

Branch Name:	Computer Engineering (Software Engineering)
Program Code:	ET203
Course Title:	Natural Language Processing Practical
Course Code:	2ET2030307P
Pre-requisite Course:	Python, jupyter notebook

Course Objectives:

The objective of this course is to learn NLP using python

Teaching and Examination Scheme:

Cre dit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)								Total (Marks)
					Theory (Marks)				Practical (Marks)				
	L	T	P	Total	SEE		CCA		SEE		CCA		
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

Course Contents:

Unit	Details	Contact Hours
1	To setup environment for NLP practical's using python and Jupiter notebook	2
2	To create NLP Dataset and understand python libraries required.	2
3	To implement Tokenization of text.	2
4	To implement stemming of words	2
5	To implement Lemmatization	2
6	To implement N-gram model	2
7	To implement POS tagging	2
8	Case study: To publish ONE article on NLP subject.	2

Reference Books:

1. Daniel Jurafsky and James H. Martin, "Speech and Language Processing", Second Edition, Prentice Hall, 2008, ISBN: 978-0131873216.
2. Allen James, "Natural Language Understanding", Second Edition, Benjamin/Cumming, 1994, ISBN: 978-0805303346.
3. Chris Manning and Hinrich Schuetze, "Foundations of Statistical Natural Language Processing", MIT Press, ISBN: 978-0262133609.

Course Outcomes:

At the end of the course, students will be able to:

Course Outcomes	Description	Bloom's Taxonomy Level
COL1	Demonstrate the understanding of basic text processing techniques in NLP	Understanding (2) Applying (3)
COL2	Design, implement and evaluate part-of-speech taggers and parsers for a language.	Applying (3)
COL3	Discuss the basic python and their libraries required for this.	Understanding (2)
COL4	Understanding tools and techniques required for Implementation	Understanding (2)

Mapping of CLO with PO and PSO

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes(PSOs)			
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3	PS O4
CLO1	H	M	M		M											
CLO2	H	M			M							L				
CLO3	H	M	M		M											
CLO4	M	M	M		M							L				

H: High, M: Medium, L: Low