

Bachelor of Technology (Computer Science & Engineering)										
Credit-Based Scheme of Studies/Examination										
Semester VII (w.e.f. session 2021-2022)										
S. No.	Course Code	Subject	L:T:P	Hours /Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs)
						Major Test	Minor Test	Practical	Total	
1	PE	Elective-IV	3:0:0	3	3	75	25	0	100	3
2	PE	Elective-V	3:0:0	3	3	75	25	0	100	3
3	OE	Open Elective-II	3:0:0	3	3	75	25	0	100	3
4	PROJ-CS-401A	Project-II	0:0:12	12	6	0	40	60	100	3
5	PE- LA	Elective-IV Lab	0:0:2	2	1	0	40	60	100	3
6	PE- LA	Elective-V Lab	0:0:2	2	1	0	40	60	100	3
Total				21	17	225	115	60	400	
7	SIM-401*	Seminar on Summer Internship	2:0:0	2	0	0	50	0	50	

PE Elective-IV	PE Elective-V
Data Mining: PE-CS-D401A	Soft Computing: PE-CS-D409A
Software Verification and Validation and Testing:: PE-CS-D403A	Neural Networks and Deep Learning: PE-CS-D411A
Information Retrieval: PE-CS-D405A	Object Oriented Software Engineering: PE-CS-D413A
Speech and Natural Language Processing : PE-CS-D407A	Expert Systems: PE-CS-D415A
OE Elective-II	
Cyber Law and Ethics: OE-CS-401A	
Bioinformatics: OE-CS-403A	
Fiber Optic Communications: OE-CS-405A	
Industrial Electrical Systems: OE-CS-407A	

The course of both PE & OE will be offered at 1/3rd strength or 20 students (whichever is smaller) of the section.

***Note:** SIM-401* is a mandatory credit-less course in which the students will be evaluated for Summer Internship undergone after 6th semester and students will be required to get passing marks to qualify.

PE-CS-D407AL	Speech and Natural Language Processing Lab						
Lecture	Tutorial	Practical	Credit	Minor Test	Practical	Total	Time
0	0	2	1	40	60	100	3hrs
Purpose	The objective of Natural Language Processing lab is to introduce the students with the basics of NLP which will empower them for developing advanced NLP tools and solving practical problems in the field.						
Course Outcomes(CO)							
CO1	To understand the basic concepts of Speech and Natural Processing.						
CO2	To understand the different word analysis techniques.						
CO3	To understand different Speech and Natural Processing models.						
CO4	To understand different types of chunking.						

List of Practical

1. Word Analysis
2. Word Generation
3. Morphology
4. N-Grams
5. N-Grams Smoothing
6. POS Tagging: Hidden Markov Model
7. POS Tagging: Viterbi Decoding
8. Building POS Tagger
9. Chunking
10. Building Chunker