Bachelor of Technology Curriculum 2019

(Applicable to students admitted in Academic Year 2019-20 &onwards)

Year												
	Course Code	**Course Name**	**L**	**T**	**P**	**C**	**Course Code**	**Course Name**	**L**	**T**	**P**	
	MA11101	Engineering Mathematics – I	3	1	0	4	MA11201	Engineering Mathematics - II	3	1	0	
	PY11001	Engineering Physics	3	1	0	4	CY11001	Engineering Chemistry	2	1	0	
I	CV11001	Basic Civil Engineering	2	1	0	3	EE11001	Basic Electrical Technology	2	1	0	
	CY11002	Environmental Studies	3	0	0	3	CS11001	Problem Solving Using Computers	2	1	0	
	EC11001	Basic Electronics	2	1	0	3	ME11001	Basic Mechanical Engineering	2	1	0	
	ME11002	Engineering Graphics	0	0	6	3	LN11001	Communication Skills in English	2	0	0	
	PY11030	Engineering Physics Lab	0	0	2	1	CS11030	Problem Solving Using Computers Lab	0	0	2	
	ME11030	Workshop Practice	0	0	2	1	CY11030	Engineering Chemistry Lab	0	0	2	
							DA11001	Experiential Learning	0	0	4	
			13	**04**	**10**	**22**			**13**	**05**	**08**	
	Total Contact Hours (L + T + P)		**27**				**Total Contact Hours (L + T + P)**		**26**			

B Tech (Electronics & Communication Engineering)

Year	THIRD SEMESTER						FOURTH SEMESTER					
	Sub. Code	**Subject Name**	**L**	**T**	**P**	**C**	**Sub. Code**	**Subject Name**	**L**	**T**	**P**	**C**
II	*******	Value Ethics & Governance	2	0	0	2	EO2001	Economics	3	0	0	3
	MA2103	Engineering Mathematics – III	2	1	0	3	MA2206	Engineering Mathematics – IV	2	1	0	3
	EC2101	Signals & Systems	3	0	0	3	EC2201	Analog Integrated Circuits & Systems	3	0	0	3
	EC2102	Analog Electronics	3	1	0	4	EC2202	Microprocessors & Microcontrollers	3	1	0	4
	EC2103	Digital System Design & Computer Architecture	3	1	0	4	EC2203	Digital Signal Processing	3	1	0	4
	EC2104	Electromagnetic Field Theory	3	1	0	4	*** ****	Open Elective – I	3	0	0	3
	EC2130	Analog Electronics Lab	0	0	2	1	EC2230	Electronic Sub-System Design Lab	0	0	2	1
	EC2131	DSD & HDL Lab	0	0	2	1	EC2231	Digital Signal Processing Lab	0	0	2	1
	EC2170	Project Based Lab - I	0	0	2	1	EC2232	Microprocessors & Microcontrollers Lab	0	0	2	1
							EC2270	Project Based Lab - II	0	0	2	1
			16	**4**	**6**	**23**			**17**	**3**	**8**	**24**
	Total Contact Hours (L + T + P)		**26**				**Total Contact Hours (L + T + P) + OE**		**25 + 3 = 28**			
	FIFTH SEMESTER						**SIXTH SEMESTER**					
III	******	(Management)	2	1	0	3	EC3201	Microwave Engineering	3	0	0	3
	EC3101	Antennas	3	1	0	4	EC3202	Embedded & Real Time Operating Systems	3	1	0	4
	EC3102	Network & Control Theory	3	1	0	4	EC3203	Optical Communication	3	1	0	4
	EC3103	Analog & Digital Communication	3	1	0	4	EC32XX	Program Elective – I	3	0	0	3
	EC3104	CMOS VLSI Design	3	1	0	4	EC32XX	Program Elective – II	3	0	0	3
	*** ****	Open Elective – II	3	0	0	3	*** ****	Open Elective – III	3	0	0	3
	EC3130	VLSI Lab	0	0	2	1	EC3230	Embedded & RTOS Lab	0	0	2	1
	EC3131	Analog & Digital Communication Lab	0	0	2	1	EC3231	Antenna & Microwave Lab	0	0	2	1
	EC3170	Project Based Lab - III	0	0	2	1	EC3232	Optical Communication Lab	0	0	2	1
							EC3270	Minor Project-I	0	0	2	1
			17	**5**	**6**	**25**			**18**	**2**	**8**	**24**
	Total Contact Hours (L + T + P) + OE		**25 + 3 = 28**				**Total Contact Hours (L + T + P) + OE**		**25 + 3 = 28**			
	SEVENTH SEMESTER						**EIGHTH SEMESTER**					
IV	EC41XX	Program Elective – III	3	0	0	3	EC4270	Major Project	0	0	0	12
	EC41XX	Program Elective – IV	3	0	0	3						
	EC41XX	Program Elective – V	3	0	0	3						
	EC41XX	Program Elective – VI	3	0	0	3						
	EC41XX	Program Elective – VII	3	0	0	3						
	EC4170	Minor Project - II	0	0	2	1						
	EC4171	Industrial Training	0	0	2	1						
			15	**0**	**4**	**17**			**0**	**0**	**0**	**12**
	Total Contact Hours (L + T + P)		**19**									

