20BT1HSAC	Spoken English (Audit Course)	2	-	-	2	-	-	-	-
Total:			14	1	13	28	19.5	240	560	800

I B.Tech. – II Semester

Sl. No.	Subject Code	Course Title	Contact Periods per week				C	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT2BS01	Transformation Techniques and Linear Algebra	3	-	-	3	3	30	70	100
2.	20BT1BS02	Engineering Chemistry	3	-	-	3	3	30	70	100
3.	20BT1HS01	Communicative English	3	-	-	3	3	30	70	100
4.	20BT20241	Network Analysis	3	-	-	3	3	30	70	100
5.	20BT20541	Programming in C and Data Structures	3	-	-	3	3	30	70	100
6.	20BT1BS31	Engineering Chemistry Lab	-	-	3	3	1.5	30	70	100
7.	20BT1HS31	Communicative English Lab	-	-	3	3	1.5	30	70	100
8.	20BT20551	Programming in C and Data Structures Lab	-	-	3	3	1.5	30	70	100
9.	20BT1MC01	Universal Human Values (Mandatory Course)	2	-	-	2	-	30	-	30
Total:			17	-	09	26	19.5	270	560	830

II B.Tech I–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (c)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT3BS02	Special Functions and Complex Analysis	3	-	-	3	3	30	70	100
2.	20BT30401	Electromagnetic Fields and Transmission Lines	3	-	-	3	3	30	70	100
3.	20BT30402	Electronic Devices and Circuits	3	-	-	3	3	30	70	100
4.	20BT30403	Signals and Systems	3	-	-	3	3	30	70	100
5.	20BT30404	Switching Theory and Logic Design	3	-	-	3	3	30	70	100
6.	20BT30431	Electromagnetic Fields and Transmission Lines Lab	-	-	3	3	1.5	30	70	100
7.	20BT30432	Electronic Devices and Circuits Lab	-	-	3	3	1.5	30	70	100
8.	20BT30433	Signals and Systems Lab	-	-	3	3	1.5	30	70	100
9.	20BT3HS31	Soft Skills Lab	-	1	2	3	2	30	70	100
Total							21.5	270	630	900
10.	20BT3MC01	Environmental Science	2	-	-	2	-	30	-	30

II B.Tech II–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT40401	Analog Communications	3	-	-	3	3	30	70	100
2.	20BT40402	Electronic Circuit Analysis and Design	3	-	-	3	3	30	70	100
3.	20BT40403	Linear and Digital IC Applications	3	-	-	3	3	30	70	100
4.	20BT40404	Probability and Stochastic Processes	3	-	-	3	3	30	70	100
5.	Open Elective-1						3	30	70	100
6.	20BT40431	Analog Communications Lab	-	-	3	3	1.5	30	70	100
7.	20BT40432	Digital Design Lab	-	-	3	3	1.5	30	70	100
8.	20BT40433	Electronic Circuit Analysis and Design Lab	-	-	3	3	1.5	30	70	100
9.	20BT40405	Microcontroller and Interfacing	2	-	-	2	2	30	70	100
Total							21.5	270	630	900
10	20BT315AC	Design Thinking	2	-	-	2	-	-	-	-

III B.Tech I–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT5HS02	Principles of Business Economics and Accountancy	3	-	-	3	3	30	70	100
2.	20BT40201	Control Systems	3	-	-	3	3	30	70	100
3.	20BT50401	Digital Communications	3	-	-	3	3	30	70	100
4.	Open Elective-2						3	30	70	100
5.	Professional Elective- 1		3	-	-	3	3	30	70	100
	20BT51041	Electronic Measurements and Instrumentation								
	20BT50402	Fiber Optic Communications								
	20BT50403	FPGA Architectures and Applications								
	20BT50404	Radar Engineering								
6.	20BT50431	Digital Communications Lab	-	-	3	3	1.5	30	70	100
7.	20BT50432	Linear and Digital IC Applications Lab	-	-	3	3	1.5	30	70	100
8.	20BT50405	VLSI System Design	2	-	-	-	2	30	70	100
9.	20BT50433	Summer Internship-1	-	-	-	-	1.5	-	100	100
Total							21.5	240	660	900
10.	20BT503AC	Foundations of Entrepreneurship	2	-	-	2	-	-	-	-
11.	20BT50406	Green Technologies	Open Elective-2							

