Curriculum of B.Tech. 1st Semester - EFFECTIVE FROM JULY 2019 ONWARDS

Sr. No.	Course Title	Course Code	Taught By
1.	Mathematics-I	MA 101 S1	Department Of Applied Mathematics & Humanities
2.	Basic Electrical Engineering	EEEE 102 S1 ECEE 102 S1	Department Of Electronics Engineering
3.	Mechanics, Lasers and Fiber Optics	PH 103 S1/S2	Department Of Applied Physics
4.	Applied Chemistry	CY 104 S1/S2	Chemistry Department
5.	Engineering Drawing	CEME 105 S1/S2	Department Of Civil Engineering
6.	Energy and Environmental Engineering	CEME 106 S1/S2	Department Of Civil Engineering
7.	Holistic Empowerment and Human Values	HU 107 S1/S2	Department Of Applied Mathematics & Humanities

Curriculum of B.Tech. 2nd Semester - EFFECTIVE FROM JULY 2019 ONWARDS

Sr. No.	Course Title	Course Code	Taught By
1.	Engineering Mechanics	AM 108 S2/S1	Department Of Applied Mathematics & Humanities
2.	Fundamentals of Computer & Programming	CS 109 S2/S1	Department Of Computer Engineering
3.	English & Professional Communication	HU 110 S2/S1	Department Of Applied Mathematics & Humanities
4.	Workshop Practice	ME 111 S2/S1	Department of Mechanical Engineering
5.	Physics of Materials and Nuclei	PH 112 S2/S1	Department of Applied Physics
6.	Electronic Devices and Circuits	EEEC 113 S2 ECEC 113 S2	Department Of Electronics Engineering
7.	Mathematics-II	MA 114 S2	Department Of Applied Mathematics & Humanities

*** Subjects to be completed within two semesters.

2ND YEAR

CS – Core Subject   IS – Interdisciplinary Subject

ES – Elective Subject (for department only)   EIS – Elective Interdisciplinary Subject

Curriculum of B.Tech. 2nd Year (3rd semester) - Effecive From July-2020 Onwards

Sr. No.	Course Title	Code	Credits	Teaching Scheme (Hours)			Examination Scheme (Marks)				Total
				L*	T*	P*	Theory	Tut.	Term-Work	P*	
1.	IS-1										

Sr. No.	Course Title	Code	Credits Total	L*	T*	P*	Theory	Tut.	Term-Work	P*	Marks Total
	Engineering Mathematics-III (Mathematics and Humanities Dept.)	MA217	04	3	1	0	100	25	-	-	125
2.	CS-1 Electronic Circuits	EC201	05	3	1	2	100	25	25	25	175
3.	CS-2 Digital Logic Design	EC203	05	3	1	2	100	25	25	25	175
4.	CS-3 Signals and Systems	EC205	04	3	1	0	100	25	-	-	125
5.	IS-1 Network Analysis and Synthesis (Electrical Engg. Dept.)	EE207	04	3	1	0	100	25	-	-	125
Total			22	15	05	04	500	125	50	50	725

Contact Hours per week 24

L* = Lecture, T* = Tutorial/Seminar, P* =Practical/Project

Curriculum of B.Tech. 2nd Year (4th semester) - Effecive From July-2020 Onwards

Sr. No.	Course Title	Code	Credits Total	L*	T*	P*	Theory	Tut.	Term-Work	P*	Marks Total
1.	CS-4 Statistical Signal Analsis	EC202	04	3	1	0	100	25	-	-	125
2.	CS-5 Principles of Communication Systems	EC204	05	3	1	2	100	25	25	25	175
3.	CS-6 Microprocessors and Microcontrollers	EC206	05	3	1	2	100	25	25	25	175
4.	CS-7 Linear IC Applications	EC208	05	3	1	2	100	25	25	25	175
5.	IS-2-CS-8 Control Systems (Electrical Dept.)	EE214	04	3	1	0	100	25	-	-	125

	Total	23	15	05	06	500	125	75	75	775

Contact Hours per week   26

L* = Lecture, T* = Tutorial/Seminar, P* =Practical/Project

3RD YEAR

CS – Core Subject   IS – Interdisciplinary Subject

ES – Elective Subject (for department only)   EIS – Elective Interdisciplinary Subject

Curriculum of B.Tech. 3rd Year (5th semester) - Effecive From July-2021 Onwards

Sr. No.	Course Title	Code	Credits	Teaching Scheme (Hours)				Examination Scheme (Marks)				Total
				L*	T*	P*		Theory	Tut.	Term-Work	P*	
1.	CS-9 Transmission Lines and Electromagnetic Waves	EC301	05	3	1	2		100	25	25	25	175
2.	CS-10 Digital Communication	EC303	05	3	1	2		100	25	25	25	175
3.	CS-11 Digital Signal Processing	EC305	05	3	1	2		100	25	25	25	175
4.	Seminar	EC307	01	0	0	2		-	-	25	25	50
5.	IS-1 - Sensors and Transducers - Neural Networks - Multimedia Communication	EC361 EC363 EC365	03	3	0	0		100	-	-	-	100
6.	CE-1 - Computer Architecture and Organization - Data Structures and Algorithms - VLSI Technology - Digital Image Processing	EC321										

EC323

EC325

EC327 03 3 0 0 100 - - - 100

Total 22 15 03 08 500 75 100 100 775

Contact Hours per week 24

L* = Lecture, T* = Tutorial/Seminar, P* =Practical/Project

Curriculum of B.Tech. 3rd Year (6th semester) - Effecive From July-2021 Onwards

Sr. No.	Course Title	Code	Credits	Teaching Scheme (Hours)			Examination Scheme					(Marks) Total
				L*	T*	P*	Theory	Tut.	Term-Work	P*		

