

DAYANANDA SAGAR UNIVERSITY
SHAVIGE MALLESHWARA HILLS, KUMARASWAMY LAYOUT
BENGALURU-560 111, KARNATAKA.

SCHOOL OF ENGINEERING



SCHEME & SYLLABUS
FOR
BACHELOR OF TECHNOLOGY (B.Tech.) –
2020ELECTRONICS & COMMUNICATION
ENGINEERING(ECE)
(WITH EFFECT FROM 2020-21)

SCHEME - B.TECH - 2020-21 ONWARDS

III SEM - ELECTRONICS & COMMUNICATION ENGINEERING

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	102	20EC2301	ENGINEERING MATHEMATICS – III – ECE	CR	03	01	-	-	04	*	***
2	102	20EC2302	ANALOG CIRCUITS	CR	03	-	02	-	04	*	***
3	102	20EC2303	DIGITAL SYSTEM DESIGN WITH VERILOG	CR	03	-	02	-	04	*	***
4	102	20EC2304	NETWORK ANALYSIS	CR	03	01	-	-	04	*	***
5	102	20ENC001	ENGINEERING ECONOMICS	CR	02	-	-	-	02	*	***
6	102	20EC2305	SPECIAL INITIATIVES – I	CR	-	-	-	04	02	*	***
					14	02	04	04	20		

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SCHEME - B.TECH - 2020-21 ONWARDS

IV SEM - ELECTRONICS & COMMUNICATION ENGINEERING

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	102	20EC2401	SIGNALS AND SYSTEMS	CR	03	01	-	-	04	I/II	20EN1101 & 20EN1201
2	102	20EC2402	COMPUTER SYSTEM ARCHITECTURE	CR	03	01	--	-	04	*	***
3	102	20EC2403	MICROCONTROLLERS	CR	03	-	02	-	04	I/II	20EN1103
4	102	20EC2404	ELECTROMAGNETIC WAVES	CR	03	-	02	-	04	*	***
5	102	20ENC002	LAW FOR ENGINEERS	CR	02	-	-	-	02	*	***
6	102	20EC2405	SPECIAL INITIATIVES – II	CR	-	-	-	04	02	*	***
					14	02	04	04	20		

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SCHEME - B.TECH – 2020-21 ONWARDS
V SEM - ELECTRONICS & COMMUNICATION ENGINEERING

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	102	20EC3501	ANALOG AND DIGITAL COMMUNICATION	CR	03		02	-	04	IV	20EC2404
2	102	20EC3502	PROBABILITY THEORY AND STOCHASTIC PROCESSES	CR	03	01	-	-	04	*	***
3	102	20EC3503	CMOS VLSI DESIGN	CR	03	-	02	-	04	III	20EC2302
4	102	20EC3504	DIGITAL SIGNAL PROCESSING	CR	03	-	02	-	04	IV	20EC2401
5	102	20EC35XX	PROGRAM ELECTIVE – I	CR	03	-	-	-	03	AS INDICATED IN PROGRAM ELECTIVE LIST	
6	102	200EXXXX	OPEN ELECTIVE – I	CR	03	-	-	-	03	*	***
7	102	20EC3505	SPECIAL INITIATIVES – III	CR	-	-	-	04	02		
					18	01	06	04	24		

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PROGRAM ELECTIVE – I				
SL.NO	COURSE CODE	COURSE TITLE	PREREQUISITE	
			SEM	COURSE CODE
1	20EC3506	INFORMATION THEORY AND CODING	*	***
2	20EC3507	MEMS	*	***
3	20EC3508	C PROGRAMMING FOR EMBEDDED SYSTEMS	*	***
4	20EC3509	PLC and SCADA	*	***

SCHEME - B.TECH - 2020-21 ONWARDS

VI SEM - ELECTRONICS & COMMUNICATION ENGINEERING

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	102	20EC3601	RF AND MICROWAVE COMMUNICATION	CR	03	-	02	-	04	IV	20EC2404
2	102	20EC3602	NETWORKING AND COMMUNICATION	CR	03	-	02	-	04	V	20EC3501
3	102	20EC3603	POWER ELECTRONICS	CR	03	-	02	-	04	*	***
4	102	20EC36XX	PROGRAM ELECTIVE -II	CR	03	-	-	-	03	AS INDICATED IN PROGRAM ELECTIVE LIST	
5	102	20EC36XX	PROGRAM ELECTIVE - III	CR	03	-	-	-	03		
6	102	200EXXXX	OPEN ELECTIVE - II	CR	03	-	-	-	03	*	***
					18	-	06	-	21		

