MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS INSTITUTION - UGC, GOVT. OF INDIA)

Affiliated to JNTUH; Approved by AICTE, NBA-Tier 1 & NAAC with A-GRADE | ISO 9001:2015

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

MRCET CAMPUS

(AUTONOMOUS INSTITUTION - UGC, GOVT. OF INDIA)

DEPARTMENT OF COMPUTATIONAL INTELLIGENCE

HANDS-ON WORKSHOP

on

NATURAL LANGUAGE PROCESSING (NLP)

WELCOME

NLP

DATE:
July 10 - 14
2023

*BY INDUSTRY EXPERTS

INSTITUTION'S INNOVATION COUNCIL
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NLP Workshop Report

Introduction
The "Exploring the Fundamentals of Natural Language Processing (NLP)" workshop was conducted with the aim of providing participants an immersive learning experience in the field of Natural Language Processing. The workshop covered a wide range of topics, from basic concepts to advanced techniques, enabling attendees to gain a comprehensive understanding of NLP's significance and applications.

Workshop Objectives
The main objectives of the workshop were:

- Introducing participants to the core concepts of NLP.
- Providing hands-on experience with NLP tools and libraries.
- Exploring real-world applications of NLP in various domains.
- Equipping participants to start their own NLP projects or integrate NLP techniques into their existing projects.

Workshop Structure
The workshop was divided into several Day sessions, each focusing on a different aspect of NLP

Day 1: Introduction to NLP
SESSION – RA (FN) (9:30 – 12:30)
This session provided an overview of NLP, its history, and its relevance in today's world.

Afternoon
Basic concepts such as tokenization, stemming, and part-of-speech tagging were covered.

Day 2: Basics of NLP and Spacy
SESSION – VA (FN) (9:30 – 12:30)

Participants learned how to preprocess and clean text data, which is a crucial step before applying any NLP techniques.

Afternoon

Techniques like removing stopwords, handling special characters, and dealing with spelling errors were discussed.

Day 3: Training data with spacy and nltk tools, into to GENSIM

SESSION – VA (FN) (9:30 – 12:30)

This session introduced participants to popular NLP libraries such as NLTK, spaCy, and Transformers.

Afternoon

Hands-on exercises allowed participants to gain familiarity with these tools.

Day 4: GENSIM applications, training with different language corpus

SESSION – VA (FN) (9:30 – 12:30)

Participants delved into sentiment analysis, a common NLP application.

Afternoon

They learned how to train sentiment analysis models using labeled data and how to apply these models to analyze sentiment in text.

Day 5: Implementation of all lab programs and proposal of mini project

SESSION – VA (FN) (9:30 – 12:30)

NER, a key NLP task, was explored in this session.

Afternoon

TParticipants understood how to identify entities like names, locations, and dates in text, and they practiced using NER tools.