B.Tech (Electronics and Communication Engineering)
OVERALL CREDIT STRUCTURE

Undergraduate Core (UC)		Undergraduate Elective (UE)	
Category	Credit	Category	Credit
DC	59	DE	25 (Minimum)
BS	19	HM	6(Minimum)
ES	20	OC	25 (Balance)
HM	6	UN	00 (Courses)
Total	104	Total	56
Grand Total UC+UE			**160**

Course	Course	L-T-P	Credit
Basic Sciences (BS)			
SCL102	Applied Mathematics-I	3-2-0	4
SCL103	Applied Mathematics-II	3-2-0	4
SCL203	Probability & Numerical Methods*	3-0-0	3
SCL104	Applied Physics	3-0-2	4
SCL105	Applied Chemistry	3-0-2	4
Total			**19**

Engineering Arts and Sciences (ES)		L-T-P	Credit
CEL101	Engineering Mechanics	3-0-2	4
EEL101	Elementary Electrical Engineering	3-0-2	4
MEL101	Engineering Drawing	3-0-2	4
CSL101	Computer Programming	3-0-2	4
MEP101	Mechanical Workshop	0-0-2	1
EEP101	Electrical Workshop	0-0-2	1
CEL102	Environmental Science	2-0-0	2
Total			**20**

Humanities and Management (Core) (HM)		L-T-P	Credit
HMP 102	Spoken English	1-0-2	2
HMP 103	Written English	1-2-0	2
HML 101	Social Science	2-0-0	2
Total			6

Non Credit Requirement		L-T-P	Credit
NCN101	NCC#	-	0
NCN102	NSS#	-	0
NCN103	NSO#	-	0
SPB101	Sports-1#	0-0-4	0
SPB102	Sports-II#	0-0-4	0
ECD201	Project	-	0
ECD301	Literature Review Paper Writing	-	0
ECT201	Practical Training	-	0
HMD201	Community Project	-	0

#A student has to opt at least one from NCC, NSS, NSO and sports (I & II both).
Note: Students are required to opt the core courses in the order (*, **, ***)

Departmental Core (DC)		L-T-P	Credit
ECL201	Electronic Circuits *	3-0-2	4
ECL202	Digital Circuits *	3-0-2	4
ECL203	Signals and Systems*	3-2-0	4
ECL204	Analog Communication *	3-0-2	4
ECL205	Electromagnetic Waves**	3-2-0	4
ECL206	Electronic Materials and Devices*	3-0-0	3
EEL202	Basic electrical circuits*	3-0-2	4
EEL205	Measurement & Instrumentation **	3-0-2	4
CSL202	Computer Organization ***	3-2-0	4
ECL301	Linear Integrated Circuits ***	3-0-2	4
ECL302	Digital Communication ***	3-0-2	4
ECL303	Microwave & Antennas**	3-0-2	4
ECL304	Digital Signal Processing ***	3-0-2	4
ECL305	Microcontroller and Interfacing *	3-0-2	4
EEL302	Control System **	3-0-2	4

Departmental Elective (DE)		L-T-P	Credit
CSL203	Concepts in Programming Languages	3-0-2	4
CSL302	Operating Systems	3-0-2	4
CSL303	Computer Networks	3-0-2	4
CSL304	System Programming	3-0-2	4
CSL310	Computer Graphics	3-0-2	4
EEL303	Power Electronics	3-0-2	4
ECL402	Finite Automata	3-2-0	4
ECL403	Hardware Description Language	3-0-2	4
ECL404	Industrial Electronics	3-0-0	3
ECL405	Adaptive Signal Processing	3-2-0	4
ECL406	Wireless Digital Communication	3-0-2	4
ECL408	Radio Frequency and Microwave Engineering	3-2-0	4
ECL409	Radio Frequency Circuit	3-2-0	4
ECL410	Image Processing	3-2-0	4
ECL412	VLSI Technology	3-0-2	4
ECL413	Micro Electromechanical Systems	3-0-2	4
ECL414	Electronic System Design	3-0-2	4
ECL415	Biomedical Instrumentation	3-0-0	3
ECL446	Finite Automata	3-0-0	3
ECL447	Adaptive Signal Processing	3-0-0	03
ECL448	Radio-frequency and Microwave Engineering	3-0-0	03
ECL452	Micro electromechanical systems	3-0-0	03
MEL411	Robotics	3-0-2	4
ECD401	Major Project Part-I	-	1
ECD402	Major Project Part-II	-	3