III B.Tech II–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT5HS01	Organizational Behaviour	3	-	-	3	3	30	70	100
2.	20BT60401	Antennas and Propagation	3	-	-	3	3	30	70	100
3.	20BT60402	Digital Signal Processing	3	-	-	3	3	30	70	100
4.	Professional Elective-2		3	-	-	3	3	30	70	100
	20BT71001	Biomedical Instrumentation								
	20BT60403	ARM and AVR Microcontrollers								
	20BT60404	Digital IC Design								
	20BT60405	Satellite Communications								
5.	Professional Elective-3		3	-	-	3	3	30	70	100
	20BT60406	Image Processing								
	20BT60407	Nanostructures and Nanotechnology								
	20BT60408	Testing and Testability								
	20BT60409	Wireless Sensor Networks								
6.	Inter disciplinary Elective-1		3	-	-	3	3	30	70	100
	20BT40501	Database Management Systems								
	20BT50501	Computer Networks								
	20BT21501	Object Oriented Programming Through Java								
	20BT60410	Microelectromechanical Systems								
7.	20BT60431	Digital Signal Processing Lab	-	-	3	3	1.5	30	70	100
8.	20BT60432	Microcontrollers Lab	-	-	3	3	1.5	30	70	100
9.	20BT60411	PIC Microcontrollers	2	-	-	-	2	30	70	100
Total							23	270	630	900
10.	20BT5MC01	Professional Ethics	2	-	-	2	-	30	-	30

IV B.Tech I–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT70401	Embedded Systems	3	-	-	3	3	30	70	100
2.	20BT70402	Microwave Engineering	3	-	-	3	3	30	70	100
3.	Professional Elective-4		3	-	-	3	3	30	70	100
	20BT70403	Advanced Digital Signal Processing								
	20BT70404	Analog IC Design								
	20BT70405	Cellular and Mobile communications								
	20BT70406	Speech Processing								
4.	Professional Elective-5		3	-	-	3	3	30	70	100
	20BT70407	Adaptive Signal Processing								
	20BT70408	Error Control Coding								
	20BT70409	Low Power CMOS VLSI Design								
	20BT70410	Real Time Systems								
5.	Inter disciplinary Elective-2		3	-	-	3	3	30	70	100
	20BT60501	Machine Learning								
	20BT60201	Power Electronics								
	20BT60504	Cryptography and Network Security								
	20BT71041	PLC and SCADA								
6.	20BT70431	Antennas and Microwave Engineering Lab	-	-	3	3	1.5	30	70	100
7.	20BT70432	Embedded Systems Lab	-	-	3	3	1.5	30	70	100
8.	20BT70433	Programming using LabVIEW	-	1	2	3	2	30	70	100
9.	20BT70434	Summer Internship-2	-	-	-	-	1.5	-	100	100
Total							21.5	240	660	900
10.	20BT704AC	Internet of Things Applications	2	-	-	2	-	-	-	-

IV B.Tech II–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	20BT80431	Project Work	-	-	-	-	12	100	100	200
2.	20BT80432	Internship	-	-	-	-	-	-	-	-
Total			-	-	-	-	12	100	100	200

LIST OF COURSES FOR**OPEN ELECTIVE-1 AND OPEN ELECTIVE-2**

Course Code	Open Elective -1	Course Code	Open Elective -2
20BT4BS01	Material Science	20BT4HS01	Banking and Insurance
20BT4HS02	Business Communication and Career Skills	20BT4HS03	Cost Accounting and Financial Management
20BT4HS04	Entrepreneurship for Micro, Small and Medium Enterprises	20BT4HS05	Gender and Environment
20BT4HS06	German Language	20BT4HS07	Indian Economy
20BT4HS08	Indian History	20BT4HS09	Life Skills
20BT4HS10	Personality Development	20BT4HS11	Indian Tradition and Culture
20BT4HS12	Women Empowerment	20BT4HS13	Constitution of India
20BT40205	Reliability and Safety Engineering	20BT50106	Disaster Mitigation and Management
20BT40105	Environmental Pollution and Control	20BT50107	Sustainable Engineering
20BT40106	Planning for Sustainable Development	20BT50108	Contract Laws and Regulations
20BT40107	Rural Technology	20BT50310	Global Strategy and Technology
20BT40305	Human Resource Management	20BT50311	Management Science
20BT50506	Ethical Hacking	20BT40502	Cyber Laws and Security
20BT51205	AI in Healthcare	20BT50206	Intellectual Property Rights
20BT51501	Bioinformatics	20BT50406	Green Technologies



DEAN (ACADEMICS)
DEAN (Academic)
SREE VIDYANIKETHAN ENGINEERING COLLEGE
Sree Sainath Nagar, A. RANGAMPET
CHITTOOR (DT.)-517 102, A.P.



PRINCIPAL
PRINCIPAL
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, A. RANGAMPET
Chittoor (Dist.) - 517 102, A.P., INDIA