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PROGRAM ELECTIVE - II				
SL.NO	COURSE CODE	COURSE TITLE	PREREQUISITE	
			SEM	COURSE CODE
1	20EC3604	ANALOG VLSI DESIGN	V	20EC3503
2	20EC3605	WIRELESS MOBILE COMMUNICATION	V	20EC3501
3	20EC3606	EMBEDDED SYSTEM DESIGN/ARCHITECTURE	IV	20EC2403
PROGRAM ELECTIVE - III				
1	20EC3607	DIGITAL IC DESIGN	III	20EC2302
2	20EC3608	DIGITAL IMAGE PROCESSING	V	20EC3504
3	20EC3609	REAL TIME EMBEDDED SYSTEM	IV	20EC2403
4	20EC3610	Industrial IOT	**	**

SCHEME - B.TECH - 2020-21 ONWARDS

VII SEM - ELECTRONICS & COMMUNICATION ENGINEERING

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	102	20EC4701	ROBOTICS AND CONTROL SYSTEMS	CR	03	01	-	-	04	*	***
2	102	20EC4702	ANTENNAS AND WAVE PROPAGATION	CR	03	01	-	-	04	VI	20EC3601
3	102	20EC47XX	PROGRAM ELECTIVE – IV	CR	03	-	-	-	03	AS INDICATED IN PROGRAM ELECTIVE LIST	
4	102	20EC47XX	PROGRAM ELECTIVE – V	CR	03	-	-	-	03		
5	102	20OEXXX	OPEN ELECTIVE – III	CR	03	-	-	-	03	*	***
6	102	20EC4703	PROJECT STAGE-I	CR	-	-	-	04	02	*	***
					15	02	-	04	20		

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PROGRAM ELECTIVE – IV				
SL.NO	COURSE CODE	COURSE TITLE	PREREQUISITE	
			SEM	COURSE CODE
1	20EC4704	OPTICAL COMMUNICATIONS AND NETWORKING	V	20EC3501
2	20EC4705	ANALOG MIXED SIGNAL VLSI DESIGN	V	20EC3503
3	20EC4706	EMBEDDED LINUX	*	***
4	20EC4707	VLSI TESTING AND TESTABILITY	III	20EC2302
5	20EC4708	SENSOR AND SIGNAL CONDITIONING	*	***
PROGRAM ELECTIVE – V				
1	20EC4709	SENSOR NETWORK AND PROTOCOLS	*	***
2	20EC4710	LOW POWER VLSI	V	20EC3503
3	20EC4711	LINUX DEVICE DRIVERS	*	***
4	20EC4712	NETWORK SECURITY	VI	20EC3602
5	20EC4713	VLSI PROCESS TECHNOLOGY	V	20EC3503
6	20EC4714	EMBEDDED SYSTEMS AND AUTOMATION	*	***

SCHEME - B.TECH - 2020-21 ONWARDS

VIII SEM - ELECTRONICS & COMMUNICATION ENGINEERING

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	102	20EC48XX	PROGRAM ELECTIVE – VI	CR	03	-	-	-	03	AS INDICATED IN PROGRAM ELECTIVE LIST	
2	102	20EC4801	PROJECT STAGE – II	CR	-	-	-	20	10	VII	20EC4703
					03	-	-	20	13		

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PROGRAM ELECTIVE – IV				
SL.NO	COURSE CODE	COURSE TITLE	PREREQUISITE	
			SEM	COURSE CODE
1	20EC4802	WIRELESS SENSOR NETWORKS	*	***
2	20EC4803	HARDWARE ARCHITECTURE FOR AI	*	***
3	20EC4804	ADVANCED EMBEDDED SYSTEMS	*	***
4	20EC4805	SATELLITE COMMUNICATION	*	***
5	20EC4806	VLSI - DIGITAL SIGNAL PROCESSING	*	***
6	20EC4807	SIGNAL CONDITIONING AND DATA ACQUISITION	*	***