M.Tech. (Electronics Engineering) specialization in Microelectronics and VLSI
OVERALL CREDIT STRUCTURE

S. No	Category	Symbol	M. Tech (2-Year) (Credits)
1	**PG Core**	**PC**	**30**
1.1	Departmental Core	DC	13
1.2	Project phase-I	P1	05
1.3	Project phase-II	P2	10
1.4	Seminar	SM	02
2	**PG Elective**	**PE**	**25**
2.1	Specialization Electives	SE	19
2.2	Open Courses	OC	06
	TOTAL REQUIREMENT		**55 (Minimum)**

Postgraduate Core (PC)		**L-T-P**	**Credit**
ECD 501	Project Phase –I	-	05
ECD 502	Project Phase-II	-	10
ECD 503	Seminar	-	02
ECL 416	Analog Integrated Circuits	3-0-2	04
ECL 425	Solid State Devices	3-0-0	03
ECL 432	Probability, Stochastic Process and Numerical Methods	3-0-0	03
ECL 448	Radio-frequency and Microwave Engineering	3-0-0	03
Specialization Elective (SE)		**L-T-P**	**Credit**
ECL 403	Hardware Description Languages	3-0-2	04
ECL 409	Radio Frequency Circuit	3-2-0	04
ECL 426	Digital Integrated Circuits	3-0-2	04
ECL 433	MOS Device Modeling	3-0-0	03
ECL 434	Low-power VLSI Design	3-0-0	03
ECL 435	VLSI Testing	3-0-0	03
ECL 436	Nano-scale Devices	3-0-0	03
ECL 437	CAD for VLSI	3-0-2	04
ECL 438	VLSI Interconnects	3-0-0	03
ECL 439	VLSI Physical Design	3-0-0	03
ECL 440	Optoelectronics Devices	3-0-0	03
ECL 449	VLSI Technology	3-0-0	03
ECL 452	Micro electromechanical systems	3-0-0	03
ECL 501	Mixed-Signal VLSI Design	3-0-0	03

M.Tech. (Electronics Engineering) specialization in Communication Systems
OVERALL CREDIT STRUCTURE

S. No	Category	Symbol	M. Tech (2-Year) (Credits)
1	**PG Core**	**PC**	**30**
1.1	Departmental Core	DC	13
1.2	Project phase-I	P1	05
1.3	Project phase-II	P2	10
1.4	Seminar	SM	02
2	**PG Elective**	**PE**	**25**
2.1	Specialization Electives	SE	19
2.2	Open Courses	OC	06
	TOTAL REQUIREMENT		**55 (Minimum)**

Postgraduate Core (PC)		**L-T-P**	**Credit**
ECD 501	Project Phase –I	-	05
ECD 502	Project Phase-II	-	10
ECD 503	Seminar	-	02
ECL 416	Analog Integrated Circuits	3-0-2	04
ECL 425	Solid State Devices	3-0-0	03
ECL 432	Probability, Stochastic Process and Numerical Methods	3-0-0	03
ECL 448	Radio-frequency and Microwave Engineering	3-0-0	03
Specialization Elective (SE)		**L-T-P**	**Credit**
ECL 409	Radio Frequency Circuit	3-2-0	04
ECL 418	RF Receiver Design for Wireless Applications	3-0-0	03
ECL 419	CAD of RF and Microwave Circuits	3-0-2	04
ECL 420	Human and Machine Speech Communication	3-0-2	04
ECL 423	Radar Systems	3-0-0	03
ECL 424	Satellite Communication Systems	3-0-0	03
ECL 429	Advanced Wireless Mobile Communications	3-0-0	03
ECL 430	Theory of Estimation and Detection	3-0-0	03
ECL 431	MIMO System	3-0-0	03
ECL 441	Fiber Optic Communication Systems & Technology	3-0-0	03
ECL 442	Microwave and Millimetre Wave Engineering	3-0-0	03
ECL 443	2D Signals and Image processing	3-0-2	04
ECL 447	Adaptive Signal Processing	3-0-0	03
ECL 453	Advanced Digital Communication	3-0-0	06