Minor Specializations	Programme Electives	Open Electives
I. Communication Networks & Systems 1. EC3240 : Wireless Communication & Networks 2. EC3241 : Radar & Satellite Communication 3. EC4140 : Mobile Communication & Networks 4. EC4141 : Modern Antenna Technology **II. VLSI Design** 1. EC3242: VLSI Testing & Testability 2. EC3251: VLSI Design with Verilog HDL 3. EC4161: System Verilog for Design & Verification 4. EC4143 : VLSI CAD	1. EC3243 : VLSI/ULSI Process Technology 2. EC3244 : Data Communication & Network Security 3. EC3245 : MIMO Wireless Communication Fundamentals(system) 4. EC3246 : Digital System Design using FPGAs 5. EC3247: Internet of Things 6. EC3248 : ARM System Development 7. EC3249 : Medical Electronics 8. EC3250 : Defence Information System & Electronic Warfare 9. EC3252: Antenna design for wireless applications 10. EC3253: Biometrics 11. EC4142: Analog VLSI Design 12. EC4144: Wireless & Adhoc Networks 13. EC4145 : Adaptive Signal Processing 14. EC4146 : Information Theory & Coding 15. EC4147 : Photonics & Optoelectronics 16. EC4148 : Nanophotonics 17. EC4149 : Free Space Optical Communication 18. EC4150 : Optical Networks 19. EC4151 : Power Electronics 20. EC4152 : Low Power VLSI Design 21. EC4153: CAD Algorithms for Synthesis of Digital Systems 22. EC4154 : MEMS devices & Technology 23. EC4155 : Fundamental of Robotics system 24. EC4156 : Machine Learning & AI 25. EC4157 Neural Networks & Deep Learning 26. EC4158 : Energy Sources & Technology 27. EC4159 : RF Circuits and Components 28. EC4160: Digital Image Processing 29. EC4162: RF and Microwave circuits	1. EC2080: Introduction to Communication Systems 2. EC2081: Transducers and Instrumentation 3. EC2082: Consumer Electronics 4. EC2083: Introduction to Game Theory 5. EC3080: Electronic Measurement & Measuring Instruments 6. EC3081: Electronic Product Design & Packaging 7. EC3082: Advanced Functional Devices Technology 8. EC3083: Mobile Cellular Communication 9. EC3084: Audio & Video Systems 10. EC3085: Optical Fibre Technology 11. EC3086: Solar Photovoltaic Technology 12. EC3087: Hybrid Soft Computing Techniques