Rushabh Shah and Naman Sanghavi Conducted Successful NLP Workshop at Vignan's Institute of Engineering for Women

Rushabh Shah and Naman Sanghavi, B.Tech AIML Third year students representing Parth Tech Development, delivered a highly engaging and interactive two-day **Natural Language Processing (NLP) workshop** at Vignan's Institute of Engineering for Women on 23rd and 24th October, 2024. The workshop catered to a diverse group of 120 students, including final-year, MCA, and third-year participants.

The duo conducted two 6-hour sessions each day, dividing the group into two halves to provide focused, personalized guidance. Rushabh led one group, while Naman guided the other, ensuring an immersive learning experience.

Day 1 Highlights:

The workshop began with an introduction to foundational concepts, including AI, Machine Learning, and NLP. Through an interactive exercise, the students explored how NLP bridges communication gaps. This was followed by an in-depth walkthrough of the **NLP pipeline**, covering:

- **Data Collection and Cleaning**: Text normalization, handling missing values, and removing noise.
- **Text Preprocessing**: Techniques like tokenization, lemmatization, stemming, POS tagging, and Named Entity Recognition (NER).
- **Feature Engineering**: Methods such as Bag of Words, TF-IDF, and n-grams.

Real-world examples and practical demonstrations using the **spaCy library** enriched the learning process. Students actively participated in hands-on exercises, building models for tasks like spam detection and review classification using algorithms like Naive Bayes and Decision Tree.
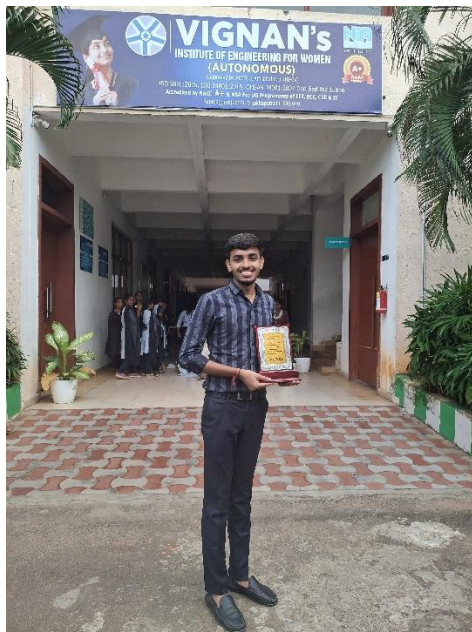
Day 2 Highlights:

The second day delved into advanced concepts, including **Word Embedding techniques** (CBOW and Skip-gram) using the Gensim library. Students built and trained models and participated in a collaborative hands-on session to create a **food-ordering chatbot** using Dialogflow. The chatbot was successfully deployed on Telegram and a website, offering students a real-world application experience.

The workshop concluded with an interactive Q&A session. Students shared innovative project ideas, sought guidance on capstone projects, and received advice on enhancing their CVs.

Recognition and Impact:

The workshop received excellent feedback from students, who appreciated the interactive teaching style, clear explanations, and practical exercises. The institute honored Rushabh and Naman with a memento and a certificate of recognition from Parth Tech Development.

PARTH
TECH DEVELOPMENT

CERTIFICATE
OF APPRECIATION

THIS CERTIFICATE IS PRESENTED TO

Mr. *Naman Sanghavi*

From Parth Tech Development

In recognition of his outstanding contribution in conducting a seminar on Natural Language Processing (NLP) at Vignan Institute of Engineering for Women (A).

Conducted On 23rd & 24th October, 2024

PARTH SHAH
Parth Tech Development
CEO