CS427: Natural Language Processing	L	T	P
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Course Objective: The goal of natural language processing (NLP) is to design and build computer systems that are able to analyze natural languages like German or English, and that generate their outputs in a natural language.

S. No.	Course Outcomes (CO)
CO1	Understand NLP basics and language analysis.
CO2	Describe parsing techniques and feature-based parsing.
CO3	Resolve ambiguity using statistical methods and probabilistic processing.
CO4	Apply advanced parsing techniques like feature unification and probabilistic parsing.
CO5	Implement NLP applications including machine translation and speech recognition.

S. No	Contents	Contact Hours
UNIT 1	Introduction:The study of Language, Introduction to NLP, Regular Expression, Finite State Automata, Evaluating Language Understanding Systems, Different levels of Language Analysis, Representations and Understanding, Linguistic Background.	6
UNIT 2	Grammars and Parsing:Top-Down and Bottom-Up Parsers, Transition Network Grammars, Top-Down Chart Parsing, Feature Systems and Augmented Grammars, Morphological Analysis and the Lexicon, Parsing with Features, Augmented Transition Networks.	7
UNIT 3	Grammars for Natural Language: Auxiliary Verbs and Verb Phrases, Movement Phenomenon in Language, Handling questions in Context- Free	6