J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY
(UGC AUTONOMOUS)

(Accredited by NBA&NAAC, Approved by AICTE & Permanently Affiliated to JNTUH Hyderabad)

Yenkapally (Vi), Moinabad (M). P.O. Himayat Nagar, RR District, Hyderabad 500075

Department of Electronics and Computer Engineering

Add on Program on

NATURAL LANGUAGE PROCESSING
Report

Module Number: 5

Key Topics Covered: HUGGING FACE TRANSFORMERS

USING PRE-TRAINED MODELS

TEXT CLASSIFICATIONUSING BERT

HUGGING FACE PIPELINES

Resource Person(s): Mrs.K.Pooja and   Mr.M.Syam Babu

Date and Time of Session: 6.12.2025 and 10am to 12am

Duration:2h

Mode of Delivery:Face to Face and Chalk and Talk

Target Audience: 2ndyr students

Number of Participants: 42

Venue: A-406

Objectives of the Course Module:

- To make human-computer communication more intuitive and efficient by allowing computers to understand and process language in its natural form.
- To develop machines that can comprehend and react to spoken and written text, accounting for complexities like slang, accents, and grammar.
- To enable computers to produce coherent, contextually appropriate, and

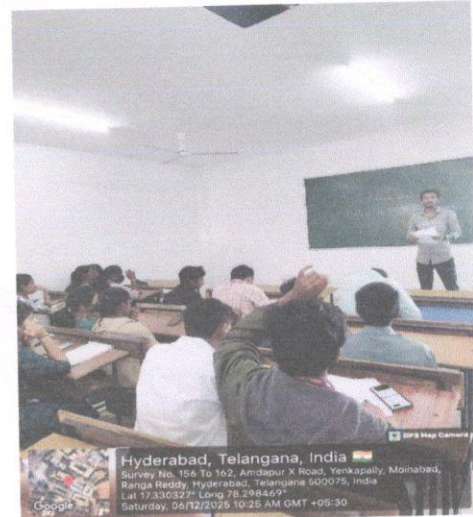 useful text or speech in response to human input.

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Expected Learning Outcomes of the Module:

By the end of the module, students could:

- The ultimate goal is to enable computers to understand and process human language as effectively as humans do.

- NLP used for processing Chatbots, translation and summarization.

- Transformers are a deep learning architecture introduced in the paper **"Attention Is All You Need" (2017)**.
  They revolutionized **Natural Language Processing (NLP)** by Pretained models and Pipelines API and Tokenizers .

- Transformers are the foundation of modern NLP models like **BERT, GPT, T5, XLNet,LLaMMA.**

Summary:

Natural language processing (NLP) is a subfield of computer science and artificial intelligence (AI) that uses machine learning to enable computers to understand and communicate with human language.

06/12/2025

Head of the Department
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