1. Professional Ethics, Economics and Business Management* HU304 04 3 1 0 100 25 - - 125

2. CS-12

Wireless and Mobile Communication EC302 05 3 1 2 100 25 25 25 175

3. CS-13

Digital Integrated Circuits EC304 05 3 1 2 100 25 25 25 175

4. Core Elective Lab #

- Optical Fiber Commmunication lab

- Electronic Instrumentation lab

- Machine Learning lab

- Communication Networks lab

EC306

EC308

EC312

EC314 01 0 0 2 - - 25 25 50

5. Institute Elective-2

- High Performance Computing

- Computer Vision

- Micro Electromechanical sytems

EC362

EC364

Code	Credits	L*	T*	P*	Theory	Tut.	Term-Work	P*	Total
EC366	03	3	0	0	100	-	-	-	100

6.   Core Elective- II

- Optical Fiber Communication

- Electronic Instrumentation

- Machine Learning

- Communication Networks

EC322

EC324

EC326

| EC328 | 03 | 3 | 0 | 0 | 100 | - | - | - | 100 |
| Total | 21 | 15 | 03 | 06 | 500 | 75 | 75 | 75 | 725 |

Contact Hours per week   26

L* = Lecture, T* = Tutorial/Seminar, P* =Practical/Project

*Syllabus is prepared jointly by ASHD and concerned department and one hour on Ethics will be taught by the concerned department.

The Core elective Labs are offered with reference to subjects offered under the pool of Core Elective-II and students have to elect the same Lab based on the their choice of subject as Core Elective -II

4TH YEAR

CS – Core Subject   IS – Interdisciplinary Subject

ES – Elective Subject (for department only)   EIS – Elective Interdisciplinary Subject

L* = Lecture,   T* = Tutorial / Seminar,   P* =Practical / Project

Curriculum of B.Tech. 4th Year (7th semester) - Effecive From July 2022 Onwards

Sr. No.	Course Title	Code	Credits	Teaching Scheme (Hours)			Examination Scheme (Marks)				Total
				L*	T*	P*	Theory	Tut.	Term-Work	P*	

Sr.No.	Subject	Subject Code	Credit	L	T	P					
1.	Core-14 - Microwave Engineering	EC401	05	3	1	2	100	25	25	25	175
2.	Core-15 - VLSI Design	EC403	05	3	1	2	100	25	25	25	175
3.	Core Elective - III	EC 4XX/ EC 6XX	03	3	0	0	100	-	-	-	100
4.	Core Elective - IV	EC 4XX/ EC 6XX	03	3	0	0	100	-	-	-	100
5.	Summer Tranning*	EC 405	02	0	0	0	-	-	25	25	50
6.	Project Preliminaries	EC 407	03	0	0	6	-	-	75	75	150
	Total		21	12	02	10	400	50	150	150	750

Contact Hours per week   24

• Summer Training is to be organized during the summer vacation after 6th Semester.

List of Subjects for Core Elective III & IV

Sr.No.	Subject	Subject Code	Scheme	Credit
1.	Error Control Coding	EC409	3-0-0	03
2.	Optical Wireless Communication	EC411	3-0-0	03
3.	Antenna Theory	EC621	3-0-0	03
4.	Satellite Communication	EC623	3-0-0	03
5.	Advanced Electronic Circuits	EC625	3-0-0	03
6.	Deep Learning	EC627	3-0-0	03
7.	Biomedical Instrumentation	EC629	3-0-0	03
8.	Advanced Processer Architecture	EC631	3-0-0	03
9.	Internet of Things	EC633	3-0-0	03
10.	Robotics	EC635	3-0-0	03

11.   Embedded Systems   EC637   3-0-0   03

Curriculum of B.Tech. 4th Year (8th semester) - Effecive From January 2023 Onwards

Sr. No.	Course Title	Code	Credits	Teaching Scheme (Hours)				Examination Scheme (Marks)			Total
				L*	T*	P*	Theory	Tut.	Term-Work	P*	
1.	Core Elective-V	EC 6XX	03	3	0	0	100	-	-	-	100
2.	Core Elective-VI	EC 6XX	03	3	0	0	100	-	-	-	100
3.	Core Elective-VII	EC 6XX	03	3	0	0	100	-	-	-	100
4.	Innovation, Incubation and Entrepreneurship	HU 410	03	3	0	0	100	-	-	-	100
5.	Project	EC 402	06	0	0	12	-	-	150	150	300
	Total		18	12	0	12	400	-	150	150	700

Contact Hours per week   24

List of Subjects for Core Elective V, VI & VII

SrNo.	Subject	Code	Scheme	Credit
1.	Biomedical Signal Processing	EC622	3-0-0	03
2.	Ad-Hoc Networks	EC624	3-0-0	03
3.	Nano electronics	EC626	3-0-0	03
4.	VLSI Signal Processing	EC628	3-0-0	03
5.	Microwave Integrated Circuits	EC632	3-0-0	03
6.	MIMO Communication systems	EC634	3-0-0	03
7.	Testing and Verification of VLSI Circuits	EC636	3-0-0	03
8.	VLSI System Design	EC638	3-0-0	03
9.	Optical Networks	EC642	3-0-0	03

10. Global Navigation Satellite System   EC644   3-0-0   03

11. Radar Systems   EC646   3-0-0   03

12. Estimation and Detection Theory   EC648   3-0-0   03

13. Speech Processing and Human-Machine Communication   EC652   3-0-0   03

14. Real Time Systems   EC654   3-0-0   03

15. Photonic Integrated Devices and Systems   EC656   3-0-0   03

16. Visible Light Communication   EC658   3-0-0   03

17. EM Interference and Compatibility   EC662   3-0-0   03

DETAILED SYLLABUS (*.pdf)